

**Final Contractor Quality Control Plan
Remediation of Operable Units 1& 2
Former Harshaw Chemical Company Site
Cleveland, Ohio, USA**

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TABLE OF CONTENTS

Table of Contents	ii
Acronyms and Abbreviations	iv
Signatures.....	vi
1.0 INTRODUCTION	1
1.1 <i>Quality Control Objectives</i>	1
2.0 QUALITY CONTROL ORGANIZATION	2
2.1 <i>Program Manager</i>	2
2.2 <i>Project Manager</i>	2
2.3 <i>Site Superintendent</i>	3
2.4 <i>Contractor Quality Control System Manager</i>	3
2.5 <i>Contractor Quality Control Staff</i>	5
2.6 <i>Site Safety and Health Manager</i>	5
2.7 <i>Site Safety and Health Officer</i>	5
2.8 <i>Supplemental Personnel</i>	6
2.8.1 <i>Radiation Safety Officer</i>	6
2.8.2 <i>Waste Manager</i>	6
2.8.3 <i>Project Chemist</i>	6
2.9 <i>Subcontractors</i>	7
2.10 <i>Organizational Changes</i>	8
3.0 SUBMITTAL MANAGEMENT.....	8
3.1 <i>Planning</i>	8
3.2 <i>Operation and Maintenance of the RMS CM System</i>	8
3.3 <i>Submittal Register</i>	9
3.3.1 <i>Submittal Management</i>	9
3.4 <i>Schedule</i>	9
3.5 <i>Request for Information</i>	9
3.6 <i>Submittal Procedures</i>	9
3.7 <i>Submittals by Vendors and Subcontractors</i>	10
3.8 <i>Submittal of Samples</i>	10
3.9 <i>Procedure on Substitution/Variation</i>	10
3.10 <i>Submittal for Operation and Maintenance Data</i>	10
4.0 QUALITY CONTROL REQUIREMENTS	11
4.1 <i>Three Phases of Control</i>	11

4.1.1 Definable Features of Work	11
4.1.2 Preparatory Phase	11
4.1.3 Initial Phase	12
4.1.4 Follow-up Phase	13
4.1.5 Additional Preparatory and Initial Phases	13
4.1.6 Coordination Meetings	13
4.1.7 Deficiency Tracking	13
4.1.8 Safety Inspections	14
4.1.9 Completion Inspection.....	14
5.0 TESTING	15
5.1 Testing Laboratories	15
5.2 List of Tests to be Performed	16
5.3 Construction Quality Control Testing Plan	16
6.0 DOCUMENTATION	16
7.0 SAMPLE FORMS	17
8.0 NOTIFICATION OF NONCONFORMANCE	17
9.0 MATERIALS.....	18
10.0 DATA MANAGEMENT.....	18
11.0 AS-BUILTS AND FINAL REPORTS	18

LIST OF APPENDICES

Appendix A - Resumes
Appendix B - CQCSM - Certificate of Completion
Appendix C - Letters of Appointment
Appendix D - Organizational Chart
Appendix E - Definable Features of Work List
Appendix F – Preliminary Submittal Register
Appendix G - Testing Log Format
Appendix H - Deficiency Log Format
Appendix I - Daily CQC Report Format
Appendix J - Material Inspection Form
Appendix K - Preparatory Phase Checklist
Appendix L - Initial Phase Control Form
Appendix M - Sign-In Sheet

ACRONYMS AND ABBREVIATIONS

USACE	United States Army Corps of Engineers
AHA	Activity Hazard Analysis
APP	Accident Prevention Plan
CHMM	Certified Hazardous Materials Manager
CHP	Certified Health Physicist
CIH	Certified Industrial Hygienist
CPP	Contamination Control Plan
COR	Contracting Officer's Representative
CQC	Contractor Quality Control
CQCP	Contractor Quality Control Plan
CQCSM	Contractor Quality Control System Manager
DFOW	Definable Feature of Work
DoD	Department of Defense
DoD SAFE	Department of Defense Secure Access File Exchange
DOR	Designer of Record
DOT	Department of Transportation
DQO	Data Quality Objectives
EFS	Enviro-Fix Solutions LLC
EM	Engineer Manual
FEDMS	Fiscal Electronic Devices Management System
FIO	For Information Only
FSS	Final Status Survey
H&S	Health and Safety
KO	Contracting Officer
NAS	Network Analysis Schedule
OSHA	Occupational Safety and Health Administration
PM	Project Manager
POC	Point of Contact
PPE	Personal Protective Equipment
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QMP	Quality Management Program
RFI	Request for Information
RFP	Request for Proposal
RMS	Resident Management System
RMS CM	Resident Management System Contractor Mode
RMS GM	Resident Management System Government Mode
RPP	Radiation Protection Plan
RSO	Radiation Safety Officer
SAP	Sampling and Analysis Plan

SATOC	Single Award Task Order Contract
SDS	Safety Data Sheets
SDSFIE	Spatial Data Standard for Facilities, Infrastructure, and Environment
SOW	Statement of Work
SS	Site Superintendent
SSHM	Site Safety and Health Manager
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
TO	Task Order
UFGS	Unified Facilities Guide Specifications
UFP	Uniform Federal Policy

SIGNATURES

This Final Contractor Quality Control Plan (CQCP) has been prepared by Enviro-Fix Solutions LLC (EFS) to describe the contractor quality management plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 & 2 Project in Cleveland, Cuyahoga County, Ohio in accordance with Unified Facilities Guide Specifications (UFGS) 01 45 00.00 QUALITY CONTROL.

EFS is committed to providing products and services to its clients that consistently meet or exceed their requirements. This is accomplished through a clearly communicated quality policy that establishes the expectations for the development and management of a quality program for the work we perform. We implement a program that describes, determines, and requires the implementation of QC necessary to ensure quality is appropriately built into our products and services. All staff and subcontractors are responsible for the quality of their work meeting established criteria. All managers and employees are responsible for continual improvement in the products and services provided, identifying, and eliminating poor products and deliverables, and applying appropriate QC and processes to achieve these requirements.

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1.0 INTRODUCTION

Enviro-Fix Solutions LLC (EFS) prepared this Final Contractor Quality Control Plan (CQCP) for United States Army Corps of Engineers (USACE) under the Contract No. W912P424C0002, to perform the project entitled: Former Harshaw Chemical Company Site - Remediation of Operable Units 1 & 2 located at Cleveland, Cuyahoga County, Ohio.

Enviro-Fix Solutions LLC implements a Quality Management Program (QMP) to ensure all activities, products, information, data, and decisions resulting from quality-affecting activities are technically sound and defensible. The quality program and implementing procedures form the basis of EFS QMP. The system was developed and is maintained per applicable state and Federal laws and rules, standards, guidance, contractual requirements, and sound risk management practices.

1.1 Quality Control Objectives

This Quality Control system will consist of plans, procedures, and an organization that will produce an end product that complies with the requirements of the contract. This Quality Control System will cover all construction operations, both on-site and off-site, and keyed to the proposed construction sequence.

The CQCP defines the procedures to manage and control activities of EFS personnel, subcontractors, designers of records, consultants, architects/engineers, fabricators, suppliers, purchasing agents (as applicable) and to ensure that the completed project complies with all contract documents.

Enviro-Fix Solutions LLC will maintain responsibility for its work and the work of its subcontractors. To ensure compliance with contract requirements and maintain responsibility of all work performed under this contract, EFS will:

- Provide a continuous Three Phase Control inspection program to examine the quality of materials, maintain standards of workmanship, and ensure construction quality standards of excellence.
- Evaluate unit performance, identify, and correct deficiencies, and provide a finished product which meets or exceeds the contract requirements.
- Maintain qualified personnel, equipment, and facilities which are necessary for the completion of the project.

The objective of the CQCP is to ensure that the program activities are conducted and documented in an organized, efficient, and safe manner. This plan will define the management structure, organization, responsibilities, and authorities necessary for successful completion of the project. All project activities will be accomplished in compliance with the USACE Resident Management System Contractor Mode (RMS CM) requirements for contractors. Performing quality work, implementing an effective QC program and to ensure Contract Compliance is the

responsibility of all Enviro-Fix Solutions LLC staff members and subcontractors and will be achieved through a cooperative effort and commitment to quality by all program personnel.

2.0 QUALITY CONTROL ORGANIZATION

The functions of the Quality Control staff are to describe, integrate, monitor, evaluate, and document all quality control practices of EFS and its subcontractors, and to ensure safety and contract compliance. The quality staff will implement the three phase control system for all aspects of the work specified and has the full support of management with independent and delegated authority to accomplish assigned tasks, including stop work authority. The EFS' program quality organizational structure, management control, functional responsibilities, level of authority, lines of communication, and interfaces for activities affecting quality are identified and documented for assigned work tasks in the following sections. Resumes for Contractor Quality Control (CQC) personnel are provided in Appendix A.

The EFS Organizational Chart shows the CQC staff organization which includes Executives of the EFS providing Home Office Support. (See Appendix D).

2.1 Program Manager

The Program Manager, **Marc Mizrahi, Certified Hazardous Materials Manager (CHMM)** is the single Point of Contact (POC) to USACE with the authority to negotiate and execute this Single Award Task Order Contract (SATOC) along with Team member subcontracts. He is responsible for overall management of the contract including safety, material accounting, reporting, waste disposal, cost, schedule, and technical quality. He takes immediate corrective action if Task Order (TO) performance is not acceptable.

2.2 Project Manager

The Project Manager (PM), **Rick Woodworth**, will be the contractors primary contact during performance of site work and will be responsible for the management and execution of the contract in accordance with the scope, specifications, approved work plans and all federal, state and local laws and regulations. The PM controls the budget and schedule with the concurrence of the Program Manager, ensuring contract requirements are met. The PM shall also be responsible for certifying payment requests and managing along with our Contracts Manager any contract modifications issued. Any Contract Modifications to be executed (signed) will be performed by our Director of Contracts & Procurement or our VP of Contracts & Compliance. The Project Manager shall ensure the following:

- All work is planned.
- Work packages are generated and approved with full participation from technical disciplines, trades, and equipment operators.
- Internal assessments (self-checks) are implemented and adhered to.
- Work prerequisites are complete.

- Hazard and hazard controls are identified and communicated.
- Equipment, tools and materials necessary to perform the work are available.
- All required inspections, calibrations, and tests are complete.
- Adequate staff (trained and qualified) is available to perform work.
- All personnel understand their roles, responsibilities, and authorities.

2.3 Site Superintendent

The Site Superintendent (SS), **Shouvik Gangopadhyay**, will be responsible for ensuring equipment operators, craft and labor personnel are sufficiently trained and qualified to execute assigned tasks. The Site Superintendent will likewise:

- Participate in work planning and work package generation.
- Ensure that necessary equipment, tools, materials, and personnel are identified.
- Ensure that pre-use inspections, calibrations (if required), and QC measurements (if required), are completely and routinely performed as specified.
- Participate in the design and installation of all repaired or replaced site infrastructure.
- Routinely assess work activities to ensure tasks are performed in accordance with the requirements detailed in work packages.
- Participate in readiness evaluations prior to initiation of work associated with a specific task and ensure all specified controls and requirements are implemented and enforced during task execution.

2.4 Contractor Quality Control System Manager

The Contractor Quality Control System Manager (CQCSM), **Patrick Enabudoso**, is responsible for supervising all QC aspects of the project to ensure compliance with contract plans and specifications. In the absence of the CQCSM, the Alternate CQCSM, **Ellen Jakub**, shall assume the position and responsibilities of the CQCSM.

The CQCSM is responsible for overall management of the CQC Program and has the authority to act independently in all QC matters. As supervisor of the CQC Program, the CQCSM approves all submittals and supervises all QC procedures. The CQCSM maintains communications between project management and project team members and acts as primary spokesman on quality matters when interfacing with external organizations.

Copies of the CQCSM and Alternate CQCSM appointment letters are included in this CQCP under Appendix C. The appointment letters describe the responsibilities of the CQCSM and Alternate CQCSM and delegate sufficient authority to the CQCSM and Alternate CQCSM to adequately perform CQC functions, including authority to stop work when such work is not in compliance with the contract.

Contractor Quality Control System Manager Authority and Responsibility

The CQCSM has the overall responsibility and authority for the administration of all CQC Program-related activities. Generally, the CQCSM is responsible for:

- Ensuring that the CQCP is implemented for the full scope of work; and
- Conducting regular reviews and reporting to the Quality Director and the Project Manager (PM) regarding the status and adequacy of the CQC Program.

The CQCSM for the project serves as primary spokesperson on matters related to the CQC Program, including formal communications with USACE, and is responsible for verifying that activities affecting quality are correctly performed. The CQCSM will finalize, sign and submit Daily Contractor Quality Control Reports (Daily CQC Report) to USACE using RMS CM within 24 hours after the date covered by the report. The CQCSM is responsible for reviewing all attachments to the Daily CQC Report, such as the daily safety meeting records, new activity hazard analyses (AHAs), weight tickets, material delivery tickets, copies of manifests, etc.

To carry out this responsibility, the CQCSM is given sufficient authority, access to work areas, and organizational freedom to perform the following functions:

- Identify quality problems.
- Initiate, recommend, or provide solutions to quality problems through designated channels.
- Identify the need for corrective action.
- Verify implementation of solutions and corrective actions.
- Assure that further processing, delivery, installation, or use of items or services are controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred.
- Halt work, if work is not in compliance with the contract requirements.
- Certify that all submittals are in compliance with contract requirements; and
- Ensure that all certifications provided by others (e.g., equipment and material; and vendors or suppliers) are accurate and in compliance with contract requirements.
- Issue letter of direction to all various QC representatives outlining duties, authorities and responsibilities.

The CQCSM is to perform, manage and coordinate the three phases of control except for those phases of control designated to be performed by QC Specialists. The CQCSM is responsible for managing and coordinating the documentation performed by the QC Specialists, testing laboratory personnel and any other inspection and testing personnel required by this Contract.

To summarize, the duties and responsibilities of the CQCSM and its Alternate, in the absence of the CQCSM, is to manage all QC activities as defined in UFGS 01 45 00.00 10 (QUALITY CONTROL).

2.5 Contractor Quality Control Staff

The CQC staff is made up of individuals experienced in CQC inspection and testing including Resident Management System (RMS) operator & submittal expediter who report directly to the CQC System Manager as a permanent part of the CQC staff. CQC staff are added or subtracted based on the size, scope, and specialized CQC needs for the task order. The names, designations, and qualifications of the other CQC staff shall be finalized and submitted for approval separately at a later date.

2.6 Site Safety and Health Manager

The Site Safety and Health Manager (SSHM), **Kym Edelman, Certified Industrial Hygienist (CIH)**, is responsible for all Site Safety and Health aspects of the project. In her role as SSHM, she will be responsible for the following:

- Develop, enforce the Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP), Contamination Control Plan (CCP), Radiation Protection Plan (RPP); on-site consultation to ensure H&S plans are fully implemented; conduct initial site-specific training; coordinate modifications with project team members; consultation availability during first 3 days of work.
- CQC member; available for emergencies.
- Review accident reports and daily inspection reports; sign and date plans prior to submission.
- Evaluate air monitoring and wipe sampling data; recommend changes to controls, Personal Protective Equipment (PPE); support PPE level upgrading/downgrading.

2.7 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO), **Yong McGuire**, is responsible for all Site Safety and Health aspects of the project. In his role as SSHO, he will be responsible for the following:

- Supervise daily on-site implementation and enforcement of the APP.
- Ensure site compliance with federal, state, and Occupational Safety and Health Administration (OSHA) safety and health regulations and all requirements of the APP including, but not limited to, radiation surveys, air monitoring, use of PPE, decontamination, site control, procedures used to minimize hazards, safe use of engineering controls, the emergency response plan, spill containment program, and documentation of the daily safety and health inspection results.
- Conduct all necessary on-site training.
- Stop work if unacceptable health or safety conditions exist, and take necessary action to re-establish and maintain safe working conditions.
- Consult with and coordinate any modifications to the APP with the Contractor SSHM, SSHO, the PM, and the Contracting Officer (KO).
- Document the safety and health findings during daily quality control inspections.
- Recommend corrective actions for identified safety and health deficiencies; and
- Oversee the corrective actions in coordination with site management.

In the absence of SSHO, the Alternate SSHO, **Greg Hayes**, shall assume the position and responsibilities of the SSHO.

2.8 Supplemental Personnel

2.8.1 Radiation Safety Officer

The Radiation Safety Officer (RSO), **Brian Miller**, shall be on-site (full-time) during the performance of the work. He will be responsible for the implementation of the RPP, record radiation safety data; train field personnel per contract and address occupational and radiation hazards. He must ensure that radiation safety equipment, tools and materials necessary for task execution are available, calibrated and tested. He will inspect work areas periodically and inform personnel of exposure monitoring results; identify, correct, and communicate program performance issues.

In the absence of the RSO, the SSHO shall assume the position and responsibilities of the RSO.

2.8.2 Waste Manager

The Waste Manager, **Paul Jones**, shall be the single point of contact for all waste management regulatory matters. He will be responsible for total waste management and disposal compliance per the Government-accepted Waste Management Plan.

Details on responsibilities includes but not limited to:

- Accurate identification and classification of regulated materials
- Determining proper shipping names
- Preparing shipping documents for all materials transported using language concurred with by the USACE.
- Completing all exception and discrepancy reports
- Identifying and complying with marking, labeling, packaging, and placarding requirements
- Preparing and submitting daily status tracking reports
- Coordinating with USACE, USACE representatives, the disposal facility and transportation agencies as applicable
- Preparing and submitting any other documents required by the federal, state, and local laws and regulations, by USACE, or the disposal facility.
- Coordinate review and approval procedures for all manifests.

2.8.3 Project Chemist

The Project Chemist, **Jackson Kiker**, shall be the POC with USACE KO for environmental chemistry. He will be responsible for ensuring that all Data Quality Objectives (DQOs), sampling and analysis requirements, data documentation and validation requirements, and reporting requirements are attained. He will be managing tasks associated with sampling and analysis per UFGS 01 35 45 CHEMICAL DATA QUALITY CONTROL paragraph 1.6.1 and oversee all on-site analytical testing and field measurements. He will review, verify, all

chemical/radiological data for hazardous waste manifests; prepare data validation reports and review data validation reports by others.

Supplemental CQC staff may be assigned other duties yet be available for CQC functions when specialized needs dictate.

When used for quality management purposes, supplemental personnel will report directly to and take direction from the CQC System Manager. The duties and responsibilities of supplemental personnel are only those described in their letter of direction from the CQCSM performing duties in alignment with their position description and qualification statement.

Whenever the complexity of the task warrants, specialized personnel will provide assistance to the QC organization, such specialized personnel will be responsible for assuring the activity complies with the contract requirements for their area of specialization and report only to the CQC System Manager. These specialized personnel will be physically present at the site during the work on their areas of responsibility and have the necessary education and/or expertise to ensure contract compliance and as described in the QC Plan.

2.9 Subcontractors

Subcontractors will provide qualified QCM and all QC personnel necessary to maintain the quality expected by both EFS and USACE and as described in this Quality Control Plan. Subcontractors will be provided with a copy of this CQC Plan and will be responsible to EFS for performing all QC functions required for their work. Although EFS has delegated the design and construction of this project, along with executing certain portions of the CQCP, EFS will retain the responsibility of the quality control program. List of subcontractors proposed for this project are as follows:

- **RM Cole Associates** – Civil Surveyor
- **Parratt Wolff Inc.** – Monitoring Wells
- **AirLogics LLC** – Air Monitoring Equipment
- **Ontario Specialty Contracting (OSC)** – Sitework
- **US Ecology / Republic Services Co** – Transportation and Disposal
- **GeoSci** – Geotechnical
- **Holtgrevan Scale & Electronics Corp.** – Truck Scale
- **Groundwater Treatment & Technology (GWTT)** – Wastewater Treatment Facility
- **Eurofins** – Chemical and Radiological Analysis

An addendum to this CQC Plan will be submitted once all subcontractors and outside organizations involved in the project are identified. Final determination will be made well in advance of fieldwork.

2.10 Organizational Changes

Changes to the CQC staff organization require KO acceptance. Changes will be submitted in writing prior to the proposed change. Requests will include the names, qualifications, duties, and responsibilities of each proposal replacement. All such changes to the CQC staff and notification/acceptance of the KO will be routed through the Project Manager.

3.0 SUBMITTAL MANAGEMENT

Enviro-Fix Solutions LLC will submit the items listed on the Submittal Register (Appendix F) and any additional submittals required by the contract specifications. Each submittal will be reviewed and certified in compliance with the contract requirements. The CQC System Manager will review and certify submittals prior to approval, and each respective transmittal form will be completed on the RMS CM. In addition to the CQCSM, PM and SS are also authorized to review and certify submittals.

3.1 Planning

Prior to or upon award, the PM assembles contracts, scheduling, engineering, and quality control project personnel to:

- Develop the design strategy and submittal approach.
- Identify potential submittal issues for discussion with USACE.
- Identify critical path submittal items to be incorporated into the schedule and procurement plan.
- Clarify the internal project-specific submittal review process for designs and materials.
- Ensure that submittal requirements and the submittal process are communicated to each subcontractor as part of the EFS Request for Proposal (RFP);
- Ensure that the CQCSM understands his role in coordinating the submittal process and the required interfaces.

3.2 Operation and Maintenance of the RMS CM System

In accordance with UFGS 01 45 00.15 10 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE, the Government will use the RMS to assist in the monitoring and administration of this contract. The Government accesses the system using the Government mode of RMS (RMS GM) and EFS accesses the system using the Contractor Mode (RMS CM). The joint Government-Enviro-Fix Solutions LLC use of RMS facilitates electronic exchange of information and overall management of the contract. Enviro-Fix Solutions LLC accesses RMS CM to record, maintain, input, track, and electronically share information with the Government throughout the contract period in the following areas:

- Administration / Finances / Quality Control
- Submittals / Schedules
- Closeout / Import / Export

3.3 Submittal Register

The register is the submittal management document used to track submittal status. The Submittal Register (Form ENG 4288) will be maintained by the CQC System Manager. Each submittal shall be documented and transmitted to the KO/COR using ENG Form 4025. The CQC System Manager will review the register to ensure its completeness and may expand general category listings to show individual entries for each item. The approved submittal register will be used to control submittals throughout the life of the contract. A preliminary submittal register is provided in Appendix F.

3.3.1 Submittal Management

Enviro-Fix Solutions LLC shall track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the contract. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using RMS CM. RMS will be used to update, store and exchange submittals. Electronic documents shall be provided through an electronic file sharing system such as Department of Defense Secure Access File Exchange (DoD SAFE) Web Application when document size is too large to save in RMS CM.

3.4 Schedule

Critical path submittals for designs and materials are incorporated into the construction schedule. The project schedule “Dates” column identifies when submittals are required by EFS, and when approval is needed. Submittals covering components forming a system or interrelated are scheduled to be submitted concurrently.

The CQC System Manager will monitor the schedule to ensure that the required procurement activities, meetings, inspections, and submittals are reported and progressed accurately. The critical path activities will be monitored, and evidence of schedule slippage will be discussed with project staff in order to plan for recovery of those activities. The schedule shall be input and maintained in the RMS CM database. The updated schedule data shall be included with each pay request. Phase 1 mobilization activities expected to begin in early June 2024.

3.5 Request for Information

Enviro-Fix Solutions LLC shall create and track all requests for information generated during the contract in the RMS administration module for Government review and response.

3.6 Submittal Procedures

Each submittal item on the submittal register will be designated either for review and approval (G) or for information only (FIO). The CQC System Manager will approve for submission after reviewing each submittal for completeness and compliance with specifications and plans. All submittals shall be in accordance with processes as outlined on the SUBMITTAL

PROCEDURES under UFGS 01 33 00, and general requirements under UFGS 01 35 13.43 10
SPECIAL PROJECT PROCEDURES

3.7 Submittals by Vendors and Subcontractors

Vendors and subcontractors will abide by the same submittal requirements as EFS, which will be incorporated into their contract scopes of work. Enviro-Fix Solutions LLC will review subcontractor submittals and ensure they meet contract and design specifications prior to acceptance on site or submittal to the KO. All submittals shall be submitted on RMS by EFS personnel.

3.8 Submittal of Samples

Samples requiring testing by EFS or the government will be addressed as outlined on the SUBMITTAL PROCEDURES under UFGS 01 33 00.

3.9 Procedure on Substitution/Variation

Variations from contract requirements require KO approval pursuant to Clause FAR 52.236-21 Specifications and Drawings for Construction and will be considered where advantageous to the Government. Failure to point out variations may cause the Government to require rejection and removal of such work at no additional cost to the Government.

If the Design documents or construction submittals show variation from the Contract parameters and/or requirements, CQC System Manager shall justify such variation in writing, at the time of submission. After Design documents or construction submittals have been reviewed and cleared for construction by the KO, no resubmittal for the purpose of substituting materials, equipment, systems and patented processes will be considered unless accompanied by the following;

- a. Reason or purpose for proposed variation, alternate, substitution or revision.
- b. How does the quality of variation compare with quality of the specified item? This shall be in the form of a technical evaluation tabulating difference between the item(s) originally specified and what is approved.
- c. Provide cost comparison.
- d. For proprietary materials, products, systems, and patented process a certification by an official authorized to certify on behalf of the manufacturing company that the proposed substitution meets or exceeds what was originally specified.
- e. Certification signed by a licensed professional engineer or architect certifying that the proposed variation or revision meets or exceeds what was originally specified.
- f. Designer of Record's (DOR's) written analysis and approval.
- g. Advantage to the Government if the Variation is approved; i.e. Operation and Maintenance considerations, better product, etc.
- h. Ramifications and impact, if not approved.

3.10 Submittal for Operation and Maintenance Data

Enviro-Fix Solutions LLC will furnish operations and maintenance data as specified in UFGS 01 33 00 SUBMITTAL PROCEDURES:

- Data provided by the manufacturer or the system provider, including manufacturer's help and product line documentation, necessary to maintain and install equipment, for operating and maintenance use by facility personnel.
- Data required by operating and maintenance personnel for the safe and efficient operation, maintenance, and repair of the item.
- Data incorporated in an operations and maintenance manual or control system.

4.0 QUALITY CONTROL REQUIREMENTS

This CQCP describes the CQC requirements for this project. CQC is the means by which EFS will ensure that the remedial action, including works or products of subcontractors and suppliers complies with requirements of the Statement of Work (SOW) and approved work plans.

The CQCP is designed to monitor project compliance relating to inspection of the project site facilities construction, and site remedial activities. These activities will be monitored utilizing the Three Phase Control System.

4.1 *Three Phases of Control*

The Three Phase Control Process is used to ensure that all project activities comply with the approved plans and procedures. The Three Phase Control Process is composed of the Preparatory Meeting, Initial Meeting/Inspection, and Follow-Up Inspections. The Three Phase Control Process is implemented for each Definable Feature of Work (DFOW). The three phase inspection checklists will be developed and submitted via RMS CM for government acceptance.

4.1.1 Definable Features of Work

There may be more than one DFOW in each activity item defined by separate sections of the specification. A DFOW is any task, which is separate and distinct from other tasks, has separate control requirements, or is identified by different trades or disciplines. See Appendix E for our initial listing of the project DFOW.

