CONTRACTOR QUALITY CONTROL PLAN
for the
Remediation of the Seaway FUSRAP Site, Northside and Southside Areas, Town of Tonawanda, New York

Prepared for:
United States Army Corps of Engineers – Buffalo District

Under Contract No: W912P4-07-D-0001
Task Order No. 0005

Prepared by:
LATA-Sharp Remediation Services, LLC
756 Park Meadow Road
Westerville, OH 43081

Deliverable No.17

April 22, 2015

[redacted]

[redacted]	**Date:** 4/22/15	**Title:** Project Chemist
	Date: 4/22/15	**Title:** Project Manager
	Date: 4/22/15	**Title:** Contractor Quality Control System Manager

CONTRACTOR QUALITY CONTROL PLAN
for the
Remediation of the Seaway FUSRAP Site, Northside and Southside Areas, Town of Tonawanda, New York

Table of Contents

Figures

Figure 2-1 Site Location Map

Figure 5-1 Project Organization

Tables

Table 10-1 Project Schedule

Appendices

Appendix A Resumes

Appendix B Attachments

Attachment 1 – Three-Phase Inspection Forms

Attachment 2 – Work Notification Checklists

Attachment 3 – Independent Technical Review Form

Attachment 4 – Daily Quality Control Report Form

Appendix C Seaway Submittal Requirements

LIST OF ACRONYMS

AMP	Air Monitoring Plan
APP	Accident Prevention Plan
BCRP	Backfill, Compaction and Restoration Plan
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DQCR	Daily Quality Control Report
COC	Contaminant of Concern
DFOW	Definable Feature of Work
RCRA	Resource Conservation Recovery Act
AHA	Activity Hazard Analysis
NCR	Non-Conformance Report
CPM	Critical Path Method
CQCP	Contractor Quality Control Plan
FSP	Field Sampling Plan
DOE	Department of Energy
FSS	Final Status Survey
FUSRAP	Formerly Utilized Sites Remedial Action Program
LATA	Los Alamos Technical Associates, Inc.
HTRW	Hazardous, Toxic, Radioactive Waste
LSRS	LATA-Sharp Remediation Services, LLC
MARC	Multiple Award Remediation Contract
NCP	National Oil and Hazardous Substances Contingency Plan
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation & Maintenance
PDT	Project Delivery Team
POC	Point-of-Contact
PPE	Personal Protective Equipment
PWS	Performance Work Statement
QC	Quality Control
RA	Remedial Action
RCP	Regulatory Compliance Plan
ROD	Record of Decision
RPP	Radiation Protection Plan
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SOP	Site Operations Plan
SOP	Standard Operating Procedure
SSHP	Site Safety and Health Plan
SWPPP	Storm Water Pollution Prevention Plan
T&D	Transportation & Disposal

UFP-QAPP	Uniform Federal Policy Quality Assurance Project Plan
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
WMP	Water Management Plan
WMTDP	Waste Management, Transportation and Disposal Plan
WWPPP	Waste Water Pollution Prevention Plan

REVISION LOG

Contractor Quality Control Plan for the Seaway FUSRAP Site

Revision Number/Date	Description of Changes	Pages Affected
0 3/27/15	Original Issue	N/A
0-A 4/22/15	Incorporation of USACE Comments	All

CERTIFICATE OF INDEPENDENT TECHNICAL REVIEW COMPLETION

LATA-Sharp Remediation Services, LLC (LSRS) has completed the Contractor Quality Control Plan (CQCP) for the Remediation of the Seaway FUSRAP Site, Town of Tonawanda, New York. Notice is hereby given that an independent technical review has been conducted by staff of LSRS that is appropriate to the level of risk and complexity inherent in the project, as defined in the CQCP.

During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy. The document/plans were accomplished by [redacted] and the independent technical review was accomplished by [redacted] as indicated by signatures below. All reviews are documented via red line track changes in associated text files. Red line edited documents are available upon request.

[redacted] _____

Plan/Report Preparer / Date

[redacted] _____

Project Manager / Date

[redacted] _____

Construction Quality Control System Manager / Date

[redacted] _____

Independent Technical Reviewer / Date

1.0 INTRODUCTION

LATA-Sharp Remediation Services, LLC (LSRS) is providing supplies and services for task order No. 0005 issued under the Multiple Award Remediation Contract (MARC) contract No. W912P4-07-D-0001 with the United States Army Corps of Engineers (USACE), Buffalo District to remediate the Seaway Site in accordance with the *Record of Decision (ROD) for the Seaway Site, Town of Tonawanda, New York* (USACE 2009). The project scope includes the excavation, transportation and disposal (T&D) of Formerly Utilized Sites Remedial Action Program (FUSRAP) contaminated soils/sediments/debris from the Northside and Southside areas outside of the landfill. This work is being conducted by USACE under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). Work performed will follow the requirements of the National Oil and Hazardous Substances Contingency Plan (NCP) as well as title 40 of the Code of Federal Regulations.

Work plans produced for this project include a Site Operations Plan (SOP); Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP) (which includes an Air Monitoring Plan [AMP] and Radiation Protection Plan [RPP]); Sampling and Analysis Plan (SAP) (which includes a Field Sampling Plan [FSP], Uniform Federal Policy Quality Assurance Project Plan [UFP-QAPP] and Final Status Survey [FSS] Plan); Water Management Plan (WMP) (which includes a Storm Water Pollution Prevention Plan [SWPPP] and Waste Water Pollution Prevention Plan [WWPPP]); Waste Management, Transportation and Disposal Plan (WMTDP); Backfill, Compaction and Restoration Plan (BCRP); Contractor Quality Control Plan (CQCP); and Regulatory Compliance Plan (RCP).

2.0 BACKGROUND

USACE is the lead agency for implementing FUSRAP, which was established to identify, investigate, and if necessary cleanup or control contaminated sites. The Seaway Site is a closed landfill in Tonawanda, New York, that is included on the list of FUSRAP sites. The Seaway Site is an inactive hazardous waste disposal site pursuant to Title 6 of the New York Code of Rules and Regulations (NYCRR) Part 375. The site is listed in the Registry of Inactive Hazardous Waste Sites that is maintained by New York State Department of Environmental Conservation (NYSDEC 2003). Under 6NYCRR 375-2.7(b)(3), inactive hazardous waste disposal sites are classified with respect to the threats they pose to the environment, with a Class 1 posing the greatest threat and Class 5 indicating that a site is properly closed and does not require continued operation, maintenance, or monitoring. The Seaway Site is a Class 4 inactive hazardous waste disposal site.

2.1 SITE LOCATION

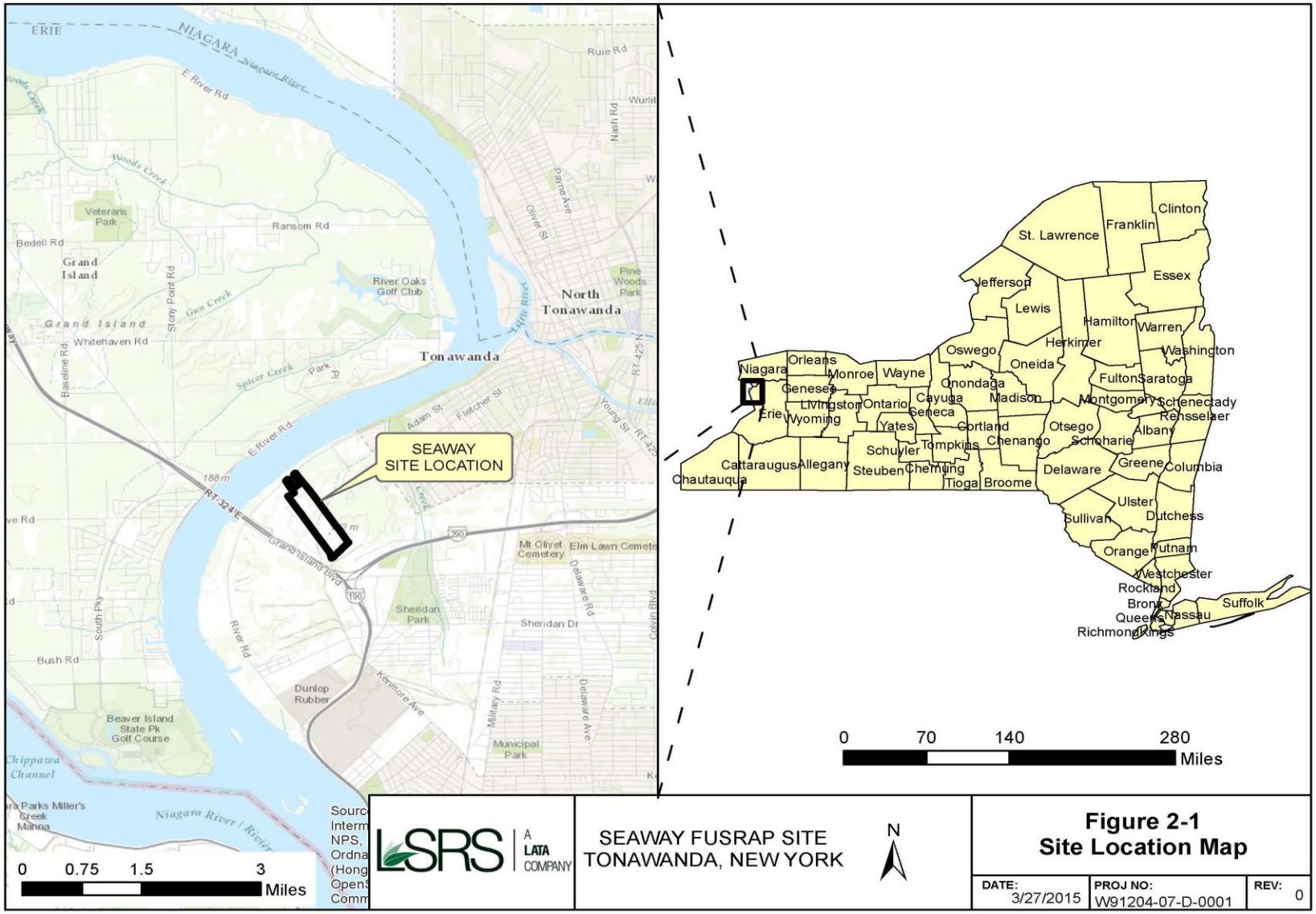
The Seaway Site is located in the Town of Tonawanda, New York approximately 10 miles north of the City of Buffalo. It is situated northeast of the intersection of State Road 266 (River Road) and Interstate 190 and is approximately ¾ mile southeast of River Road. Figure 2-1, on the following page, provides a Site Location Map. Ashland Oil & Refining Company owns

properties to the east and west; primarily using these areas for industrial purposes. Other industrial facilities are located nearby along River Road. The nearest residences are located to the northwest across the Niagara River on Grand Island and to the east in the Town of Tonawanda. A Niagara Mohawk right of way runs along the eastern fence line.

2.2 SITE HISTORY

The Seaway property is approximately 100 acres and is referred to as the Seaway Industrial Park. It is currently owned by the Benderson Development/Sands Mobile Park Corporation, which is the successor by merger to the Seaway Industrial Park Development Company, Inc. Since the late 1980's, Browning-Ferris Industries, Inc. followed by Allied Waste operated the landfill on the property (also referred to as the Niagara Landfill).

The source of the FUSRAP contaminants of concern (COCs) at the site are residues from uranium processing that was conducted at the nearby Linde Site. Various types of wastes were disposed in the landfill starting in 1930 and ending in 1993. These included municipal, commercial, industrial (including hazardous substances), and construction wastes from nearby communities. Approximately 90 percent of the property (90 acres) has been used as a landfill; approximately 69 acres have been capped. The site contains Seaway Southside (Seaway Area D Adjacent Property and Area Northwest of Seaway Area D) and Seaway Northside (property line surface runoff area).


ERIE
NIAGARA
Niagara River
E River Rd
Ruie Rd
Nash Rd
Payne Ave
Oliver St
Woods Creek
Veterans Park
Ransom Rd
Bedell Rd
Grand Island
Stony Point Rd
Gun Creek
River Oaks Golf Club
North Tonawanda
Pine Woods Park
White River
Grand Island
Whitehaven Rd
Baseline Rd
Tonawanda
Spicer Creek
Park Pl
RT-425 N
Adam St
Fletcher St
Young St
RT-425
E River Rd
SEAWAY SITE LOCATION
188m
RT-324 E
Grand Island Blvd
290
190
Mt Olivet Cemetery
Elm Lawn Cemete
Sheridan Park
Sheridan Dr
Delaware Rd
Colvin Blvd
South Pky
River Rd
Bush Rd
Dunlop Rubber
Kenmore Ave
Military Rd
Delaware Ave
Municipal Park
Beaver Island State Pk Golf Course
Chippawa Channel
Niagara River
Parks Miller's Creek Manag
0 0.75 1.5 3 Miles
Clinton
Franklin
St. Lawrence
Essex
Jefferson
Lewis
Hamilton
Warren
Herkimer
Washington
Oswego
Oneida
Niagara
Orleans
Monroe
Wayne
Fulton
Saratoga
Genesee
Onondaga
Montgomery
Schenectady
Livingston
Ontario
Cayuga
Madison
Rensselaer
Erie
Wyoming
Seneca
Albany
Yates
Cortland
Otsego
Tompkins
Chenango
Schoharie
Schuyler
Cattaraugus
Allegany
Steuben
Chemung
Delaware
Greene
Columbia
Chautauqua
Tioga
Broome
Ulster
Sullivan
Dutchess
Orange
Putnam
Westchester
Rockland
Bronx
Queens
Nassau
Suffolk
Richmond
Kings
0 70 140 280 Miles
LSRS A LATA COMPANY
SEAWAY FUSRAP SITE
TONAWANDA, NEW YORK
N
Figure 2-1
Site Location Map
DATE: 3/27/2015
PROJ NO: W91204-07-D-0001
REV: 0

3.0 OBJECTIVE AND SCOPE

The overall objective of the project is to remediate FUSRAP contaminated soils/sediment from the Seaway Southside and Northside areas. Site operations include activities associated with the Remedial Action (RA) to include but not limited to water management, Operation and Maintenance (O&M) of the air monitoring system, O&M of the meteorological station, equipment decontamination, worker health and safety monitoring, maintenance and radiological monitoring of roads and support areas, utility services, civil surveys, weekly conference calls, on-site meetings, dust control, site security, daily reporting and any other daily site activities. Site operations will occur after mobilization and before demobilization. LSRS will provide all labor, material, equipment, tools, supplies, sanitary facilities, and off-site laboratory facilities necessary to perform the services required to complete the tasks specified under the statement of work.