4.1.2 Preparatory Phase

The CQC System Manager will notify the USACE Contracting Officer's Representative (COR) before beginning any of the required preparatory phase actions. The preparatory phase will be performed prior to the beginning of work on each definable feature of work. The CQC System Manager will notify the USACE COR at least 24 hours before beginning any of the required preparatory phase actions. In addition, Scheduled and Actual dates for Preparatory and Initial Control Meetings will be maintained in RMS CM. This preparatory phase will include a meeting conducted by the CQC System Manager and be attended by the Site Superintendent, other CQC personnel (as applicable), and the site representative and/or foreman responsible for the definable feature. The results of the preparatory phase actions will be documented by separate minutes prepared by the CQC System Manager and attach to the daily CQC report. Enviro-Fix Solutions

LLC will instruct workers as to the acceptable level of workmanship required to meet contract specifications. This preparatory phase will include the following:

- Review of each paragraph of the applicable specification sections
- Review the design and drawings' details
- Review of the contract plans
- Check to ensure that all materials and/or equipment were tested, submitted, and approved.
- Check to ensure that provisions, work plans including manufacturer's procedures/recommendations were made to provide required control.
- Review of the testing plan and ensure that the required preliminary work is completed.
- Examination of the required materials and equipment to ensure that they are on hand and conform to the specifications.
- Review the APP, job site safety and appropriate activity hazard analysis to ensure that applicable safety requirements in accordance with EM 385-1-1 are met and that required safety data sheets (SDS) were submitted.
- Discuss construction methods and procedures for conducting the work, including elimination of repetitive deficiencies, document tolerances, and workmanship standards for the work; and
- Check to ensure that the portion of the plan for the work to be performed is accepted by the Contracting Officer or their representative.

4.1.3 Initial Phase

The CQC System Manager will notify the USACE COR at least 24 hours before each initial phase activity. The initial phase will be accomplished at the beginning of each DFOW. The CQC System Manager will ensure that the personnel responsible for the DFOW are instructed concerning the acceptable level of workmanship required. The CQC System Manager will document the results of the initial phase meeting and attach it to the Daily CQC report. The following will be accomplished during the initial phase:

- Check preliminary work to ensure that it is in compliance with contract and task order requirements.
- Review minutes of the preparatory meeting.
- Establish the level of workmanship required.
- Resolve conflicts.
- Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- Ensure that inspections and testing are scheduled.

- The initial phase should be repeated for each new crew engage with work on site or any instances the quality standard are not being met (e.g. defective work, non-compliant). Any defective & non complaint work shall be properly logged and documented and shall be discussed in the next phase of control (follow up).

4.1.4 Follow-up Phase

The CQC System Manager or CQC staff will perform daily checks to ensure continuing compliance with the contract requirements, including control testing until the completion of each DFO. The inspections and/or tests will be recorded and included in the CQC documentation. Final follow-up checks will be conducted, and all deficiencies will be corrected prior to the start of the next sequence or additional features of work.

4.1.5 Additional Preparatory and Initial Phases

Additional preparatory and initial phases may be conducted on the same DFO as deemed necessary by the Contracting Officer's Representative (COR) if the quality of on-going work is unacceptable and there are changes in CQC staff, the Project Management staff, or the work crew; or if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop that warrant an additional meeting.

4.1.6 Coordination Meetings

After the Preconstruction Conference, before the start of construction, and prior to the acceptance by the Government of the CQCP, a coordination meeting will be held with the KO, or authorized representative, and the EFS Project Management team to discuss EFS' quality control system. The purpose of the meeting is to develop a mutual understanding of the system details, including forms to record CQC operations, design activities, control activities, testing, administration of the system, and the interrelationship of EFS' management and control with the government's oversight.

Minutes of this meeting will be prepared and become part of the contract file. After commencement of work, subsequent coordination meetings may be called by either EFS or the government to reconfirm mutual understandings and/or address deficiencies in the CQC system or project procedures which may require corrective action by EFS.

4.1.7 Deficiency Tracking

Deficiencies may be identified at any stage of the Three Phases of Control process. Defects and deficiencies identified will be recorded in the Daily CQC Report that will be submitted to the government via the RMS CM. Once identified, defects and deficiencies will be monitored closely by the CQC System Manager until resolved through re-work, replacement, or other required performance. The status of each deficiency will be recorded in the Daily CQC Report until resolved. No additional work which builds on the deficient item will be permitted until the deficiency is corrected. EFS shall use RMS CM to track QA and QC entered deficiencies in

accordance with paragraph 1.6.3.2 of UFGS 01 45 00.15 10. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

4.1.8 Safety Inspections

The Health and Safety Manager will perform periodic safety inspections throughout the project. The SSHO will conduct daily safety inspections. The inspections will evaluate site operations and will be reported daily in the Daily CQC Report that will be submitted to the government. In addition, the SSHO will conduct a daily safety meeting with all site personnel. This meeting is documented using the EFS Daily Safety Meeting form.

Both EFS and the Government shall enter safety related issues in RMS as deficiency. EFS shall monitor, track, and show resolution for deficiencies, whether safety or otherwise in the QC Daily Report area of the RMS QC Module. In addition, all reporting requirements for accidents and incidents shall follow the government approved Accident Prevention Plan (APP), EM 385-1-1, UFGS 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS, and as required by any other applicable federal, state or local agencies.

4.1.9 Completion Inspection

A structured control system will be implemented for each major work task and will include preparatory, initial, follow-up, and safety inspections. The CQC System Manager will conduct a completion inspection of all DFOWs to verify that the work performed meets the requirements of plans, specifications, quality, workmanship, and completeness. The CQC System Manager will assure that no work proceeds until the appropriate inspection phase is performed. Three types of completion inspections are performed to verify that the work performed meets the requirements of plans, specifications, quality, workmanship, and completeness:

- **Punch-Out Inspection** – The CQC System Manager will conduct an inspection of the work. A punch list of items that do not conform to the approved drawings and specifications will be prepared and included in the CQC documentation. The list of deficiencies will include the estimated date for correction and the CQC System Manager or CQC staff will conduct follow-up inspections to verify corrective actions. The KO is then notified that the facility is ready for the Government Pre-Final inspection.
- **Pre-Final Inspection** – Notice is given to the Contracting Officer or their representative 14 days prior to the Pre-Final Inspection. The notice includes assurance that all specific items previously identified as being unacceptable along with all remaining contract work will be completed by the date scheduled for the Pre-Final Inspection.
- **Final Acceptance Inspection** – Notice is given to the Contracting Officer or their representative 14 days before the Final Acceptance Inspection and includes assurance that all specific items previously identified as being unacceptable, if any, along with all remaining work performed under the contract will be complete and acceptable by the date scheduled for the Final Inspection.

All deficiencies identified during the three Completion Inspection Phases will be entered into RMS CM via the Daily CQC Reports and linked to the corresponding schedule activities.

5.0 TESTING

Testing and test control practices will be performed to verify that control measures are adequate for the conformance of quality requirements. Upon request, EFS will provide duplicate samples of test specimens for possible testing by the government. Testing includes operation and/or acceptance tests when specified. Testing will be performed by an accredited testing laboratory, in conformance with appropriate Standard. Laboratories utilized for environmental testing of soils, water, and air samples must meet the criteria detailed in UFGS 01 35 45 CHEMICAL DATA QUALITY CONTROL.

The following activities will be performed, implemented, and recorded for each task order, and the data will be submitted to the Contracting Officer or their representative:

- Ensure the testing agency certifications (adequately equipped and competent to perform services)
- Ensure testing procedures are in compliance with contract requirements.
- Ensure that facilities and equipment are available and comply with testing standards.
- Check test instruments calibration data against certified standards.
- Verify that recording forms and test identification control number system, including all test documentation requirements are met.
- Ensure control, verification and acceptance testing procedures for each specific test includes the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and the person responsible for each test.
- Ensure timely test results are appropriately recorded and submitted; and
- Ensure test results are signed by an Engineer who by education and experience is qualified to sign the test results documents.

Test results for both passing and failing tests will be recorded in the Daily CQC Report for the date taken. Test result formats will include the specification reference, location, and a sequential control number. If approved by the KO or their representative, actual test reports are submitted later with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the KO or their representative. Any item for which test reports show failure to meet contract requirements will be retested, as required, to show full compliance with all contract requirements.

5.1 Testing Laboratories

Enviro-Fix Solutions LLC have selected Eurofins as the primary contract laboratory. Eurofins is a Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP) – accredited laboratory and recognized by the State of Ohio to perform analysis required to support compliance with the building foundation and underlying soil investigation, pre and post temporary road and stockpile sampling, disposal facility waste acceptance criteria (WAC), and to provide definitive Final Status Survey (FSS) sample results.

The government may perform laboratory equipment capability checks to ensure compliance with contract standards. For Onsite laboratories, the KO or their representative may use EFS' testing laboratory equipment to make assurance tests of the testing procedures, techniques, and test results. Accreditations for the testing laboratories will be submitted for approval prior to utilization of such laboratories and/or approved Government Testing Laboratories. Laboratories utilized for environmental testing will meet the criteria as required in UFGS 01 35 45. Refer to UFP-QAPP/SAP for the accreditations of approved testing laboratories.

5.2 List of Tests to be Performed

In accordance with the SOW, EFS shall perform air, water, sediment, soil, debris and backfill sampling, monitoring, testing and analysis. Work will include the following activities:

- Meteorological Monitoring
- Radiological Monitoring
- Air Monitoring and Sampling
- Monitoring Wells
- Sampling Surface Water/Groundwater/Liquid Waste
- Sampling Soil and Sediment
- Sampling Radioactive Contaminated Media
- Chemical Analysis
- Radioactive Waste Analysis
- Geotechnical Testing

5.3 Construction Quality Control Testing Plan

Refer to Government approved UFP-QAPP/SAP.

6.0 DOCUMENTATION

Enviro-Fix Solutions LLC maintains project files for EFS and Subcontractor personnel and project activities. The project files include, as a minimum, the following information:

1. Contractor/subcontractor personnel listing and areas of responsibility.
2. Work Plans and implementing procedures.
3. Quality Control Reports (Records)
4. Operating plant/equipment with hours worked, idle, or down time.
5. Work performed each day (location, description, and by whom), when Network Analysis (NAS) is used identify each phase of work by NAS number.

6. Test and/or control activities including results (Identify control phase and reference specifications/drawing requirements)
7. Material receipt statements.
8. Submittal and deliverables reviewed, with contract reference, by whom & action taken.
9. Offsite surveillance activities including actions taken.
10. Job safety evaluations (what was checked, results, instructions, or corrective actions).
11. Instructions given/received and conflicts in plans or specifications.
12. Verification statement.

The records shall indicate a description of trades working on the project, the number of personnel working, weather conditions encountered, and any delays encountered. Also, it shall cover both conforming and deficient features and include a statement that the equipment and materials incorporated in the work and workmanship comply with the Contract.

If required by the USACE COR, the original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of the test reports and copies of the reports prepared by all subordinate QC personnel.

7.0 SAMPLE FORMS

A sample of the forms used on the project can be found in the Appendices. Included in Appendices are the following forms:

- Testing Log (Appendix G)
- Deficiency Log (Appendix H)
- Daily Quality Control Report (Appendix I)
- Materials Inspection Form (Appendix J)
- Preparatory Phase Checklist (Appendix K)
- Initial Phase Control Form (Appendix L)
- Sign-In Sheet (Appendix M)

Enviro-Fix Solutions LLC will use the forms in RMS CM (e.g. RFI, Three Phases of Inspection, etc.) and additional/supplemented forms that may be necessary to maintain the quality product expected.

8.0 NOTIFICATION OF NONCONFORMANCE

Enviro-Fix Solutions LLC will develop corrective actions promptly upon receiving notification of nonconformance from the contracting office. The CQC Systems Manager will verify through follow-up phase surveillance that the corrective action implemented has corrected the deficiency or nonconforming condition and is sufficient to prevent recurrence. Corrective action done will be recorded in the Daily CQC Report that will be submitted to the government via the RMS CM. A deficiency or non-conformance is not considered to be corrected until the Government indicates concurrence in RMS.

9.0 MATERIALS

Enviro-Fix Solutions LLC requires material receipt inspections for all materials delivered to the project site. The material inspection documents that each product meets the material specifications and that the required factory testing has been completed and documented.

Materials and completed features of work are identified, inventoried, handled, stored, maintained and/or protected to prevent damage and deterioration due to environmental conditions or shelf-life expiration.

When required or deemed necessary by EFS, QC inspections are conducted at the manufacturing locations or other facilities. These inspections ensure that the product meets the requirements prior to delivery to the project site.

10.0 DATA MANAGEMENT

In lieu of Specification Section 01 35 13.43 10 SPECIAL PROJECT PROCEDURES Paragraph 1.2.3.3, EFS will now utilize the Fiscal Electronic Devices Management System (FEDMS) for the entry, storage, and management of all environmental sampling data (e.g. pre-remediation soil sample data, Final Status Survey [FSS] data, air monitoring data, etc.). The storage and management of all geospatial data will occur in a file geodatabase that utilizes the Spatial Data Standard for Facilities, Infrastructure, and Environment [SDSFIE] Gold data standard. Geospatial data includes: all post-processed gamma walkover survey data (converted to a point dataset within the file geodatabase) with a standard naming convention; as well as any additional geospatial data collected during remedial activities. EFS will work with the USACE and its Contractor (Synectics) to attend the applicable training and gain knowledge to ensure all project data is managed / collected and stored properly.

11.0 AS-BUILTS AND FINAL REPORTS

Enviro-Fix Solutions LLC shall provide final as-built drawings that depict actual site conditions at demobilization as part of closeout submittals as well as Lessons Learned Report, Construction Completion Report and Final Records in accordance with the 01 35 13.43 10 SPECIAL PROJECT PROCEDURES.

Final Reports shall incorporate all review comments from USACE and the regulators. Drawing file format will be “.DGN” and fully compliant with the latest release of U.S. National Computer-Aided Design Standard unless specified otherwise. All closeout documents shall be submitted through DoD SAFE Web Application when document size is too large to save in RMS CM.



APPENDIX A

RESUMES



Marc Mizrahi, CHMM – Program Manager

Years of Experience: 39 Years

With Current Firm: 25 Years

Education:

- BS/1984/Biology/SUNY Buffalo

Other Professional Qualifications:

- Certified Hazardous Materials Manager (CHMM), #13759
- NJDEP Certified Radon Measurement Specialist, 1991-1999
- US DOE Radiological Control Technician, 1994
- OSHA 40-Hr HAZWOPER, 1998
- OSHA 8-Hr Refresher, 2019
- RAD Safety Fundamentals, 2019
- ISO 9001:2015 Update, 2019
- Earned Value Management, 2000
- USACE CQM Certification, 1999

SUMMARY OF EXPERIENCE

Mr. Marc Mizrahi has 39 years of experience in environmental remediation services, including 23 years managing HTRW cleanup, FUSRAP remediation, and facility Decontamination & Decommissioning involving radionuclides for various U.S. federal agencies including USACE Buffalo, NYDEC, USEPA, DOE, and NRC. This includes 20 years of cost-reimbursable contract experience. His experience includes two years at the NFSS site from 1984-1986. His experience with remediation for complex soil and groundwater remediation enables him to plan and execute RA work at sites with multiple contaminated media (including soils, groundwater, surface water, structures) and a wide range of contaminants (HTRW including LLRW, mixed waste, POLs, TCE, PCE, VOCs, PAHs). Mr. Mizrahi is an excellent communicator as the primary contact throughout his program management experience, adept at client partnering and alignment while ensuring prime contractor responsibility to include H&S, quality, reporting, disposal tracking, and cost and schedule accountability.

PROJECT EXPERIENCE

Program Manager, Preparation of Decommissioning Work Plan, Shieldalloy Superfund Site, Newfield, NJ, \$11.7M FFP, 04/2017 – 12/2020. Responsibilities: Managed the contract, including work plan development, reporting, cost, schedule, and technical quality. **SOW:** Development of the Decommissioning work plan led to the follow-on work to perform the decommissioning of the Superfund Site, including HTRW removal and remedial action under CERCLA involved excavation/ handling of radionuclide soil/debris, totaling 6,000 CY, with deep excavations up to 14 feet bgs. **Accomplishments:** Initial scope was to develop multiple plans (\$197,601); to date, ECC has received 23 contract modifications (sole source) to increase the overall contract value to \$11.7 M. The project received an Exceptional PPQ rating.

Program Manager, USACE Buffalo, Harshaw Building G-1 Demolition, \$2.7M FFP, 07/2014 – 05/2016. Responsibilities: Managed the contract, including work plan development, reporting, cost, schedule, and technical quality. **SOW:** Work under this scope included work plan development; pre-construction demolition and radiological surveys; structural assessments, universal waste and asbestos abatement; deconstruction of Building G-1; installation of new monitoring wells; characterization, segregation, and appropriate packaging of the wastes; loading, transportation, and disposal of packaged wastes at licensed/permitted disposal facilities; site restoration; and development of construction close-out documentation. **Accomplishments:** Overall project execution was on schedule even though much of the work was completed through the winter months in Cleveland, Ohio. Working with the Buffalo USACE was a huge success and resulted in an Outstanding CPARS.

Program Manager, CEHNC, Remediation Services, FUSRAP at Former Dupont Chambers, Deepwater, NJ, \$25.7M CR, 09/2013 – 09/2017. Responsibilities: Oversaw staff of 45 in packaging, shipment, and disposal of 14,200 tons of radiological impacted waste, including FUSRAP-designated soils, uranium, and 5,400 tons of mixed RCRA waste for treatment and disposal. Conducted resourcing, contract management, and cost/schedule performance. Participated in weekly client meetings, including progress meetings, cost and schedule reviews, and Work Variation Notice change management meetings. **SOW:** Remediation of 12,400 cubic yard FUSRAP-designated soils, including uranium, thorium, radium, as well as HTRW contaminants and other hazardous chemicals inside an operational high-security



chemical plant. **Accomplishments:** ECC recognized by DuPont for outstanding performance. Obtained New Jersey Pollution Discharge Elimination System permit.

Program Manager, USACE Kansas City, Middlesex Sampling Plant FUSRAP (Building D&D), Borough of Middlesex, NJ, \$22M FFP, 08/2006 – 06/2011. Responsibilities: Managed the contract, including work plan development, reporting, cost, schedule, and technical quality on this project with 40 personnel and 3 subcontractors. He wrote the RA Work Plan for site-wide remediation under the approved ROD. **SOW:** Building D&D project that included radiological contamination and hazardous material abatement including transportation, and disposal of 58,800 tons of Class 9 radiological waste and 10,000 tons of PAH-contaminated soils at three licensed off-site facilities. **Accomplishments:** ECC recognized by DuPont for outstanding performance. Obtained New Jersey Pollution Discharge Elimination System permit.

Project Manager, USACE Kansas City, Wayne Interim Storage Site, Wayne Township, NJ, \$53M FFP, 02/1999 – 04/2005. Responsibilities: Managed a 5-year, cradle-to-grave, design and remedial action to remove LLRW contaminated soil and mixed waste at a 6.4-acre Superfund and FUSRAP site. Site was a former thorium manufacturing facility located in a residential area. Managed WADs valued from \$200,000 to \$21M. Utilized EZTrak cost tracking and P3 schedules to manage productivity, utilization, and progress. Submitted monthly variance and earned value reports. Oversaw \$39M in invoicing and associated vendor payments, and consent packages totaling \$14M. Used on-site lab, saving \$500,000 and accelerating the schedule. Implemented three-phase QC program and executed government property management. Managed/balanced resources of 52 management, technical, operations, and craft, as well as 40 local subcontractors, and \$15M in equipment and materials. Addressed technical and H&S issues at three high-profile public meetings. Worked with Wayne Township Council, Mayor, Congressmen and homeowners. Interfaced with property owners to answer questions and solve property issues. Delivered briefings to NJDEP. **SOW:** RD/RA project to remove LLRW- and mixed waste-contaminated soil from a 6.4-acre FUSRAP site—a former thorium facility in a residential area—for release as unrestricted use. With a contaminated aquifer overlaying an uncontaminated artesian aquifer, the RA required deep excavation into the top aquifer, with dewatering and shoring, while ensuring no impact on the drinking water aquifer below. **Accomplishments:** Completed 254,000 labor hours without a lost-time accident. Project received an outstanding CCASS rating and was awarded Kansas City District Heartland Award for Teamwork. Received two letters of commendation from USACE.

Work Prior to ECC

Project Manager and Site/Task Manager, Eberline/TMA Eberline and Thermonutech, 06/1984 – 09/1990. Managed work tasks at FUSRAP sites at Maywood Interim Storage Site, Wayne Interim Storage Site, Colonie Interim Storage Site, National Guard Armory; and Tonawanda Sewage Treatment Plant. At Niagara Falls Storage Site, managed \$5M remedial action for RAD-contaminated soils and radium residues. Provided RAD protection guidance and H&D monitoring in hazardous environments. Remediated 750 residential and commercial properties.

Project Manager, Bechtel National, Inc. Camp Dresser and McKee, Montclair/West Orange/Glen Ridge Superfund Sites, 09/1990 – 09/1998. Managed subcontracts for USEPA's Montclair/West Orange and Glen Ridge Superfund project to clean up 750 residential and commercial properties contaminated with radium. Managed project teams of up to 14 conducting RAD site characterization. Certified radon sampling and analysis, on-site laboratory services, remedial verification efforts, industrial hygiene, and occupational safety. Served in dual role as health physics technical advisor.



Rick Woodworth – Sr. Project Manager

Years of Experience: 30+ Years

With Current Firm: 13 Years

Education:

- BS/1984/Industrial Technology

Other Professional Qualifications:

- OSHA, 30-hr Construction Safety, 2014
- OSHA, 40-hr HAZWOPER, 1991; 8-hr Refresher, 2022
- First Aid/CPR/AED, 2021
- Advanced Radioactive Waste Packaging, Transportation and Disposal Training, 2014
- RAD Worker II Training
- USACE, Construction Quality Management (CQM) for Contractors

SUMMARY OF EXPERIENCE

Mr. Rick Woodworth is a Senior Project Manager with over 30 years of project management experience including over 25 years of experience on HTRW cleanup and decontamination/decommissioning projects involving radionuclides for various U.S. federal agencies including USACE Buffalo, USEPA, and NYDEC. His experience includes managing over 40 cost-reimbursable contract projects. As a PM, he is skilled at planning and directing field activities, overseeing project controls, establishing work zones, managing site access control, and fostering positive communication with the USACE, public, and other project stakeholders.

PROJECT EXPERIENCE

Project Manager, USACE Omaha District RDI, Shoalwater Dune Barrier Restoration, Tokeland, WA. \$32M CR, 04/2022 –10/2022. Responsibilities: Managed this rapid disaster

response, cost reimbursable project to reconstruct/ restore an existing dune barrier protecting the community on the shoreline. Directed the sourcing/transportation/stockpiling of the revetment cobble from local area quarry to a temporary laydown yard, including the construction of a temporary access haul road and a causeway over an active slough crossing. He was involved in the preparation and implementation of the Work Plan, QCP, Safety Plan/APP, Security Plan and Road Closure/Traffic Control Plan, and Environmental Protection Plan. **SOW:** The project scope included the reconstruction of a 4,000-LF sand dune utilizing 444,000 CY of dredged-up sand material from an offshore borrow site located 2.5 miles away in Willapa Bay. It also required a protective 193,000-ton cobble stone revetment structure along the entire length to minimize erosion from storm and tidal surges. **Accomplishments:** The project team monitored the site as part of a biological monitoring plan for Endangered Species Act (ESA) protected bird species, the western snowy plover and streaked horned lark, and successfully performed work with no adverse effects to the birds' environment.

Project Manager, NAVFAC SW, NAVFAC SW, Installation Restoration (IR) Site 1 Shoreline Stabilization at Alameda Point, Alameda, CA, \$5.6M FFP, 06/2018 – 09/2022. Responsibilities:

Managed overall coordination of the TO, ensuring contractual and project management. Supported the Navy during project meetings. Developed planning documents for proposed field work. Documented results of activities to close out field work and obtain Navy approval. **SOW:** Installation of silt/turbidity curtains in sections to mitigate sediment entering the water. Protected a wetland area adjacent to the work area. Installed stabilization in shoreline areas up to 3,940 linear feet to protect against sea-level rise, 100-year storms, and human ecological impact. **Accomplishments:** Project design met all initial design requirements/Regulator expectations, allowing the field work to start in January 2020, ahead of schedule.

Project Manager, Preparation of Decommissioning Work Plan, Shieldalloy Superfund Site, Newfield, NJ, \$11.7M FFP, 04/2017 – 12/2020. Responsibilities: Provided oversight during

installation/maintenance of erosion/sedimentation controls, including berms, dikes, silt fences, straw wattles, and sandbags. Oversaw radiological sediment removal and waste management. Implemented E&S controls, including stormwater diversion. Collected/ transferred water from onsite temporary storage cells. Managed overall coordination of the TO. Oversaw regulatory and technical support for cleanup and closure of uranium-contaminated soil and sediment. Managed construction of temporary storage cells, excavation of contaminated soils, radiological support, and disposal of all project waste. **SOW:** Development of the Decommissioning work plan led to the follow-on work to perform the decommissioning of the Superfund Site, including HTRW removal and remedial action under CERCLA



involved excavation/ handling of radionuclide soil/debris, totaling 6,000 CY, with deep excavations up to 14 feet bgs. . **Accomplishments:** Initial scope was to develop multiple plans (\$197,601); to date, ECC has received 23 contract modifications (sole source) to increase the overall contract value to \$11.7 M. The project received an Exceptional PPQ rating.

Project Manager, Corrective Measures Soil and Debris Removal, Naval Activity, Puerto Rico, Ceiba, PR, \$0.5M FFP, 08/2017 – 09/2019. Responsibilities: Provided project oversight including cost, schedule, level of quality and health & safety. **SOW:** Corrective measures soil and debris removal for three Solid Waste Management Units (SWMUs 57, 59, and 62). Work performed per all RCRA regulations and other applicable Federal and Commonwealth of Puerto Rico requirements. All work was performed following applicable and appropriate DOD guidance and policy for Environmental Restoration Program. Scope included work plan development, debris removal, soil removal, well abandonment, waste characterization, waste disposal, confirmation soil sampling and construction completion report development. **Accomplishments:** Continually worked with the Navy and Regulators along with Puerto Rico Regulator Agencies to finalize all work plans and complete the work. Project has experienced multiple delays out of control due to Hurricane Maria and most recently, earthquakes.

Project Manager, Propulsion Lab Operable RA Implementation, Naval Air Weapons Station, China Lake, CA, \$2.8M FFP, 06/2016 – 09/2017. Responsibilities: Coordinated and oversaw procurement, excavation, and placement of contaminated soils. with activities including resourcing labor, equipment, materials, supplies, and providing H&S/QC supervision and technical and professional services. **SOW:** Developed WPs, conducted pre-construction surveys, and segregated and placed 7,020 CY of contaminated (HMX, RDX, and TNT) soils. Site restoration included hauling and placement of onsite borrow material and development of construction close out documentation including a RACR. **Accomplishments:** Received a Very Good overall CPARS Rating.

Project Manager, Harshaw Building G-1 Demolition, \$2.7M FFP, 07/2014 – 05/2016. Responsibilities: Responsible for coordination and oversight of all project facets, including engineering, procurement, waste characterization, building deconstruction, and waste transportation and disposition for all work associated with the deconstruction of Building G-1. The work activities include furnishings to the job site, all necessary labor, equipment, materials, tools, supplies, office space, sanitary facilities, decontamination facilities, supervision, and technical and professional services to commence and sustain all operations necessary to complete the work. **SOW:** Work under this scope included work plan development; pre-construction demolition and radiological surveys; structural assessments, universal waste and asbestos abatement; deconstruction of Building G-1; installation of new monitoring wells; characterization, segregation, and appropriate packaging of the wastes; loading, transportation, and disposal of packaged wastes at licensed/permitted disposal facilities; site restoration; and development of construction close-out documentation. **Accomplishments:** Overall project execution was on schedule even though much of the work was completed through the winter months in Cleveland, Ohio. Working with the Buffalo USACE was a huge success and resulted in an Outstanding CPARS.

Project Manager, D-B Demolish Bldgs. 1535 and 1513, Joint Base Andrews, MD, \$7.9M FFP, 09/2011 – 1/2013. Responsibilities: Responsible for the overall scope, schedule, budget, and health and safety of the D-B statement of work. **SOW:** Hazardous material surveys, asbestos abatement, and complete demolition and removal of three building structures and foundation systems totaling 357,586 sq ft, underground site utilities, and underground duct banks. The project included demolition of portions of the substation south of and associated to Building 1513, and the demolition/termination of many of the utility feeds related to all three buildings. **Accomplishments:** The project received Exceptional Ratings in both Management and Regulatory Compliance on the Final CPARS.



Shouvik Gangopadhyay– Site Superintendent

Years of Experience: 31 Years

With Current Firm: 28 Years

Education:

- MS, Biomechanical Engineering, 1993
- BS, Energy Engineering, 1990
- Project Management Excellence Certification, Northeastern University, 2008

Other Professional Qualifications:

- PMP: (#321437), 03/20/06
- 40-Hr HAZWOPER, 1994; 8-Hr Refresher, 2015

Languages | Clearance | Special Qualifications (years in the military, etc.)

- Languages: English, Hindi, Bengali

SUMMARY OF EXPERIENCE

Mr. Gangopadhyay has 31 years of environmental remediation experience, including management of large, complex environmental programs with a total value in excess of \$180M. These programs have been highly visible with multiple stakeholder interactions, including the community and have required extensive reporting pertaining to project progress, environmental monitoring and control, and H&S protection processes. His experience includes cradle-to-grave activities from conducting environmental assessments, preparing environmental management and protection plans, remedial action plans, characterization and delineation work plans, and site investigation reports, designing solutions for remediation and restoration projects, regulatory interpretation, and excavation, storage, and treatment/disposal of hazardous wastes and restoration of sites. His remedial technologies expertise includes landfill construction, waste stabilization and placement, off-site disposal, bioremediation, chemical oxidation, and thermal treatment.

PROJECT EXPERIENCE

Contract Number | TO Number | ECC Project Number

Senior Project Manager/QC Manager, Defense Construction Canada, Remedial Services for PHC Soil, Sediment, and LPH (Various Projects), Goose Bay, NL, \$31.5M (2013-Current) Responsibilities:

Managed seven projects involving investigation/characterization, delineation, and remediation of PHC- and LPH-impacted soil and sediment via bioremediation, chemical oxidation, mechanical separation, off-site disposal, and, in one case, remediation of PCB via soil washing. Responsibilities: Developed the project remediation approach, cost estimate, schedule, and DCC-approved project planning documents. Managed setup of the process for the first large treatment program at 5 Wing to ensure that any issues were proactively confronted and mitigated. Ensured integration of local suppliers and subcontractors and voluntarily tracked and reported employment of First Nation personnel. Continues to facilitate integration between field crew and remediation specialist to ensure that treatment processes are being optimized as required. Monitored schedule and QA/QC system. Reports monthly progress along with any required corrective action. Treated contaminated water from excavation and treatment areas to meet the Canadian Council of Ministers of the Environment criteria for non-aquatic life bearing waters, with benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations in the treated water consistently below discharge criteria. **SOW:** SOW summary to include high level project objective first, and include schedule drivers, technologies, metrics like # of crews or field staff and subcontractors, relevant quantities, etc.

Accomplishments: Accomplishments relevant to project objectives, schedule, cost, quality, safety, regulatory site closure or transfer of real property, CPAR, LEED, PPQ, etc

Contract Number | TO Number | ECC Project Number

Senior Project Manager, Canadian Nuclear Laboratory, Various Projects, Port Hope, ON, \$115M (mm/year – mm/year [your time on the project, not entire project duration]). Responsibilities:

Responsible for management oversight of scope, schedule, and budget related to Port Hope projects. Worked closely with CNL's contract to ensure compliance; arranges the necessary resources for project team to execute planned work; supervises long-term planning of project; proactively highlights potential issues to client for timely resolution; and ensures schedule milestones are met. **SOW:** SOW summary to include high level project objective first, and include schedule drivers, technologies, metrics like # of



crews or field staff and subcontractors, relevant quantities, etc. **Accomplishments:** Accomplishments relevant to project objectives, schedule, cost, quality, safety, regulatory site closure or transfer of real property, CPAR, LEED, PPQ, etc

463213 | 5906.000

Project Sponsor, Canadian Nuclear Laboratory, Port Hope Early Works 3a (EW3a), Port Hope, ON State, \$399M (09/2015-04/2016). **Responsibilities:** Serve as the primary contact responsible for oversight and client alignment of this \$3.99M project for CNL involving excavation and relocation of low-level radioactive waste (LLRW). Contaminants included uranium, radium 226, arsenic, and others. **SOW:** The scope consists of site preparation, well abandonment, excavation, and stockpiling in designated locations and restoration of the site in accordance with the technical scope of work. Ensured that project team aligned with client objectives. Provided additional resources to mitigate issues as they arose to keep project on track. Managed team through development of project schedule, tracking, and recovery from delays. **Accomplishments:** Accomplishments relevant to project objectives, schedule, cost, quality, safety, regulatory site closure or transfer of real property, CPAR, LEED, PPQ, etc

Contract Number | TO Number | ECC Project Number

Senior Project Manager, Canadian Nuclear Laboratory, Solidification and Stabilization of Contaminated Sediments, Sydney Tar Ponds, Nova Scotia, \$75M (mm/year – mm/year [your time on the project, not entire project duration]). **Responsibilities:** Developed and implemented the approach, cost estimate, P3 schedule, resourcing plan, and approved project planning documents for this \$75M project, including soil and sediment stabilization, capping, synthetic-lined channel construction, and infrastructure installation at a site contaminated by former steel mill operations. Managed and oversaw treatment operations to ensure that the stabilization process was being implemented effectively through adjustment of recipes as well as adapting alternate mixing methods when required. Managed schedule to ensure that project was completed ahead of projections despite weather and site-related impacts. Worked with the Agency and the owner's representative to ensure that changes to the scope were handled to provide the best value for the client. Ensured that contract specifications were handled with no deviations, resulting in scores above 95% for various quality indicators. **SOW:** SOW summary to include high level project objective first, and include schedule drivers, technologies, metrics like # of crews or field staff and subcontractors, relevant quantities, etc. **Accomplishments:** Received praise from the Agency and Public Works for completion of the project ahead of schedule and under budget.

FA4890-06-D-0011 | 5002 | 4046.502

Senior Project Manager/Remediation Specialist, US Air Force – HQ Air Combat Command, DB Restore-Remediate Contract, Moody Air Force Base, GA \$9.2M (09/20007-09/2013) **Responsibilities:** Managed project, including remedial design, closure, and optimization of 12 sites contaminated with PHC, chlorinated solvents, and landfill debris. Prepared strategies to reduce long-term liability through site closure or exit strategies incorporating optimization of remedial and post-remedial activities. Managed design, implementation, and optimization of soil and groundwater remedial activities, including excavation and stockpiling, landfarming, bioremediation, and chemical oxidation. Supervised long-term monitoring and annual reporting of all site data to include recommendations for reduction of efforts. Optimized treatment systems to minimize life-cycle cost and accelerate shutdown and negotiated remedial approaches and optimization with regulatory agency. Presented project updates to regulatory agencies at public meetings. **SOW:** Providing investigations, closure designs, and construction activities at all sites. This includes execution of all health and safety and quality control requirements, as well as hazardous waste management. Affected sites include three landfills, a surface disposal site, a fill site, a service station, an engine maintenance shop, a vehicle maintenance shop, a former fire training area, a flight line apron, a flight line stormwater outfall, and a TCE plume at the base golf course. The primary remedial approach for the chlorinated solvent sites is in-situ bioremediation (principally reductive dechlorination) coupled with monitored natural attenuation. **Accomplishments:** Received a safety award for the National Safety Council for 39,610 employee hours without injury or illness involving days away from work.



DACW33-02-D-0003 | 0002 | 5602.002

Senior Project Manager/Remediation Specialist, USACE-NAE, Remedial Investigation, Feasibility Study and Remedial Design Activities, Otis AFB, Massachusetts, \$39M (03/2003-04/2011).

Responsibilities: Managed project for remediation and closure of multiple sites under a US National Priorities List program. Led 50 on-site personnel and 25 subcontractors during design, construction, and installation of three soil vapor extraction (SVE)/air sparging systems, and the excavation, transportation, and disposal of 49 sites contaminated with PHC, chlorinated solvent, pesticides, poly-aromatic hydrocarbons, and metals. Set up and conducted periodic meetings with client and agencies to accelerate review time and facilitate site closure. Supervised creation of closure reports, which facilitated de-listing and closure of sites. Optimized treatment systems to minimize life-cycle cost and accelerate shutdown. Met multiple enforceable milestone dates to avoid liquidated damages. Met contract specifications with no quality deviations or re-work. **SOW:** ECC provided QC of all ground and aerial geophysics and GIS that was performed by the subcontractor. Geophysical instruments were utilized during operations in support of investigation of suspect disposal trenches that were speculated to contain propellant bags. GIS was used to help scope sampling location, MEC study areas, to support density predictions and to support soil excavation. More than 5,122 MEC items were located and stored in the site database to allow for GIS querying and analysis. MEC and MD finds were spatially overlaid in a GIS mapping system to determine and differentiate munitions training areas and testing areas for multi-use range areas. MEC work was conducted in support of well pad clearance, access road clearance, and construction clearance. Avoidance support was provided during the collection of soil samples and installation of profile borings and monitoring wells. Location, detection, identification, removal, and disposal of MEC items were performed as a support component to all aspects of the project. Work plans for MEC assessment; evaluation of data to predict residual MEC, remediate MC-contaminated soil, MEC removal, and an ESP were submitted on time with no regulatory issues or concerns. Investigation activities included MC site assessment and investigation; ground-base geophysical surveys; MEC density and hazard analysis; feasibility studies; and groundwater modeling in support of soil and groundwater characterization.

Accomplishments: OSHA - ECC received Voluntary Protection Program Star Status from OSHA-the first small business environmental remediation firm to be given the designation. (ECC has since become a large business.) Subsequently, ECC received the Gold Star Among Stars award from OSHA Region 1, given for attaining safety records 90 percent better than Bureau of Labor Statistics. EPA - EPA issued several administrative orders requiring compliance with Safe Drinking Water Act regulations as well as CERCLA and Massachusetts Contingent Plan regulations.

Contract Number | TO Number | ECC Project Number

Quality Manager, USAF, Landfill No. 4 Cover Renovation, Warner Robbins AFB GA, \$5.9M (mm/year – mm/year [your time on the project, not entire project duration]). **Responsibilities:** Managed QC for installation of a new cover on Landfill 04, which included demolition of existing structures, clearing 39 acres, importing 21,300 sq meters of fill, installing 428,000 mP³P of 7-oz Geotextile, 17,000 square meters 13-oz Geotextile, and 34,002 sq meters. Supervised three QC personnel overseeing subcontractors providing geotechnical services (field sampling, standard operating procedures, and testing); drilling monitoring well; constructing of concrete pad according to design specifications; installing the security fence; and supplying the geosynthetic liner for the landfill geotechnical testing program which involved more than 1,000 samples. Supervised and coordinated the liner material acceptance testing program which required review of QC data for each of the six layers of liner material. Participated in preparatory meetings with Air Force Environmental Management personnel, subcontractors and third-party consultant prior to initiation of major project activities. Prepared and/or reviewed all submittal prior to transmittal to the US Air Force. **SOW:** SOW summary to include high level project objective first, and include schedule drivers, technologies, metrics like # of crews or field staff and subcontractors, relevant quantities, etc. **Accomplishments:** Accomplishments relevant to project objectives, schedule, cost, quality, safety, regulatory site closure or transfer of real property, CPAR, LEED, PPQ, etc

Years of Experience: 26 Years

With Current Firm: 3 Years

Education:

- Doctor of Philosophy (PhD) in Management- Walden University, 2020
- Master of Philosophy, Management, Walden University, 2019
- Toronto Metropolitan University (Ryerson), 2019
- Master's Degree, Highway/Transportation Engineering University of Science and Technology - Port Harcourt, Nigeria, 2006
- Post Graduate Diploma, Civil Engineering, University of Science and Technology - Port Harcourt, Nigeria, 2001
- Higher National Diploma Civil Structural Engineering, The Polytechnic Calabar - Cross River State, Nigeria, 1992

Current Professional Registration:

- Certified Engineering Technologist (CET), Canada, 2020
- Licensed Ontario Professional Engineer (PEO), Canada, 2021
- Registered and Licensed Engineer, Nigeria (COREN), 2007
- Certified Quality Manager (QCM-C), 2021

Other Professional Qualifications:

- International Association of Quality Practitioners
- British Institute, Non-Destructive Testing
- Project Management Institute (Member)
- Nigeria Society of Engineers, 2006
- Lead Auditors/QMS Certification/Training ISO 9001, 2008 and 2015
- ISO QMS 9001, Certified Training, SGS Inspection Services Ltd
- ISO QMS 9001:2015, Refresher Training, Shell Company, 2017
- Helicopter Underwater Escape Training
- Confined Space Training
- Shell HSE training Levels 1, 2, and 3
- Radiation Protection training Group 4 and 3 Certifications
- Security Clearance for reliability status
- Certified First Aid and CPR

Proficient in:

Microsoft Office, AutoCAD, STAAD, MS Project, Primavera, Database: SharePoint, Assai, Live-link, Trimble-Prolog, Aveva, Synchro8, Shell-QIRM, Blackboard, & Online Facilitator

Skills:

Project Management, Construction Management, Business- Planning, Engineering Change Management, Subcontract Preparation and Management, Contract Negotiation, Operational Efficiency, Leadership, Coaching, Analytical Skills, Working Knowledge, Conflict Resolution Management, Customer Satisfaction, Guiding Strategy and client service plan

Publications:

- Enabudoso, Patrick, "Organization Global Software Development Challenges of Software Product Quality" (2020). Walden Dissertations and Doctoral Studies. 9354. <https://scholarworks.waldenu.edu/dissertations/9354>

SUMMARY OF EXPERIENCE

Mr. Enabudoso has over 20 years of project management experience in the LNG, general Oil and Gas, construction, manufacturing, exploration and operation, environmental and land remediation/Restoration, infrastructural development, construction management, low and high-rise buildings, coastal and marine engineering design and construction, water distribution and management, land reclamation, Highway and transportation, structural designs, geotechnical and material testing, traffic operation and transportation management, contract and procurement, and municipal storm and wastewater management. His expertise includes management consulting, organizational leadership, compliance management, mechanical completion, commissioning, and decommissioning. Mr. Enabudoso managed several projects compliant with Quality Management Systems (QMS) ISO 9001 and Environmental ISO 1400. He worked progressively in different Environmental Impact Assessment (EIA) phases for over 15 years, implementing continuous process improvement and achieving customer satisfaction. He served in project sizes from \$ 10 million to \$3.5 Billion US dollar Projects.

Managed all phases of the project life cycle from initiation planning, execution, monitoring, and close-out phases, including managing the internal and external audit processes, asset management, procurement management, product management, change management, risk management, developing key performance indicators (KPIs), conducting stakeholder engagement, and engaging in pre-qualification and management of subcontractors, vendors, and suppliers. Communicated and collaborated with clients, municipal governments, institutions, regulatory bodies, Consultants, and the public. Implemented the Quality management system by maintaining project and quality records, Non-Conformance Report (NCR), Corrective Action Report (CAR), Project closed-out phase, and deliverables (Transmittals) management. Managed red line drawings and as-built documentation, achieved mechanical completion, and implemented commissioning management systems (CMS) in numerous projects. Engaged in site-level interaction and engagement with regulators such as CNSC, MECP, ECCC, MOL, MPH, and DFO. Conversant with Canadian, American, and European Standards: Ontario Building Code, OPSS, OPSD, CSA, ASTM, AWS, ASME, ANSI, API, ACI, BS, EN, PD 5500, and DIN. Managed and controlled all aspects of the projects, all subcontractors, vendors, and suppliers. Managed design processes (Independent Design Review of structures), safety and security, quality, cost, schedule, and construction (Road-Highway and transportation management, buildings, bridges, deep foundations, coastal and marine), radiation protection management, environmental, land remediation, maintenance, and project management.

Mr. Enabudoso is skilled in developing project and organization technical procedures and manuals such as work plans, QAP, Quality Manuals,



Inspection Test Plans, Technical Method Statements, Policy Statements, and prepared proposals and BOQ. Prepared procurement and contract documentation. Reviewed and provided feedback for work procedures, project specifications, and drawings. Skilled in commissioning and mechanical completion of packages, systems, and subsystems using CMS software for project closeout.

Prepared the project proposals, RFP, RFI, and responses to RFC. Helped develop and constantly update project scope, cost, and schedule baselines. Partaking in financial forecasting (ETC/EAC), CPI/SPI, reviewing invoices, and providing approval. Checked the company and subcontractor's monthly accruals before sending them to the client for approval. Responsible for Invoice tracking against the budget. Presided over weekly progress meetings and other meetings with the clients. Presided over discussions with the subcontractors and vendors. Presided over daily POND meetings with team members and other stakeholders. Prepared monthly reports and progress reports. Provide input on all purchase orders and work authorization. Reviewed Contract agreement and Procurement documentation. Managed the project team, subcontracts, vendors, and supplies and related with the clients in daily communications using agreed mediums. Obtained project completion certificates.

Managed multicultural and multi-discipline workers to achieve high team cohesion, effective communication, and collaboration. Engaged often in team building, mentoring, and coaching. He applied several safety tools and modern safety work packages to achieve project flawless delivery: HAZOP, HASID, HEMP, JHA, RAM, IWC, Radiation Protection Safety, and HSE case management for critical safety elements and environmental and risk assessment in significant projects.

Identified and presented constructability issues to EOR in the form of RFIs and presented workable solutions with the overall team, proposing to lessen extras and schedule increases. Identified Engineering Risks and contingencies required to hedge against the risk. I reviewed contracts, invoices, payments, etc., and commented on their validity to the payments team. As a project manager, I managed critical scopes of work that required timely decision-making and prepared reports for earned value, accruals and forecasting for discrete work and proposals by preparing estimates.

PROJECT EXPERIENCE

Project Manager, Environmental Chemical Corporation (ECC) PHAI-Projects- Port Hope, Ontario, Canada. Characterization, Engineering, Design, Remediation, and Restoration (CEDRR) for Chemical National Laboratories (CNL)-Task Order 1- PHAI projects/ Long-Term Waste Management Facility (LTWMF)

- **Long-Term Waste Management Facility (LTWMF) \$140M (02/2023-12/2023)**

Performed PM functions for the LTWMF construction and project closeout phase activities related to the project's completion final inspection and preparation of completion certificates for separate phases of the projects: Cell 3, Cell 2A, and Cell 2B. Radiation Waste/Grey Water Management, Waste Cell 2A Construction Management. Radiation Protection Management. Prepare final submittals and closeout documentation: validated scope, reconciled work scope, equipment, and materials—asset management and reconciliation with the client and the subcontractors. Prepared accruals and invoices and held back invoices. Negotiate costs and payments with the client and the subcontractors. Resolution of conflicts and negotiation with the client. Attend and preside over weekly progress meetings with the client, make reports, and submit submittals. Involved with JV partner engagement and management. Management Asset sharing and negotiation with JV Partner Quantum Murry JP/ECC. Prepare and present project final deliverables, redline drawings, and as-built packages. Managed the subcontractors, vendors, and supplies.

- **Lions Park Remediation and Restoration project (\$18M) 02/2023-Present)**

Responsible for cost, scope and schedule, financial forecasting (ETC/EAC) and invoice tracking against the project's budget. Managed and supervised the site's day-to-day activities: prepared change directives and reviewed requests. I presided over weekly progress meetings and other internal and external meetings involving the client, team members, contractors, and other stakeholders. Evaluated project progress against the baseline schedule and monitored the critical path. I reviewed contractor invoices for accuracy compared to approved T&M/ Cost Reimbursement contract



sheets and documented project progress. Actively participate in project risk assessment meetings and contribute to the qualitative and quantitative evaluation of risks and the development of risk responses. Conduct daily oversight of the Contractor's work activities, ensuring that work is completed safely and in compliance with project design specifications, Contractor submittals, the Waste Nuclear Substance License, and applicable provincial and federal legislation—track and log issues impacting project quality and the corrective actions taken to rectify deficiencies. Lead site-level interactions and engagements with regulators during site visits and inspections. Guided fieldwork as a project manager, ensuring compliance with the approved project documents and the Waste Nuclear Substance License. Ensured all submittals were submitted and approved. I issued the RFIs /Change Deviation request, Corrective action request, Safety, Radiation Protection and Environmental Incident reports, and Nonconformance report. Prepared and raised requests for Work Authorization and Purchase Orders supporting the contract management. Interface with stakeholders, contractors, vendors, and the public. Prepared weekly work progress reports. I review work procedures and Integrated Work Control (IWCs) and get the client's approval. I managed all construction activities for site preparation, Creek Restoration, RMM/LLRW excavation and removal, and land remediation and restoration. Provided oversight for all daily environmental and radiation monitoring management. Coordinated all audits, client oversights, and assessment processes.

▪ **Chemetron Lagoon Remediation and Restoration project (\$20 M) 02/2024-Present)**

Providing Support for QMS. Generating Project Phase Documentation (Checklists, Completion Certificates and Punch Lists). Implementing close out of all outstanding submittals/Preparing close out submittals/Preparing for final Inspections. Document reviews, revisions, and generations of work packages where necessary. Site Construction supervision, etc. Prepare as-built documentation. Support the Project Manager on day-to-day activities. Support safety and environmental management. Liaise with vendors and subcontractors. Communicate and collaborate daily with the clients.

Provides general support to other ECC sites on Project Management and Quality Management Issues.

Quality Control Manager- Environmental Chemical Corporation (ECC)-PHAI-Chemetron Lagoon, Port Hope, Ontario, Canada, \$20 M (08/2022-02/2023). Responsibilities: Characterization, Engineering, Design, Remediation, and Restoration (CEDRR)- Chemical National Laboratories (CNL)-Task Order 1- PHAI projects. Managed and set up the ECC Quality Management System (QMS) to ISO 9001 for Chemetron Lagoon. Ensured QMS complied with Project Specifications. Developed technical work documents/SOPs, Quality Assurance Plan (QAP.) and Inspection and Test Log. Helped establish work plans for other ECC projects, such as the Highland Drive environmental Remediation project. Prepared project submittal for submission to the client and maintained deliverable register. Helped establish work plans for other ECC projects, Highland Drive, to develop QAP and Lions Park. Field construction supervision and management. Managed Asbestos removal and abatement/Demolition and removal of potentially contaminated soils. Supervised Pad foundation preparation for PTWP. I managed the erection of a water treatment plant for PCB-Polychlorinated biphenyl removal from the Lagoon. Conducted site inspection and monitoring of work activities. Prepare daily and monthly reports submitted to the client. Perform document control and document review work documents and submittals before uploading them into the Aveva database. Contributed to Corporate ECC ISO audit and central ECC's Quality Management department weekly writing posted on ECONNET. Provide mentorship to personnel and other support activities. Contributed to client's oversight request for CNSC, MECP, ECCC, MOL, MPH, and DFO. Managed client audit process of ECC project management systems (Environmental Remediation, waste management, Health and Safety, Quality Management, Radiation Protection, Odour Management, Transportation of Dangerous Goods (TDG), Security, etc.). Conduct phase meetings and partake in daily and weekly progress meetings. Prepare reports for ECC internal and the client. Conducted daily Interface management and communication with the client, subcontractors, vendors, and suppliers. Scheduled work activities with subcontractors and third-party laboratories and testing. Report concerns to the PM and perform the PM roles as delegated.

Quality Control Manager -PHAI-Long-Term Waste Management Facility (LTWMF), Port Hope, Ontario, Canada, \$140M (04/2021 – 02/2023). Responsibilities: Managed JV Partner ECC/Quantum Murry LP's Quality Management System (QMS) to ISO 9001 according to project specifications for the Long-Term Waste Management Facility (LTWMF). Managed various subcontractors and vendors to comply with QMS requirements. The



ensured project scope implementation within cost and schedule. Prepared project deliverable submissions according to requirements and uploaded them for client review and acceptance by the client (RFIs, RFCs, and submittals). Monitored construction activities in Cell 2B-LTWMF Definable Features of Work (DFW) and coordinated project preparatory phase meetings. Reviewed project documents, shop drawings, design drawings, specifications, letters, and memos. Reviewed documents, including technical work procedures, waste management, TDG, Radiation Protection procedures and forms, and Remediation Verification Standard Operating Procedure (RVSOP) reports for soil remediation and sampling procedures. Reviewed Reports before submission to the client: Radiation Protection Reports, Monthly Safety Reports, Project weekly and monthly progress reports: Health and Safety, Radiation, Quality, and Environmental Reports. Reviewed and accepted third-party laboratory material testing reports, HDPE pipe video inspection reports and dipole leak tests, Topographic Survey reports, red-line drawings and as-built documentation. Conducted audits/oversights on field construction and processes on subcontractors, vendors, and suppliers. And site construction activities. Engaged in Construction management: Baseline, subgrade preparation, clay liner, Geomembrane (Smooth and Textured), Geosynthetic Clay Liner (GCL), 300mm drainage aggregate layer, and HPDE Geotextile placements. Reviewed material tests and daily acceptance reports. Provided inputs for the Initial Phase and Follow-up phase inspections for Cell-2B. Implemented the Inspection Test Plan and Log the Project Quality Assurance Plan (QAP) and ECC's Project Management system (PMS). Monitored the effectiveness of QMS. Through daily inspections, I prepared an internal audit schedule to evaluate subcontractors. Partook in Client's (CNL) audits or oversights such as LTWMF (ECCQM Suppliers audits-2021) and provided feedback to various clients' audits. Prepared and issued non-conformance reports (NCRs) and Corrective Action Requests (CARs) to improve the project QMS process. Conducted document control activities by maintaining the Document Deliverable Register and document distribution matrix. Reviewing documents, uploaded, and downloaded documents from the Prologue (Trimble) project database for storage. Initiated ECC ISO internal Audit for Subcontractors and suppliers (Example: RadSafe Canada Ltd – Radiation Protection ISO internal Audit in 2021). Prepared audit documentation and final reports. Coordinated LTWMF project completion and handover phase to the Client, such as Cell-2B facility and Leachate Pump Houses. Drive the quality culture process among team members, update all SharePoint projects and quality records, and ensure proper organization.