Work to be performed includes the following:

- Preparation of Project Work Plans.
- Assisting USACE with a Preconstruction Community Outreach Meeting.
- Mobilization and Demobilization activities.
- Site health, safety and environmental monitoring.
- Field verification of actual conditions and location of each work area.
- Verifying the location of the current Landfill Cut-off Wall.
- Sampling and Analysis.
- Excavation of clean overburden for storage and possible reuse.
- Excavation of FUSRAP contaminated materials from areas that are outside of the landfill's Leachate Collection System and Cut-off Wall.
- On-site Waste Management and Packaging.
- Transportation and off-site disposal.
- Radiation survey.
- Final Status Surveys.
- Final status
- Backfilling the excavated areas and site restoration.
- Project Contruction Report and Lessons Learned Report.
- Close-out documentation.

3.1 REGULATORY COMPLIANCE

The remediation criteria for the radionuclide COCs (Ra-226, Th-230, Utotal, Pa-231, and Ac-227) were developed and are provided in the ROD (USACE 2009). The applicable laws, rules, regulations, standards, permits and codes and LSRS's methods for compliance are provided in the Regulatory Compliance Plan (RCP).

4.0 RELATIONSHIP TO OTHER PLANS AND PROCEDURES

This document describes the quality management system that LSRS uses to achieve and assure the quality of the items furnished and the activities performed by LSRS as it relates specifically to the objectives of this project. All project specific and work specific activities conducted by LSRS for the site will be accomplished in accordance with this project specific CQCP.

The LSRS Work Plans, including the SAP (FSP, QAPP, FSS Plan), and SSHP/APP are all companion documents to this CQCP and are referenced throughout this document as appropriate.

5.0 PROJECT ORGANIZATION

The Seaway project organization in Figure 5-1 presents the lines of authority and reporting relationships of the project key personnel involved in the Seaway project.

5.1 PROGRAM MANAGER

[redacted] is the Program Manager for the MARC contract and will be the primary Point of Contact (POC) for all contractual issues. [redacted] is responsible for assuring that the project is properly staffed and for overall technical direction and quality of the work performed. The Program Manager establishes budgets and schedules, assures that personnel have appropriate training, and monitors staff performance. In addition, the Program Manager is responsible for monitoring and implementation of the Quality Control (QC) program. Specific responsibilities include:

- Assure that labor, equipment, personnel, and funding are available for required tasks; and
- Project technical direction.

5.2 PROJECT MANAGER

[redacted] is the Project Manager for this task order. [redacted] will be the primary POC for execution of this work. [redacted] will be responsible for overall administration of the project, coordination of field efforts, attendance at project progress meetings and regular reporting activities. He will coordinate the day-to-day activities and will be responsible for maintaining schedule. The Project Manager will interface with the Project Delivery Team (PDT) to verify that the goals of the project are being met and will conduct the senior technical review of all deliverables. A brief summary of duties includes:

- Coordinate preparation, review, and approval of reports, plans and procedures;
- Provide QC support in matters involving quality of work;
- Assure response to corrective action requirements identified by the project team;
- Maintain and track project budget and schedule; and
- Coordinate personnel and field activities, including subcontractors.

5.3 CERTIFIED HEALTH PHYSICIST

The Seaway project Certified Health Physicist is [redacted], CHP, CIH. [redacted] will provide complete and expert health physics, radiation protection safety, and radiation risk

assessment direction and guidance. He will develop the RPP, which is an attachment to the APP/SSHP, conduct the site radiation risk evaluation and recommend radiation monitoring equipment.

5.4 HEALTH AND SAFETY MANAGER

The Seaway project Health and Safety Manager is [redacted], CSP. [redacted] will provide guidance to project personnel who are responsible for implementation of the corporate LSRS Health and Safety Program Plan. [redacted] is responsible for investigating health and safety incidents/occurrences, working with the Project Manager to identify corrective actions, and making recommendations on policy changes needed to prevent or minimize future occurrences. The Health and Safety Manager is the final LSRS employee or contractor with the authority to determine the suitability of an employee to perform job duties on the basis of health or fulfillment of health and safety training as required by law or regulation. The Health and Safety Manager is also responsible for directing annual or periodic reviews of LSRS health and safety plans, as appropriate.

Specific responsibilities of the Health and Safety Manager include:

- Review and approve the Site Health & Safety Plans;
- Evaluate the qualifications of the Site Safety & Health Officer;
- Review proposed corrective action and assess them once implemented to evaluate effectiveness;
- Approve significant changes in personal protective equipment (PPE) or protective procedures;
- Conduct accident investigations and prepare reports; and
- Approve changes to the Site Health & Safety Plans, engineering controls, work practices and PPE.

5.5 CONTRACTOR QUALITY CONTROL SYSTEM MANAGER

[redacted] will serve as the Contractor Quality Control System Manager. Specific responsibilities of the Contractor Quality Control System Manager include:

- Develop, document, and implement activities to verify that appropriate QC measures are being conducted and documented;
- Verify that records related to QC are documented and maintained in a manner that assures they are secure and retrievable;
- Prepare periodic quality reports as required;
- Provide personnel training as required;
- Conduct periodic performance audits and/or surveillance to measure conformance to specifications and requirements;
- Verify that corrective actions are conducted and documented in a manner that minimizes or precludes future occurrences;
- Review and approve Standard Operating Procedures (SOPs) and training records; and

- Provide oversight and guidance to the construction quality manager to ensure project QC requirements are effectively implemented.

5.6 PROJECT DELIVERY TEAM (PDT)

The PDT is responsible for developing project documents and performing project field activities. The PDT will perform ongoing interdisciplinary quality control checks during product development to insure that portions of the products developed by different team members do not conflict.

The Project Site Superintendent is [redacted] will be on-site at all times and oversee subcontractors and all field personnel performing the various tasks to ensure that the acceptability and performance criteria are met. He is also responsible for the day-to-day conduct of work, including communication with the Project Manager, USACE, and subcontractors to verify that the goals of the project are being met. [redacted] will monitor and enforce the implementation of the required site work plans and will report any deviations from prescribed practice to the Project Manager or stop work, as appropriate.

Specific responsibilities of the Site Superintendent may include:

- Direct project activities;
- Ensure that qualified technical personnel are assigned to various tasks, including subcontractors;
- Identify and fulfill equipment and other resource requirements;
- Monitor project activities to ensure compliance with established scopes, schedules, and budgets;
- Ensure overall technical quality and consistency of all project activities;
- Review activities to verify that appropriate QC measures are being conducted and documented;
- Verify that records related to QC are documented and maintained in a manner that assures they are secure and retrievable;
- Verify that corrective actions are conducted and documented in a manner that minimizes or precludes future occurrences; and
- Produce and issue the Daily Project CQC Report.

The Project Chemist is [redacted] is responsible for developing the project QAPP, document coordination, coordinating with the analytical laboratory, data management, data evaluation and validation, and preparation of the chemistry- and data-related portions of the work plans and data report(s).

Other site personnel will include field technicians, operators and laborers.

All up to date Health & Safety Training Certificates and proof of medical certifications for all LSRS employees and its subcontractors will be provided to USACE upon request or before mobilization.

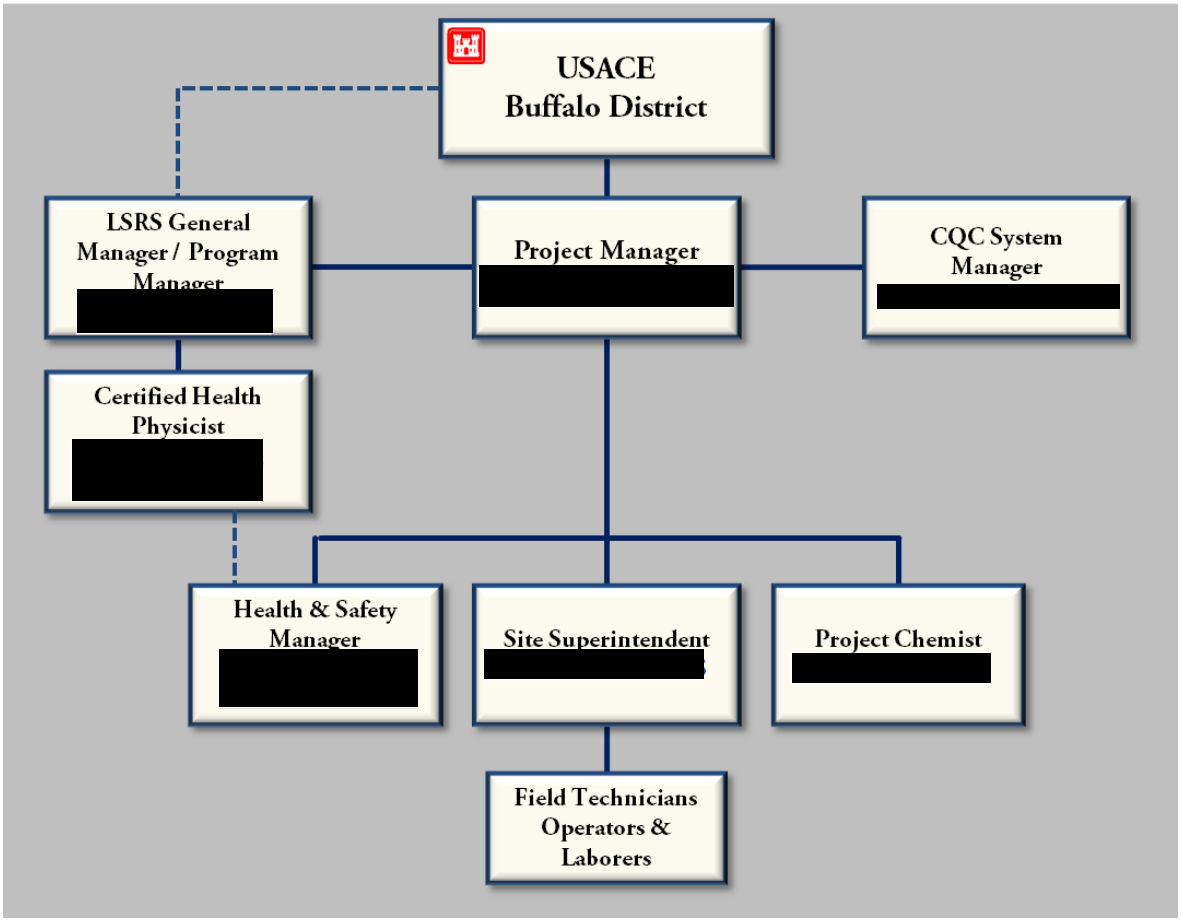


Figure 5-1. Seaway Project Organization

5.7 RESUMES OF KEY PERSONNEL

Resumes for the key personnel are included as Appendix A.

5.8 INDEPENDENT TECHNICAL REVIEW

The ITR process is a critical component of document quality control. The ITR process will be completed for all documents related to field activities. The ITR process will be completed prior to the submission of any documents to the USACE. Certification of ITR completion will accompany all applicable documents, reports, and plans. The ITR will be performed by a technically competent person under different supervision than the individuals producing the product. The ITR process certification of completion and document review is provided in Appendix B—Attachment 3. Section 11.0 identifies those deliverables that are required to have an ITR performed prior to submittal to the USACE.

6.0 TRAINING

LSRS will provide training as needed to personnel, to ensure efficiency, cost effectiveness, coordination with design objectives, and reliability of data collected, maintenance of worker

safety, and proper recording and reporting formats. This training would potentially include, but not be limited to:

- Project Orientation Training—Overview of Project purpose, objectives, policies, and procedures.
- HAZWOPER Training per 29CFR1910.120 with current 8-hour yearly refreshers.
- Training on Resource Conservation and Recovery Act (RCRA) as it pertains to land disposal, off-site transportation and disposal, and on-site storage of hazardous wastes and materials—as needed.
- Quality Control Training, including proper testing procedures, data collection, evaluation, storage, and reporting procedures—as needed.
- Transporter Training per 49CFR172.704(a)(2) to include General Awareness, Function Specific, Safety and Security Awareness.

Training will be documented, and maintained for LSRS personnel. Subcontractors, if utilized, will be responsible for maintaining training records for their personnel.

7.0 DEFINABLE FEATURES OF WORK

A definable feature of work (DFOW) is a task that is separate and distinct from other tasks and has separate control requirements. It may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. A list of the DFOW for the site is included below:

- Excavation
- On-site Waste Management & Packaging
- Transportation
- Final Status Survey
- Backfill & Restoration

In accordance with the SOW and as described in Section 8.0 of this document, preparatory, initial and follow up phase inspections will be performed for all DFOW.

8.0 THREE PHASE CONTROL SYSTEM

Quality Control is the means by which LSRS ensures that all project activities, including the work of subcontractors and suppliers, comply with the requirements of the Performance Work Statement (PWS) and with good QC practices. Implementation of the three phases of control system will be coordinated by LSRS to cover both on-site and off-site work. The three phases of control are the core of the Construction Quality Management System, consisting of the following phases:

- Preparatory Phase Inspections;
- Initial Phase Inspections; and

- Follow-up Phase Inspections.

The procedures and activities outlined in the following subsections will be implemented for each DFOW identified in this CQCP. Inspections are the on-site observations used to ensure that the fieldwork meets or exceeds all requirements. All activities affecting the quality of work performed on this work assignment are to undergo formal inspection. Inspections will be conducted by the Site Superintendent. Additional inspections may be conducted by a USACE representative at the discretion of the USACE. The onsite superintendent will ensure that the work complies with all contract documents, applicable standards, or good engineering and construction practices. Inspection forms are included in Appendix B, Attachment 1.

8.1 PREPARATORY PHASE

Preparatory inspections will be scheduled prior to the start of each definable feature of work and will include the following activities:

- A review of contract requirements.
- A check to ensure that all materials and/or equipment have been tested and vendor data have been reviewed and approved.
- A check to ensure that provisions have been made to conduct required testing, if any.
- Examination of work area to ascertain that all preliminary work has been completed, which includes examination of safety requirements (barricades and signs) as well as on-site security check.
- A physical examination of materials and equipment to ensure that all materials and/or equipment are on hand, and all equipment are in proper working condition.
- A review of safety and quality requirements most relevant to the work.
- A review of proposed task staffing.

The results of the preparatory phase actions will be documented on the Preparatory Inspection Phase Checklists (Appendix B, Attachment 1) and on the Daily Quality Control Report (DQCR) Form (Appendix B, Attachment 4).

8.2 INITIAL PHASE

This phase will be accomplished at the beginning of each DFOW, whenever a new crew arrives to work on site, or when specified and acceptable levels of quality are not being met. When staff is ready to start work on a DFOW, the Site Superintendent will conduct the initial phase with any involved QC specialists, and/or the Project Manager, as applicable.