Executive Manager, Fortress Supports Services, Inc., Vaughan, Canada (05/2017 – 04/2021).

Responsibilities: Engaged in the operational management of the company's business and activities. Drive personal and team goals to achieve them within a specified period. Provide direction, planning, execution, control, and guide to delivery. Managed personnel, materials, and equipment. Administered contracts and managed portfolios of projects, finances, budgets, schedules, and timely completion of projects. Ensured team environment to meet the Client's business objectives. Arranged and coordinated meetings to collaborate with internal and external parties by following up on issues and meeting deadlines. Risk Mitigation management and prioritization of requirements based on business needs. Contribute to business decisions and provide support. Flexible and adaptable quickly to fast-paced business settings, ensuring proper documentation of business meetings and discussions. Facilitate employee training and development. Drive company research and development, including Supply chain and quality Management implementations.

Quality Team Lead/Senior Engineer, Shell Company, 20 Inches – 40Km Pipeline Soku-Kolo Creek/ Pressure Vessels Fabrication and Facilities Construction (EPC), Port Harcourt, \$1.5B (2013 – 2017).

Responsibilities: Provided Project management and Civil Engineering Design Support to the project team. Responsible for managing the main contractors, subcontractors, and vendors in over 50 sites and locations for fabrications, construction, third-party Laboratory testing and factory acceptance tests (FATs). Maintained ISO 9001 Quality Management Systems (QMS) in the EPC Projects and instilled a culture of excellence within various teams, contractors, and suppliers. Implemented full compliance with project specifications, including the scope of work and contract requirements. Directed inspection of structural steel fabrication and conducted PWHT procedures. Observed NDT/NDE procedures. Managed site radiation safety and documentation; Oversaw and supervised the construction of various civil engineering activities, including creating foundations, sand filling/dredging, road design/layout, buildings, and construction. Carried out soil, concrete, steel, and asphalts testing and performed environmental impact assessment reviews while gauging structural integrity. Team development facilitating Quality QMS ISO 9001 training



and mentoring. Audited Contractor and subcontractor's quality system to QMS ISO 9001 requirements. Pre-qualified contractors and subcontractors monitored the effectiveness of quality implementation processes. Reviewed monthly environmental and safety submittals.

Quality Team Lead/Senior Civil Engineer, Shell Company, Integrated Oil and Gas – Gbaran/Ubie NLNG Supplies Project (EPC), Yenagoa, \$3.5B (2007 – 2013). Responsibilities: Managed quality management systems (QMS) in a significant project of complex activities ranging from civil construction, mechanical fabrication, welding work, electrical, and instrumentation activities. Provided Project management and Civil Engineering Design Support to the project team. Construction management of Helipad, accommodation buildings, hospital, fire building, telecom building, telecom mast, Warehouses, over-head steel water tank, waste and water treatment plant, internal and central access road design, and construction supervision. Performed design calculation and drawing review. Involved in planning and monitoring progress and schedule and directed quality management processes to ensure continual improvement throughout each development phase. I reported directly to the corporate quality manager and project leader and reviewed designs of civil structures, including roads, steel fabrication, foundations, bridges, culverts, buildings, and concrete structures. Organized and presided over leadership progress/quality meetings and supervised management of engineers in major EPC projects. Observed multiple contractors and identified various site challenges by restructuring and setting up a unique QC System. Obtained permission from NRA to use radiation substances at the site and managed radiation safety for NDT quality activities. Eliminated preservation problems that could cause delays and severe cost implications by devising a system for frequent preservation checks. Supervised activities/employees within all divisions. Performed audits and e-MOC assessments and processed NCR and KPI reports. Directed Field Logistics Base (FLB.) construction and managed NLNG projects' subcontractors and suppliers. Implements ISO 9001 QMS in an organization and evaluates quality management systems of sub-contractors, vendors, and suppliers, ensuring compliance and continuous process improvement. Initiated Quality QMS ISO 9001 awareness training for project personnel. Mentored project engineers, QA Engineers, and QC Inspectors. Audited contractors' and subcontractors' quality systems to ISO 9001 requirements. Monitored the effectiveness of the Contractor's quality management implementation processes.

Project Quality Manager, Belfinger/Julius Berger Company, Riverbed and Shore Protection, Port Harcourt, Nigeria, \$300M (2005 – 2007) Responsibilities: Provided Project Management support to the team. Responsible for managing site preparation/Riverbed and shore protection for Gbaran-Ubie facilities. Developed quality system for constructing a 500m jetty, including civil/mechanical structures, marine facilities, demolition, rock blasting, dredging, and land reclamation. Achieved on-time project delivery and implemented Health, Safety, and Environmental Management (ISO 14001). Managed Dredging/ Sand filling (200,000m³) and Reclamation of Land of about (10km²). Engaged in design review of structural drawings and calculations. Supervised Land remediations – Bush clearing, suction dredging, sand filling, geotextile membrane, gabion stones and reno mattresses activities. Coordinated construction supervision of Jetty construction; soil investigation, tidal monitoring, piezometer monitoring of groundwater, bathymetry, topographic survey, 2m diameter bored piling, soldier piles, sheet piles and precast piles installation, concrete work, pontoon steel installations. Managed geotechnical soil investigations. Managed sub-contractors: Contract management contents and construction management. Manage submittals or project deliverables for the Client. Applied the 3-phase control of inspections and documentation—worked material receiving and preservation per project and manufacturer specifications. Reviewed monthly environmental reports and developed quality assurance/control and technical procedures.

Other Work Experience History:

- **Project Quality Team Lead**, Shell Company, Soku LGSP – De-Bottlenecking Project, Port Harcourt, Nigeria, \$1.5B (2005 – 2006).
- **Project Quality Lead/Project Engineer**, Shell Company, Associated Gas Gathering Projects, Cawthorne Channel, Niger Delta, \$2.5M (2002 – 2005).
- **Project Manager (Consultant)** SGS Inspection Services, Exxon Mobile, Yoho Development Loading Bay Jetty, Ake Base Iwofe, Port Harcourt, Nigeria (2002).



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- **Project Third-Party Independent Civil Engineer** -SGS Inspection Services (Consultant for Consortium projects) Shell Company, Associated Gas Gathering Projects, Obigbo Node, Port Harcourt, \$2.5B (1999 – 2002).
 - **Project Third-Party Independent Civil Engineer/Quality Lead** -SGS Inspection Services (Consultant for Consortium Projects)-TSKJ Main Contractors-LNG Bonny Island, \$3.3B (1997 – 1999).
 - **Project Manager, Bijoko Nig Ltd**- Chevron Escravos/Shell, Safety and Environmental Training Ground, Concrete Slabs, Drains, and Cesspool, Construction of Community School Blocks, Warri, \$10M (1995 – 1996). Responsible for Project and construction management.

Ellen C. Jakub

Alternate Quality Control System Manager

Education/Qualifications:

BS, Chemical Engineering, University of Pittsburgh, Pittsburgh, PA, 1984.

BS, Environmental Protection Science, Point Park University, Pittsburgh, PA, 1998.

Relevant Experience:

Ms. Jakub has close to 25 years of remediation support experience, including 10 years' experience in an industrial/construction environment performing process and Quality Control (QC) functions. Her broad range of experience includes health physics remediation oversight, radiation safety officer (RSO) duties, MARSSIM design surveys and sampling, data management and analysis, and dose modeling, at sites impacted with radioactive material. She is responsible for site investigations for site final acceptance by regulatory agencies within a time-frame that will support closure, utilizing her MARSSIM experience and understanding. Her experience includes projects for licensees of the U.S. Nuclear Regulatory Commission (NRC) and various agreement states (Oklahoma, Iowa, New York, Pennsylvania) and the U.S. Army Corps of Engineers (USACE). She specializes in sites involving naturally occurring radioactive materials (NORM) and technologically enhanced naturally occurring radioactive materials (TENORM).

RELEVANT EXPERIENCE HIGHLIGHTS

- Demonstrated QA/QC experience related to construction/remedial work
- Expertise in NUREG-1575, MARSSIM design characterization, remediation support, and final status surveys (FSSs) to support release of open land and structures.
- Dose modeling experience, including:
 - RESRAD,
 - RESRAD-Build,
 - MicroShield, and
 - DandD.
- RSO qualified.
- NORM/TENORM experience.
- Decommissioning experience.

Employment History:

Perma-Fix Environmental Services, Inc. (Perma-Fix)/Safety and Ecology Corporation (SEC), Project Manager/Health Physicist, Pittsburgh, PA, 2007–Present. Performs dose assessments (modeling) using DandD, Microshield, RESRAD, and RESRAD-BUILD programs. Develops and implements MARSSIM final status surveys (FSSs), soil sampling plans, and survey implementation and data management at USACE administrated and NRC and agreement state (PA) licensed sites undergoing decommissioning. Instrumental in the preparation of NUREG-1727/1757 decommissioning plans, RESRAD, and RESRAD-Build dose assessments to derive acceptance criteria, MARSSIM remediation action support, and FSSs, as well as final reporting. Performs Radiation Safety Officer (RSO) duties during site decommissioning including training, dosimetry, instrumentation quality assurance (QA)/QC, environmental sampling/analysis, and program audits. Oversees radiation technician staff.

Civil and Environmental Consultants, Inc., Assistant Project Manager/Health Physicist, Pittsburgh, PA, 2004–2007. Performed dose assessments (modeling) using DandD, Microshield, RESRAD, and RESRAD-BUILD programs. Developed and implemented MARSSIM FSSs, soil sampling plans, and data compilation/analysis. Oversaw remediation projects including radiological health and safety, dosimetry, instrumentation QA/QC, sampling, and data management. Performed air/environmental, soil, groundwater, and building (surface)

contamination sampling. Served as client RSO with duties including reviewing/auditing radiation safety program, staff dosimetry, laboratory survey, and license amendments/renewal. Conducted compliance auditing for industrial clients and laboratories.

Earth Sciences Consultants, Inc., Project Engineer, Export, PA, 1998–2003. Served as company RSO, including preparing radiation safety program, tracking dosimetry, and license amendments, renewal, and termination. Performed dose assessments (modeling) using DandD, Microshield, and RESRAD programs. Developed and implemented MARSSIM FSSs, soil sampling plans, and data compilation/analysis. Oversaw remediation projects including radiological health and safety, dosimetry, instrumentation QA/QC, sampling, and data management. Performed air/environmental, soil, groundwater, and building contamination sampling/surveys. Reviewed state mandated Radiation Protection Action Plans for the monitoring of radioactive material at solid waste facilities. Audited radiation safety programs for industrial clients and laboratories.

Electronic Circuits and Design Co., Quality/Process Control Manager, Sebring, OH, 1991–1992. Monitored and disposed of stored process wastes and investigated disposal sites for them. Completed necessary U.S. Department of Transportation (DOT) forms for transport of wastes. Reviewed and renewed permits for release of effluent streams to publicly owned treatment works (POTW) and Ohio Environmental Protection Agency (OEPA). Monitored pH and metals concentrations in effluent streams for printed circuit board manufacturer. Obtained air emission permits from OEPA for emission of sulfuric acid and metals at a printed circuit board manufacturing facility. Prepared U.S. Environmental Protection Agency (EPA) regulatory documentation for tracking releases of toxic materials (Toxic Release Inventory, TRI), consisting of a material balance of all chemicals used in a printed circuit board manufacturing facility. Implemented inspection and calibration systems in accordance with U.S. military specifications. Supervised QA inspectors and process control chemist.

Compunetics, Inc., Quality Assurance Manager, Monroeville, PA. 1984–1991. Monitored and disposed of stored process wastes and investigated disposal sites for them. Completed necessary DOT forms for transport of wastes. Reviewed and renewed permits for release of effluent streams to POTW, ALCOSAN, and Pennsylvania Department of Environmental Protection (PADEP). Monitored pH and metals concentrations in effluent streams for printed circuit board manufacturer. Implemented inspection and calibration systems in accordance with U.S. military specifications. Performed internal quality audits and supplier quality audits. Computerized rejection reports in order to target problem processes in a timely manner utilizing statistical process control. Prepared chemical process control, QA, and standard operating procedure (SOP) manuals. Set up destructive testing laboratory, researching and purchasing all material supplies and inspection equipment. Performed destructive and nondestructive testing. Supervised QA inspectors and imaging personnel. Acted as liaison between clients and production, responding to all questions pertaining to manufacturing and pursuing all corrective actions. Led plant tours and client audits. Performed all chemical process control tests (titrations, weight differentials, solvent separation, etc.) for printed circuit plating lines. Monitored contracted (supplier) chemical analyses. Computerized process control tests to pinpoint process failures utilizing statistical process control. Investigated process failures and investigated and implemented new chemistry and manufacturing processes.

Training:

- Contractor Quality Management (CQM)
- 29 CFR 1910.120 HAZWOPER.
- 49 CFR 172 Subpart H DOT.
- Troxler Portable Nuclear Gauge.
- 40-Hour RSO.

Experience Summary

Highly accomplished Certified Industrial Hygienist and Certified Safety Professional with over 29 years of on-site and project management expertise to provide oversight, review, reporting, training, and control of employee H&S processes on multiple construction/environmental sites.

Comprehensive knowledge of regulatory compliance requirements under OSHA, DOE, CERCLA, RCRA, USACE, EPA, and other federal/state regulatory programs.

Hands-on experience in compliance monitoring, development and implementation of policies and procedures, accident investigation, and worker's compensation issues.

Proven record of retaining minute detail with excellent recall regarding safety regulations and contractual language to make on-the-spot independent decisions.

Well respected with reputation for using excellent interpersonal communication skills to collaborate with staff, all levels of management, and clients.

Consistently commended for outstanding leadership skills, producing quality work product, developing proactive initiatives, and commitment to achieving optimum project safety expectations to ensure client satisfaction while adhering to corporate policy and procedures.

Education

BS (Bachelor of Science), Environmental Health, Industrial Hygiene Concentration, Old Dominion University, Norfolk, VA

Registrations/Certifications

Certified Industrial Hygienist

Certified Safety Professional

Training

40-Hour OSHA Hazardous Waste Health and Safety Training – 1989

40-Hour EM 385 1-1 Awareness Course- 2018

30-Hour OSHA Construction Safety Course- 2004

Shipyard Competent Person- 2019

Experience

Corporate Safety Director, May 2021-Present

ECC, Virginia Beach, VA

Responsible for overall management and implementation of ECC's safety program. Manage site safety and health professionals on projects and ensure safety staff assignments to meet project and client needs. Write, review, and approve site-specific health and safety plans. Conduct program reviews and audits for compliance and continual improvement.

Program Health and Safety Manager, April 2020-May 2021

ECC Camp Lejeune Operations, Jacksonville, NC

Responsible for overall management of the safety and health programs for ECC, as part of the NAVFAC Global Contingency Construction Hurricane Florence Recovery, and add-on Work. Task orders under this program involved debris removal, building renovation, lead and mold remediation, water treatment for PFOS contamination, installation of roofing, upgrades to waste water treatment systems, repairs of training roads and bridges, marina demolition and repairs, upgrades to electrical

systems, runway repairs, repairs to landing areas for military aircraft, and installation of temporary trailers.

- Monitor overall safety and health compliance, assistance, and oversight of more than 30 active task orders conducted concurrently on base.
- Assist in preparation and review of project work plans in relation to site specific safety program documents.
- Ensure compliance with lead, asbestos, and silica regulations
- Oversee industrial hygiene issues and ensure appropriate protective measures were implemented.
- Assist in implementation of safety processes on active project sites.
- Provided technical guidance to project and program employees as well as clients.
- Revise and develop programs and procedures

EHS Manager, September 2018-April 2020

APTIM, Norfolk, VA

Responsible for overall management of safety programs for APTIM's Government operations. Operations involved environmental remediation, fuels, UXO range clearance, and construction, CONUS, OCONUS, International and US Territories.

- Monitor overall safety compliance, assistance, and oversight of multiple task orders for Federal as well as commercial client project sites.
- Assist in preparation and review of project work plans in relation to site specific safety program documents.
- Assist in implementation of safety processes and manage safety staffing on active project sites.
- Provided technical guidance to project and program employees as well as clients.
- Manage injuries and illnesses, and related worker's compensation claims.
- Assist in safety council, award programs, and employee involvement initiatives.
- Conduct periodic reviews and audits of project sites to determine compliance with applicable regulations, standards, and internal procedures.

Projects included:

Fuel Storage Tank Upgrades and Repairs, AFCEC, 9/2018-4/2020:

- Okinawa, Japan
- Wake Island
- Diego Garcia

NAVSEA POL Hardening Project, NAVSEA, Naval Base Guam, 8/2019-4/2020

NAVFAC RAC, Miscellaneous UXO and HRTW Project Oversight, 9/2018-4/2020

- NAS North Island removal action
- Camp Pendleton removal action
- Camp Pendleton Range Clearance
- Town of Coupeville Drinking Water System Upgrades due to PFOS/PFOA
- Naval Weapons Industrial Reserve Plant, Bethpage, NY Remedial Action
- Naval Weapons Industrial Reserve UXO Clearance Activities Calverton, NY

Director, EHS June 2018-September 2018**Tetra Tech EC, Inc., Virginia Beach, VA**

Responsible for overall management of environmental health and safety programs and employees for Tetra Tech EC operations, CONUS, OCONUS, and International. Projects. Projects consisted of environmental remediation, coal-ash management, UXO clearance, and mine closures. Clients included commercial as well as DOD, EPA, USACE, and State Department.

- Serves as program Certified Industrial Hygienist for the Atlantic Division Remedial Activities Contract, Naval Facilities Engineering Command.
- Manage overseas operations for the State Department UXO clearing operations in the Middle East
- Provides technical support for programs and projects, including proposal review and support.
- Manages site safety and health professionals on projects and ensures safety staff assignments to meet project and client needs.
- Injury case management and worker's compensation claim management.
- Writes or reviews and approves site-specific health and safety plans.
- Conduct program reviews and audits for compliance and continual improvement.

EHS Manager of Eastern Operations, September 2015-June 2018**Tetra Tech EC, Inc., Virginia Beach, Virginia**

Responsible for assisting the Tetra Tech EC Director in overall management of safety programs for Tetra Tech EC's operations.

- Monitor overall safety compliance, assistance, and oversight of multiple task orders for Federal as well as commercial client project sites:
- Assist in preparation and review of project work plans in relation to site specific safety program documents.
- Assist in implementation of safety processes and manage safety staffing on active project sites.
- Provided technical guidance to project and program employees as well as clients.
- Manage injuries and illnesses, and related worker's compensation claims.
- Facilitated implementation of LANT RAC program safety council, award programs, and employee involvement initiatives.
- Conduct periodic reviews and audits of project sites to determine compliance with applicable regulations, standards, and internal procedures.
- Program CIH for LANT RAC VI Navy contract.

Projects included:

NAVFAC RAC 9/2015-9/2018

- Naval Station Newport Dredging Operations remedial action
- MCAS Yuma Range Clearance Activities
- Yorktown Naval Weapons Station Remedial action Site 24

EPA, USACE

- Fox River Superfund Site, Green Bay, WI- removal operations/dredging operations
- Gilt Edge Mine Closure, South Dakota

Private Sector Client

- Middle River Maryland Dredging project to remove contamination from the Middle River
- Kentucky Utilities Ash Pond Closures

ES&H Manager, August 2012 – September 2015**CB&I AREVA MOX Project, DOE, CB&I (formerly Shaw) Project Services Group, Aiken, SC**

Manage all safety aspects of the project, including sub-contractors. The project has exceeded 21 million man-hours without a lost work day case, and achieved VPP Status.

- Responsible for management of the on-site medical clinic, fitness center, production facility safety staff, and all field safety engineers.
- Interface between high level construction management, client, and field construction employees, to ensure clear communication of expectations to continue to promote a positive safety environment that has yielded exemplary employee safety performance.
- Technical resource for all project staff, as well as client.

August 2002 – August 2012, SHAW E&I, Norfolk, VA

Ten years of progressive experience and achievement as safety project management/ site safety coordinator

Program Safety Manager, May 2008 – August 2011**IHNC, USACE, New Orleans,**

Accountable for establishment and initial/continued implementation of project safety programs for this high profile \$1.1B project involving design and construction of the New Orleans Hurricane and Storm Damage Risk Reduction System.

Successfully managed the safety program for the largest civil works design-build project ever undertaken by the USACE. The project, during this timeframe, concluded with “no lost work days” for Shaw. Staffed project, developed project safety initiatives, wrote and implemented the Accident Prevention and Hurricane Preparedness Plans, coordinated training, conducted subcontractor reviews, and acted as overall technical consultant regarding project safety issues, and compliance monitoring of the safety process. This project included heavy marine construction involving hydraulic dredging, mechanical dredging, cutterhead dredging, pile driving, crane operations/heavy lifts, critical lifts, concrete placement, construction of coffer cells, dive operations, work from barges, work in extreme environments.

Program Safety Manager, November 2007 – August 2012**Global Contingency and Construction Contract (GCCC), NAVFAC (Naval Facilities) Worldwide**

Served as Program Health and Safety Manager for this \$335M US Navy contract. Directed safety programs for all construction projects under the GCCC contract. Implemented safety processes, managed staffing, developed H&S and Accident Prevention Plans, managed worker’s compensation claims, and provided technical oversight to staff and management on all projects. Developed documents and programs to ensure training, programs, and procedures were translated into local languages and worked with third country nationals to establish safety cultures where previously non-existent. Monitored and ensured the implementation of corporate policies and procedures, conducted incident investigations, and maintained proactive safety programs. Ensured compliance with applicable laws/regulations, and provided safety support/consultation to Shaw management, as well as client companies and governmental entities.

Program Safety Manager, May 2008 – 2012**LANTDIV RAC V Program, NAVFAC Atlantic Division, Norfolk, VA**

Directed overall program safety on this \$150M Navy contract, including safety program implementation and oversight of multiple task orders under the contract.

- Instrumental in team accomplishing 4,000 days with a record of “no lost work days.”
- Implemented safety processes, managed staffing, developed health and safety, and accident prevention plans.
- Provided technical guidance to project and program employees as well as clients.

- Managed injuries and illnesses, and related worker's compensation claims.
- Facilitated program safety council, award programs, and employee involvement initiatives.

Program Safety Manager, December 2002 – August 2012

Served as Program Safety Manager leading a staff of field safety professionals in the development and implementation of safe work practices on multiple individual task orders. Also, functioned as Site Safety Coordinator for several individual projects at multiple locations conducted under the LANTDIV RAC IV program.

These projects included UXO demilling activities, active range clearance activities for UXO, "Clean" site closures, installation of treatment systems, storage tank removals, bio-remediation, landfill excavation/repairs/capping, soils excavation and removal of hazardous materials.

- 2000 Day President's Award for no lost work days on one project.
- Target Zero achieved for 2 Project Sites.
- RAC Program achieved Zero Lost Work Days, Recordable Incidents or Chargeable Vehicle Incidents within Fiscal Year 2008.
- Successfully adapted to EHS organizational changes, and positioned to advance within group.

Project Experience:

Program Safety Manager, Repair and Construction Projects, , Camp Lemonier Djibouti ACC, LLC, Camp Lemonier, \$20,000,000.00, 11/2007 – 12/2008

This project consists of the construction of several buildings, upgrades to the electrical distribution system, upgrades to the water system, and repairs to the HESCO security wall.

Site Safety Coordinator, UXO 32 Scrap Yard, 831866, U.S. Navy, Indian Head, Maryland, \$921,000.00, 07/2005-12/2005

This project includes removal of all stored UXO located at the Scrap Yard location at the Indian Head Naval Base. Shaw has performed and will perform additional demilling of all inert rounds to be conducted in accordance with U.S. Navy standards for UXO scrap and will include the set up of a remote water cutting operation that will allow all MPPEH's to be opened remotely and have the contents sampled to determine if MPPEH's contain explosives.

Site Safety Coordinator/Program Safety Manager, Building 383, Bunker 154Y & Bunker 163 RCRA Closures RAC III, TO 0083, U.S. Navy, LANTDIV RAC, Portsmouth, Virginia, 02/2004 - 07/2006

This project requires completion of the necessary remedial actions as defined by the approved closure plans for each site in an effort to demonstrate that these specified remedial actions were sufficient to achieve a "Clean" Closure of the site as agreed upon by the U.S. Navy and approved by the Virginia Department of Environmental Quality. Specifically, remedial actions for this site include demolition and removal of a 30,000 square foot (sf) concrete foundation slab and two bunkers totaling approximately 3,000 tons of concrete, removal and disposal of approximately 6,000 tons of soil, replacement of 250 lf of storm sewer pipe, confirmation soil sampling and analysis, and restoration activities.

Site Safety Coordinator, FSSI-14 Camp Peary Site 60, Camp Pearl, Williamsburg, Virginia, 05/2005 - 12/2005

The removal action involved the removal of soil and debris inside two concrete pools. In **addition**, the lead-based coating applied to the interior surface of the pools was scarified to remove the lead. Lead containing waste material was stabilized on site, prior to shipment to the disposal facility.

Site Safety Coordinator, WPNSTA Yorktown, Site Safety Coordinator/Program Safety Manager, Yorktown, Virginia, 01/2005 - 12/2005

This project consisted of the demolition of a former Storage Magazine and the subsequent excavation and disposal of soil and debris in conjunction with a RCRA facility closure.

Site Safety Coordinator, F-18 Aircraft Crash Site Remediation RAC 4 Task Order 0027, U.S. Navy LANTDIV RAC, Morrisville, North Carolina, 04/2004 - 05/2005

This politically-charged cost-reimbursable project involves the successful remediation and restoration of the crash site impacted areas of the RDU Airport to precrash conditions as directed by the Navy and approved by the RDU Airport Authority and North Carolina Department of Environmental and Natural Resources. Specific activities included maintaining absorbent boom along the fuel impacted drainage basin, cleaning approximately 900 linear feet (lf) of affected storm sewer, removal of approximately 1,000 tons of fuel-impacted soil at the crash site and in an open stormwater drainage channel, cleaning of charred/stained surfaces on the roadways, confirmation and investigative sampling activities, and backfilling and seeding of the excavated and disturbed areas.

Site Safety Coordinator, Phases IIa, IIb and IIC Expansion, Navy Standard/Special Fuel Oil, U.S. Navy, Yorktown, Virginia, 12/2003 - 02/2005

This project consisted of the installation of approximately 5,300 linear feet of interceptor trench using a one-pass trenching method. The trenches were installed to a depth of 35 feet. In addition to the trenches, 46 recovery wells and approximately 9,000 linear feet of conveyance piping was also installed. Construction of upgrades to fuel farm treatment facility.

Site Safety Coordinator, Hampton Roads O&M RAC 4 TO 0021, U.S. Navy LANTDIV RAC, Norfolk, Virginia, 02/2004 - 01/2005

This cost-reimbursable project involved the O&M of three groundwater remediation systems. These systems include one pump and treat and two air sparging / soil vapor extraction (SVE) systems. The systems all treat groundwater contaminated with volatile organic compounds (VOCs) such as vinyl chloride, tri-chloroethylene, and di-chloroethylene. Air stripping, metals precipitation via pH adjustment and an inclined plate clarifier, and mechanical filtration via sand and granular activated carbon vessels are some of the treatment technologies used.