The Site Superintendent or designated representative will observe the initial segment of the DFOW to ensure that the work complies with project requirements.

The following initial phase activities will be performed for each DFOW as applicable:

- Establish the quality of workmanship required for the feature of work; instruct workers, as appropriate, as to the acceptable level of workmanship required to meet project and specifications; and compare work with the project requirements as appropriate;
- Resolve conflicts;
- Verify that required control inspections and testing are implemented; ensure that testing is performed by the appropriate approved laboratory; and
- Check work procedures for compliance with the SSHP/APP and the appropriate Activity Hazard Analysis (AHAs), to ensure that applicable safety requirements are met; review the AHAs with all workers; and upgrade the SSHP if necessary.

Results of the initial phase will be documented on the Initial Inspection Phase Checklist (Appendix B, Attachment 1) and on the DQCR form (Appendix B, Attachment 4).

Checklists will be electronically saved at the end of each day to allow for quick review by LSRS and easy transfer to the client as requested. Corrective actions will be taken anytime the quality system is judged to be nonconforming. Each corrective action will be noted in the field logbook and reported to the LSRS Project Manager.

8.3 FOLLOW-UP PHASE

Ongoing work will be checked daily, or more frequently as necessary, until the completion of each DFOW, to assure that control activities, including control testing, are providing continued compliance with Contract requirements.

The following will be performed for each DFOW as applicable:

- Ensure that the work is in compliance with Contract requirements;
- Ensure that the required quality of workmanship is being maintained;
- Ensure that testing is performed by the appropriate approved laboratories;
- Ensure that rework items are being corrected; and
- Perform safety inspections.

These checks will be documented on the Follow Up Inspection Phase checklists (Appendix B, Attachment 1) and on the DQCR Form (Appendix B, Attachment 4). Final follow-up checks will be conducted, and all deficiencies which may impact additional features of work will be corrected before work begins on those features of work.

A QC report will be generated as needed to note any corrective actions that were required during the life of the project. The QC report will include, but not be limited to, the following:

- A description of field operations
- Any deviations from the approved work plan
- Corrective actions taken to correct the deviations
- Electronic copies of field forms generated during the operation.

8.4 NON-CONFORMANCES

The Site Superintendent will document any work not conforming to the Construction Specifications or project/contract requirements on a Nonconformance Report (NCR) (Appendix B, Attachment 1). The NCR will detail the nonconforming condition, the recommended corrective action(s), and the disposition of the corrective action(s). The USACE and LSRS will review the NCR and either accept or reject the recommended corrective action or disposition. The NCR will remain open until the nonconforming condition has been satisfactorily resolved and verified by the USACE and LSRS.

8.4.1 Identification of Nonconforming Items

Items identified as nonconforming will be documented on an NCR that will include the following information:

- Description of nonconforming item or activity
- Detailed description of nonconformance
- Referenced criteria
- Recommended disposition and corrective action to prevent recurrence, as applicable
- Affected organization

Deficient conditions have been divided into three categories:

- In-process deficiencies
- Operational deficiencies
- Conditions that require a Stop Work order

8.4.1.1 In-Process Deficiencies

In-process deficiencies are those conditions discovered during the course of QC inspections that are intended to be corrected or brought into conformance with requirements. The Site Superintendent will notify the USACE and LSRS of the problem or deficiency. Items not solved or corrected immediately will be considered in-process deficiencies and will be noted briefly on the DQCR form and detailed on an NCR (Appendix B, Attachment 1).

8.4.1.2 Operational Deficiencies

Operational deficiencies are those conditions discovered during the QC inspection of completed work and found not to meet established acceptance criteria or requirements and cannot be brought into conformance. These conditions will be noted on an NCR for evaluation and disposition. The Site Superintendent will issue the NCR summarizing discrepancies within 24 hours of discovery.

8.4.1.3 Condition Requiring Stop Work

If corrective actions are insufficient, resolution cannot be reached, or results of prior work are indeterminate, work may be stopped. An immediate Stop Work order can be issued by anyone for health and safety issues. The Site Superintendent can issue a Stop Work order. The

conditions of the Stop Work order will be noted in the DQCR and described in detail on an NCR to allow evaluation of the problem(s) and proper corrective action(s). Work will not continue until the Stop Work order has been resolved by the USACE and LSRS.

8.4.2 Nonconforming Items

Nonconforming items will be controlled to prevent inadvertent use of material or workmanship quality. All items noted as nonconforming will be clearly identified and segregated from acceptable items when practical.

8.4.3 Disposition

The disposition of NCRs will include the necessary actions required to bring the nonconforming condition to an acceptable condition and may include repairing, reworking, replacing, retesting, or re-inspecting. Implementation of the disposition may be done in accordance with the original procedural requirements, a specific instruction, or an approved field change request.

8.4.4 Corrective Actions

The Site Superintendent must immediately identify the need to take corrective action if a nonconforming condition is detected. In addition to resolving identified nonconforming conditions, corrective action records will also address the initial cause of adverse conditions and establish methods and controls to prevent recurrence of the same or similar types of non-conformances. The Site Superintendent will monitor the corrective actions to determine that they were properly implemented and accepted and that the original NCR was properly closed out.

9.0 DOCUMENTATION

Preparation, review, approval, and issuance of documents affecting quality will be controlled to specified requirements. Project documents to be controlled include:

- Project specific work plans (including preliminary draft, draft, and final versions)
- Meeting Minutes
- Preparatory, Initial and Follow-up Phase Inspection Documentation
- Field Documentation (including Field QC Checklists and/or logbooks)
- DQCR Forms
- NCR Forms
- Stop Work Orders
- Project completion and close out reports

9.1 CONTRACTOR QUALITY CONTROL REPORT

The Site Superintendent is responsible for maintaining current records of QC operation, activities, and tests performed, including the work of subcontractors and suppliers. The records will include factual evidence that required QC activities and tests were performed. The DQCR included with Appendix B as Attachment 4 will be completed to document site activities covered by this CQCP and will include:

- Contractor/subcontractor(s) and their areas of responsibility

- Trade personnel working on the project that day and number of personnel
- Operating equipment, with hours worked, idle, or down for repair
- Work performed that day, giving location, description, weather conditions, and by whom the work was done
- Any delays encountered
- Test and/or control activities performed with results and references to specifications/plan requirements, including the control phase (Preparatory, Initial, Follow-up) and deficiencies (along with corrective action)
- Material received, with statement as to its acceptability and storage
- Submittals reviewed, with contract reference, by whom, and action taken
- Offsite surveillance activities, including actions taken
- Job safety evaluations stating what was checked, results, and instructions or corrective actions
- A list of instructions given/received and conflicts in plans and/or specifications
- Contractor's verification statement
- Site visitors/purpose, deviations from plans, difficulties, and resolution

The records will indicate a description of both conforming and nonconforming features covered with a statement that equipment and materials incorporated in the work and workmanship comply with the project requirements. DQCRs will be submitted to the USACE daily during all field work.

10.0 PRODUCTS

LSRS was given a complete list of deliverables for the work at this site in the PWS. While the following subsections of Section 10 discuss the QC aspects of the various deliverables, Appendix C of this document provides the submittal requirements for this project, including the number of submittals required, as well as the schedule for delivery that LSRS will have to provide to the USACE as part of this project.

10.1 PROGRAM PRODUCTS

Quality control coordination and review will be required for the following project documents:

- Pre-Draft Work Plans
- Draft Final Work Plans
- Final Work Plans
- Pre-Draft Reports (including Construction Completion and Project Closeout Reports)
- Draft Final Reports
- Final Reports
- Daily quality control reports
- Meeting minutes

10.2 PROGRAM ACTIVITIES

Field activities that will require quality control coordination and inspections include but are not limited to the following:

- Health and safety;
- Field documentation;
- Mobilization/demobilization;
- Site operations
    - Excavation and management of FUSRAP material
    - Transportation and disposal of FUSRAP material
    - Backfill, compaction, and restoration of excavated areas.
- Sampling and analysis

It should be noted that the QC requirements for the sampling and analysis requirements are included with the UFP-QAPP generated for this project.

10.3 CRITICAL STAGES OF QUALITY CONTROL

Critical stages for quality control include project planning, document preparation, and field activities.

10.3.1 Project Planning

The Project Manager, or designee, will be responsible for project planning and ensuring that team members are informed of progress, issues, and changes to the project. Part of this planning involves the development of and implementation of the attached project schedule (Table 10-1). The project manager will communicate by means of individual contact, e-mail, memorandums, voice mail, and/or team meetings. This project shall have an initial kick-off meeting followed by scheduled meetings related to the progress of particular milestones, products or issues. The project manager shall facilitate and document each meeting. Documentation of meetings will be in the form of meeting minutes or trip reports and distributed to all team members. The Project Manager will also be responsible for ensuring that the client stays informed of project progress, issues, and changes to the project.

In order to ensure that the client stays informed, LSRS will utilize the USACE's Resident Management System/Quality Control System (RMS/QC7S) system. The QCS is the Contractor's Quality Control module of the Government's RMS and was developed to assist contractors in providing contract-required data to the USACE. By utilizing the monitoring and reporting aspects of this program, LSRS can perform quality control activities more consistently and within the requirements specified by the USACE for this project.

10.3.2 Quality Control of Document Preparation

Documents, in either electronic or hard copy form, are the principal means whereby work instructions, process and performance criteria are established and communicated within LSRS and are often also the product of LSRS work (e.g., a deliverable under the contract, see Table 10-1, and the submittal summary included in Appendix C). It is, therefore, essential that documents

are produced within a framework that promotes quality. This Section documents the process used by LSRS to ensure that the scope and contents of documents address the appropriate standards, do not conflict with each other, clearly convey accurate information and/or instructions, and the most current approved documents are made available for use by the workforce.

The LSRS Project Manager for this project will assign document preparation to an individual with the appropriate discipline related to that document or portion of a document. For example, a member of the safety team will generate safety related portions of a document; a member of the engineering staff will be assigned design and implementation portions of documentation, etc. All documents generated for this project will follow the same format as this CQCP, and will include at a minimum the following requirements:

- A Title page that clearly identifies the name of the document or procedure, followed by the name of this site and its location, the date completed a revision number, and the contract number. The title page will also indicate the stage of preparation that the document is in such as "Pre-Draft", "Draft Final", and "Final".
- A review and approval page that clearly identifies the primary author of the document and all personnel that are responsible for either reviewing or approving the document for use.
- A table of contents including a list of tables, figures, and appendices as appropriate.
- A list of acronyms
- Each page will have a footer that contains at a minimum the page number.
- A references section for all works cited within the document. References will be listed in alphanumeric order by date. When the same author and date occurs more than once, a letter designation such as "a", "b", "c", etc. will be added to clearly identify the appropriate reference.
- When tables, figures, and appendices are to be included in a separate section at the end of the text, a title sheet for each section will be included to give the reader a clear indication of the appropriate section.
- Font used throughout the text will be no smaller than a Font size of 11.

Once the initial documentation has been prepared it will be reviewed by the project manager to assure that the documentation is in line with and corresponds to the scope of work and conforms to this CQCP. The reviews will have a signatory line (including date of review) on the approval page to indicate that they have reviewed the document.

Contract deliverables will be prepared in accordance with this CQCP and distributed as described below:

- A member of the PDT will author the required documents for the USACE. Quality control of document preparation will be accomplished by means of ongoing interdisciplinary coordination by the PDT during product development, followed by an

independent technical review. Following the review, the pre-draft document will be submitted to the USACE.

- The USACE will review the pre-draft documents and provide comments to LSRS within 30 business days. The PDT will prepare formal responses to comments, and appropriate modifications to the subject document will be made before distributing the draft documents.

- Draft documents will receive an initial review by the USACE, and then it will be forwarded to the appropriate regulatory agencies. The regulatory agencies will then review and provide comments on the draft-final documents and provide comments to the USACE within 30 calendar days. The USACE will determine which regulatory comments will be addressed by LSRS, and forward those comments to LSRS to address.

- LSRS will provide formalized responses to regulatory agency comments and provide appropriate modifications to the documents and resubmit draft final documents to the USACE for review and approval. The USACE will then forward the documents and associated comments/responses to the regulatory review team (if applicable) for review and concurrence. A review conference meeting, teleconference, e-mail, or facsimile transmission may be conducted to resolve review of comment responses, particularly any comment disagreements, prior to product finalization. Documents will not be signed until finalized by the review teams to indicate approval.

LSRS will provide all documents in the quantities and formats identified in Appendix C unless dictated otherwise by the USACE.

10.3.3 Quality Control of Field Activities

Field activities at the Site will be performed in accordance with the overall Site Operations Plan, FSP, QAPP, APP/SSHP and other supporting plans as appropriate. Quality control of field activities will be accomplished by the Site Superintendent and documented through the completion of quality control forms and checklists found in Appendix B of this CQCP. These checklists present a broad range of topics, and additional field documentation may be needed based on the activity occurring. If additional documentation is needed, it will be presented in the various work plans associated with this project. The Site Superintendent will oversee the field personnel performing the various tasks to ensure that the acceptability and performance criteria described in the work plan are met.

Preparatory inspections will be conducted prior to the start of the field activities related to the DFOW to ensure that the required planning activities have been performed and necessary materials and equipment for the field activities are on-hand. Initial inspections will be performed at the initiation of each definable field activity to observe the initiation of the activities to ensure compliance with the acceptability criteria. Follow-up inspections will be performed as needed for one to two day periods while work is in progress, and until all work is complete. As part of

the final inspection, field documentation will be reviewed for accuracy and completeness. The Site Superintendent will document inspections via a memorandum and checklist completion.

11.0 QUALITY MANAGEMENT

LSRS requires Quality Management oversight of the site QC program implementation. The CQC System Manager will perform regular internal QC checks on the site implementation of the QC program in accordance with this plan. Deficiencies, if any, will be reported to the USACE and LSRS for corrective action.

Inspections will be performed and checked for the following:

- Possession and use of approved procedures, standards, and project specifications
- Conformance with appropriate procedures, standards, and instructions
- Thoroughness of performance
- Identification and completeness of documentation generated during performance.

12.0 RECORDS

The PM shall control and maintain project files including hard or electronic copies of project correspondence, reports, drawings, MFRs, project management plans, the QC checklists, other QC documentation, and this CQCP. PDT members shall furnish pertinent project documents to the PM for the project file. The primary location for project files shall be on LSRS' internal network server in Westerville, Ohio. Additionally, the PM shall maintain a hardcopy file. If space is limited, the PM may transfer files to Records Storage, if necessary. Controlled documents will be listed on a master list of controlled documents (MLCD).