Site Safety Coordinator, Site 6 Bioremediation of Explosive-Contaminated Soils, LANTDIV NAVFAC ENCOM, Yorktown, Virginia, 01/2003 - 01/2005

This project consisted of the excavation of 2,000 tons of explosive- and VOCs-contaminated soil from a tidally-influenced marsh and transporting the material to a biocell for bioremediation.

Site Safety Coordinator, RCRA Closure Building 402, 840174, LANTDIV NAVFAC ENCOM, Yorktown, Virginia, 07/2004 - 12/2004

This project consisted of the demolition of a former Storage Magazine and the subsequent excavation and disposal of soil and debris in conjunction with a RCRA facility closure.

Site Safety Coordinator, Site 4 Removal Action, WPNSTA Yorktown LANTDIV NAVFAC ENCOM, Yorktown, VA, 01/2003 - 10/2004

This project consisted of the excavation and transportation of approximately 85,000 tons of contaminated soil and debris from a former burn area. Originally, the scope was to remove 2,000 tons of contaminated soil; however, it was discovered that the site was a former dumping area of municipal

waste, debris, and munitions of concern (MEC). Following the discovery of MEC, unexploded ordnance (UXO) support was mobilized to the site to observe the excavation activities.

Due to the large volume of waste excavated from the site, Shaw convinced the Navy to regrade the site instead of transporting 40,000 cubic yards (cy) of fill to the site to restore it to its original condition. This decision saved the Navy approximately \$100,000.

Site Safety Coordinator, Colonie FUSRAP, U.S. Army Corps of Engineers, Colonie, New York, 03/2004 - 05/2004

USACE's Colonie FUSRAP Site, a \$71,000,000 environmental remediation in New York. The work is ongoing and is being continued under Delivery Order 02 of the KC PRAC contract vehicle. Previously the work was conducted under Task Orders 22 (\$350,000), 24 (\$20,801,000) & 40 (\$11,611,000) of the BTERC. The site has excavated over 137,000 cu.yds. of mixed RCRA and Radiological wastes, performed on-site stabilization & treatment of over 112,000 tons of RCRA D-008 soils, packaged and shipped over 180,000 tons of waste materials, performed on-site wastewater treatment of 32,000,000 gallons of contaminated surface/groundwater.

Site Safety Coordinator, NYSSYI/AWI Site 9, U.S. Navy LANTDIV RAC, Portsmouth, Virginia, 12/2002 - 08/2003

Key elements of this project included in-situ stabilization and removal of >21,000 cy of calcium hydroxide that extended to depths of 15 feet below grade directly adjacent to the Elizabeth River, management of UXO uncovered during excavation, installation and operation of a water treatment system that treated over five million gallons of excavation water, installation of a nearly two-acre tidal wetlands, and the unique fact that the project was co-funded by Atlantic Wood Industries (AWI) and the U.S. Navy.

Field Health and Safety Technician, Remedial Investigation, U.S. Army Corps of Engineers, Ft. McClellan, Anniston, Alabama, 10/2002 - 12/2002

Project involved the installation of groundwater monitoring wells for remedial investigation for the removal of 3X scrap at previous chemical training area. Responsibilities included safety oversight, monitoring, maintaining daily logs, and assuring proper PPE Compliance. Project work was conducted in areas known to contain chemical weapons and MEC.

Site Safety Coordinator, Mitigation of Contamination and the Reconstruction of a Wetlands, Naval Facilities Engineering Command (LANTDIV) ATLANTIC Division, Dahlgren, Virginia, 08/2002 - 12/2002

The project consisted of the mitigation of contamination and the reconstruction of a wetlands area.

Site Safety Coordinator, St. Juliens Creek Annex site 3, 6, & 7, U.S. Navy LANTDIV RAC, Chesapeake, Virginia, 08/2002 - 09/2002

This project involved the removal of approximately 4,500 tons of contaminated soil utilizing UXO avoidance methods and XRF technology to guide the excavation.

Environmental Health and Safety Manager, October 2000 – April 2002
Flextronics Enclosures, Kingston, PA

Responsible for the development, implementation, and monitoring of Flextronics Enclosures, Inc. Environmental Health and Safety program.

- Conducted initial audits, assessments, and industrial hygiene sampling, to determine environmental, safety, and industrial hygiene compliance issues.
- Developed plans and procedures necessary to attain compliance with water permitting, waste disposal, safety and industrial hygiene issues.
- Developed programs to decrease employee injuries as well as reduce incident rates and worker's compensation costs.
- Worked with local occupational health clinic to better manage accidents and injuries, to keep employees at work, and ensure best care possible.
- Responsible for maintaining OSHA 200 logs.
- Conducted and facilitated training sessions for managers and technicians to ensure understand and compliance with new company safety programs.
- Monitored effectiveness of new EHS Program and continually improved upon programs implemented.
- Developed and implemented an Environmental Management System to be compliant with ISO-14001.

Environmental Scientist, January 1996 – April 1997
Maxim Technologies (formerly Huntingdon Chen-Northern), Denver, CO

Assigned to USEPA Superfund Technical Assistance and Response Team, sub-contracted to the primary USEPA contractor.

- Conducted hazardous waste and emergency response operations, including delineation of contamination, site control, and contamination monitoring and reporting.
- Provided on-site technical support to EPA and oversight of contractors for EPA.
- Provided assistance to EPA regarding sampling, management, and disposal of hazardous and mixed wastes.
- Conducted preliminary site investigations to determine presence and extent of contamination on sites.
- Assisted in development of work plans and provided assistance to EPA for subsequent remediation of contaminated sites and abandoned industrial facilities.
- Conducted hazardous materials training as required by OSHA for hazardous waste site work and emergency response, as well as the hazard communication standard.
- Assisted EPA in conducting public information meetings pertaining to remedial sites.

Health and Safety Manager, August 1994 – January 1996
Maxim Technologies (formerly Huntingdon Chen-Northern), Denver, CO

Responsible for the overall management of Maxim's regional health and safety program.

- Developed and implemented corporate health and safety procedures throughout the Northwest Region.
- Managed accidents and injuries as well as required documentation on OSHA 200 logs.

- Responsible for compliance, documentation, and disposal of hazardous materials generated by the regional offices.
- Assisted environmental groups in conducting Phase I site assessments.
- Conducted training for Hazardous Waste Site Work, Hazard Communication, Asbestos Awareness, Instrumentation, and Air Monitoring.
- Conducted accident investigations and management of workers' compensation claims.
- Developed site specific health and safety plans for hazardous waste site work.
- Provided technical support in the areas of industrial hygiene and health and safety.

Site Safety Supervisor, October 1992 – June 1994

OHM Corporation, Findlay, OH

Responsible for the implementation, and management of site specific environmental, industrial hygiene, health, and safety programs, in accordance with site specific health and safety plans.

- Conducted initial site hazard assessments.
- Assisted in completing and maintaining documentation related to hazardous waste storage and disposal.
- Monitored compliance of site operations with respect to OSHA, EPA, and state regulations, such as, RCRA, TSCA, AHERA, HAZWOPER, and HAZCOM.
- Implemented appropriate means to control hazardous materials exposure.
- Monitored the effectiveness of on-site industrial hygiene and safety programs.
- Initiated safety awareness programs.
- Conducted training as required by 29 CFR 1910.120 and the Hazard Communication Standard.
- Liaison between client representatives and OHM in regard to environmental, industrial hygiene, and health and safety issues.

Division Safety Coordinator, October 1989 – October 1992

MAECORP Inc., Columbus, OH

Responsible for the implementation and compliance monitoring of company safety policies in addition to Federal and State OSHA and EPA regulations, on hazardous waste project sites in USEPA Region V.

- Conducted site safety audits and prepared appropriate reports.
- Conducted air monitoring for personal exposures in addition to environmental air sampling.
- Conducted annual refresher training for hazardous waste site operation.
- Developed site specific health and safety plans in accordance with the requirements 29 CFR 1910.120.
- Conducted building inspections for asbestos.
- Maintained appropriate documentation in regard to medical monitoring requirements, training certificates, and hazard communication.
- Conducted accident investigations.
- Managed work related injuries.

References available upon request

The Board for Global EHS Credentialing (BGC)

through its vested authority, hereby confirms that

Kym Y. Edelman

has met all requirements of education, experience, and examination, and on-going maintenance set forth through the BGC's American Board of Industrial Hygiene® (ABIH®) credentialing division for re-certification in the Comprehensive Practice of Industrial Hygiene and is thereby conferred the credential of

Certified Industrial Hygienist® (CIH®)

The aforementioned individual is given all rights, privileges, and responsibilities as both a diplomate of the BGC and holder of the CIH credential, provided that the credential is not suspended or revoked, and it is renewed annually. Moreover, the holder must meet all recertification requirements, including the obligation to practice ethically as prescribed by the BGC.



Credential Number: 11090 CP

Award Date: October 26, 2016

Expiration Date: June 1, 2027

A handwritten signature in black ink, appearing to read "Alan Leibowitz", written over a horizontal line.

Alan Leibowitz, CIH, CSP, FAIHA
Chair of the Board of Directors



A handwritten signature in black ink, appearing to read "Ulric K. Chung", written over a horizontal line.

Ulric K. Chung, MCS, PhD
Chief Executive Officer and Secretary

Certificate Of Completion

**American
Safety Council!**

KYM EDELMAN

Has diligently and with merit completed the
40-Hour EM 385-1-1 on 7/6/2018


Director: Jeff Pairan

Yong McGuire, MS, CSP, CIH, CIT

Site Safety and Health Officer

Education/Qualifications:

M.S., Occupational Safety and Health, Columbia Southern University, Orange Beach, AL.

B.S., Physics, Mesa State College, Grand Junction, CO.

Certified Industrial Hygienist (ABIH - cert #11587).

Certified Safety Professional (BCSP - cert. #17238).

Certified Instructional Trainer (BCSP – cert. #13112).

Member of ASSE, Colorado Safety Association, AGC of Colorado, American Industrial Hygiene Association, AGC of America Safety and Health Committee.

Relevant Experience:

Mr. McGuire's background includes an accomplished record of over 20 years of field experience in safety and health and environmental operations. He is a safety professional with experience in construction, renewable energy, radiological, industrial hygiene (IH), oil and gas, and environmental fields. Mr. McGuire is a Certified Industrial Hygienist (CIH), a Certified Safety Professional (CSP), and is a Certified Instructional Trainer (CIT).

RELEVANT EXPERIENCE HIGHLIGHTS

- Over 20 years' experience in environmental safety and health.
- Extensive health and safety experience in construction, renewable energy, radiological, IH, oil and gas, and environmental fields.
- Certifications include CSP, CIH, and CIT.
- Instructor for excavation, fall protection, electrical, and confined space.
- Experienced sampler for PCBs, dust, noise, and mercury and other heavy metals.

Employment History:

Health and Safety Representative, Perma-Fix Environmental Services, Inc. (Perma-Fix), 09/2019–Present. Currently serving as the Lead Safety Manager at the Harborview Medical Research and Training Building. Oversees the cleanup of C-137 contamination, removal of contaminated components, and other construction activities. Duties include being the site COVID-19 subject matter expert (SME), providing guidance on biological hazards, and overseeing the removal and fumigation of bio-safety cabinets (BSCs). Recent duties on other projects include providing safety oversight on the Old Town Demolition (OTD) project at Lawrence Berkeley National Laboratory (LBNL). Construction safety duties included ensuring compliance to California Occupational Safety and Health (CalOSHA) and LBNL requirements. Conducted training as required such as excavation, fall protection, electrical, and confined space. Conducted daily safety observations and submitted reports to LBNL safety. Reviewed and approved all lifting plans for crane work. IH duties included conducting IH sampling for polychlorinated biphenyl (PCB), dust, noise, and mercury and other heavy metals. Submitted samples to a national laboratory and submitted reports to LBNL. As a radiological control technician (RCT), assisted with surveys in relation to shipments of waste going to Nevada National Security Site (NNSS). Performed environmental walk downs and assisted with Stormwater Pollution Prevention Program (SWPPP) inspections.

Site Safety Manager, Substation and Transmission Line Construction, Planet Forward, 10/2018–09/2019. Oversaw the construction of substation, distribution/transmission lines, and bridge installation.

Safety Professional for Contract-Based Projects, 03/2014–10/2018.

- **Lead Safety Manager, AECOM HUNT, LA Rams/Chargers Stadium.** Site Manager for the construction of a bridge, two substations, and installation of 13 miles of transmission line including power poles.
- **Health and Safety Manager; Tesla Manufacturing Plant Expansion; Fremont, CA; Tesla, Fremont CA.** Lead Safety Manager for OEG Electrical contractor. Was the liaison to Tesla safety group, conducted various training including NFPA 70E, fall protection, and aerial lift. Conducted daily jobsite inspections and submitted reports to corporate safety. Reviewed and authorized all energized work permits. Conducted daily safety meeting and assisted in writing job hazard analyses (JHAs) and daily pre-task plans. Assisted supervisors on the proper selection of safety equipment.
- **Health and Safety Representative; Perma-Fix; LBNL, Berkeley, CA.** Provided safety oversight on the OTD project. Construction safety duties included ensuring compliance to CalOSHA and LBNL requirements. Conducted excavation, fall protection, electrical, and confined space training. Conducted daily safety observations and submitted reports to LBNL safety. Reviewed and approved all lifting plans for crane work. IH duties included conducting IH sampling for PCB, dust, noise, mercury and other heavy metals. Submitted samples to a national laboratory and submitted reports to LBNL. Assisted with surveys in relation to shipments of waste going to NNSS. Performed environmental walk downs and assisted with SWPPP inspections.
- **Site Safety Inspector, Liberty Pipeline, Enbridge Oil, Pump Station Construction and Superior Terminal.** Provided project environmental health and safety oversight at several Enbridge oil pipeline pump station construction sites as well as the terminal. Conducted site orientations, was the competent person for pipeline excavation, conducted daily facility audits, conducted incident investigations, wrote daily reports, reviewed crane lifting plans and reviewed subcontractor JHAs to ensure they aligned with Enbridge's safety policy. Worked with other craft inspectors to correct any safety deficiencies noted. Assisted contractors and subcontractors in conducting hazard assessments prior to start of a task. Reviewed deficiencies noted with contractors to discuss possible solutions. Submitted corrections to client. Assisted project managers and supervisors on the completion of required daily supervisor observation forms; consolidated the information and submitted to corporate.

Safety Professional for Contract-Based Projects, 03/2014–10/2018.

Corporate Safety Compliance Manager, Wanzek Construction, 12/2009–02/2014.

- ***Prior position within Wanzek: Division Safety Manager – Wind Power.***
- ***Corporate Safety Compliance Manager.*** Conducted scheduled and impromptu safety audits and inspections on all corporate projects and field offices (wind, solar, oil and gas, industrial, heavy highway). Generated reports and submitted to site management team as well as reported findings to corporate executive management team. Followed up with site management team to ensure discrepancies have been corrected. Site visits included:
 - Audits: Ensured compliance and consistency to company and client policies, OSHA standards, and other local and state regulations. Verified training was up-to-date and documented accordingly.
 - Inspections: Performed jobsite walks to identify unsafe conditions and non-compliant items.
 - Behavior Safety Observations: Ensured employees understood the behavior safety concept and conduct training as needed.

Safety Consultant, Mountain View Wind Turbine, Edison Mission Energy, Amerisafe Consulting, 04/2008–09/2009.

- Conducted OSHA training, schedule, and lead emergency tower rescue drills for each construction site. Trained rescuers on the R500 tower rescue system. Conducted excavation, trenching, and soil mechanics training. Conducted competent person duties for the turbine tower foundation excavations.
- Reviewed contractors JSAs, critical lift plans, and rigging and hoisting plans. Performed daily safety inspections.
- Extensive knowledge in 29 CFR 1926 standards, but especially in fall protection, excavation, electrical, crane, and rigging.
- Led and championed behavior based safety program.

Professional Positions at Various Sites including Goat Mountain Wind Turbine, Edison; Mt. Storm Wind Turbine, Shell/Dominion; West Territory Safety Lead, Trane Commercial Systems; 10/2007–03/2008.

Health and Safety Consultant, Weifield Group (temporary contract for a high profile project), 07/2007–10/2007.

Health and Safety Manager/QA Manager, Gash Electric Company/Gash Mechanical, 02/1999–07/2007. Responsible for restructuring Gash Electric's Health and Safety Program resulting in a dramatic decrease in company's OSHA incidence rate and EMR (from 1.19 to 0.76). Accomplished by performing impromptu field safety inspections, providing loss prevention rules/training in accordance with 29 CFR 1926 and 1910 to all employees, and investigating all accidents and incidents. Managed all aspects of the company's H&S Program.

Health and Safety Specialist; DOE-Rocky Flats Environmental Technology Site; Golden, CO; 06/1997–02/1999.

- Wrote and maintained QA Program (ISO 9001:2000) to ensure compliance to Bechtel (Pueblo Army Chemical Depot) and Kaiser-Hill (Rocky Flats Environmental Technology Site, DOE) QA Program. Familiar with 10 CFR 851 and EM-385.
- Performed and oversaw lockout/tagout procedures on electrical and mechanical systems.
- Authored health and safety procedures, calibration procedures, JHAs, QA plans, and contingency plans.
- Provided training on 29 CFR 1910.120 8-hour refresher, hazard communication (hazcom), and 30-hour and 10-hour. OSHA Outreach, confined spaces, fall protection, excavation safety, and others.
- Performed various IH duties such as hearing conservation, heat and cold stress, and atmosphere monitoring. Use of various IH monitors such as PID and FID.

Safety Coordinator, Mesa Technical Resources (Contract-Wahpeton, ND), 06/1996–02/1997.

- Performed and oversaw lockout/tagout procedures on electrical and mechanical systems.
- Authored health and safety procedures, calibration procedures, JHAs, QA plans, and contingency plans.
- Provided training on 29 CFR 1910.120 8-hour refresher, hazard communication (hazcom), and 30-hour and 10-hour OSHA Outreach, confined space, fall protection, excavation safety, and others.
- Performed various IH duties such as hearing conservation, heat and cold stress, and atmosphere monitoring. Used various IH monitors such as PID and FID.

Supervising Radiation Safety Officer/Safety Coordinator, Mesa Technical Resources (Contract-Gas Hills, Riverton, WY), 05/1995–02/1996. Former uranium mill tailings site (U.S. Nuclear Regulatory Commission site).

Internship, Radiological Data Reduction and Statistical Analysis, Rust Geotech (DOE-Grand Junction, CO), 01/1995–05/1995.

QA Supervisor, Capco, Inc. (electronic and mechanical manufacturer for DOD), Grand Junction, CO, 04/1991–01/1994. Calibrated all testing instruments traceable to NIST, performed statistical process control and internal audits for DOD, wrote calibration procedures, designed test gauges for manufactured parts, and inspected parts for compliance to ANSI Y14.5. Design Engineer for the Bomb Delay Fuse Assembly (U.S. Army).

Supervising Nuclear Mechanical Operator, U.S. Navy nuclear submarine, 05/1987–01/1991.

Training:

- Cardiopulmonary Resuscitation (CPR)/First Aid.
- Blood Borne Pathogens
- OSHA 30-Hour Construction/General Industry.
- Hazardous Waste Operations, 40-Hour OSHA 29 CFR 1910.120 and 8-Hour Refresher.
- Radiological Worker II.
- Authorized Trainer for OSHA 30-Hour and 10-Hour Construction Safety Outreach Training, 29 CFR 1926– OSHA Training Institute.
- Authorized Trainer for OSHA 30-Hour and 10-Hour General Industry Outreach Training 29 CFR 1910 – OSHA Training Institute.
- Certified Instructor for Trenching, Excavating, and Soil Mechanics (Competent Person Training) – OSHA Training Institute.
- Authorized Trainer for Scaffolding – OSHA Training Institute, Red Rocks Community College, Lakewood, CO.
- Certified High Angle Rescue Trainer (Wind Turbine Emergency Rescue) – Capital Safety.
- Certified Adult, Child, Infant CPR/First Aid Instructor – American Heart Association, Medic First Aid.
- Qualified to Conduct Training in Hazardous Waste Operations, 40-Hour OSHA 29 CFR 1910.120 and 8-Hour Refresher.
- Advanced Radiation Safety Officer (RSO) Training – Umetco (Union Carbide).
- Safety Management – AGC of America.
- U.S. Department of Transportation (DOT) Motor Carrier Safety Compliance Seminar – Transportation Safety Institute.
- NCCCO Rigger and Signal Person.
- Integrated Safety Management – Rocky Flats Environmental Technology Site, DOE.
- Radiological Control Technician (RCT) Core Certified – Lawrence Berkeley National Laboratory (LBNL).
- Hazardous Waste Generator, LBNL.
- Waste Accumulation, LBNL.
- National Electrical Code (NFPA 70), Electrical Safety in the Workplace (NFPA 70E), and Hazardous Classified.
- Location (NFPA 497, 499) Seminars – National Fire Protection Association (NFPA).

- Naval Nuclear "A" School, Naval Nuclear Power School, Naval Nuclear Prototype, and Quality Assurance Inspector – USN.
- Stormwater Pollution Prevention Program (SWPPP), LBNL.



Gregory J. Hayes, CSP – Site Safety and Health Officer (alternate)

Years of Experience: 33 Years

Education:

- BS/1989/Health Science

Other Professional Qualifications:

- USACE CQM (#784), 2016
- CSP 2012 Recertification 2017
- OSHA 40-Hr HAZWOPPER, 1995, 2018
- 8-Hr Supervisor, 1995
- 30 Hr. Const Safety Class 2007, 2014, 2019
- Safety Trained Supervisor 2016
- CPR and First Aid - 2017
- 2-hours Asbestos Awareness, 2010
- Certified Inspector Erosion and Sediment Control, 2011
- Certified Inspector of Sediment and Erosion Control, 2011
- Certified NIOSH (No. 582), 1991
- Certified Radiation Training, 1991
- Certified SciTech Lead Inspector, 1991
- Certified SciTech Radiation Training, 1991
- Certified Lead Project Designer, Management Planner, Inspector, Air Monitor, and Sampler, California Department of Health Services, 1995

SUMMARY OF EXPERIENCE

Mr. Hayes has over 33 years of Health and Safety (HS) and Quality Control (QC) management experience, serving as Health and Safety Manager and/or Quality Control Systems Manager (QCSM) on a vast array construction and environmental remediation projects. As the HS Manager, Site Safety Health Officer, Mr. Hayes develops and implements, and enforces compliance with project-specific Accident Prevention Plan (APP) and associated health and safety plans and procedures, Activity Hazard Analyses (AHAs), project work plans, and project-specific QC Plans as needed. Mr. Hayes has an extensive background in vertical construction, demolition, and remediation projects. Mr. Hayes is competent in EM385-1-1, OSHA, and EPA standards and regulations.

PROJECT EXPERIENCE

Health & Safety Manager/QC Officer, ECC, Lakewood, Colorado (1994-Present). Develops, implements, and ensures compliance with project work plans, Environmental Health and Safety and Quality Control plans for new construction, remedial action, and O&M projects. Mr. Hayes has developed and implemented numerous Environmental Health and Safety and Quality Control and Plans for various government clients including USACE, NAVFAC, AFCCE,

Health and Safety Manager, Port Hope Area Initiative Project, Port Hope, ON, CA, 40 MM (4 Jan 2023 to Present)

Health and Safety Manager for work being performed at five Canadian Nuclear Lab (CNL) sites in Port Hope, ON, CA area in the remediation (and future restoration) of a landfill (HDLF) containing Low Level Radioactive Waste (LLRW) and Municipal Solid Waste (MSW), and residential sites contaminated with PCB and LLRW. Mr. Hayes responsibilities include but not limited to the following:

- Oversight management of four HS supervisors, scheduling, and general oversight of site work
- Review, revise, and update project documents-Health and Safety Plan, Covid-19 Plan, Emergency Response Plan, Traffic Management Plan, and ECC-Ontario SOPs for submission to client including response and comment sheets; perform incident investigation and preparation of the incidents



- Perform Incident investigation and prepare the Incident reports on ECCONET and submit Draft report in 24 hrs. to CNL.
- Schedules and administers H&S meeting with CNL representative before the commencement of the Work
- Presents safety moments and safety updates as and when required to CNL
- Participate in Integrated Work Control (IWC) development and provide input as an SME for Safety.
- Manages personnel H&S training requirements and records
- Submits H&S inspection reports to the client representative weekly
- Completes Health & Safety Training and ensures personnel have completed the required training; otherwise, they are not permitted to enter the site
- Implements, enforces, and monitors the Contractor's SSHASP for each site
- Addresses Health and Safety security emerging non-compliance issues within 24 hours
- Has stop-work authority for non-compliance with H&S issues

Site Safety Health Officer, Hurricane Matthew Building Repairs at AUTECH Andros Island, Bahamas, 31 MM (24 Aug 2021 to Present)

Post pandemic return to AUTECH, Andros Is., Bahamas to continue Hurricane Matthew Recovery contract work. Site Safety Health Officer (SSHO) for work under Navy Facilities Engineering Command (NAVFAC) Southeast includes repair and replacement of perimeter security fencing and fence lighting, repair of roofing systems and building siding systems on thirteen (13) building located at the US Navy AUTECH, Andros Island, Bahamas. Mr. Hayes is responsible for the overall management, maintenance, and enforcement of the project's Accident Prevention Plan regarding the numerous construction activity plans, programs, and procedures.

Site Safety Health Officer, China Lake Berthing Camp, Ridgecrest, CA, 100 MM (09 Nov 2020 – 13 Aug 2021)

Site Safety Health Officer (SSHO) for contract work under Navy Facilities Engineering Command (NAVFAC) Southwest for the construction of a 900 person berthing camp complex in support of a large construction program at the Naval Air Weapons Station China Lake (NAWSCL), Ridgecrest, CA. The scope of work for the NAWS China Lake berthing camp included but not limited to the following: mobilization and site delineation; traffic control; site clearing, grubbing, and grading; site preparation; utility installation and hook-up—electrical, water, sanitary, communication; interior fit-out; appliance and furniture installation; landscaping, hardscape, and demobilization.

As SSHO, Mr. Hayes was responsible for ensuring subcontractor adherence to project APP and AHAs pursuant to EM 385-1-1, OSHA construction and industry standards, CalOSHA standards, Air Quality Management District jurisdictions, city ordinance, and ECC's COVID-19 project plan including daily questionnaire and thermal screening for all employees.

Mr. Hayes developed, implemented, enforced, and maintained two project APPs (Construction Contract & Services Contract) and their various attachments pertinent to ECC's scope of work: site employee safety orientation training and threatened species (Mojave tortoise) awareness training; monthly exposure hours; incident investigation and corrective actions; cold and heat stress plan; HazCom/GHS; hazardous energy control plan; excavation and trenching plans; site specific fall prevention and site sanitation plan; hot work permits; crane lift plans; employee certification management, and participant in the project's quarterly Client Partnering meetings.

Site Safety Health Officer, Hurricane Florence Recovery Camp Lejeune, NC, 690 MM (01 May 2020 to 22 Oct 2020)

Site Safety Health Officer for work under Navy Facilities Engineering Command (NAVFAC) contract to include the demolition/renovation and restoration of hurricane-damaged buildings including barracks, warehouses, various support buildings; civil work including auto/pedestrian bridge construction, road



construction, temporary trailer construction, and roof renovation and repairs. As part of the health & safety team, Mr. Hayes was responsible for ensuring subcontractor adherence to project APP and AHAs, EM 385-1-1, OSHA 29 CFR 1926 for all construction activities including the implementation and management of ECC's COVID-19 project plan including daily questionnaire and thermal screening for all employees.

Site Safety Health Officer, Colorado Convention Center Denver, Colorado, 20 MM Alternate Care Facility Construction April 2020

Site Safety Health Officer for work under Army Corps of Engineers contract to transform the exhibit floors of the Colorado Convention Center into a sub-acute COVID-19 patient Alternate Care Facility. Mr. Hayes was responsible in the management of ECC's super subcontractor Hensel Phelps in the construction of over 1200 patient care spaces, 63 nurse stations, 20 negative air enclosures, modifications to the existing fire alarm system, detection system to comply with NFPA classification for patient care, constructing medical grade air supply to each care space, and water, sewer, and power to each nursing station. The project was executed in three shifts over 19 days maintaining social distancing among contractors. The total manhours for the project were 62,422.8. There were no OSHA recordable or lost time incidents during the project.

Safety monitoring included field activity observations, inspections, safety permitting issuance as well as the implementation and management of the COVID-19 Thermal Screening and Symptom Screening Questionnaires per ECC's COVID-19 project plan.

Site Safety Health Officer, Hurricane Matthew Building Repairs at AUTECH Andros Island, Bahamas (7/25/2018 to 3/19/2020)

Site Safety Health Officer (SSHO) for work under Navy Facilities Engineering Command (NAVFAC) contract (31 MM) to include the demolition of a water tower and repair and replacement of perimeter security fencing and fence lighting, repair of roofing systems and building siding systems on thirteen (13) building located at the US Navy AUTECH, Andros Island, Bahamas. Mr. Hayes is responsible for the overall management, maintenance, and enforcement of the project's Accident Prevention Plan regarding the numerous construction activity plans, programs, and procedures.

Health & Safety Manager, Solar Power Generating Systems Waipio Peninsula, Oahu HI. 35 MM (3/18/2016 to 7/15/2018)

Provided total health and safety management in the construction of a 11-megawatt Photo Voltaic solar farm for Joint Base Pearl Harbor Hickman and nine roof top solar panel installations at various military sites on the Island. Mr. Hayes was responsible for the overall management, maintenance, and enforcement of the project's APP and AHAs for subcontractor activities: excavation, trenching, and backfill for buried conductors and communication lines, concrete pads and utility duct banks; crane lifting operation for transformers, inverters, switch gear; hazardous energy program and arc flash hazard analysis and training; electrical installation testing (hi-pot, megger, continuity, and volt open circuit). Other programs, plans and procedures maintained and trained to throughout the project included Site Specific Fall Prevention Protection plan, HazComm/GHS program, Emergency Action Plan, Blood Borne Pathogen, Spill Plan and Storm Water Pollution Prevention Plan.

Quality Control Systems Manager, Replace Incandescent Lights & Fixtures & HVAC systems at two USACE Project Offices, Mountain Home, AR and Clearwater Lake, Mo. \$1.5 MM (10/2015 to 3/16)

As QCSM, Mr. Hayes is responsible for the overall quality control oversight of all subcontractor's work activities based on the USACE QCS/RMS reporting system requirements for the construction of two geothermal loop and heat pump systems. Duties include transmittal/submittal management and updating, conducting three-phase inspections of definable features of work, managing redline and as-built drawings, subcontractor management, monthly progress schedule, and interface with client Quality Assurance personnel.



Health and Safety Alternate, Remediation Services, FUSRAP at Former DuPont Chambers, Deepwater, NJ (9/14 to 9/15). Excavation of 711,876 cubic ft. of radiologically contaminated soils from the AOC's and surrounding areas, monitoring for chemicals during excavations of AOC's. As Site S&H alternate responsible oversight and enforcement of the APP program during the remediation services at the Former DuPont Chambers Plant that included the remediation of various facility sites and load out of rail cars. Ensuring compliance with specified H&S requirements, Federal, OSHA, and NRC regulations, EM385-1, and the APP including. Monitored the remediation of contaminated work sites and collected air and soil samples for VOCs, SVOCs, and heavy metals as well as personnel biological monitoring for blood lead exposures.

Health and Safety Manager/QC Alternate, Energy Improvements and Repairs to Building 92, Portsmouth Naval Shipyard, Kittery, Maine \$13 MM (03/13 – 09/14). Providing safety management and QC oversight of project subcontractors for the Energy Improvement and Repairs at the facilities Structural Steel and Welding Shops, PNSY. Responsibilities included: promote safety; implement and enforce of established safety policy and procedures; provide site orientation and APP training; APP maintenance; review of subcontractor safety programs/plans specific to project (fall protection plans, steel erection plan, scaffolding plan, LOTO, mold and asbestos remediation, excavation), incident investigation and reporting, and maintenance and updates to individual plans (QC, H&S including but not limited to: lock out/tag out program, site specific fall prevention and protection, hazardous energy outage schedule, hot work permits, and daily/weekly safety inspections.

Health and Safety Manager, PPDR & C&D Demo and Transfer to TSS, New York, \$19 MM (01/13-02/13). Provided health and safety oversight for various subcontractors on the Hurricane Sandy clean-up mission on Staten Island, NY. Conducted daily tailgate meetings, safety training/record keeping, incident report investigation, and air monitoring during debris removal and cleanup, confined space entry permitting.

Health and Safety Manager, Sydney Tar Ponds, Nova Scotia, Canada 70 MM (07/11-12/12). Project involved the remediation of pond contaminants (Level C) and the construction of a harbor channel. Mr. Hayes was responsible to the overall management, maintenance, and enforcement of the project's health and safety program including individual safety plans and procedures (confined space, site specific fall prevention protection, hazardous energy, steel erection, small tool use, heavy equipment and trucking plans, etc.) training/record keeping requirements, and personal and environmental monitoring sample collection and interpretation of results for the project's contaminants of concern. Mr. Hayes delegated his responsibilities to a safety and sampling technician. Mr. Hayes provided daily tailgate safety talks, conducted daily safety inspections and weekly walk through inspections with site personnel, and performed the duties of the safety liaison for the site's Joint Occupation Health & Safety Committee.

Site Manager, Hazardous Waste Piles Removal, Denver Federal Center, Colorado (06/10-01/11). Provided QC oversight on project to excavate, transport and dispose of three soil mounds (120,000 cy) containing hazardous materials (asbestos) in level C PPE. Implemented three-phase QC inspection process including daily and weekly QC reports. Reviewed construction plans, H&S plans, various standard operating procedures (SOPs), Activity Hazard Analyses (AHAs), and other related plans. Provided QC oversight to ensure the extent of the mound material was excavated and to ensure subcontractors' work was performed in accordance with the statement of work, specifications, all related Federal, State, and local regulations, and SOPs. Worked with surveyor to determine quantities excavated and processed, and reported information to client daily. Conducted final inspections of completed work and directed third-party oversight subcontractor to conduct final clearance inspection/sampling. Provided QC of third-party oversight subcontractor to ensure grids (50 feet by 75 feet) were inspected and clearance soil samples were collected/analyzed. Interpret results of visual inspections and clearance sampling of grids. Cleared grids after passing clearance testing. Implemented and maintained the project's Stormwater Pollution Prevention Plan (SWPPP) including filing Notice of Intent (NOI) and Notice of Termination (NOT), and conducted



weekly inspections. Provided QC and tracked waste loads by manifest and weigh tickets, and tracked total tonnage excavated and hauled offsite. Worked with the landfill subcontractor, managed the waste characterization and profiling. Collected samples and interpreted results. Oversaw site access.

Site Safety Health Manager and Quality Control Systems Manager, Centerville Beach Ferndale, California, NAVFAC SW (8/09-3/10). Provided project management oversight and implementation/enforcement of the project's quality control and health and safety programs during the demolition and restoration of the Navy's Centerville Beach facility. Provided three phases of quality control with preparatory and initial inspection meetings, and daily follow up inspection reports for each definable feature of work and provided QC for: waste manifesting and tracking of the transportation and disposal of building contaminants (asbestos, mercury switches, fluorescent light bulbs, PCB ballasts, low rad smoke detectors), building materials recycled, and the PCB and TPH excavation activities; backfill and restoration of the 30 acre site; and was the client and caretaker's point of contact for the site. Implemented the project's Sampling and Analysis Plan and collected confirmation soil samples from excavation sites and performed XRF insitu sampling of Pb soils. Provided health and safety management of subcontractor: performed health and safety orientation and AHA training for all site employees and lower tier subcontractors; held daily tailgate safety meetings and performed daily and weekly (with subcontractor superintendent) site inspections; and provided the overall maintenance of the site's Health and Safety recordkeeping system. Provided the management and maintenance of the site's CA Storm Water Pollution Prevention Plan. There were no OSHA recordable or lost time accidents for the project with over 25,000 employee hours worked.

Site Safety Health Manager and Quality Control Systems Manager, Sand Point, Seattle, Washington (7/09-8/09). Provided project management oversight and implementation/enforcement of the site's quality control and health and safety programs during the excavation and site restoration activities at the former Navy site. Provided three phases of quality control with preparatory and initial inspection meetings and daily follow up inspection reports for each definable feature of work. Provided site management and QC of the excavation activities; collected confirmation soil samples including insitu sampling and analysis using field test kits. There were no OSHA recordable or lost time accidents during this project. Received the Client's Outstanding rating for this project.

Site Safety Health Manager and Quality Control Systems Manager, Mississippi Army Ammunition Plant, Stennis Space Center, Picayune, Mississippi (03/09-06/09). Provided project management oversight and implementation/enforcement of the site's quality control and health and safety programs during the decontamination and demolition of the facilities water treatment plant. Provided three phases of quality control with preparatory and initial inspection meetings, and daily follow up inspection reports for each definable feature of work and provided QC for: waste manifesting oversight and tracking of the transportation and disposal of building contaminants (asbestos, mercury switches, fluorescent light bulbs, PCB ballasts, low rad smoke detectors, and 200,000 gallons of contaminated water) and building materials recycled; backfill and restoration of the 5 acre site; and was the client and caretaker's point of contact for the site. Provided health and safety management of subcontractor providing the health and safety orientation and AHA training for all site employees; held daily tailgate safety meetings and performed daily and weekly (with subcontractor superintendent) site inspections; and provided the overall maintenance of the site's Health and Safety recordkeeping system. Provided the management and maintenance of the site's MS Storm Water Pollution Prevention Plan. There were no OSHA recordable or lost time accidents for the duration of the project. Received the Client's Outstanding rating for this project.

Health and Safety Quality Control Systems Manager and Health and Safety Manager, Ft. Hood Multipurpose Scout Qualification Range, Ft. Hood, Texas, \$7 million (09/07-12/08). Management and enforcement of project Quality Control and Health and Safety program for new and construction and restoration of a 500-acre firing range. Followed the USACE Quality Control three phases of construction



inspections throughout the project using the QCS/RMS reporting system during the construction of military targets, a 3,000 sq ft prefabricated metal building, and construction of the range infrastructure including access roads, fiber optics, and electrical distribution systems, and site drainage. Provided site-specific H&S and Unexploded Ordnance (UXO) training, conducted noise surveys, and led the daily tailgate safety meetings.

Quality Control Assistant Manager and H&S Technician, TtECI, RMA Basin F Waste Pile (BFWP)/Enhanced Hazardous Waste Landfill (ELF), Commerce City, Colorado (5/06-9/07).

Coordinated H&S activities and implemented HASP for \$35-million remediation contract to excavate and transport approximately 490,000 bcy of contaminated soil from Basin F to the LF. COCs include biota/HHE soil and debris. Interfaces on a daily basis with the H&S Supervisor and the client, conducting forklift and manlift operations and safety training. Ensures all operations comply with Activity Hazard Analyses, and is a certified AED user. Conducted environmental monitoring to determine levels of protection and extent of contamination. Maintained log books and files pertaining to H&S operations. Provided oversight of work under OSHA PPE Levels B, C, and D.

H&S Technician/QC Manager, USACE, Ft Leonard Wood, USACE, Missouri (1/06-2/06). Provided subcontract management, quality control, and all health and safety oversight during removal of stainless steel, double-walled piping in an area utilized as chemical training facility. Old utilities replaced with fiberglass piping and three fiberglass above-ground storage tanks. Interfaced with operators and management to ensure daily quality and safe operations.

Quality Officer, Omaha Lead Site, Omaha, Nebraska (11/04-12/05). Mr. Hayes was the lead Quality Control manager and client POC for this project and provided QC oversight and management of excavation and off-site disposal of lead-contaminated soils in an 8,840-acre residential area on the NPL. Managed the closeout of over 350 properties with Lead concentrations of 400 mg/kg or less in near-surface soils per project requirements. Mr. Hayes as part of the field team devised, organized, coordinated, and implemented the excavation of contaminated soils and restoration of yards, driveways, fences, etc. in over 350 single home and multi-home dwellings in north and south Omaha, NE. In addition, Mr. Hayes provided QC oversight of third party confirmation soil testing and confirmation meeting project soil-lead levels. Mr. Hayes organized results with interpretation and submitting to client for final approval. All excavated areas were backfilled, graded, and landscaped. Yards were restored, and videotapes were recorded as verification. Mr. Hayes conducted final walk-through inspections with client representatives of restored residences. Throughout the process, Mr. Hayes was involved with storm water management and erosion control, and archaeological issues. Community relations were critical factor from start to finish each designated property remediation. **HST/QC Officer, AFCEE, Former Kelly AFB, San Antonio, Texas (2/04-11/04).** Provided H&S and QC oversight during the construction and installation of a groundwater extraction trench, excavation, and bioaugmentation of contaminated soils with edible oil emulsion, Site E-1 and Site D-10 Remedial Action.

Site Quality Representative, FWENC, RMA Section 36 Existing Sanitary Landfill Remediation Project, Commerce City, Colorado (2003). Prepared project plans, work plans, SSHPs, and quality control for remediation of 17 sites in Section 36. The sites varied from 255 bcy to more than 30,839 bcy. Soil contents consisted of HHE, B1, P1, trash and debris, and ACM contaminants requiring Level C PPE.

CQCS/SSHO, USACE Kansas City, Kansas AAP (2002-2003). Oversaw on-site H&S and QC of thermal treatment unit to treat 7,000 tons of TNT- and TDX-contaminated soil, including excavation, treatment, sampling and analysis, and restoration. Ensured work performed by 20 personnel and 7 subcontractors complies with air, soil, and disposal permits, work plans, SOPs, regulations, contract requirements, and USACE guidelines, including the three-phase QC principals. Had stop work authority.

QC Officer, USACE Kansas City, Nebraska Ordnance Plant, Nebraska (2000-2002). Provided QC



oversight for the design, construction, and O&M of a 3,000-gallon groundwater treatment plant remediating RDX and TCE. Responsible QC management during installation of nine extraction wells, 10 miles of influent piping, and 6 miles of effluent piping. Interfaced with the previous contractor during project transition and provided QC oversight during the new plant startup. Ensured compliance with work plans, project plans and specifications, health and safety plans, and QAPPs. Reviewed and approved project submittals, and modifications to existing and new O&M manuals.

CQCSM, USACE Omaha District, Iowa AAP, Iowa (1998-2000). Developed and enforced contract-wide QC program in 100 percent compliance with site-specific QC programs for three TOs with no rework or nonconformances that included construction and O&M of a RCRA landfill, four water treatment facilities, a landfill leachate treatment facility, and an LTDD system. Conducted daily briefings and weekly inspections and supervised routine maintenance on treatment facilities. Supervised field sampling, field monitoring, and well abandonment during RCRA landfill cell, CAMU, and wetlands construction, capping, and water treatment activities. Ensured 14 field and lab personnel implemented proper sampling, analysis, and data management procedures on 627 groundwater, 4,720 soil, and 177 air samples, all accepted by USACE with no rework or nonconformances. Inspected and ensured proper operation of and prepared daily QC reports and submittals. Worked with EPA Region VII to refine soil sampling in order to determine the extent of excavation. There were no lost-time incidents in more than 160,000 work hours. Project received the 2000 USACE Omaha Commander Safety Award. Received letter of commendation from USACE Omaha District for an exceptional CQC system.

USACE Sacramento District, Point Arena AFB, California (1997). Landfill remediation and restoration. Scope included demolition of eight buildings contaminated with asbestos, and excavation of lead and POL-contaminated soil requiring level C PPE. As CQSM, Used three-phase QC principles to develop, implement, and enforce QC oversight without rework and non-conformances. Developed, implemented, and enforced an asbestos and lead abatement work plan and CQC plan in compliance with all Federal, state, and local regulations. Assured quality of environmental sample collection, handling, shipping, and disposal of wastes. Performed asbestos air sampling and monitoring; QC checks and audits; daily reporting and documentation; and daily QC meetings.

USACE Tulsa District, Fort Sam Houston, Texas (1997). Interior building D&D involving asbestos. As CQCSM/Project Manager, Developed demolition methods that minimized airborne emissions of asbestos (Level C PPE), lead, PCB, and mercury, reducing levels of PPE. Hired and trained local personnel on QC issues.

USACE Tulsa District, La Tuna Federal Correctional Institution, Texas (1997). Asbestos and lead abatement (Level C PPE) and restoration of La Tuna Federal Correctional Institution. As CQCSM/Project Manager, managed the removal of asbestos and lead in compliance with all safety regulations. Completed the project on time and without QC violations or safety incidents despite security and schedule challenges. Received a letter of commendation from USACE for overcoming difficult circumstances.

USACE Sacramento District, Presidio of Monterey, California (1996). Asbestos abatement (Level C PPE), POL removal actions and landfill cap repair. As Project Manager, Developed asbestos abatement plans and generated daily reports. Received two letters of commendation from USACE Sacramento District.

NAVFAC WESTDIV, Hunter's Point Naval Shipyard, California (1995). Asbestos abatement (Level C PPE) and restoration. As Project Manager, Oversaw QC of daily environmental sampling for a 7-person crew, ensuring compliance with the CQCP. Developed asbestos abatement plans. Received letters of commendation from the US Navy and site office representative.

ATC Environmental (1991-1994). As Project QC Inspector/Industrial Hygienist/Site Safety and Health



Supervisor, Conducted PCB surveys and abatement surveillance; implemented PPE/respiratory protection program and air monitoring programs; performed Phase I site assessments; bulk sampling for asbestos and lead, dust wipe sampling for lead; and performed QC inspections.

Harmon Electronics (1990-1991). As Health and Safety Coordinator, developed and implemented various health and safety compliance programs including safety program, hearing conservation, hazardous waste programs, and injury and illness program.

Brian Miller

Radiation Safety Officer

Education/Qualifications:

B.A. Chemistry (cum laude), University of Tennessee–Chattanooga, 1989.

A.S. Health Physics/Industrial Hygiene (magna cum laude), Chattanooga State Technical College, 1993.

Relevant Experience:

Mr. Miller has over 20 years of field and management experience related to radiation protection (RP), industrial hygiene (IH), and environmental remediation activities. He has over 15 years of final status survey (FSS) experience related to open land areas and structures under Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) protocols. He has previously served as the Radiological Protection Manager for the Old Town Demolition (OTD) Project at Lawrence Berkeley National Laboratory (LBNL) and has also served as Assistant Radiation Safety Officer (RSO) and FSS Engineer at the FUSRAP Maywood Superfund Site (USACE) where he managed the design, implementation, and reporting of several hundred MARSSIM Class 1 and Class 2 survey units (SUs). After Maywood, he managed the FSS during decommissioning of a U.S. Nuclear Regulatory Commission (NRC)-licensed fuel fabrication facility in Festus, Missouri with multiple release criteria. These surveys involved non-regular SU geometries including sidewalls and waterways. Afterwards, he managed the FSS during a radium decontamination and retooling effort for three scrap metal shredding and sorting facilities in Ohio and Pennsylvania. FSS reports submitted to State regulators were quickly approved, usually with no comments. More recently, Mr. Miller served as Radiation Protection Specialist for a Canadian project involving remediation of low-level radioactive waste (LLW) soil across several dozen residential properties. Mr. Miller has also recently provided work planning and FSS reporting support for a large-scale cesium-137 recovery effort at a major medical research and training facility in the Pacific Northwest.

During the course of his work, Mr. Miller has been involved with numerous health and safety oversight activities, including excavation permit support, subsurface and overhead utility work, confined space coverage, aerial lift training, lockout/tagout (LO/TO) participation, and quantitative fit testing. He is proficient in the operation of various types of IH workplace monitoring equipment, including direct-reading multi-gas meters (PID/FID), noise dosimetry, real-time dust, WBGT, Dräger kits, etc.

Employment History:

Perma-Fix Environmental Services, Inc. (Perma-Fix), 1996–Present. Relevant projects include:

- **Work Planner/FSS Support Specialist; UW Harborview Research and Training Building Recovery; Seattle, Washington; LANL-Triad; 07/2020-03/2021.** Duties included preparation of work instruction packages (WIPs), survey instruction packages (SIPs), and performance of quality control (QC) reviews of FSS data summaries for over 150 survey units.

RELEVANT EXPERIENCE HIGHLIGHTS

- More than 20 years' radiation protection, industrial hygiene, and environmental remediation experience for government, commercial, and industrial clients, including DOE and USACE.
- Over 15 years of FSS experience related to open land areas and structures under MARSSIM protocols, including two years leadership experience at LBNL.
- Expertise in the collection of air, water, and soil samples; laboratory operations; industrial hygiene; radiological monitoring; facility characterization; and FSS.

Assisted with the preparation of portions of the master FSS report and material and equipment release report for this project.

- **Radiation Protection Specialist; Port Hope, Ontario, Canada; CNL; 05/2019–07/2020 and 04/2021–Present.** Duties included preparation of and subsequent updates of key technical work plans, including radiation protection plan, remedial verification standard operating plan (RVSOP), environmental protection plan, and technical standard operating procedures (SOPs). Supervised a staff of between four and eight radiation protection technicians (RPTs), provided onsite orientation training, and directly interfaced with the client to update schedule status, plan for emergent issues and scope growth, and develop corrective actions as needed for the RP program. Trained RPTs to the RVSOP, tracked FSS data, and prepared remedial verification (FSS) reports for client review.
- **Radiation Protection Lead/Manager; Berkeley, California; LBNL; 08/2017–04/2019.** Mr. Miller's job assignments have included supervising the safe and compliant execution of all RP, radiological characterization, and FSS field activities by a crew of up to seven radiological control technicians (RCTs). He also served as a waste accumulation area (WAA) supervisor performing weekly inspection duties. His position required direct interface with LBNL staff and U.S. Department of Energy (DOE) regulators. He assisted the LBNL Radiation Protection Group (RPG) during a successful due diligence assessment of the Perma-Fix radiation protection program (RPP) and has provided input on radiological decontamination approaches used during the OTD Project remediation, and has overseen the successful implementation of MARSSIM surveys within five soil SUs and five structural SUs at the OTD Site. For each completed SU, he prepared the accompanying FSS report for review by LBNL. All FSS reports were submitted to the client on time and all were approved with minimal to no regulatory comment requiring further response and resolution. He also performed final reviews on all radiological surveys, including routine scoping, waste transportation, unrestricted release, sample release, and airborne radiological sampling records. Mr. Miller has prepared several radiological hazard reviews (RHRs) covering routine inspections, demolition, remediation, and wastewater treatment. He has prepared new procedures and instructions covering radiological worker training and FSS implementation and also has assisted with development of several job hazard analyses (JHAs) ensuring RHR and RPP requirements were addressed fully. Mr. Miller routinely led plan of the day (POD) and end of shift (EOS) meetings with LBNL and crew members and provided RPP status updates for weekly schedule meetings.
- **FSS Manager; Massillon, Ohio/Beaver Falls, Pennsylvania (ODH, PADEP); 03/2016–12/2016.** Authored Decontamination work plans for three sites while interfacing with Ohio and Pennsylvania state regulators to resolve comments quickly. Developed a MARSSIM-based release plan for on-site structures, open land, and complex scrap metal sorting equipment, including conveyors, hoppers, magnetic separators, cyclones, and induction sorting systems. Prepared FSS reports that secured release of hundreds of SUs with little to no regulatory comment. Supported state regulators during their performance of on-site confirmatory surveys. Received LO/TO and aerial lift training and was successfully quantitative fit-tested.
- **Site FSS Manager; Festus, Missouri (Westinghouse–NRC); 09/2014-01/2016.** Supervised a crew of five senior RPTs during the decommissioning phase of an NRC-licensed fuel fabrication plant. Authored FSS plans, revised FSS procedures, and prepared reports for Westinghouse and NRC, releasing dozens of SUs—both open land and structural. Tracked progress milestones to facilitate invoicing in a fixed unit rate environment. Worked with NRC and Westinghouse to resolve requests for information (RFIs) pertaining to procedures and technical implementation of FSS.

- **Assistant RSO/MARSSIM Engineer; Maywood, New Jersey (USACE); 01/2003–12/2013.** Radiation Protection (RP) Duties: Administered Radiation Worker II training to new project employees over the course of 10 years. Periodically administered quantitative fit testing routine to site workers. Supported site respiratory maintenance, storage, and training program. Assigned and tracked personnel dosimetry. Provided on-the-job RPP training to new RPTs. Supervised a field RPT staff of over 20 to ensure compliance with site procedures, primarily focusing on active excavation safety. Oversight field walkdowns included checks for proper access control and postings, air monitoring, dust suppression, gamma scanning technique, soil sampling, conveyance (U.S. Department of Transportation [DOT]) surveys, and overall crew compliance to RP requirements and as low as reasonably achievable (ALARA) principles. Authored several operating procedures for various types of IH monitoring equipment routinely used by site RPTs. Performed on-site calibrations and troubleshooting for IH instrumentation. FSS duties included coordinating with the Project Certified Health Physicist (PCHP) to design, execute, and document field FSS events consistent with MARSSIM protocols and site-specific FSS plan requirements, as well as supervising FSS field technicians responsible for all facets of sample collection, data tracking, and close-out reporting related to FSSs. He also reviewed air, wastewater, and soil sampling data and recommended corrective actions.
- **Project Health Physicist/Radiation Safety Officer; Gloucester City, New Jersey (USACE/EPA); 04/2002–12/2002.** Supervised setup of on-site RP office from project inception. Managed crew of field and laboratory RPTs to ensure compliance to USACE and U.S. Environmental Protection Agency (EPA) Project Safety and Health Plan. Interfaced with client to ensure quality assurance (QA)/quality control (QC) objectives were met with regard to radiological data deliverables. Performed general administration functions including payroll preparation, employee evaluations, accounts management, and disciplinary actions. Administer Radiation Worker Training and ongoing radiation safety topics. Oversaw/ trained field RPTs to implement FSSs using the MARSSIM methodology, NUREG/CR-1575.
- **Assistant RSO/Deputy Project Manager; Maywood, New Jersey (USACE/FUSRAP); 10/1996–03/2002.** Provided safety and health oversight of field remedial and investigative activities to ensure compliance with the USACE approved Site Safety and Health Plan. Operated, maintained, and troubleshoot field IH and radiological monitoring instruments. Responsible for the collection, preparation, and analysis of environmental and occupational air, water, and soil samples in accordance with USACE, Occupational Safety and Health Administration (OSHA), DOT, EPA, and New Jersey Department of Environmental Protection (NJDEP) standards and protocols. Operated gamma spectroscopy and proportional counting equipment. Supported radioactive waste shipping activities. Supervised field technicians and provided technical guidance in the performance of their duties. Designated as adjunct Site Radiological Safety Officer and Project Manager.
- **Project Manager/Health Physics Supervisor; Deepwater, New Jersey; Du Pont Site.** Provided safety and health oversight during D&D of process buildings. Supervised a crew of eight technicians during operation, maintenance, and troubleshooting of field IH and radiological monitoring instruments. Responsible for the collection, preparation and analysis of environmental and occupational air, water, and soil samples in accordance with DOE, OSHA, DOT, EPA, and NJDEP standards and protocols. Supported radioactive waste shipping activities. Authored procedures implemented to support field ES&H functions. Reviewed and maintained site ES&H records in accordance with approved QA plans.
- **Lead Radiological Control Technician; Middlesex, New Jersey; Middlesex Sampling Plant.** Provided radiological and IH support during soil load-out activities associated with the Middlesex Municipal Landfill pile. Supported load-out of approximately 15,000 cubic yards of

uranium and radium-contaminated soil and debris. Conducted radiation, contamination, and airborne surveys.