13.0 REFERENCES

Intergovernmental Data Quality Task Force, 2012, Uniform federal Policy for Quality Assurance Project Plans, EPA-505-B-04-900A

US Army Corps of Engineers, 2014, Scope Of Work For Remediation Of The Seaway FUSRAP Site
Southside And Northside Areas, Town Of Tonawanda, Erie County, New York, var. pg.

US Army Corps of Engineers, 2008, Safety & Health Requirements Manual: USACE Engineer Manual EM 385-1-1, var. pg.

US Army Corps of Engineers, 2001, Requirements for the Preparation of Sampling and Analysis Plans: USACE Engineer Manual EM 200-1-3, var. pg.

Table 10-1 Project Schedule

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
Seaway Site Remediation		203.5d	02-Mar-15 08:00 AM	01-Mar-16 01:00 PM	0.4d
A1000	Contract Award & Notice to Proceed	0.0d	02-Mar-15 08:0(		2.2d
A1010	Project Complete	0.0d		01-Mar-16 01:00	0.4d
Project Plan Submittals - Section 4.1		62.2d	02-Mar-15 08:0(	18-Jun-15 10:00	141.6d
A1011	CLIN 1 - Project Plan Submittals	78.3d	02-Mar-15 08:0(	19-May-15 10:0(	257.8d
A1012	Prepare Submittal Register Sec. 19.2	10.0d	02-Mar-15 08:0(	11-Mar-15 04:00	306.0d
A1013	Submit Submittal Register to USACE	0.0d	12-Mar-15 08:0(	12-Mar-15 08:00	306.0d
A1014	USACE Review of Submittal Register	30.0d	12-Mar-15 08:0(	10-Apr-15 04:00	306.0d
A1015	Incorporate Comments & Resubmit Submittal Regi:	5.0d	11-Apr-15 08:00	15-Apr-15 04:00	306.0d
A1016	USACE Approval fo Submittal Register	15.0d	16-Apr-15 08:00	30-Apr-15 04:00	306.0d
Site Operations Plan (SOP)		62.2d	02-Mar-15 08:0(	18-Jun-15 10:00	141.6d
A1020	Prepare Preliminary Draft SOP	30.0d	02-Mar-15 08:0(	31-Mar-15 04:00	254.6d
A1030	Submit Preliminary Draft SOP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1040	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1050	Comment Resolution of Preliminary Draft SOP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1060	Submit Draft SOP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1070	USACE Review of Draft SOP	10.0d	29-Apr-15 09:00	09-May-15 09:0(	257.8d
A1080	Comment Resolution of Draft SOP	5.0d	11-May-15 08:0(	19-May-15 10:0(	141.4d
A1090	Submit Final SOP to USACE	0.0d	19-May-15 10:0(	19-May-15 10:0(	257.8d
A1095	New York State Review	30.0d	19-May-15 10:0(	18-Jun-15 10:00	257.8d
Accident Prevention Plan / Site Safety & Health Plan (APP/SSHP)		62.2d	02-Mar-15 08:0(	18-Jun-15 10:00	141.6d
A1100	Prepare Draft APP/SSHP	30.0d	02-Mar-15 08:0(	31-Mar-15 04:00	254.6d
A1110	Submit Preliminary Draft APP/SSHP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1120	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1130	Comment Resolution of Preliminary Draft AAP/SSH	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1140	Submit Draft AAP/SSHP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1150	USACE Review of Draft AAP/SSHP	10.0d	29-Apr-15 09:00	09-May-15 09:0(	257.8d
A1160	Comment Resolution of Draft AAP/SSHP	5.0d	11-May-15 08:0(	19-May-15 10:0(	141.4d
A1170	Submit Final AAP/SSHP to USACE	0.0d	19-May-15 10:0(	19-May-15 10:0(	257.8d
A1175	New York State Review	30.0d	19-May-15 10:0(	18-Jun-15 10:00	257.8d
Sampling and Analysis Plan (SAP)		62.2d	02-Mar-15 08:0(	18-Jun-15 10:00	141.6d
A1260	Prepare Draft SAP	30.0d	02-Mar-15 08:0(	31-Mar-15 04:00	254.6d
A1270	Submit Preliminary Draft SAP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1280	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1290	Comment Resolution of Preliminary Draft SAP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1300	Submit Draft SAP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1310	USACE Review of Draft SAP	10.0d	29-Apr-15 09:00	09-May-15 09:0(	257.8d
A1320	Comment Resolution of Draft SAP	5.0d	11-May-15 08:0(	19-May-15 10:0(	141.4d
A1330	Submit Final SAP to USACE	0.0d	19-May-15 10:0(	19-May-15 10:0(	257.8d
A1335	New York State Review	30.0d	19-May-15 10:0(	18-Jun-15 10:00	257.8d
Water Management Plan (WMP)		62.2d	02-Mar-15 08:0(	18-Jun-15 10:00	141.6d
A1180	Prepare Draft WMP	30.0d	02-Mar-15 08:0(	31-Mar-15 04:00	254.6d
A1190	Submit Preliminary Draft WMP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1200	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1210	Comment Resolution of Preliminary Draft WMP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1220	Submit Draft WMP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1230	USACE Review of Draft WMP	10.0d	29-Apr-15 09:00	09-May-15 09:0(	257.8d
A1240	Comment Resolution of Draft WMP	5.0d	11-May-15 08:0(	19-May-15 10:0(	141.4d
A1250	Submit Final WMP to USACE	0.0d	19-May-15 10:0(	19-May-15 10:0(	257.8d

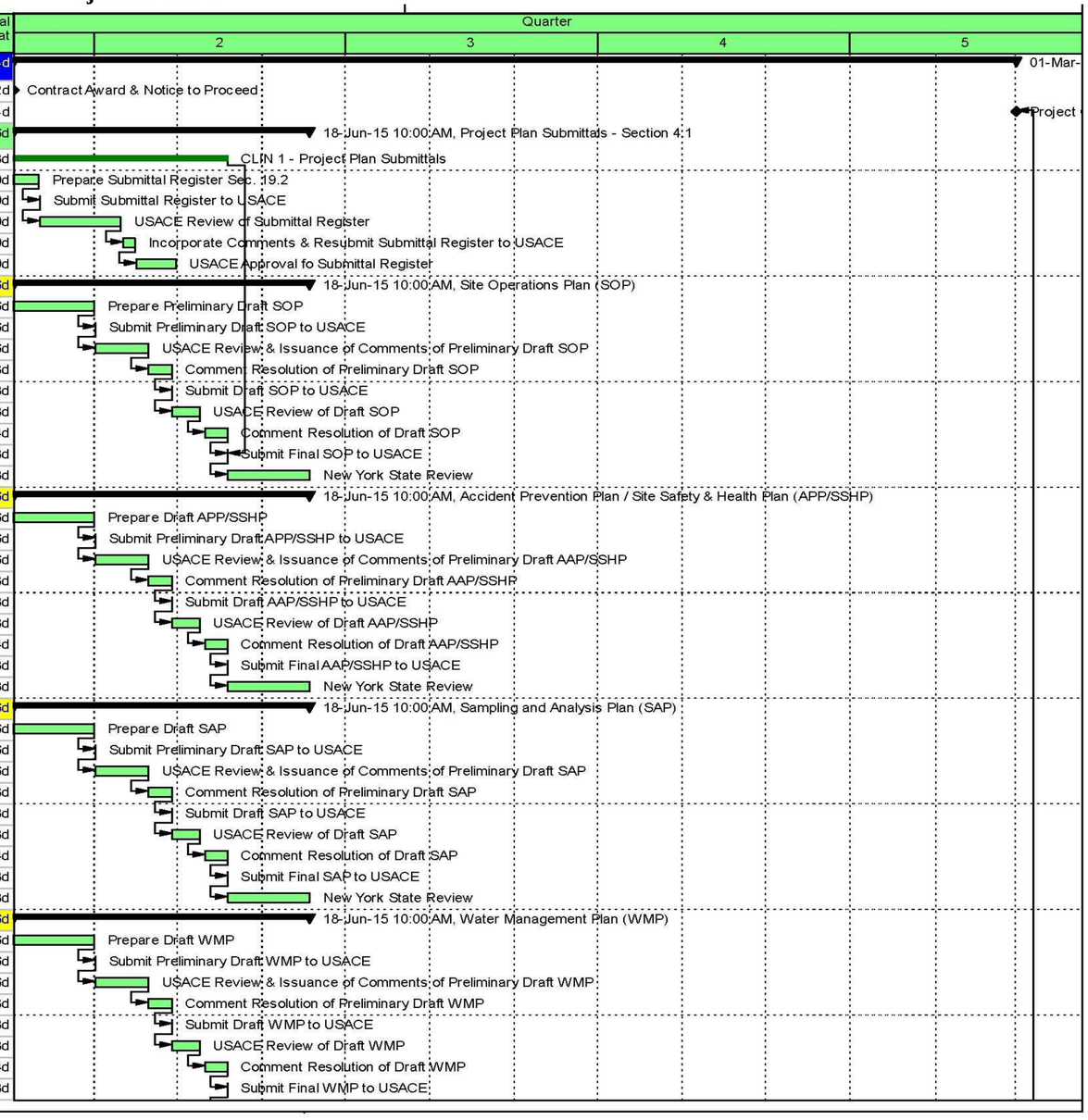


Table 10-1 Project Schedule (Continued)

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
A1255	New York State Review	30.0d	19-May-15 10:00	18-Jun-15 10:00	257.8d
Waste Management, Transportation and Disposal Plan (WMTDP)		62.2d	02-Mar-15 08:00	18-Jun-15 10:00	141.6d
A1340	Prepare Draft WMTDP	30.0d	02-Mar-15 08:00	31-Mar-15 04:00	254.6d
A1350	Submit Preliminary Draft WMTDP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1360	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1370	Comment Resolution of Preliminary Draft WMTDP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1380	Submit Draft WMTDP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1390	USACE Review of Draft WMTDP	10.0d	29-Apr-15 09:00	09-May-15 09:00	257.8d
A1400	Comment Resolution of Draft WMTDP	5.0d	11-May-15 08:00	19-May-15 10:00	141.4d
A1410	Submit Final WMTDP to USACE	0.0d	19-May-15 10:00	19-May-15 10:00	257.8d
A1415	New York State Review	30.0d	19-May-15 10:00	18-Jun-15 10:00	257.8d
Backfill, Compaction & Restoration Plan (BCRP)		62.2d	02-Mar-15 08:00	18-Jun-15 10:00	141.6d
A1420	Prepare Draft BCRP	30.0d	02-Mar-15 08:00	31-Mar-15 04:00	254.6d
A1430	Submit Preliminary Draft BCRP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1440	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1450	Comment Resolution of Preliminary Draft BCRP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1460	Submit Draft BCRP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1470	USACE Review of Draft BCRP	10.0d	29-Apr-15 09:00	09-May-15 09:00	257.8d
A1480	Comment Resolution of Draft BCRP	5.0d	11-May-15 08:00	19-May-15 10:00	141.4d
A1490	Submit Final BCRP to USACE	0.0d	19-May-15 10:00	19-May-15 10:00	257.8d
A1495	New York State Review	30.0d	19-May-15 10:00	18-Jun-15 10:00	257.8d
Contractor Quality Control Plan (CQCP)		62.2d	02-Mar-15 08:00	18-Jun-15 10:00	141.6d
A1500	Prepare Draft CQCP	30.0d	02-Mar-15 08:00	31-Mar-15 04:00	254.6d
A1510	Submit Preliminary Draft CQCP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	254.6d
A1520	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	254.6d
A1530	Comment Resolution of Preliminary Draft CQCP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	141.3d
A1540	Submit Draft CQCP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	257.8d
A1550	USACE Review of Draft CQCP	10.0d	29-Apr-15 09:00	09-May-15 09:00	257.8d
A1560	Comment Resolution of Draft CQCP	5.0d	11-May-15 08:00	19-May-15 10:00	141.4d
A1570	Submit Final CQCP to USACE	0.0d	19-May-15 10:00	19-May-15 10:00	257.8d
A1575	New York State Review	30.0d	19-May-15 10:00	18-Jun-15 10:00	257.8d
Regulatory Compliance Plan (RCP)		62.2d	02-Mar-15 08:00	18-Jun-15 10:00	0.7d
A1580	Prepare Draft RCP	30.0d	02-Mar-15 08:00	31-Mar-15 04:00	2.9d
A1590	Submit Preliminary Draft RCP to USACE	0.0d	01-Apr-15 08:00	01-Apr-15 08:00	2.9d
A1600	USACE Review & Issuance of Comments of Prelim	20.0d	01-Apr-15 08:00	20-Apr-15 04:00	2.9d
A1610	Comment Resolution of Preliminary Draft RCP	5.0d	20-Apr-15 04:00	29-Apr-15 09:00	2.3d
A1620	Submit Draft RCP to USACE	0.0d	29-Apr-15 09:00	29-Apr-15 09:00	3.1d
A1630	USACE Review of Draft RCP	10.0d	29-Apr-15 09:00	09-May-15 09:00	3.1d
A1640	Comment Resolution of Draft RCP	5.0d	11-May-15 08:00	19-May-15 10:00	1.0d
A1650	Submit Final RCP to USACE	0.0d	19-May-15 10:00	19-May-15 10:00	1.3d
A1655	New York State Review	30.0d	19-May-15 10:00	18-Jun-15 10:00	1.3d
Community Outreach Meeting - Section 4.10		1.0d	03-Jun-15 08:00	04-Jun-15 10:00	1.0d
A1660	CLIN 11 - Community Outreach	1.0d	03-Jun-15 08:00	04-Jun-15 10:00	1.0d
Mobilization - Section 4.2		12.0d	15-Jun-15 03:00	07-Jul-15 03:00	131.4d
A1669	CLIN 2- Mobilization	12.0d	15-Jun-15 03:00	07-Jul-15 03:00	1.0d
A1670	Mobilization of equipment and workforce required t	5.0d	15-Jun-15 03:00	23-Jun-15 05:00	1.0d
A1671	USACE Field Office, Phone, Fax & Internet Service	3.0d	15-Jun-15 03:00	19-Jun-15 12:00	140.4d
A1680	Establishment of support areas for parking	3.0d	18-Jun-15 10:00	23-Jun-15 05:00	138.4d
A1685	Installation of sediment and erosion control measur	2.0d	24-Jun-15 08:00	26-Jun-15 12:00	1.0d

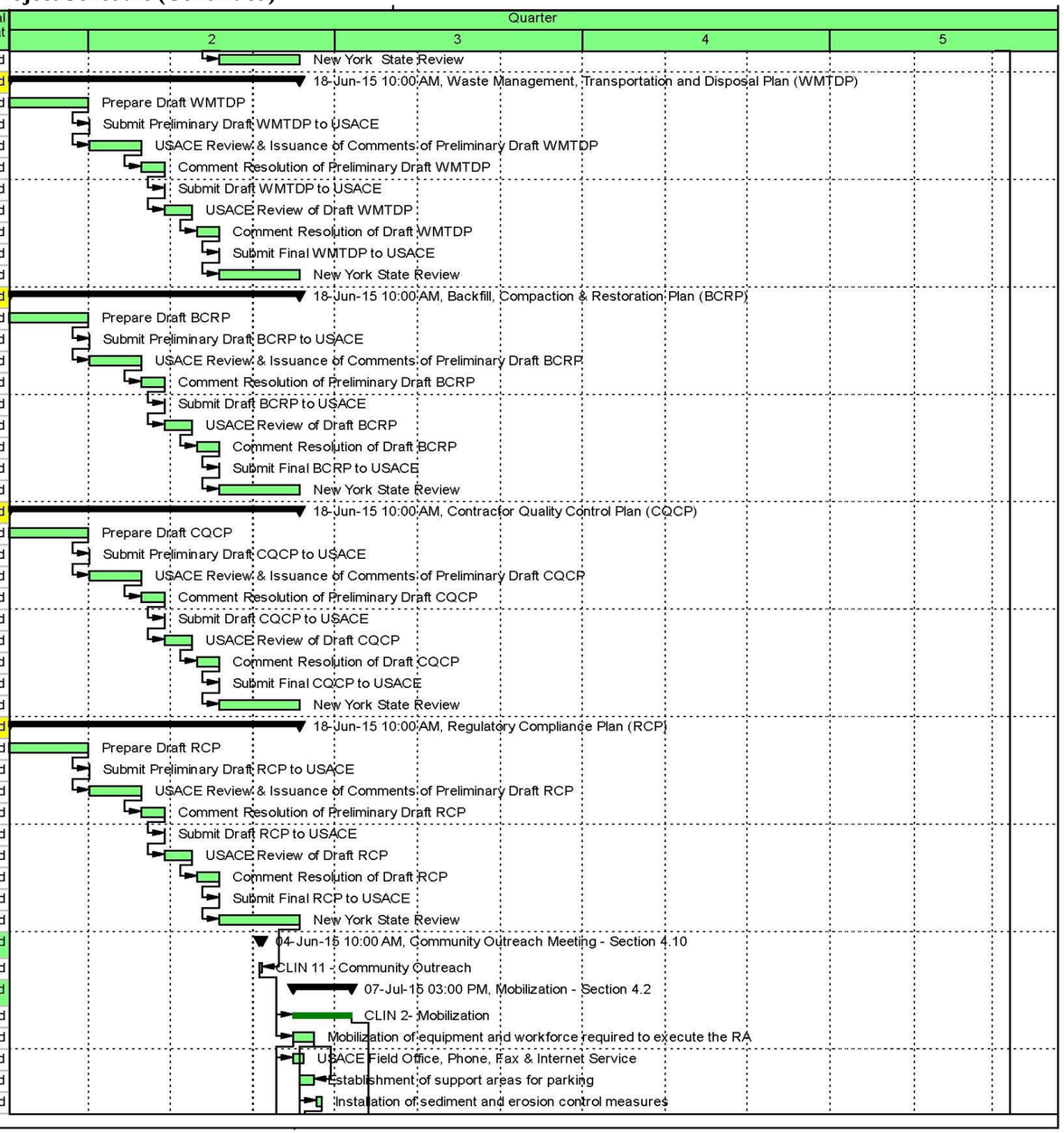


Table 10-1 Project Schedule (Continued)

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
A1690	Utility Markings	2.0d	24-Jun-15 08:00	26-Jun-15 12:00	136.4d
A1691	Install Project Sign	2.0d	24-Jun-15 08:00	26-Jun-15 12:00	136.4d
A1692	Installing air monitoring and meteorological monitori	2.0d	24-Jun-15 08:00	26-Jun-15 12:00	136.4d
A1695	Access Road Construction	5.0d	26-Jun-15 01:00	07-Jul-15 03:00	1.0d
A1730	Installation of water management control measures	2.0d	26-Jun-15 01:00	30-Jun-15 05:00	4.0d
A1785	Mobilization Complete	0.0d		07-Jul-15 03:00	1.0d
Site Operations - Section 4.3		58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1790	CLIN 3 - Site Operations	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1791	Progress meetings / Conference Calls	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1795	Water Management	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1796	O&M Of the Air Monitoring System and Meteorolo	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1797	Worker Health and Safety Monitoring	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
A1798	USACE Field Office, Sign and Utility Markings	58.0d	15-Jun-15 03:00	28-Sep-15 10:00	0.4d
Sampling & Analysis - Section 4.4		18.0d	07-Jul-15 03:00	07-Aug-15 10:00	1.0d
A2000	CLIN 4 - Sampling and Analysis	16.0d	07-Jul-15 03:00	04-Aug-15 03:00	1.0d
A2100	Water Samples - 50	16.0d	07-Jul-15 03:00	04-Aug-15 03:00	1.0d
A2200	Air Particulates - 130	16.0d	07-Jul-15 03:00	04-Aug-15 03:00	1.0d
A2250	Characterization and Material Confirmation - 50	16.0d	07-Jul-15 03:00	04-Aug-15 03:00	1.0d
A2260	FUSRAP Contaminated Material - 80	16.0d	07-Jul-15 03:00	04-Aug-15 03:00	1.0d
A2270	Final Status Survey Samples - 40	11.0d	20-Jul-15 01:00	07-Aug-15 10:00	1.0d
Excavation & Management of FUSRAP - Section 4.5		18.0d	07-Jul-15 03:00	07-Aug-15 10:00	1.0d
A2500	CLIN 5 - Clean Over Burden From Southside, FUS	18.0d	07-Jul-15 03:00	07-Aug-15 10:00	1.0d
A2510	Provide USACE with Pre-excavation lines and grac	1.0d	07-Jul-15 03:00	08-Jul-15 05:00	1.0d
A2513	Begin FUSRAP Contaminated Material Remediatior	1.0d	09-Jul-15 08:00	10-Jul-15 10:00	1.0d
A2515	Complete FUSRAP Contaminated Material Remedi	5.0d	10-Jul-15 10:00	20-Jul-15 12:00	1.0d
A2518	Final Status Survey - Northside	2.0d	20-Jul-15 01:00	22-Jul-15 05:00	1.0d
A2520	Begin Clean Overburden removal from Southside E	1.0d	23-Jul-15 08:00	24-Jul-15 10:00	1.0d
A2525	Complete Clean Overburden removal from Southsi	5.0d	24-Jul-15 10:00	03-Aug-15 12:00	1.0d
A2610	Begin FUSRAP Contaminated Material Remediatior	1.0d	03-Aug-15 01:00	04-Aug-15 03:00	1.0d
A2620	Complete FUSRAP Contaminated Material Remedi	10.0d	17-Jul-15 10:00	04-Aug-15 03:00	1.0d
A2630	Final Status Survey - Southside	2.0d	04-Aug-15 03:00	07-Aug-15 10:00	1.0d
Transportation & Disposal of FUSRAP - Section 4.6		74.0d	09-Jul-15 08:00	17-Nov-15 12:00	56.4d
A2800	CLIN - 6 Transportation and Disposal of 1760 Ton	74.0d	09-Jul-15 08:00	17-Nov-15 12:00	56.4d
A2820	T&D of FUSRAP Contaminated Materials from Nor	60.0d	09-Jul-15 08:00	22-Oct-15 05:00	70.4d
A2825	T&D of FUSRAP Contaminated Materials from Sou	60.0d	03-Aug-15 01:00	17-Nov-15 12:00	56.4d
Backfill, Compaction & Restoration - Section 4.7		31.9d	23-Jul-15 08:00	17-Sep-15 05:00	91.0d
A2900	CLIN - 7 Backfill, Compaction and Restoration	32.0d	23-Jul-15 08:00	17-Sep-15 05:00	0.4d
A2905	USACE Final Status Survey Reports	15.0d	10-Aug-15 07:00	02-Sep-15 05:00	0.6d
A2910	Backfill & Compaction of Northside	2.0d	03-Sep-15 08:00	08-Sep-15 12:00	95.4d
A2920	Site Restoration of Northside	1.0d	08-Sep-15 01:00	09-Sep-15 03:00	95.4d
A2930	Backfill & Compaction of Southside	6.0d	03-Sep-15 08:00	15-Sep-15 12:00	0.4d
A2940	Site Restoration of Southside	2.0d	15-Sep-15 01:00	17-Sep-15 05:00	0.4d
Demobilization - Section 4.8		5.0d	18-Sep-15 08:00	28-Sep-15 10:00	0.4d
A4000	CLIN 8 - Demobilization	5.0d	18-Sep-15 08:00	28-Sep-15 10:00	0.4d
A4560	Remove Access Road	4.0d	18-Sep-15 08:00	24-Sep-15 05:00	0.4d
A4570	Remove Air Monitoring and Meteorological Monitori	2.0d	18-Sep-15 08:00	22-Sep-15 12:00	0.4d
A4590	Demobilization of water management control meas	2.0d	18-Sep-15 08:00	22-Sep-15 12:00	0.4d
A4625	Demolization of Equipment and Workforce and Fie	5.0d	18-Sep-15 08:00	28-Sep-15 10:00	0.4d

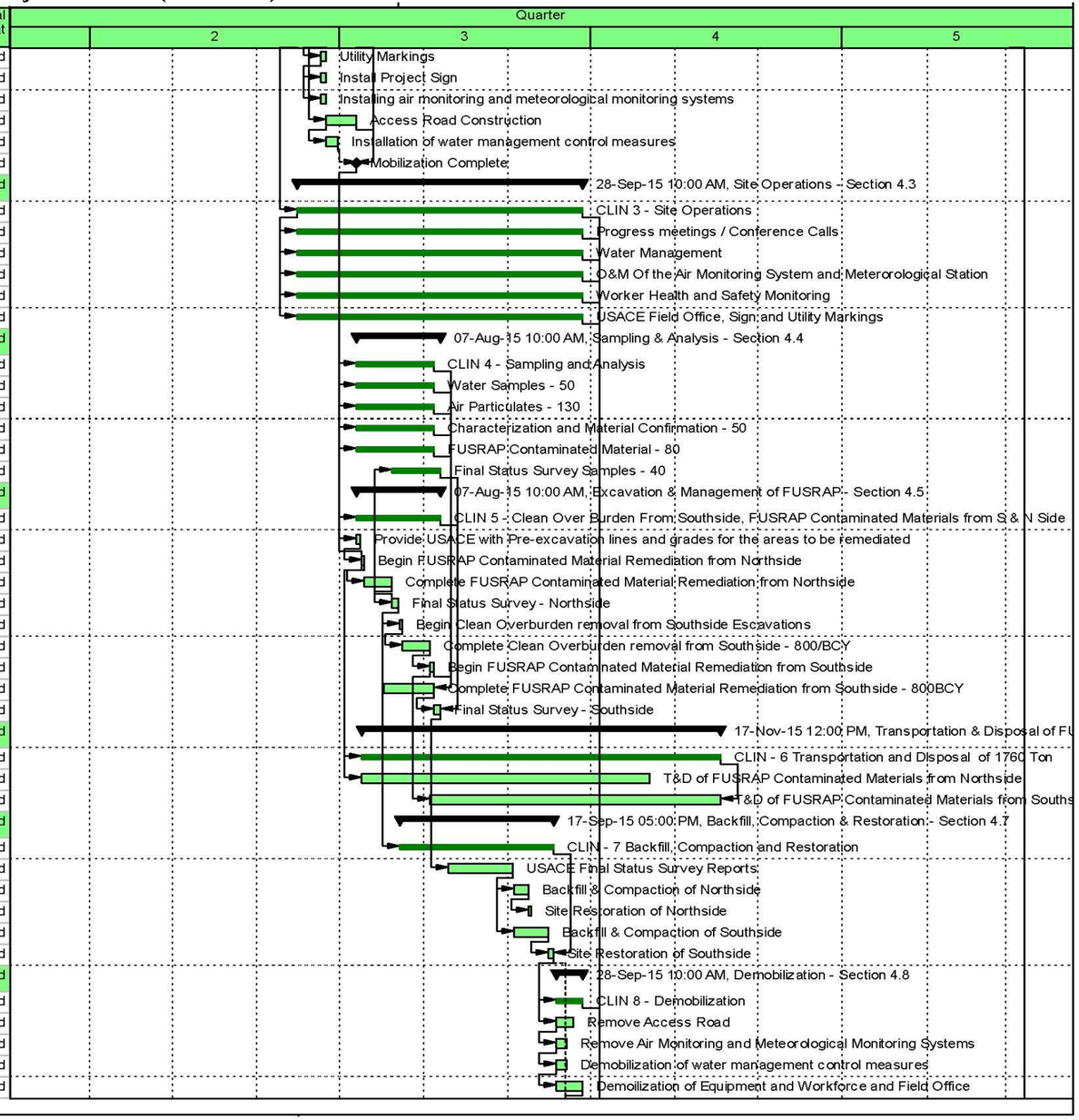
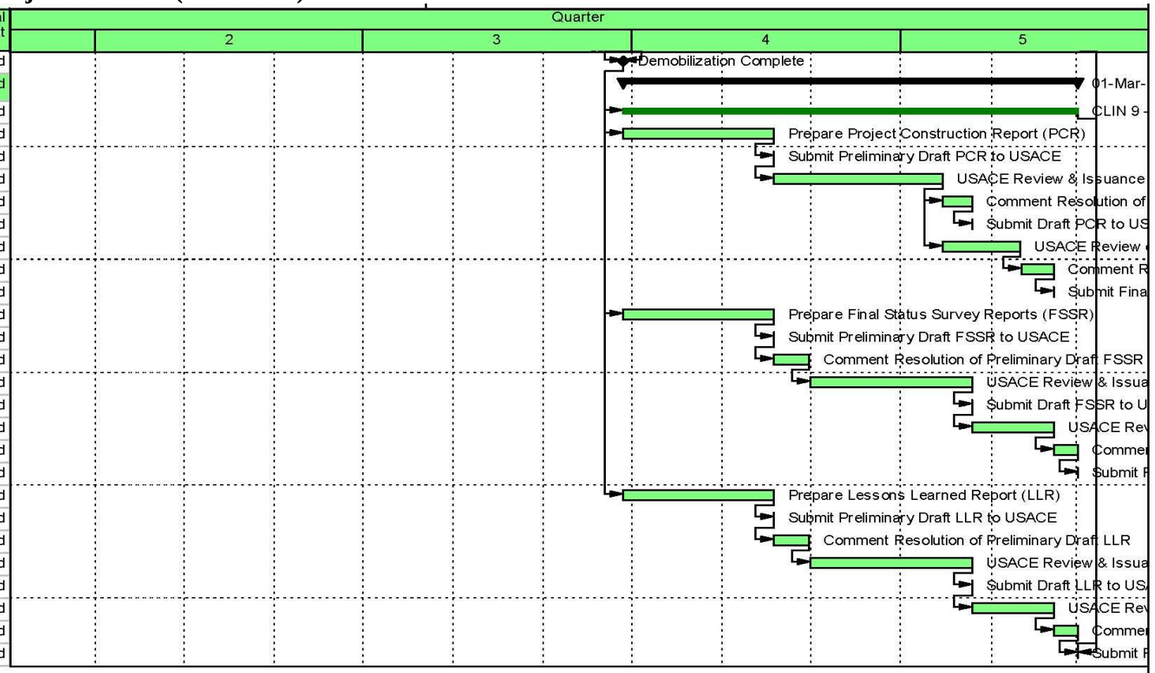