- **Site Manager/Health Physics Supervisor; Beverly, Massachusetts; Ventron Site.** Provided radiological and IH support during soil remediation efforts of Ventron site as well as Salem Harbor. Performed gamma walk-over surveys, pre- and post-excavation surveys, air sampling surveys. Supervised crew of six technicians. Served as company Site Manager.

Lead Health and Safety Technician; Thermo NU-Tech; New Brunswick, New Jersey; New Brunswick FUSRAP Site. Collected and packaged soil samples supporting chemical characterization of the site under Bechtel National Inc. Performed gamma walkover surveys.

Radiological Control Technician; Thermo NU-Tech; Wayne, New Jersey; Wayne Interim Storage Site. Provided radiological and IH support during soil excavation activities. Conducted radiation, contamination, and airborne surveys.

Training:

- 40-Hour MARSSIM Implementation
- OSHA 8-Hour HAZWOPER
- DOE Radiological Control Technician
- OSHA 40-Hour HAZWOPER
- OSHA 8-Hour HAZWOPER Annual Refresher
- DOE RCT
- DOT 49 CFR Parts 172, Subpart H (HM-181/126F)
- Fall Protection
- Confined Space
- Industrial Hygiene Techniques
- Operation of Mobile Platforms
- Asbestos Awareness
- LO/TO
- Aerial Lift

Paul Jones, RRPT

Waste Manager

Education/Qualifications:

B.S., Radiation Protection Course Work, Thomas Edison State College, Trenton, NJ.

A.S., Nuclear Power, Terra State Community College, Fremont, OH, 1987.

Active DOE "Q" Clearance.

National Registry of Radiation Protection Technologists (NRRPT), 1993.

Industrial Hygiene, Certificate Program, Roane State Community College, 1998.

Relevant Experience:

Mr. Jones has over 30 years commercial and decommissioning experience. His experience in waste and transportation program work has included various U.S. Department of Energy (DOE) facilities, including the Paducah Gaseous Diffusion Plant (PGDP). His nuclear expertise includes extensive transportation program development and oversight. His experience also includes programmatic support for development of shipping programs, including those for asbestos, polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act (RCRA) mixed wastes. He specializes in procedure development for characterization and shipping. He has supported the U.S. Department of Transportation (DOT), Federal Aviation Administration (FAA), DOE, and U.S. Nuclear Regulatory Commission (NRC) audits in the areas of characterization, shipping, health physics (HP), and quality assurance (QA).

Mr. Jones also has professional experience that includes project management for large-scale decommissioning, including switchyard transformers with PCBs; experience as an Environmental Safety, Health, and Quality (ESH&Q) Manager; regulatory interface with NRC, DOE, DOT, and agreement states; as a training instructor for mixed waste shipping (radioactive and hazardous); waste packaging development for mixed waste; characterization; and shipping experience.

Mr. Jones' radioactive and hazardous waste management experience has given him a comprehensive understanding of the hazardous material transportation and disposal regulations. His experience related to these regulations includes DOT, DOE, and commercial processing facility requirements. He has performed assessments for DOE Order 460.2 including Transportation Compliance Assessment Program (TCAP). He continues to provide various transportation courses from Basic Radioactive to Advanced Mixed Waste Transportation for Shippers. He has personally trained over 500 students in transportation-related courses, including DOE and NRC Type B shipment requirements. He is currently the Lead Co-Chair for the Packaging and Transportation Track for the Waste Management Symposium Program Advisory Committee. He has performed radiological and hazardous characterization, profiling, and shipments of waste, including the following processing and disposal sites:

- Nevada National Security Site (NNSS);
- Environmental Management Waste Management Facility (EMWMF) (Oak Ridge);

RELEVANT EXPERIENCE HIGHLIGHTS

- More than 30 years' experience in decommissioning, transportation program development and oversight, and development of shipping programs.
- Regulatory interface experience includes that with DOE, PGDP, NRC, DOE, FAA, and DOT and agreement states.
- Performed radiological and hazardous waste characterization, profiling, and shipment.
- Develops and provides training programs in radiation safety, DOT, OSHA HAZWOPER, and RadWorker.
- Possesses active DOE "Q" clearance.

- Y-12 Industrial Landfill/EMWMF (Oak Ridge);
- Perma-Fix Northwest (PFNW);
- Perma-Fix Diversified Scientific Services, Inc. (DSSI);
- Perma-Fix East Tennessee Materials and Energy Corporation (M&EC);
- Perma-Fix of Florida;
- EnergySolutions Clive Disposal Facility;
- EnergySolutions Bear Creek;
- Alaron Nuclear;
- Waste Control Specialists, Inc. (WCS) (Texas);
- US Ecology Idaho; and
- US Ecology Michigan.

Mr. Jones' was directly responsible for several mid-size decommissioning projects, including single project values up to \$11 million revenue over three years. He was responsible for all facets of planning, organizing, and managing activities involving radioactive materials and other safety concerns. He provides managerial oversight during license terminations, license amendments, and site characterizations for a variety of clients, both Government and commercial. His responsibilities include initiating and maintaining communications with regulatory agencies; writing comprehensive proposals, cost estimates, and work plans; and directing daily activities.

Mr. Jones continues to develop programs and provide training in areas of radiation safety, DOT, and Occupational Safety and Health Administration (OSHA) HAZWOPER. His safety experience includes management and oversight of Industrial Hygiene (IH)/Radiation Safety Technicians. His duties have included serving as a QA and Site Safety and Health Officer for decommissioning projects, including asbestos abatement and large building demolitions. He has helped prepare OSHA lift plans for large equipment in excess 200 tons. He has served as the instructor for more than 50 training courses in DOT, HAZWOPER, and RadWorker.

Employment History:

Waste Technical Services Manager; Perma-Fix Environmental Services; Oak Ridge, TN; 02/2020–Present.

General Manager of Radiological Programs; Ameriphysics, LLC; 02/2014–02/2020.

General Manager Project Operations/Radiological Engineer/Waste Program Manager; Advanced Technologies & Laboratories, Inc. (formally DeNuke Contracting Services, Inc.); 10/2003–02/14.

Consultant/Radiological/Final Status Survey (FSS) Engineer; Framatome ANP, Inc.; 02/2003–10/2003.

Radiological Engineer/Project Manager/Technical Specialist; Duratek, Inc. (formally SEG); 09/1992–02/2003.

Health Physics Technician; Donald C Cook Nuclear Power Plant; Numanco, Inc.; Applied Radiological Controls and Institute for Resource Management; 06/1985–09/2002. Supported operations, outages, and decommissioning at various nuclear power plants.

Training/Certifications:

- OSHA 40-hour HAZWOPER Certification, 1992 (current supervisor and annual refresher).
- OSHA 510, 30-Hour Construction Safety, 2019.
- Advanced Radioactive/Mixed Waste Shipping (49 CFR 172, Subpart H), 1996 (current).
- Occupational Health and Safety Technologist (OHST) Certified, 1996.
- ORAU Course in Implementing the MARSSIM Approach, 2000.
- RCRA, Compass, 2006.
- DOE Directives, 2008.
- SEG Lead Auditor, 1996.



Jackson Kiker – Project Chemist

Years of Experience: 27 Years

With Current Firm: 22 Years

Education:

- MS/1994/Analytical Chemistry
- BS/1988/Chemistry

Other Professional Qualifications:

- OSHA 40-Hr HAZWOPPER, 2001
- 8-Hr Supervisor, 2001
- 8 Hr. Refresher – Current
- Blood Borne Pathogen, 2021
- First Aid - Current
- USACE CQM, 2014
- FED-ex Dangerous Good Shipping, 2020

SUMMARY OF EXPERIENCE

Mr. Jackson Kiker has 26 years of experience in environmental remediation services, including investigation and remediation of contaminated soil and groundwater. He is an expert in remedial process chemistry, sampling, and laboratory analysis of environmental media and associated Quality Assurance (QA). Mr. Kiker has provided corporate, program, and project chemistry and quality oversight on DOD programs involving multiple contaminants for HTRW and MMR, including MEC, MC, MPPEH, depleted uranium, and radium. He has 26 years of experience working for USACE, including direct experience working at USACE Omaha for five years prior to coming to ECC. He has extensive experience with USEPA and Contract Laboratory Program testing and analysis protocols (USEPA SW-846 and ASTM), all stages of the CERCLA and RCRA

actions, advanced expertise in sampling, analysis, and chemical data quality management of environmental analytical data, and associated USACE protocols for quality management. Mr. Kiker has executed associated chemistry duties for HTRW investigation and remediation in seven LRD states, including NY, IN, KY, MI, VA, NC, and TN. Additionally, he has 26 years of experience in investigation and remediation of soil and GW contaminated with chlorinated solvents and explosives constituents and four years of experience in investigation and remediation of soil and GW contaminated with PFAS.

PROJECT EXPERIENCE

Quality Manager/Program Chemist, ACA APG Directorate of Contracting, APG, MD, \$23.6M FFP, 06/2011 – 05/2021. Responsibilities: POC for QA and chemistry issues; ensured team met DQOs for remedial processing; evaluated alternative groundwater treatment technologies; and optimized LTM. Used a data acquisition/management process for validation of analytical data packages against USEPA and USACE guidance to ensure compliance with analytical methods, QA/data reduction procedures, and reporting, precision/completeness measurements. **SOW:** 10-year PB contract for ACA APG focused on LCC optimization, RIP/RC milestones, natural attenuation, ISB, ISCO, excavation, biosparging, and LTM at 11 sites. **Accomplishments:** Optimized bioaugmentation systems/LTM plants.

Program Chemist, CEHNC, Remediation Services, FUSRAP at Former Dupont Chambers, Deepwater, NJ, \$25.7M FFP, 09/2013 – 09/2017. Responsibilities: Responsible for performing corporate/technical review of various work plans, including CQP, WMP, QAPP, and Excavation and Material Handling Plans. **SOW:** Remediation of 12,400 cubic yard FUSRAP-designated soils, including uranium, thorium, radium, as well as HTRW contaminants and other hazardous chemicals inside an operational high-security chemical plant. **Accomplishments:** ECC recognized by DuPont for outstanding performance. Obtained New Jersey Pollution Discharge Elimination System permit.

Program Chemist, Air Force/PBR at Former Wurtsmith Air Force Base, Oscoda, MI, FFP PB, \$7.2M, 05/2010 – 09/2016. Responsibilities: Drafted/revised the UFP-QAPP for unique materials, sample handling for emerging contaminants and Perfluorinated Compounds. **SOW:** The work scope included LTM, O&M, and remedial action services on 28 sites involving characterization and remediation of emerging contaminants including PFAS, metals, polycyclic aromatic hydrocarbons, and VOCs, and construction and operation of a 240- gallon per minute PFAS groundwater extraction and treatment system. **Accomplishments:** Managed chemistry requirements on CERCLA and AF-led program with heavy MDEQ involvement. Achieved seven SCs and developed optimization and exit strategies (OES) for 13 sites.



APPENDIX B

CQCSM

CERTIFICATE OF COMPLETION



CERTIFICATE

PATRICK ENABUDOSO

SAJ-03-22-00040

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

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

University of North Florida,
Jacksonville, FL

Location

5 & 6 Oct 2021

Training Date(s)

Jacksonville District

Instructional District/ NAVFAC

Mark Waddell, 904-232-3142

CQM-C Manager

Mark Waddell

Facilitator/Instructor

mark.c.waddell@usace.army.mil

Email

904-232-3142

Telephone

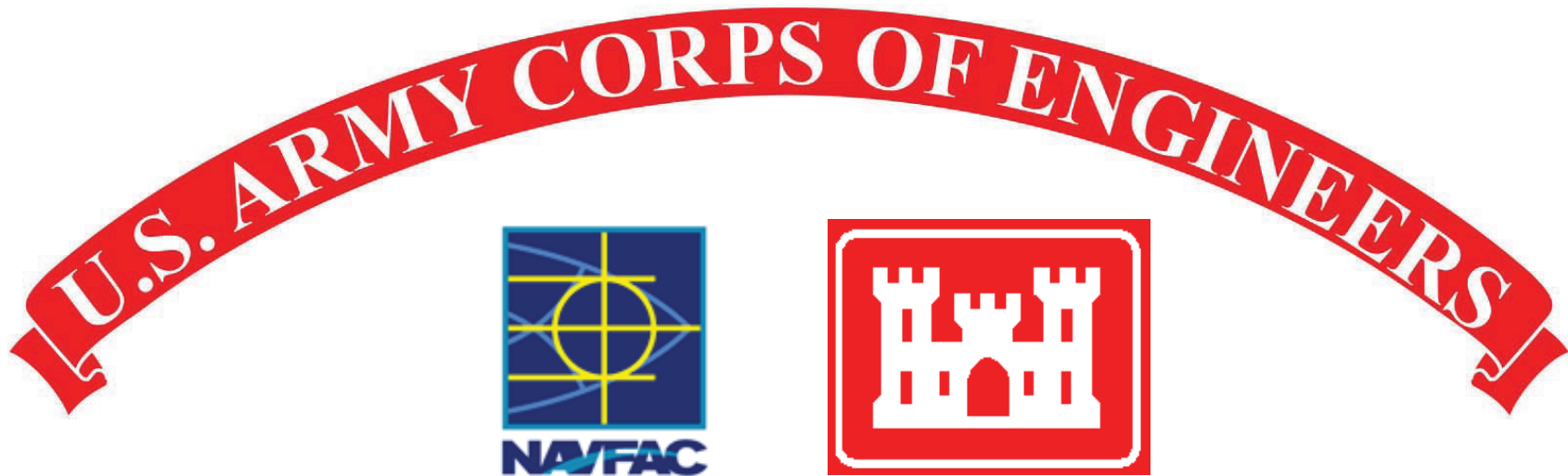
Facilitator/Instructor Signature

Chief, USACE Learning Center

Jeffrey D. Dziedzic

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Florida Construction Industry Licensing Board – 10 Continuing Education Hours
University of North Florida / NAVFAC SE - Provider # 0001345, Course # 0608220



NAVFAC Southwest CERTIFICATE

Ellen C. Jakub

SW9-03-23-00776

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

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Online	05 SEP-29 SEP 2023	SW9 - NAVFAC Southwest	Greg Lewis PE
Location	Training Date(s)	Instructional District/ NAVFAC	District CQM Course Manager
Kugan Panchadsaram PE, PMP	kugan@kugan.com	858-212-2941	Kugan Panchadsaram
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

Digitally signed by Kugan Panchadsaram
DN: C=US, E=kugan@kugan.com, O="Kugan
Associates, INC.", CN=Kugan Panchadsaram
Date: 2023.09.29 14:28:44-07'00'

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE



APPENDIX C

LETTERS OF APPOINTMENT

March 13, 2024

Subject: Appointment of Patrick Enabudoso as Contractor Quality Control System Manager
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of Operable Units 1 & 2,
Cleveland, Ohio

Dear Patrick Enabudoso;

This letter is in reference to the subject project. You have been appointed as the Contractor Quality Control System Manager (CQCSM) for work on this project.

As the CQCSM, you are expected to fulfill all quality control roles and responsibilities specified in the contract for your position. If not specified in the contract, you are expected to perform the following duties:

1. Review and understand project-specific quality control plans; ensure that these plans contain the appropriate definable features of work (DFW), testing plan, and submittal register for the project;
2. Ensure that the Three Phases of Control (Preparatory Meeting, Initial/Inspection, and Follow-up Inspection), are being planned, performed, and documented for each DFW.
3. Conduct prefinal and final inspections with Enviro Fix Solutions LLC Site Superintendent and subcontractor personnel. Monitor completion of punch list items and conduct final inspections with Government personnel. Assist with project closeout as appropriate. Document all close out activities;
4. Monitor update of project record drawings;
5. Ensure that daily quality control inspections are performed, documented and documentation is submitted to the client;
6. Ensure that all quality control testing is being performed in accordance with the testing plan, that the testing results are being reviewed for conformance with requirements, that the records of the testing contain all the required documentation;
7. Ensure that non-conformances are identified and corrected in a timely manner. Report and investigate quality incidents. Ensure the removal and replacement of any deficient work;
8. Ensure that all materials and equipment delivered to the job site are inspected and certified to ensure that they conform with project requirements;
9. Monitor project documentation including records, photographs, and logbooks to ensure that the records and documents meet project requirements. Maintain and organize documentation in accordance with the project closeout requirements;
10. Consult the Enviro-Fix Solutions LLC Corporate Quality Control Director or the Enviro-Fix Solutions LLC Project Manager if there is any question about the interpretation of plans and/or specifications;
11. Do not accept or approve any substantive changes without written notification from the appropriate authority;

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net


You have the authority to stop work if it is not of adequate quality, fails to meet required specifications, or poses an imminent safety hazard. Your responsibility in such a situation is to ensure proper resolution of the issue(s). If there is a disagreement between you and the Project Manager regarding the resolution of substandard work or an imminent safety hazard, contact me for guidance.

As the assigned project CQCSM, you have a direct reporting relationship to me for quality control and issue resolution. You also have an indirect reporting relationship to the Program Manager and the Project Manager to facilitate execution of the quality control process.

If you have any questions, or need additional information, please contact me at (252) 503-9347.

Sincerely,

**Marquez A.
Cadet, PE**

 Digitally signed by Marquez A.
Cadet, PE
Date: 2024.03.14 15:09:04
-06'00'

Marquez A. Cadet, P.E.
Enviro-Fix Solutions LLC
Corporate Quality Control Director

March 13, 2024

Subject: Appointment of Ellen Jakub as Alternate Contractor Quality Control System Manager
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of Operable Units 1 & 2,
Cleveland, Ohio

Dear Ellen;

This letter is in reference to the subject project. You have been appointed as the Alternate Contractor Quality Control System Manager (Alternate CQCSM) for work on this project.

As the Alternate CQCSM, you are expected to fulfill all quality control roles and responsibilities specified in the contract for your position. If not specified in the contract, you are expected to perform the following duties:

1. Review and understand project-specific quality control plans; ensure that these plans contain the appropriate definable features of work (DFW), testing plan, and submittal register for the project;
2. Ensure that the Three Phases of Control (Preparatory Meeting, Initial/Inspection, and Follow-up Inspection), are being planned, performed, and documented for each DFW.
3. Conduct prefinal and final inspections with Enviro Fix Solutions LLC Site Superintendent and subcontractor personnel. Monitor completion of punch list items and conduct final inspections with Government personnel. Assist with project closeout as appropriate. Document all close out activities;
4. Monitor update of project record drawings;
5. Ensure that daily quality control inspections are performed, documented and documentation is submitted to the client;
6. Ensure that all quality control testing is being performed in accordance with the testing plan, that the testing results are being reviewed for conformance with requirements, that the records of the testing contain all the required documentation;
7. Ensure that non-conformances are identified and corrected in a timely manner. Report and investigate quality incidents. Ensure the removal and replacement of any deficient work;
8. Ensure that all materials and equipment delivered to the job site are inspected and certified to ensure that they conform with project requirements;
9. Monitor project documentation including records, photographs, and logbooks to ensure that the records and documents meet project requirements. Maintain and organize documentation in accordance with the project closeout requirements;
10. Consult the Enviro-Fix Solutions LLC Corporate Quality Control Director or the Enviro-Fix Solutions LLC Project Manager if there is any question about the interpretation of plans and/or specifications;
11. Do not accept or approve any substantive changes without written notification from the appropriate authority;

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net


You have the authority to stop work if it is not of adequate quality, fails to meet required specifications, or poses an imminent safety hazard. Your responsibility in such a situation is to ensure proper resolution of the issue(s). If there is a disagreement between you and the Project Manager regarding the resolution of substandard work or an imminent safety hazard, contact me for guidance.

As the assigned project Alternate CQCSM, you have a direct reporting relationship to me for quality control and issue resolution. You also have an indirect reporting relationship to the Program Manager and the Project Manager to facilitate execution of the quality control process.

If you have any questions, or need additional information, please contact me at (252) 503-9347.

Sincerely,

**Marquez A.
Cadet, PE**

 Digitally signed by Marquez A.
Cadet, PE
Date: 2024.03.14 15:09:04
-06'00'

Marquez A. Cadet, P.E.
Enviro-Fix Solutions LLC
Corporate Quality Control Director

March 14, 2024

Subject: Appointment of Brian Miller as Radiation Safety Officer (QC Specialist)
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of
Operable Units 1 & 2, Cleveland, Ohio

Dear Brian,

This letter is in reference to the subject project. You have been appointed as the Radiation Safety Officer (QC Specialist) for work on this project. You are expected to fulfill all quality control roles and responsibilities specified in your contract. In summary, the following are your duties and responsibilities:


1. Work solely and have no other duties other than the assigned QC duties;
2. Report to the CQCSM at the work site;
3. Attend and assist the CQCSM on the QC Meetings, Coordination and Mutual Understanding Meetings;
4. Perform and assist the CQCSM on the three phases of control and prepare documentation for each definable features of work within your area of responsibilities;
5. Assist the CQCSM, processing and maintaining files for submittals, preparing and publishing reports and meeting minutes;

As the designated Radiation Safety Officer (QC Specialist), you are to be present on-site full time during installation, testing and commissioning for all Works and related items within your area of responsibility.

For any questions or clarifications, please feel free to contact the undersigned.

Sincerely,

Patrick
Enabudoso



Digitally signed by Patrick
Enabudoso
Date: 2024.03.19 13:32:30 -04'00'

Patrick Enabudoso,
Contractor Quality Control System Manager
Enviro-Fix Solutions LLC

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net

March 14, 2024

Subject: Appointment of Jeff Knight as HP Supervisor (QC Specialist)
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of
Operable Units 1 & 2, Cleveland, Ohio

Dear Jeff,

This letter is in reference to the subject project. You have been appointed as the HP Supervisor (QC Specialist) for work on this project. You are expected to fulfill all quality control roles and responsibilities specified in your contract. In summary, the following are your duties and responsibilities:

1. Work solely and have no other duties other than the assigned QC duties;
2. Report to the CQCSM at the work site;
3. Attend and assist the CQCSM on the QC Meetings, Coordination and Mutual Understanding Meetings;
4. Perform and assist the CQCSM on the three phases of control and prepare documentation for each definable features of work within your area of responsibilities;
5. Assist the CQCSM, processing and maintaining files for submittals, preparing and publishing reports and meeting minutes;

As the designated HP Supervisor (QC Specialist), you are to be present on-site full time during installation, testing and commissioning for all Works and related items within your area of responsibility.

For any questions or clarifications, please feel free to contact the undersigned.

Sincerely,

Patrick Enabudoso

Digitally signed by Patrick
Enabudoso
Date: 2024.03.19 13:33:08 -04'00'

Patrick Enabudoso,
Contractor Quality Control System Manager
Enviro-Fix Solutions LLC

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net



March 14, 2024

Subject: Appointment of Jackson Kiker as Project Chemist (QC Specialist)
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of
Operable Units 1 & 2, Cleveland, Ohio

Dear Jackson,

This letter is in reference to the subject project. You have been appointed as the Project Chemist (QC Specialist) for work on this project. You are expected to fulfill all quality control roles and responsibilities specified in your contract. In summary, the following are your duties and responsibilities:

1. Work solely and have no other duties other than the assigned QC duties;
2. Report to the CQCSM at the work site;
3. Attend and assist the CQCSM on the QC Meetings, Coordination and Mutual Understanding Meetings;
4. Perform and assist the CQCSM on the three phases of control and prepare documentation for each definable features of work within your area of responsibilities;
5. Assist the CQCSM, processing and maintaining files for submittals, preparing and publishing reports and meeting minutes;

As the designated Project Chemist (QC Specialist), you are to be present on-site full time during installation, testing and commissioning for all Works and related items within your area of responsibility.

For any questions or clarifications, please feel free to contact the undersigned.

Sincerely,

Patrick
Enabudoso

Digitally signed by
Patrick Enabudoso
Date: 2024.03.19
13:33:37 -04'00'

Patrick Enabudoso,
Contractor Quality Control System Manager
Enviro-Fix Solutions LLC

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net

March 14, 2024

Subject: Appointment of Paul Jones as Waste Manager (QC Specialist)
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of
Operable Units 1 & 2, Cleveland, Ohio

Dear Paul,

This letter is in reference to the subject project. You have been appointed as the Waste Manager (QC Specialist) for work on this project. You are expected to fulfill all quality control roles and responsibilities specified in your contract. In summary, the following are your duties and responsibilities:


1. Work solely and have no other duties other than the assigned QC duties;
2. Report to the CQCSM at the work site;
3. Attend and assist the CQCSM on the QC Meetings, Coordination and Mutual Understanding Meetings;
4. Perform and assist the CQCSM on the three phases of control and prepare documentation for each definable features of work within your area of responsibilities;
5. Assist the CQCSM, processing and maintaining files for submittals, preparing and publishing reports and meeting minutes;

As the designated Waste Manager (QC Specialist), you are to be present on-site full time during installation, testing and commissioning for all Works and related items within your area of responsibility.

For any questions or clarifications, please feel free to contact the undersigned.

Sincerely,

Patrick
Enabudoso

 Digitally signed by Patrick
Enabudoso
Date: 2024.03.19 13:34:08 -04'00'

Patrick Enabudoso,
Contractor Quality Control System Manager
Enviro-Fix Solutions LLC

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net



March 14, 2024

Subject: Appointment of Ryan Scheanwald as Rad Counting Facility Manager (QC Specialist)
Contract Number W912P424C0002
Former Harshaw Chemical Company Site Remediation of Operable Units 1 & 2, Cleveland, Ohio

Dear Ryan,

This letter is in reference to the subject project. You have been appointed as the Rad Counting Facility Manager (QC Specialist) for work on this project. You are expected to fulfill all quality control roles and responsibilities specified in your contract. In summary, the following are your duties and responsibilities:

1. Work solely and have no other duties other than the assigned QC duties;
2. Report to the CQCSM at the work site;
3. Attend and assist the CQCSM on the QC Meetings, Coordination and Mutual Understanding Meetings;
4. Perform and assist the CQCSM on the three phases of control and prepare documentation for each definable features of work within your area of responsibilities;
5. Assist the CQCSM, processing and maintaining files for submittals, preparing and publishing reports and meeting minutes;

As the designated Rad Counting Facility Manager (QC Specialist), you are to be present on-site full time during installation, testing and commissioning for all Works and related items within your area of responsibility.