Table 10-1 Project Schedule (Continued)

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
A4630	Demobilization Complete	0.0d		28-Sep-15 10:00	0.4d
Close-Out Documentation - Section 4.10		85.0d	28-Sep-15 10:0(	01-Mar-16 01:00	0.4d
A4500	CLIN 9 - Close-Out Documentation	85.0d	28-Sep-15 10:0(	01-Mar-16 12:00	0.4d
A4510	Prepare Project Construction Report (PCR)	30.0d	28-Sep-15 10:0(	18-Nov-15 03:0(	5.4d
A4511	Submit Preliminary Draft PCR to USACE	0.0d	18-Nov-15 03:0(	18-Nov-15 03:0(	5.4d
A4512	USACE Review & Issuance of Comments of Prelin	30.0d	18-Nov-15 03:0(	15-Jan-16 10:00	5.4d
A4513	Comment Resolution of Preliminary Draft PCR	5.0d	15-Jan-16 10:00	25-Jan-16 12:00	20.4d
A4514	Submit Draft PCR to USACE	0.0d	25-Jan-16 01:00	25-Jan-16 01:00	20.4d
A4516	USACE Review of Draft PCR	15.0d	15-Jan-16 10:00	10-Feb-16 05:00	5.4d
A4518	Comment Resolution of Draft PCR	5.0d	11-Feb-16 08:00	22-Feb-16 10:00	5.4d
A4519	Submit Final PCR to USACE	0.0d	22-Feb-16 10:0(	22-Feb-16 10:00	5.4d
A4530	Prepare Final Status Survey Reports (FSSR)	30.0d	28-Sep-15 10:0(	18-Nov-15 03:0(	0.4d
A4650	Submit Preliminary Draft FSSR to USACE	0.0d	18-Nov-15 03:0(	18-Nov-15 03:0(	0.4d
A4655	Comment Resolution of Preliminary Draft FSSR	5.0d	18-Nov-15 03:0(	30-Nov-15 05:0(	0.4d
A4660	USACE Review & Issuance of Comments of Prelin	30.0d	01-Dec-15 08:0(	25-Jan-16 12:00	0.4d
A4670	Submit Draft FSSR to USACE	0.0d	25-Jan-16 01:00	25-Jan-16 01:00	0.4d
A4680	USACE Review of Draft FSSR	15.0d	25-Jan-16 01:00	22-Feb-16 10:00	0.4d
A4700	Comment Resolution of Draft FSSR	5.0d	22-Feb-16 10:0(	01-Mar-16 12:00	0.4d
A4710	Submit Final FSSR to USACE	0.0d	01-Mar-16 01:0(	01-Mar-16 01:00	0.4d
A4720	Prepare Lessons Learned Report (LLR)	30.0d	28-Sep-15 10:0(	18-Nov-15 03:0(	0.4d
A4730	Submit Preliminary Draft LLR to USACE	0.0d	18-Nov-15 03:0(	18-Nov-15 03:0(	0.4d
A4735	Comment Resolution of Preliminary Draft LLR	5.0d	18-Nov-15 03:0(	30-Nov-15 05:0(	0.4d
A4740	USACE Review & Issuance of Comments of Prelin	30.0d	01-Dec-15 08:0(	25-Jan-16 12:00	0.4d
A4750	Submit Draft LLR to USACE	0.0d	25-Jan-16 01:00	25-Jan-16 01:00	0.4d
A4760	USACE Review of Draft LLR	15.0d	25-Jan-16 01:00	22-Feb-16 10:00	0.4d
A4780	Comment Resolution of Draft LLR	5.0d	22-Feb-16 10:0(	01-Mar-16 12:00	0.4d
A4790	Submit Final LLR to USACE	0.0d	01-Mar-16 01:0(	01-Mar-16 01:00	0.4d



APPENDIX A – RESUMES

[redacted] — PROGRAM MANAGER

Experience Summary:

[redacted] has nearly 25 years' project management and business operations leadership experience in environmental management, nuclear engineering, utilities and energy, public sector, and public affairs industry sectors. She has been responsible for budgets up to $1.2 billion and organizations of up to 800 employees. [redacted] is currently LATA' Vice President and General Manager of LATA subsidiary LSRS. She is providing oversight and key leadership and mentoring to LSRS and LATA personnel serving our clients to enhance contract performance, integration and overall business management practices. She has oversight of LATA's DOE portfolio, which currently represents over $400M in contract value. She is supporting LATA using her expertise in cost and change control, cash flow projections, funding scenario impact analysis, general government accounting and finance, human resources, and government contracting activities.

Education/Training:

- BBA Management, Kennesaw State University, 1990
- Strong working knowledge of CAS, FAR, GAAP, DOE Order 413.3B
- Expertise in all contract mechanisms including prime contract management and change control
- Project controls and earned value management

Specific Qualifications and Experience Relevant to this Project:

[redacted] was advanced to lead LSRS, a wholly owned subsidiary of LATA with full P&L and business development responsibility. This includes responsibility for all financial and operational management including long-range planning, cost control, strategic business development, and the implementation of project-specific teaming plans. She oversees a portfolio of projects including USACE in multiple districts, Department of Energy and commercial projects across the country.

Prior to her current role, [redacted] was also responsible for providing strategic business solutions for contracts including serving in concurrent roles as Business Manager for both the Portsmouth Environmental Remediation and the Uranium Disposition Services contracts. As Business Manager, Ms. [redacted] directed business management and operations including financial, accounting, project controls, change control, contracts, procurement, human resources, public affairs, public relations, records management, information technology, training, and legal. [redacted] was responsible for overseeing milestone development for $118M in ARRA funding, ensuring compliance with operational and capital programs and orders. She managed the development of Spend Plan scenarios, strategic staffing, proposals, REAs and overall prime contract management.

Her responsibilities included (1) providing leadership to the business operations staff, including the project controls group consisting of one manager and five project control engineers to ensure schedule and cost compliance, (2) analyzing cost control account performance and providing recommendations to project managers, (3) managing the monthly project and variance reporting process, (4) and performing cost estimating and new work scope budget preparation.

Following contract award at Portsmouth, she served on the contract transition team where she developed and led implementation of a customized plan which transitioned 256 employees to LATA in less than 60 days. Following contract start, she established compliant processes and procedures for project controls, and led the development of an integrated site-wide baseline and project baseline. In addition, under Ms. [redacted] leadership, the project achieved EVMS certification.

[redacted] — PROJECT MANAGER

Experience Summary:

[redacted] has more than 30 years of experience in construction with expertise in demolition, decontamination, welded piping installation, excavation, grading, mixed waste tank closure, utility construction, sheeting and shoring, jacking and boring, tunneling, drill rig operation and well installation and blasting. He has over 23 years of hazardous, toxic and radioactive waste site removal action experience including time critical removal actions requiring soil remediation, underground and above ground storage tank removal, demolition of radiological contaminated buildings and groundwater treatment system construction.

Education/Training:

- USACE Construction Quality Management for Contractors
- 40 Hour HAZWOPER w/refreshers
- 8 Hour OSHA 1910-120 Supervisor Training
- 30 Hour OSHA Construction Health and Safety
- CPR and First Aid Certified
- Confined Space Entry Certified
- Factory Certified HDPE Fusion Welding Equipment
- Excavation Competent Person
- Hoisting & Rigging Qualified Person

Specific Qualifications and Experience Relevant to this Project:

[redacted] has over three decades of experience as a Site Superintendent on large scale construction remediation projects conducted on USACE, DOE, and commercial CERCLA sites. He has over 23 years of experience including soil remediation, soil excavation, underground and above ground storage tank removal, demolition of radiologically contaminated buildings, treatment system construction, grading, utility construction, sheeting and shoring, jacking and boring, tunneling, drill rig operation, well installation and blasting. [redacted] has selected, calibrated and used field screening instrumentation to evaluate jobsite hazards, efficiently execute work, and segregate wastes for cost-effective disposal. He has developed and executed AAP/SSHPs in accordance with USACE and OSHA regulations, policies and procedures. He has extensive experience working with and supervising craft labor work forces and is respected by team members in all levels of the organization.

[redacted] was the Senior Site Superintendent/Project Manager for the removal of a former Wastewater Treatment Plant at the Lake Ontario Ordnance Works (LOOW) site for the USACE, Buffalo District. Activities included preparation of work plans for USACE approval; mobilization, demobilization, site setup, clearing/grubbing; demolition; excavation, backfill; continuous industrial hygiene and health physics support; and transportation and disposal/recycling of debris. [redacted] supervised the demolition of deteriorated structures, foundations, steel railings, and wooden tanks; backfilled excavations; and disposed of demolition debris and water. He also oversaw the sampling and analysis for a full suite of radiological and chemical parameters for characterization and disposal. Mr. [redacted] oversaw air monitoring, radiological monitoring, and gamma radiation walkover surveys to verify the presence/absence of radioactive contaminants throughout project activities.

[redacted] also served as the Lead Site Superintendent/ Project Manager for the $27M final closure of the RMI Uranium Extrusion Plant site at Ashtabula, Ohio. Major scope items included completing demolition and contaminated soils removal at this 32-acre site. He supervised the field effort for the precise excavation of more than 500 CY of radiologically-contaminated soils from a grid-sectioned area encompassing a drainage swale on a steep hill side. He supervised the resizing of the material for shipment and acceptance at the Envirocare facility in UT. This project was regulated by CERCLA closure procedures and required detailed safety planning to address work at elevated heights.

[redacted]

CONTRACTOR QUALITY CONTROL SYSTEM MANAGER

Experience Summary:

Mr. Barnes is an experienced Quality Assurance and work control professional with 20 years of field and office experience in the execution of nuclear, environmental, and industrial projects at government regulated facilities. Experience includes implementation of quality systems, direct field oversight of projects, procedure/plan development, inspection, training, assessment performance, verification of project readiness, reporting, and interfacing with project management. As a Quality Assurance professional, Mr. Barnes has successfully implemented Quality Assurance Programs for various regulators including USACE, DOE, Nuclear Regulatory Commission, and USEPA.

Education/Training:

- B.S., Environmental Management
- USACE Construction Quality Management for Contractors
- Certified Quality Auditor, American Society for Quality
- ASME NQA-1, Lead Auditor
- RCRA Hazardous Waste Regulations
- 40 hour HAZWOPER with current refreshers
- US Naval Nuclear Propulsion Program, 1991
- DOE Certified Radiological Worker II

Mr. Barnes currently heads the LATA corporate Quality Assurance group. He is responsible for implementing and maintaining the corporate quality management system which is based on national standards. He recently completed development of the Construction Quality Management Plan (CQMP) for the Naval Facilities Engineering Command Southwest (NAVFAC SW) environmental remediation project. He also has written and is involved in the development of environmental and engineering standard operating procedures for LATA. Mr. Barnes provides Independent Assessment support to LATA projects and provides written reports to management.

Specific Qualifications and Experience Relevant to this Project:

Mr. Barnes is the QA/QC Manager for the environmental remediation activities at 77 sites on 6 Air Force Bases. He is responsible for ensuring the overall project quality, specifically the outgoing project plans and reports, and ensuring each project deliverable meets the quality standards established in the LATA corporate quality program and in the contract. The QA/QC Manager coordinates with the technical members of the project team to evaluate status, procedures, and nonconformances from a quality program standpoint. The QA/QC Manager gathers and coordinates corporate resources and references in the areas of quality improvement, corrective action control, and quality systems auditing for the project. Mr. Barnes serves as primary contact for project quality matters and actively identifies and responds to QA/QC needs, resolves problems, and answers requests for guidance or assistance.

Mr. Barnes managed and implemented work quality control programs for the Portsmouth Remediation Project including environmental remediation, D&D, and environmental systems operations contract for LATA for four years. He reviewed work plans, developed quality control documents, inspected sites, oversaw work activities for quality control of a broad range of site activities. The remedial actions included: hazardous and radiological waste characterization and management; groundwater treatment; building D&D; transportation of waste; remedial investigations and studies; monitoring well installation and sampling; facility surveillance and monitoring; environmental data collection, management and interpretation; ground-water modeling; air monitoring; NPDES monitoring; engineering and design; well abandonment; facility operation and maintenance; short and long-term monitoring and remedial action plans/actions. He provided QC inspections and oversight of LATA and subcontractor personnel in their compliance with QC plans and work procedures.

JERRY EMERY, CSP — HEALTH & SAFETY MANAGER

Experience Summary:

Mr. Emery has 24 years of experience working in progressively challenging safety positions in the HTRW remediation and construction fields. This expertise is enhanced by 14 years of experience working and managing crews in the HTRW remediation industry. He also has a strong background in chemistry and industrial hygiene, including selection and use of air monitoring instruments, air sampling methods, PPE and development and implementation of respiratory protection programs. He has significant experience providing ES&H oversight and direction on federal government environmental remediation projects. He is currently providing safety and health support to LATA's $400M fence-to-fence environmental remediation project at the Paducah Gaseous Diffusion Site. The Paducah Scope includes soil and groundwater remediation as well as contaminated facility D&D with radiological, chemical and beryllium as contaminants of concern.

Education/Training:

- B.S., Wright State University, Environmental Science, 2001
- Certified Safety Professional
- Hazardous Waste Site Safety Officer
- 40-Hour HAZWOPER w/current refreshers
- OSHA 10 and 30-hour Construction
- USEPA AHERA Asbestos Certification for Bldg Inspector Mgmt Planner
- USEPA AHERA Asbestos Certification for Supervisor/Contractor
- Radiological Worker II
- Confined Space Entry Supervisor
- Hoisting and Rigging
- Excavation Competent Person
- Gas Cylinder Specialist
- First Aid/CPR
- OSHA Beryllium and Cadmium Hazards Training
- Capabilities and Limitations of the Technologies Commonly Used in Portable Gas Detectors

Specific Qualifications and Experience Relevant to this Project:

Mr. Emery was the Site Safety and Health Officer for the K-33 Project which encompassed D&D of a former gaseous diffusion uranium enrichment facility. The project was guided by CERCLA for building demolition and RCRA for slab and soil removal. With a 32-acre footprint encompassing 2.8M ft2 of floor space, precision building deconstruction in carefully planned sequences was enabled by detailed safety planning and structural analyses. Mr. Emery developed the safety and health Plans and SOPs for the project scope which included characterizing radioactive and hazardous waste materials; transporting, treating, and disposing of radioactive and hazardous materials; radiological field operations; and identifying and mitigating safety risks to the safe execution of D&D. He established a productive, safety-driven work culture that facilitated successfully completing the project with zero lost time accidents, no violations of waste facility acceptance criteria and no off-site environmental releases or non-compliances.

At the Portsmouth Remediation Project, Mr. Emery monitored contractor integrated safety, QC, radiation protection, and nuclear safety programs and performed project surveillances, walk-downs, and worker health and safety analyses. As Health and Safety Manager, Mr. Emery played a key role in the planning and implementation of X-701B TCE remediation project - beryllium, a groundwater treatment project requiring soils excavation to depths of 30 feet.

Mr. Emery was the Site Health and Safety Officer for the Ashtabula Closure Project which included remediation of radiologically-contaminated soils and groundwater requiring precise, large-scale construction/excavation, groundwater and surface water management, and waste management and shipping. It also involved extensive interface with Federal, State and local regulatory agencies.

DAVE RICHARDS — SITE SUPERINTENDENT

Experience Summary:

Mr. Richards has 38 years of total site experience with emphasis in heavy civil and concrete construction, installation of leachate collection systems, installation of sheet pile and shoring systems, building demolition, radiological D&D, waste packaging, soils excavation, construction surveying, solid waste landfill construction, UST removal / remediation, and heavy equipment operation. He has been responsible for supervision and quality control for diverse projects involving specialized excavations for the remediation of petroleum-contaminated soils and other types of hazardous, non-hazardous, and radioactive materials and has served as emergency response team member. He has overseen the packing and preparation of hazardous and radioactive materials for transportation and disposal, the solidification and excavation of more than 7K tons of sludge disposed of at an EPA-approved landfill, and an emergency removal project to excavate and dispose of soils that had been contaminated with gasoline and were close to university campus buildings requiring 24/7 operations. Mr. Richard's experience includes demanding projects with unique quality, health, and safety considerations including the dismantlement and decommissioning of 10 facilities contaminated with Uranium-235 andTechnicium-99 at the Ashtabula Closure Project. He is experienced in the use of field screening instrumentation for radioactive and hazardous materials, in field sampling techniques, and in on-site laboratory operation.

Education/Training:

- USACE Construction Quality Management for Contractors
- Certified UST Installer/Remover
- FEMA ICS 100 Level
- 40-Hour HAZWOPER w/ current refreshers
- OSHA 1910.120 Supervisor Trained
- US DOE Radworker II
- LATA Corporate QC Training
- CPR and First Aid Certified
- Confined Space Entry and Supervisor Certified

Specific Qualifications and Experience Relevant to this Project:

Mr. Richards was Site Superintendent for the USACE Former LOOW WWTP. The scope primarily included the demolition of deteriorated structures, foundations, steel railings, and wooden tanks; backfilling excavations; and disposing of demolition debris, collected water, and miscellaneous hazardous, radioactive, and asbestos contaminated materials. Additionally, sampling and analysis for a full suite of radiological and chemical parameters was performed to characterize the water and sludge within WWTP structures that were to remain intact.

T&D of radioactive Slag at the Niacet Facility Project included development of work plans, regulatory interface, excavation of subsurface radioactive materials, radiation safety support, T&D of impacted materials and debris. Mr. Richards supervised field personnel to ensure performance criteria were met and to provide guidance to project personnel responsible for implementation of the approved HASP. This includes the management of field personnel to ensure they were performing their required duties efficiently and safely. He was responsible for investigating health and safety occurrences, working with the Project Manager to identify corrective actions, and making recommendations on policy changes needed to prevent or minimize future occurrences.

Mr. Richards managed the field activities of the lead environmental contractor, the radiation controls subcontractor and three separate construction contractors at Greenpac Mill Remediation Project. The project included working in strict accordance with the quality assurance plan as well as analysis and maintenance of the project schedule. He oversaw remediation of various source areas over the 10+ acres of radioactive slag/rock sub-base with concentrations of Ra-226 up to approximately 120 pCi/g, total U up to approximately 80 pCi/g, and Th isotopes up to approximately 50 pCi/g.

RICK HAAKER, CIH, CHP — CERTIFIED HEALTH PHYSICIST

Experience Summary:

Mr. Haaker has more than 30 years of diversified experience in Industrial Hygiene and Health Physics for USACE, DOE and USEPA. Primary practice areas include environmental risk and decision analysis; accident analysis/consequence assessments; radiation protection operations; environmental monitoring and reporting; waste management; and environmental restoration technologies. Mr. Haaker has extensive experience Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) consulting, oil and gas NORM, radiation surveys, geographic information systems, and GPS-based radiation surveys. Mr. Haaker is an active member of both American Board of Health Physics and the American Industrial Hygiene Association serving in a number of capacities for the past 25 years.

Education/Training:

- M.S., Chemistry, Texas A&M 1978
- B.S., Biochemistry, Texas A&M 1975
- Certified Health Physicist
- Certified Industrial Hygienist
- 40-hour HAZWOPER w/ current refreshers
- 8-Hour Supervisor
- Supervisor/Contractor Asbestos

Specific Qualifications and Experience Relevant to this Project:

Mr. Haaker was the Health Physicist for a pathway-by-pathway comparison of the models underlying RESRAD, RESRAD-Build, and D&D computer codes for the NRC. The comparison was published as NUREG/CR-5512, Volume 4. He reviewed eight site decommissioning management plans and assessments and provided recommendations to NRC about whether radioactive materials license termination criteria are satisfied. He provided a comprehensive technical review of two license termination proposals submitted to NRC for properties where metallurgical slag (source material) had been disposed. He developed a screening model for estimating radon dose for a building occupant in support of the Greater Confinement Disposal Performance Assessment.

Mr. Haaker also provided the Health Physicist/Industrial Hygienist assignment for a background study which demonstrated that elevated uranium concentrations in sediments below a waste outfall are naturally occurring. He provided industrial hygiene and safety support for the expedited removal of sludge from radioactive liquid waste from a series of storage tanks at the Los Alamos Neutron Scattering Center. This included writing a Site Specific Health and Safety Plan, a confined space entry procedure, as well as field support.

Mr. Haaker provided program support to the SNL Waste Characterization Team Leader. He worked on obtaining a memorandum of understanding between the NM Environment Department and Waste Management, Inc. that would allow land disposal of non-oil field NORM wastes for their Subtitle D landfills in New Mexico. Mr. Haaker authored a procedure for writing sampling and analysis plans based on SW-846 and MARSSIM guidance. He drafted a position paper on RCRA status of equipment containing circuit boards and performed an analysis of disposal options for tritiated wastewater.

JAMES MOORE — PROJECT CHEMIST

Experience Summary:

Mr. Moore is a Project Chemist and QA/QC Manager with over 18 years' experience in analytical chemistry and the analysis of environmental samples including organics, inorganics, metals, and radiochemical in a variety of media. Mr. Moore performs the data QA/QC review and validation of all chemical data for LATA. He works closely with the corporate QA/QC Manager implementing the corporate QA program at the Westerville, OH office. He performs environmental analyses, data review and validation for LATA projects including industrial and military site investigations, assessments and closures. He recommends appropriate analytical methods, appropriate levels of QC sampling, conducts laboratory audits, and reviews data for regulatory compliance including validations using the USEPA National Functional Guidelines as well as the use of Automated Data Review (ADR) software reviews on USACE projects. Mr. Moore's QA/QC experience also includes authoring standard operating procedures (SOPs) as well as QAPPS, QCPs, quality control summary reports for USACE environmental data, and analytical reporting for environmental permitting and environmental impact assessments. His project experience in RCRA and CERCLA includes site RI/FS, RA, long term monitoring, and RCRA permit evaluation. Mr. Moore also has direct experience with chemical warfare including the chemical analysis of chemical warfare and chemical warfare constituents, including nerve and vesicant agents.

Education/Training:

- B.S., Biology, West Virginia State, 1996
- Agilent 5890 and 6890 FPD/FID GC using Thermo Atlas software
- Agilent Micro GC using EZChrom software
- Varian Micro GC using Cerity software
- DoD Certification in Chemical Personnel Reliability Program
- UFP QAPP

Specific Qualifications and Experience Relevant to this Project:

Mr. Moore serves as the lead analytical data validator for the Paducah Gaseous Diffusion Site, a radiological contaminated site located in Paducah, Ky. In this role, Mr. Moore provides an independent review and validation of routine, non-routine, and radiochemical samples for multiple matrices, including but not limited to data generated for soil, water, waste, air and tissue samples for Paducah. Mr. Moore has also helped to revise Paducah's environmental data validation SOPs for the review and validation of inorganics, organics, and radiochemistry samples.

Mr. Moore is also responsible for compiling and comparing the analytical data for all field related activities during the life of LATA's projects. He also supervises compiling the final results into report form and performs QA/QC on the final product before it is sent to the client.

Before joining LATA, Mr. Moore worked on a variety of projects as an analytical chemist with Battelle. His position was directly regulated by the DoD, and involved Homeland Security directed research and development. Mr. Moore was also responsible for achieving and maintaining a DoD Secret level security clearance, and maintaining status in the Chemical Personnel Reliability Program with the DoD.

While employed with CT&E Environmental Services, Mr. Moore was directly responsible for maintaining a high sample throughput as well as performing the QA/QC peer review of junior level staff, and authoring and implementing SOPs. For example, as lead analyst for mercury analysis Mr. Moore was directly responsible for the digestion and analysis of approximately 175,000 samples annually and successfully met a 24 hour turnaround time on 120,000 samples. Mr. Moore has been recognized on multiple occasions with outstanding performance awards for his ability to maintain a high sample throughput with a decreased turnaround time leading to on time delivery of client data.

APPENDIX B—ATTACHMENTS

ATTACHMENT 1- THREE-PHASE INSPECTION FORMS

INSPECTION NOTIFICATION FORM

Date: _____
Preparatory: _____ Initial: _____
Follow-Up: _____ Completion: _____

Planned Definable Feature of Work to be Inspected: _____

_____

_____

Date of Planned Inspection: _____

_____ _____
Originator Date

_____ _____
LSRS Project Manager Signature Date

_____ _____
USACE QA Acknowledgment Date

LSRS A LATA COMPANY

Three-Phase Inspection Forms
Quality Control Plan
Seaway FUSRAP Site

PREPARATORY INSPECTION CHECKLIST FORM

REPORT NO.		DATE/SHIFT	
ITEM/ACTIVITY INSPECTED			
DRAWING REFERENCE	REV.	SPECIFICATION REFERENCE	REV.
PERMITS/LICENSES OBTAINED		YES/NO	REFERENCE NO.
WORK PLAN WRITTEN		YES/NO	REFERENCE NO.
QC INSPECTION PLAN WRITTEN		YES/NO	REFERENCE NO.
REQUIRED SUBMITTALS APPROVED		YES/NO	REFERENCE NO.
REQUESTS FOR INFORMATION ANSWERED		YES/NO	REFERENCE NO.
FCRs/DCNs APPROVED/ISSUED		YES/NO	REFERENCE NO.
NONCONFORMANCES DISPOSITIONED/CLOSED		YES/NO	REFERENCE NO.
MATERIAL/EQUIPMENT AVAILABLE		QUANTITY	CONDITION

PREPARATORY INSPECTION CHECKLIST FORM

REPORT NO.	DATE/SHIFT
ITEM/ACTIVITY INSPECTED	
PREPARATORY SITE CONDITIONS	
CONTRACT VARIANCE	
ACTIVITIES/ITEMS REQUIRING COMPLETION	
COMMENTS	
MEETING ADDRESS	

NAME _____ SIGNATURE _____ TITLE _____

LSRS A LATA COMPANY

Three-Phase Inspection Forms
Quality Control Plan
Seaway FUSRAP Site

INITIAL INSPECTION CHECKLIST FORM

REPORT NO.				DATE/SHIFT	
ITEM/ACTIVITY INSPECTED					
DRAWING REFERENCE	REV.	DRAWING REFERENCE		REV.	
SITE CONDITIONS					
INSPECTION ATTRIBUTE	SPECIFICATION REFERENCE	ACCEPTANCE CRITERIA	INSPECTION RESULT	ACCEPT/ REJECT	
REQUESTS FOR INFORMATION ISSUED/SUBJECT			REFERENCE NO.		
FCRs ISSUED/SUBJECT			REFERENCE NO.		
NONCONFORMANCES ISSUED/SUBJECT			REFERENCE NO.		
REINSPECTION REQUIRED	YES	NO			

INITIAL INSPECTION CHECKLIST FORM

DATE/SHIFT	REPORT NO.
ITEM/ACTIVITY INSPECTED	
COMMENTS	
CONTRACT VARIANCE	
ATTENDEES	

NAME _____ SIGNATURE _____ TITLE _____

FOLLOW-UP INSPECTION CHECKLIST FORM

DATE/SHIFT			REPORT NO.		
PROJECT NAME/NUMBER					
ITEM/ACTIVITY INSPECTED					
DRAWING REFERENCE	REV.	DRAWING REFERENCE			REV.
INSPECTION ATTRIBUTE		SPECIFICATION REFERENCE	ACCEPTANCE CRITERIA	INSPECTION RESULT	ACCEPT/ REJECT
REQUESTS FOR INFORMATION ISSUED/SUBJECT				REFERENCE NO.	
FCRs ISSUED/SUBJECT				REFERENCE NO.	
NONCONFORMANCES ISSUED/SUBJECT				REFERENCE NO.	
REINSPECTION REQUIRED		YES	NO		
COMMENTS					

NAME SIGNATURE TITLE

LSRS A LATA COMPANY

Three-Phase Inspection Forms
Quality Control Plan
Seaway FUSRAP Site

NONCONFORMANCE REPORT (NCR)

REPORT NO (1) _____

CLIENT OR PROJECT (2)		DRAWING NO/SPEC NO. (3)
SUPPLIER, CONSTRUCTION QC OR CONTRACTOR (4)	P. O. NO. (5)	
DESCRIPTION OF COMPONENT, PART OR SYSTEM (6)		

I. DESCRIPTION OF NONCONFORMANCE (7) *(Items involved, Specifications, Code or Standard to Which Items Do Not Comply, Submit Sketch (If Applicable)*

NAME AND SIGNATURE OF PERSON REPORTING NONCONFORMANCE (8)	TITLE/COMPANY	DATE (9)

II. RECOMMENDED DISPOSITION (10) *(Submit Sketch If Applicable)*

NAME AND SIGNATURE OF PERSON RECOMMENDING DISPOSITION (11)	TITLE/COMPANY	DATE (12)

III. EVALUATION OF DISPOSITION. REASON OF DISPOSITION (13)

IV. CORRECTIVE ACTION (14) ☐ Required ☐ Not Required

V.(15) ☐ ENGINEERING	☐ QUALITY CONTROL	☐ CONSTRUCTION	☐ OTHER
NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)
DATE	DATE	DATE	DATE
☐ ACCEPTED ☐ REJECTED ☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED ☐ REJECTED ☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED ☐ REJECTED ☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED ☐ REJECTED ☐ ACCEPTED WITH COMMENTS

VI. VERIFICATION OF DISPOSITION ☐ REQUIRED ☐ NOT REQUIRED (16)
(17) BY _____ SIGNATURE _____ TITLE _____ DATE _____

LSRS A LATA COMPANY

Three-Phase Inspection Forms
Quality Control Plan
Seaway FUSRAP Site

STOP WORK ORDER

REPORT NO (1) _____

CLIENT OR PROJECT (2)		DRAWING NO/SPEC NO. (3)
SUPPLIER, CONSTRUCTION QC OR CONTRACTOR (4)	P. O. NO. (5)	
DESCRIPTION OF COMPONENT, PART OR SYSTEM (6)		

I. DESCRIPTION OF STOP WORK NOTICE (7) *(Items involved, Specifications, Code or Standard to Which Items Do Not Comply, Submit Sketch (If Applicable)*

NAME AND SIGNATURE OF PERSON REPORTING STOP WORK NOTICE (8)	TITLE/COMPANY	DATE (9)

II. (10) ☐ ENGINEERING	☐ QUALITY CONTROL	☐ CONSTRUCTION	☐ OTHER
NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)
DATE	DATE	DATE	DATE
☐ ACCEPTED ☐ REJECTED	☐ ACCEPTED ☐ REJECTED	☐ ACCEPTED ☐ REJECTED	☐ ACCEPTED ☐ REJECTED
☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED WITH COMMENTS	☐ ACCEPTED WITH COMMENTS

III. VERIFICATION OF DISPOSITION ☐ REQUIRED ☐ NOT REQUIRED (11)
(12) BY _____ SIGNATURE _____ TITLE _____ DATE _____

ATTACHMENT 2 - WORK NOTIFICATION CHECKLISTS

PACKING, STORING, AND SHIPMENT OF SAMPLES CHECKLIST

Project Name/Number:

Site:

Boring/Monitoring Well Number(s):

Surface Soil/Sediment/Surface Water Sample Number(s):

Sampling Date:

Complete daily. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

	Yes	No	N/O	N/A
1. Were the samples handled according to the SAP?				
2. Was the pH of samples requiring pH adjustment verified in the field?				
3. Did the samples remain on ice from collection until cooler was taped for shipment?				
4. Were COC forms filled out accurately and completely including project name and number, sampling date, sampling time, analytical parameters, preservatives, size and number of containers for each analytical parameter, and media sampled?				
5. Were COC forms signed and dated by the preparer and the form tapped to the inside of the cooler lid?				
6. Were signed and dated custody seals properly placed on the cooler and the cooler sealed with tape?				
7. Was a shipping label attached to the cooler?				

Site Supervisor Signature:_____

Date:_____

HEALTH AND SAFETY CHECKLIST

Date:

Project Name/Number:

Site:

Personnel Observed and Locations:

Complete weekly for each site. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

	Yes	No	N/O	N/A
Documentation				
1. Is the Site Health and Safety Plan (SSHP) on the Site?				
2. Has the SSHP been reviewed, dated, and signed within the last year?				
3. Are the tasks being completed reflected in the hazard task analysis?				
4. Is there a written acknowledgement that all employees, including subcontractors have been briefed and read the SSHP?				
5. Are the following training records current and available:				
* 40-Hour HAZWOPER/8-hour refresher for ALL employees and subcontractors?				
* 24 Hours Supervised Field Experience?				
* 8-Hour HAZWOPER Annual Refresher?				
* CPR/First Aid?				
* 8-Hour Hazardous Waste Site Supervisor, and refresher?				
* Initial Site Health and Safety Briefing?				
* Site Health and Safety Briefing for each location or site?				
6. Are emergency maps posted at the site and maintained in vehicles?				
7. Were daily safety checklists completed and fire extinguishers checked?				
8. Was a daily safety meeting held on each day of onsite activity?				
9. Were applicable Material Safety Data Sheets at the Site?				
10. Are documents current and available that indicate employees and subcontractors are medically fit to work and wear the required personal protective equipment?				
11. Were daily air monitoring equipment calibrations recorded?				
12. Are respirator fit test records available and current?				

HEALTH AND SAFETY CHECKLIST

Date:

Project Name/Number:

Site:

Personnel Observed and Locations:

Complete weekly for each site. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

Observations	Yes	No	N/O	N/A
13. Are exclusion zones and contaminant reduction zone adequately marked?				
14. Is required personal protective equipment available and correctly used, maintained, and stored?				
15. Is the following emergency equipment located at each site:				
* Fire extinguisher?				
* Eyewash (15 minutes fresh water)?				
* Communications (walkie-talkie or phone)?				
* First aid kit?				
16. Is the buddy system in use?				
17. Are personnel refraining from drinking, chewing, smoking, taking medications, or other hand-to-mouth contact while working in the exclusion zone?				
18. Is air monitoring equipment being used appropriately?				
19. Is the site organized to allow the use of lifting equipment, and avoid tripping hazards and spreading contamination?				
20. Was a random employee asked if he/she know site hazard and emergency procedures?				
21. Is the drill rig kill switch clearly marked and easily accessible?				

Site Supervisor Signature:_____

Date:_____

SURVEYING CHECKLIST

Project Name/Number:

Site:

Date:

Complete one time for project. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

	Yes	No	N/O	N/A
1. Was the Scope of Work reviewed with the surveyor?				
2. Was the schedule for the work provided to the surveyor?				
3. Was the survey completed by a licensed land surveyor?				
4. Were locations surveyed for horizontal and vertical control?				
5. Were coordinates measured to the closest 0.1 feet and elevations measured to the closest 0.01 feet?				
6. Was the survey marker and TOC surveyed for each monitoring well?				
7. Were surveyor's closure calculations reviewed?				
8. Was surveyor interviewed by QC Inspector before leaving the Site?				

Site Supervisor Signature:_____

Date:_____

MOBILIZATION/DEMOBILIZATION CHECKLIST

Project Name/Number:

Site:

Date:

Complete as indicated. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

	Yes	No	N/O	N/A
Site Access and Security				
1. Has a copy of the Right of Entry Permit(s) been received?				
2. Are the time frames on the Right of Entry Permits adequate for the entire job including IDW disposal?				
Insurance				
3. Have subcontractors provided proof of insurance?				
Safety Planning and Equipment				
4. Has the SSHP been submitted to subcontractors for review?				
5. Have all personnel read and signed the SSHP?				
6. Was the local hospital contacted to verify the phone number and address?				
7. Were all training certificates, including subcontractors, in a file to take to the field?				
8. Are all training certificates current?				
9. Are all MSDS's in a file to take to the field?				
10. Are all required instruments reserved and complete with calibration standards and manuals?				
11. Do the instruments meet manufacturer maintenance and calibration standards?				
12. Does the PID have the correct lamp?				
13. Does the LEL meter have the correct sensors?				
Logistical Planning				
14. Have the Work plan documents been approved by USACE?				
15. Has the SSHP been approved by Health and Safety Services?				
16. Has notice to proceed from the USACE been received?				
17. Are the project personnel available and scheduled?				
18. Are subcontractors available?				
19. Do subcontractors SOWs correspond to the approved Work Plan?				
20. Has the laboratory agreed to the planned sample volume load?				
21. Has the bottle order been placed?				
22. Have correct sample containers been received?				
23. Has USACE been notified of schedule?				

MOBILIZATION/DEMOBILIZATION CHECKLIST

Project Name/Number:

Site:

Date:

Complete as indicated. Answer each question by checking the appropriate column (yes, no, not observed (N/O) or not applicable (N/A)). If a No is checked, provide an explanation on the Noncompliance and Corrective Actions form.

	Yes	No	N/O	N/A
Utility Clearances				
24. Has the State or Local utility clearance agency been contacted and a meeting scheduled?				
25. Has a representative from each notified utility called to confirm the utility meeting?				
26. Was a utility work authorization number recorded?				
27. Was the property owner asked about the existence of any underground utilities or tanks?				
Environmental Site Protection				
28. Is work area limited to prevent property damage?				
29. If field activities damage property, will measures be taken to restore the Site (explain below)?				
Demobilization				
30. Was the site returned, as much as possible, to its original condition?				
31. Was each work area policed for trash?				
32. Did the site point of contact inspect the site?				

The QC Inspector shall sign this checklist upon completion of all items on the checklist.

QC Inspector Signature:_____

Date:_____

ATTACHMENT 3 - INDEPENDENT TECHNICAL REVIEW FORM

CERTIFICATE OF INDEPENDENT TECHNICAL REVIEW COMPLETION

LATA-Sharp Remediation Services, LLC (LSRS) has completed the *(Insert name of plan here)* for the Remediation of the Seaway FUSRAP Site, Town of Tonawanda, New York. Notice is hereby given that an independent technical review has been conducted by staff of LSRS that is appropriate to the level of risk and complexity inherent in the project, as defined in the Contractor Quality Control Plan (CQCP).

During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy. The document/plans were accomplished by (*insert preparer's name*) and the independent technical review was accomplished by (*insert reviewers name*) as indicated by signatures below. All reviews are documented via red line track changes in associated text files. Red line edited documents are available upon request.

_____

Plan/Report Preparer / Date

_____

Project Manager / Date

_____

Construction Quality Control Systems Manager / Date

_____

Independent Technical Reviewer / Date

ATTACHMENT 4 – DAILY QUALITY CONTROL REPORT FORM

Daily Quality Control Report

Date:			Report No.			
Project:	Day:	Su Mo Tu We Th Fr Sa				
Project no.:	Weather:	Clear Cloudy Overcast Rain Snow				
Project Manager:	Temp. (°F)	To 32°	32° - 50°	50° - 70°	70° - 85°	85° up
Wind:	Still	Moderate	High			
Humidity:	Dry	Moderate	High			

Personnel onsite:

Sampling equipment on site:

Work performed:

Quality control activities (including field calibrations):

Continued

Daily Quality Control Report

Health and safety levels and activities:
Problems encountered/corrective actions taken:
Special notes:
Tomorrow's expectations:

The On-site Supervisor shall sign this daily report upon completion of all items.

On-Site Supervisor's Signature:_____

Date:_____

APPENDIX C - SEAWAY SUBMITTAL REQUIREMENTS

Table 1-Submittal Summary

Item No./ Submittal Titles		Classification	ITR Required	Submittal Codes	
				Schedule	(No.) and Type
1	Weekly Conference Call Agenda (Work Plan Stage)	FIO	No	Z	(1) E
2	Field Office Layout	GA	Yes	M	(1) E
3	Civil Surveys	GA	Yes	Z	(1) E (1) O (1) P
4	Weekly On-Site Conference Call	FIO	No	Z	(1) E
	Meeting Agenda/Meeting Minutes				
5	Shipping Records	GA	Yes	PS	(1) E (1) O
6	Emergency Response and Notification Plan	GA	Yes	W	
	Preliminary draft				(1) E
	Draft				(1) E
	Final				(1) E (1) O
7	Written confirmation from disposal facility's state	GA	No	W	(1) E
8	Certificates of disposal and weight tickets	GA	Yes	Y	(1) E
9	Schedule	GA	No	M, Z	(1) E
	Project Schedule Status Report	GA	No	M, Z	(1) E
	Earning's Report by CLIN	GA	No	M, Z	(1) E
10	Photographs of pre-existing conditions	FIO	No	W	(2) E,PH
11	Site Operations Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
12	Accident Prevention Plan/Site Safety and Health Plan	A	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
13	Sampling and Analysis Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P

Table 1-Submittal Summary

Item No./ Submittal Titles		Classification	ITR Required	Submittal Codes	
				Schedule	(No.) and Type
14	Water Management Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
15	Waste Management, Transportation and Disposal Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
16	Fill, Compaction and Restoration Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
17	Contractor Quality Control Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
18	Regulatory Compliance Plan	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
19	Close-Out Documentation: Project Construction Report Lessons Learned Report	GA	Yes	M	
	Preliminary Draft				(2) E
	Draft				(2) E
	Final				(2) E (3) P
20	Submittal Register	FIO	No	Z	(2) E (2) P
21	Shop drawings	GA	No	Z	(2) E (2) P
22	Product Data	GA	No	Z	(2) E (2) P
23	Samples	GA	No	Z	(2) E (2) P
24	Test Reports	GA	No	Z	(2) E (2) P

Table 1-Submittal Summary

Item No./ Submittal Titles		Classification	ITR Required	Submittal Codes	
				Schedule	(No.) and Type
25	Certificates	FIO	No	Z	(2) E (2) P
26	Manufacturer's Instructions	FIO	No	Z	(2) E (2) P
27	Analytical Data Packages	GA	Yes	Z	(2) E
28	USACE Monthly Man Hour Contractor Exposure Form	FIO	No	Z	(2) E
29	Daily Quality Control Report	FIO	No	Z	(2) E
30	Air Monitoring Results	GA	No	Z	(2) E
31	Meteorological Monitoring Results	GA	No	Z	(2) E

Notes:
ITR = Independent Technical Review
(2) = Number of submittals required

SUBMITTAL SCHEDULE	
PS	Prior to Shipment
B	Prior to Balance of Payment
A	Per S/C Schedule
M	Prior to Mobilization
W	Prior to Commencing Work
Y	Prior to Progress Payment For Each Specific Task
Z	As Required

SUBMITTAL TYPE REQUIRED	
O	Original
P	Print/Photocopy
T	Transparency
M	Microfilm
PH	Photograph
E	Electronic Format
S	Sample

CLASSIFICATION	
FIO	For Information Only
GA	Government Approval
A	Accepted