For any questions or clarifications, please feel free to contact the undersigned.

Sincerely,

Patrick
Enabudoso

Digitally signed by Patrick
Enabudoso
Date: 2024.03.19 13:34:42
-04'00'

Patrick Enabudoso,
Contractor Quality Control System Manager
Enviro-Fix Solutions LLC

Enviro-Fix Solutions LLC

1240 Bayshore Highway,
Suite 311, Burlingame,
California 94010

Phone: (650) 347-1555

Fax: (650) 347-8789

Email: corporate@ecc.net

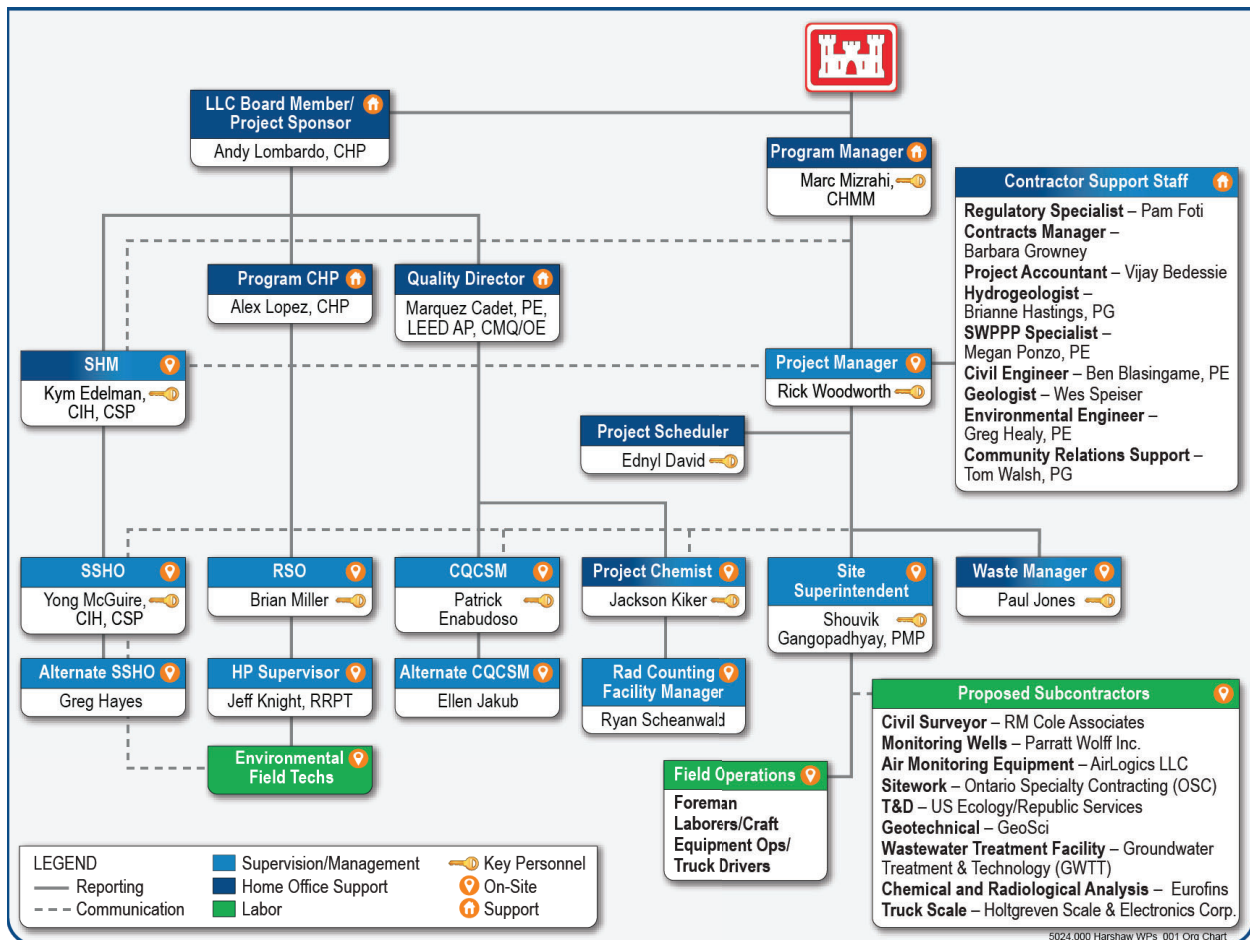


APPENDIX D

CQC ORGANIZATIONAL CHART



Program and Project Management Organization





APPENDIX E

DEFINABLE FEATURES OF WORK



DEFINABLE FEATURES OF WORK

- I. MOBILIZATION AND PREPARATORY WORK
 - II. OPERATION AND MAINTENANCE OF AIR MONITORING SYSTEMS
 - III. CLEARING AND GRUBBING
 - IV. SUBSURFACE DRILLING AND SAMPLING
 - V. SAMPLING AND CHEMICAL DATA QUALITY CONTROL
 - VI. DECOMMISSIONING AND INSTALLATION OF MONITORING WELLS
 - VII. SETUP, PERFORMANCE TESTING AND OPERATION OF THE WASTEWATER TREATMENT SYSTEM (WWTS)
 - VIII. EXCAVATION AND HANDLING OF CONTAMINATED MATERIALS
 - IX. T&D OF FUSRAP CONTAMINATED MATERIALS
 - X. FINAL STATUS SURVEYS
 - XI. EARTHWORK: BACKFILLING
 - XII. SITE RESTORATION: TOPSOIL AND SEEDING
 - XIII. SITE RESTORATION: PAVING
 - XIV. DEMOBILIZATION
-



APPENDIX F

PRELIMINARY SUBMITTAL REGISTER

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -		DATE: 1/26/2024
	CONTRACTOR: Enviro-Fix Solutions LLC	CONTRACT NUMBER: W912P424C0002 NA	

ACTIVITY NO.	TRANS MITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFIC ATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME		SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE
Section 01 32 01.00 10															
	1	1	01 32 01.00 10 1.3	Project Scheduler Qualifications	PRECON SUBMTL	GA		Bala, Dave				A	01/16/2024		
0001		2	01 32 01.00 10 3.4.1	Preliminary Project Schedule	PRECON SUBMTL	GA		Bala, Dave							
0001		3	01 32 01.00 10 3.4.2	Initial Project Schedule	PRECON SUBMTL	GA		Bala, Dave							
		4	01 32 01.00 10 3.5.2	Narrative Report	PRECON SUBMTL	GA		Bala, Dave							
		5	01 32 01.00 10 3.4.3, 3.6	Periodic Schedule Update	SCHEDULES	GA		Bala, Dave							
Section 01 33 00															
	1	1	01 33 00 1.2.1	Certificate of Insurance	PRECON SUBMTL	GA		Bala, Dave				A	01/12/2024	A	01/12/2024
		2	01 33 00 1.2.1	Surety Bonds	PRECON SUBMTL	GA		Bala, Dave							
	2	3	01 33 00 1.9.3	Submittal Register	PRECON SUBMTL	GA		Bala, Dave				A	01/12/2024		
Section 01 35 13.43 10															
		1	01 35 13.43 10 1.2.6	Environmental Data Management System	PRECON SUBMTL	GA		Bala, Dave							
0001		2	01 35 13.43 10 3.2.1	Site Operations Plan-see Item # 44-46	PRECON SUBMTL	GA		Bala, Dave							
0001		5	01 35 13.43 10 3.2.5	Regulatory Compliance Plan Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		6	01 35 13.43 10 3.2.5	Regulatory Compliance Plan Revised Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		7	01 35 13.43 10 3.2.5	Regulatory Compliance Plan Final	PRECON SUBMTL	GA		Bala, Dave							
0001		8	01 35 13.43 10 3.2.6	Water Management Plan Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		9	01 35 13.43 10 3.2.6	Water Management Plan Revised Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		10	01 35 13.43 10 3.2.6	Water Management Plan Final	PRECON SUBMTL	GA		Bala, Dave							
0001		11	01 35 13.43 10 3.2.8	Final Status Survey Plan Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		12	01 35 13.43 10 3.2.8	Final Status Survey Plan Revised Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		13	01 35 13.43 10 3.2.8	Final Status Survey Plan Final	PRECON SUBMTL	GA		Bala, Dave							
0001		14	01 35 13.43 10 3.2.9	Contamination Contrl Plan-see APP/SSHP/R	PRECON SUBMTL	GA		Bala, Dave							
0001		17	01 35 13.43 10 3.2.10	Backfill & Rest. Plan-see Item # 44-46	PRECON SUBMTL	GA		Bala, Dave							
0001		20	01 35 13.43 10 3.2.13	Spill Prevent, Contrl &Counter Plan Draf	PRECON SUBMTL	GA		Bala, Dave							
0001		21	01 35 13.43 10 3.2.13	Spill Prevent, Contrl &Counter Plan Rev	PRECON SUBMTL	GA		Bala, Dave							
0001		22	01 35 13.43 10 3.2.14	Spill Prevent, Contrl &Counter Plan	PRECON SUBMTL	GA		Bala, Dave							
		23	01 35 13.43 10 3.3.1	Cost and Schedule Report	PROGRESS RPTS	FIO		Bala, Dave							

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -		DATE: 1/26/2024
	CONTRACTOR: Enviro-Fix Solutions LLC	CONTRACT NUMBER: W912P424C0002 NA	

ACTIVITY NO.	TRANSMITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFICATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME		SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE
		24	01 35 13.43 10 3.3.2	Construction Water Analytical Results	TEST REPORTS	FIO		Bala, Dave							
		25	01 35 13.43 10 3.3.3	Background Air Monitoring Report Draft	TEST REPORTS	GA		Bala, Dave							
		26	01 35 13.43 10 3.3.3	Background Air Monitoring Report Rev Dra	TEST REPORTS	GA		Bala, Dave							
		27	01 35 13.43 10 3.3.3	Background Air Monitoring Report Final	TEST REPORTS	GA		Bala, Dave							
		28	01 35 13.43 10 3.3.4	Monthly Air Monitoring Report	TEST REPORTS	GA		Bala, Dave							
		29	01 35 13.43 10 3.3.5	Groundwater Monitoring Report Draft	TEST REPORTS	GA		Bala, Dave							
		30	01 35 13.43 10 3.3.5	Groundwater Monitoring Report Rev Draft	TEST REPORTS	GA		Bala, Dave							
		31	01 35 13.43 10 3.3.5	Groundwater Monitoring Report Final	TEST REPORTS	GA		Bala, Dave							
0003		32	01 35 13.43 10 3.3.6	Final Status Survey Report Draft	TEST REPORTS	GA		Bala, Dave							
0003		33	01 35 13.43 10 3.3.6	Final Status Survey Report Revised Draft	TEST REPORTS	GA		Bala, Dave							
0003		34	01 35 13.43 10 3.3.6	Final Status Survey Report Final	TEST REPORTS	GA		Bala, Dave							
		35	01 35 13.43 10 3.3.7	Negative Exposure Assessment Draft	TEST REPORTS	GA		Bala, Dave							
		36	01 35 13.43 10 3.3.7	Negative Exposure Assessment Rev Draft	TEST REPORTS	GA		Bala, Dave							
		37	01 35 13.43 10 3.3.7	Negative Exposure Assessment Final	TEST REPORTS	GA		Bala, Dave							
		38	01 35 13.43 10 3.3.8	Exposure Assessment Draft	TEST REPORTS	GA		Bala, Dave							
		39	01 35 13.43 10 3.3.8	Exposure Assessment Revised Draft	TEST REPORTS	GA		Bala, Dave							
		40	01 35 13.43 10 3.3.8	Exposure Assessment Final	TEST REPORTS	GA		Bala, Dave							
		41	01 35 13.43 10 3.3.9	IH Monitoring Reports	TEST REPORTS	FIO		Bala, Dave							
		42	01 35 13.43 10 3.3.10	Monthly Exposure Report	TEST REPORTS	FIO		Bala, Dave							
		43	01 35 13.43 10 3.3.16	Final Records	CLOSEOUT SUBMTL	FIO		Bala, Dave							
0001		44	01 35 13.43 10 3.2.1,10	SOP/TCP/Backfill & Rest. Plan Draft	PRECON SUBMTL	GA	AO	Bala, Dave							
0001		45	01 35 13.43 10 3.2.1, 10	SOP/TCP/Backfill & Rest. Plan Revised Dr	PRECON SUBMTL	GA	AO	Bala, Dave							
0001		46	01 35 13.43 10 3.2.1, 10	SOP/TCP/Backfill & Rest. Plan Final	PRECON SUBMTL	GA	AO	Bala, Dave							

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -										DATE: 1/26/2024	
	CONTRACTOR: Enviro-Fix Solutions LLC							CONTRACT NUMBER: W912P424C0002 NA				

ACTIVITY NO.	TRANS MITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFIC ATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME		SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE
0001		4	01 35 26 1.8.3	Radiation Protection Plan see Item # 1-3	PRECON SUBMTL	GA		Bala, Dave							
		7	01 35 26 3.3.16	Competent Persons Qualifications	CERTIFICATES	FIO		Bala, Dave							
		8	01 35 26 1.7.14	Crane Op & Riggrs Proof of Qualification	CERTIFICATES	FIO		Bala, Dave							
		9	01 35 26 1.8.2.5	Critical Lift Plan	CERTIFICATES	GA		Bala, Dave							
		10	01 35 26 1.8.2.3	Confined Space Entry Plan	CERTIFICATES	FIO		Bala, Dave							
		11	01 35 26 1.9	Activity Hazard Analysis	CERTIFICATES	FIO		Bala, Dave							
		12	01 35 26 1.8.2.6	Multi-Purpose Life Plan (if required)	CERTIFICATES	FIO		Bala, Dave							
		13	01 35 26 1.8.2.7	Fall Protection Prevention Plan	CERTIFICATES	FIO		Bala, Dave							
		14	01 35 26 1.8.2.8	Rescue and Evacuation Plan	CERTIFICATES	FIO		Bala, Dave							
		15	01 35 26 1.8.2.9	Haz Energy Control Program (if reqd)	CERTIFICATES	FIO		Bala, Dave							
		16	01 35 26 1.8.2.10	Excavation Plan	CERTIFICATES	FIO		Bala, Dave							
		17	01 35 26 1.13.2	Notifications and Accident Report	TEST REPORTS	GA		Bala, Dave							
		18	01 35 26 1.13.3	LHE Inspection Report (if required)	TEST REPORTS	FIO		Bala, Dave							
		19	01 35 26 1.13.4	Standard Lift Plan	CERTIFICATES	FIO		Bala, Dave							
		20	01 35 26 1.14	Hot Work Permit	CERTIFICATES	FIO		Bala, Dave							
		21	01 35 26 1.16	Confined Space Entry Permit (if reqd)	CERTIFICATES	FIO		Bala, Dave							
		22	01 35 26 1.15	Radiation Work Permit	CERTIFICATES	FIO		Bala, Dave							
Section 01 35 29.13															
		1	01 35 29.13 3.9.1	Work Zones	SHOP DRAWINGS	GA		Bala, Dave							
		2	01 35 29.13 1.12	SSHO Daily Inspection Log	PRODUCT DATA	FIO		Bala, Dave							
		3	01 35 29.13 2.2.1	Witten Respiratory Protection Program	CERTIFICATES	FIO		Bala, Dave							
		4	01 35 29.13 1.7	Site Visitor Authorization Form	CERTIFICATES	FIO		Bala, Dave							
		5	01 35 29.13 1.13	Health and Safety Phase-out Report	CLOSEOUT SUBMTL	GA		Bala, Dave							
Section 01 35 45															
0001		1	01 35 45 3.2, 3.6	UFP_QAPP/SAP Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		2	01 35 45 3.2, 3.6	UFP-QAPP/SAP Revised Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		3	01 35 45 3.2, 3.6	UFP-QAPP/SAP Final	PRECON SUBMTL	GA		Bala, Dave							
		4	01 35 45 3.3.1	Off-site Analytical Lab DOD ELAP Accred	PRECON SUBMTL	FIO		Bala, Dave							
		5	01 35 45 3.3.1	On-site Analytical Lab DOD ELAP Accred	PRECON SUBMTL	FIO		Bala, Dave							
		6	01 35 45 3.3.3	On-site Analytical Lab Instr &Equip List	PRECON SUBMTL	FIO		Bala, Dave							
Section 01 45 00.00 10															
		1	01 45 00.00 10 3.9	Daily Quality Control Report	REPORTS	FIO		Bala, Dave							
0001		2	01 45 00.00 10 3.2	Conractor Quality Control Plan Draft	PRECON SUBMTL	GA	AO	Bala, Dave							

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -		DATE: 1/26/2024
	CONTRACTOR: Enviro-Fix Solutions LLC	CONTRACT NUMBER: W912P424C0002 NA	

ACTIVITY NO.	TRANS MITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFIC ATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME		SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE
0001		3	01 45 00.00 10 3.2	Contractor QCP Revised Draft	PRECON SUBMTL	GA	AO	Bala, Dave							
0001		4	01 45 00.00 10 3.2	Contractor Quality Control Plan Final	PRECON SUBMTL	GA	AO	Bala, Dave							
Section 01 50 00															
		1	01 50 00 2.1.1	Site Plan	PRECON SUBMTL	GA		Bala, Dave							
		2	01 50 00 3.4.1	Bulletin Board	PRECON SUBMTL	FIO		Bala, Dave							
0001		3	01 50 00 3.4.2	Traffic Control Plan-see SOP/Backfill PI	PRECON SUBMTL	GA		Bala, Dave							
Section 01 57 23															
0001		1	01 57 23 1.3	Stormwater Pollution Prevention Plan Dra	PRECON SUBMTL	GA		Bala, Dave							
0001		2	01 57 23 1.3	Stormwater Pollution Prevention Plan Rev	PRECON SUBMTL	GA		Bala, Dave							
0001		3	01 57 23 1.3	Stormwater Pollution Prevention Plan Fin	PRECON SUBMTL	GA		Bala, Dave							
		4	01 57 23 1.4.2	Storm Water Inspection Reports	TEST REPORTS	FIO		Bala, Dave							
		5	01 57 23 1.4.2	Erosion and Sediment Controls Form	TEST REPORTS	FIO		Bala, Dave							
		6	01 57 23 3.3.4	Monthly Inspect Rpt and Cert Form	TEST REPORTS	FIO		Bala, Dave							
		7	01 57 23 2.1.3	Mill Certificate or Affidavit (as requir	CERTIFICATES	FIO		Bala, Dave							
Section 01 58 00															
		1	01 58 00 1.3	Project Sign	PRECON SUBMTL	GA		Bala, Dave							
Section 02 32 00															
0001		1	02 32 00 1.2.6	Subsurface Investigation Plan Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		2	02 32 00 1.2.6	Subsurface Investigation Plan Revised Dr	PRECON SUBMTL	GA		Bala, Dave							
0001		3	02 32 00 1.2.6	Subsurface Investigation Plan Final	PRECON SUBMTL	GA		Bala, Dave							
		4	02 32 00 3.11.3	Subsurface Investigation Report Draft	TEST REPORTS	GA		Bala, Dave							
		5	02 32 00 3.11.3	Subsurface Investigation Report Revised	TEST REPORTS	GA		Bala, Dave							
		6	02 32 00 3.11.3	Subsurface Investigation Report Final	TEST REPORTS	GA		Bala, Dave							
		7	02 32 00 1.4	Licenses and Certifications	PRECON SUBMTL	FIO		Bala, Dave							
		8	02 32 00 3.11.1	Drilling Log	SHOP DRAWINGS	GA		Bala, Dave							
		9	02 32 00 3.11.1	Test Pit Log	SHOP DRAWINGS	GA		Bala, Dave							
		10	02 32 00 3.11.1	Field Records	SHOP DRAWINGS	FIO		Bala, Dave							
		11	02 32 00 3.11.2	Soil Analytical Results	TEST REPORTS	FIO		Bala, Dave							
Section 02 41 00															
		1	02 41 00 1.2.2	Deconstruction Plan (if reqd) Draft	PRECON SUBMTL	GA		Bala, Dave							
		2	02 41 00 1.2.2	Deconstruction Plan (if reqd) Rev Draft	PRECON SUBMTL	GA		Bala, Dave							
		3	02 41 00 1.2.2	Deconstruction Plan (if reqd) Final	PRECON SUBMTL	GA		Bala, Dave							
		4	02 41 00 1.7	Notification of Deconstruction (if reqd)	CERTIFICATES	FIO		Bala, Dave							

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -		DATE: 1/26/2024
	CONTRACTOR: Enviro-Fix Solutions LLC	CONTRACT NUMBER: W912P424C0002 NA	

ACTIVITY NO.	TRANSMITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFICATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME		SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE
		5	02 41 00 1.11	Existing Conditions Documentation	PRECON SUBMTL	FIO		Bala, Dave							
Section 02 61 13															
0002		1	02 61 13 3.3.14	Lessons Learned Report Draft	CLOSEOUT SUBMTL	GA		Bala, Dave							
0002		2	02 61 13 3.3.14	Lessons Learned Report Revised Draft	CLOSEOUT SUBMTL	GA		Bala, Dave							
0002		3	02 61 13 3.3.14	Lessons Learned Report Final	CLOSEOUT SUBMTL	GA		Bala, Dave							
0002		4	02 61 13 3.3.15	Construction Completion Report Draft	CLOSEOUT SUBMTL	GA		Bala, Dave							
0002		5	02 61 13 3.3.15	Construction Completion Report Rev Draft	CLOSEOUT SUBMTL	GA		Bala, Dave							
0002		6	02 61 13 3.3.15	Construction Completion Report Final	CLOSEOUT SUBMTL	GA		Bala, Dave							
		7	02 61 13 3.2	Civil Surveys	SHOP DRAWINGS	GA		Bala, Dave							
		8	02 61 13 3.3	Backfill Grading Plan	PRECON SUBMTL	GA		Bala, Dave							
		9	02 61 13 3.9.1	Analytical Results: Pre-characterization	TEST REPORTS	FIO		Bala, Dave							
		10	02 61 13 3.9.2	Analytical Results: Excavated Soil	TEST REPORTS	FIO		Bala, Dave							
		11	02 61 13 3.9.3	Analytic &Geotech Results: Off-site fill	TEST REPORTS	GA		Bala, Dave							
		12	02 61 13 3.9.4	Analytical Results: Water	TEST REPORTS	GA		Bala, Dave							
		13	02 61 13 3.9.5	Analytic Reslts: Stkpile, Haul Rds & Otr	TEST REPORTS	FIO		Bala, Dave							
		14	02 61 13 3.11.2	Compaction Test Results	TEST REPORTS	GA		Bala, Dave							
Section 02 81 00															
0001		1	02 81 00 1.6	Waste Mgmt, Transpo & Disp Plan Draft	PRECON SUBMTL	GA		Bala, Dave							
0001		2	02 81 00 1.6	Waste Mgmt, Transpo & Disp Plan Rev Draf	PRECON SUBMTL	GA		Bala, Dave							
0001		3	02 81 00 1.6	Waste Mgmt, Transpo & Disp Plan Final	PRECON SUBMTL	GA		Bala, Dave							
		4	02 81 00 1.4.3	Transporter Certification	CERTIFICATES	FIO		Bala, Dave							
		5	02 81 00 2.1.1	Packaging Notifications	PRECON SUBMTL	FIO		Bala, Dave							
		6	02 81 00 3.2.1	USEPA Off-site Policy	CERTIFICATES	FIO		Bala, Dave							
		7	02 81 00 3.2.2	Reporting Forms	CERTIFICATES	FIO		Bala, Dave							
		8	02 81 00 3.2.3	Waste Profiles	TEST REPORTS	GA		Bala, Dave							
		9	02 81 00 3.2.3	Shipping Notification	TEST REPORTS	FIO		Bala, Dave							
		10	02 81 00 3.2.7	Shipping Documents & Packaging Certifica	CERTIFICATES	GA		Bala, Dave							
		11	02 81 00 3.2.7	Certificates of Disposal & Weight Ticket	CERTIFICATES	GA		Bala, Dave							
		12	02 81 00 3.2.8	Notice of Noncompliance or Violation	TEST REPORTS	FIO		Bala, Dave							
		13	02 81 00 3.5	Waste Minimization Certification	CERTIFICATES	GA		Bala, Dave							
		14	02 81 00 3.6	Record Keeping Information	TEST REPORTS	FIO		Bala, Dave							
		15	02 81 00 3.6	Exception and Discrepancy Report	TEST REPORTS	FIO		Bala, Dave							
		16	02 81 00 3.7	Emergency Coordinator Information	CERTIFICATES	FIO		Bala, Dave							
Section 31 11 00															
		1	31 11 00 3.1.1	Drawing - Areas to be Cleared	PRECON SUBMTL	GA		Bala, Dave							

SUBMITTAL REGISTER (ER 415-1-10)	TITLE AND LOCATION: Harshaw Remediation of Units 1 & 2 -		DATE: 1/26/2024
	CONTRACTOR: Enviro-Fix Solutions LLC	CONTRACT NUMBER: W912P424C0002 NA	

ACTIVITY NO.	TRANSMITTAL NO.	ITEM NO.	SPEC PARAGRAPH NO.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFICATION	REVIEWER		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION	
						FIO, GA, DA, CR, OR S	OFFICE NAME	SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	CORPS RECEIVED DATE	CODE	CORPS RETURNED DATE	
Section 32 92 19															
		1	32 92 19 1.4.1.2	Fertilizer	PRECON SUBMTL	FIO		Bala, Dave							
		2	32 92 19 1.4.2.2	Topsoil Composition Tests	TEST REPORTS	GA		Bala, Dave							
Section 33 51 39															
		1	33 51 39 3.6.2	Well Installation Report Draft	TEST REPORTS	GA		Bala, Dave							
		2	33 51 39 3.6.2	Well Installation Report Revised Draft	TEST REPORTS	GA		Bala, Dave							
		3	33 51 39 3.6.2	Well Installation Report Final	TEST REPORTS	GA		Bala, Dave							
		4	33 51 39 3.6.3	Well Decommissioning/Abandonment Records	TEST REPORTS	FIO		Bala, Dave							
		5	33 51 39 1.5.1	Personnel Qualifications	PRECON SUBMTL	GA		Bala, Dave							
0001		6	33 51 39 1.5.6, 7	Well Install & Well Decom/Abndmt Plan	PRECON SUBMTL	GA		Bala, Dave							
		7	33 51 39 2.2	Well Casing	PRODUCT DATA	FIO		Bala, Dave							
		8	33 51 39 2.2	Well Screen	PRODUCT DATA	FIO		Bala, Dave							
		9	33 51 39 2.2	Bottom Plugs	PRODUCT DATA	FIO		Bala, Dave							
		10	33 51 39 2.2	Filter Pack	PRODUCT DATA	FIO		Bala, Dave							
		11	33 51 39 2.2	Annular Sealants	PRODUCT DATA	FIO		Bala, Dave							
		12	33 51 39 2.2	Protective Outer Casing and Bollards	PRODUCT DATA	FIO		Bala, Dave							
		13	33 51 39 2.2	Polyethylene Sheeting (if required)	PRODUCT DATA	FIO		Bala, Dave							

Section 32 92 19

		1	32 92 19 1.4.1.2	Fertilizer	PRECON SUBMTL	FIO		Bala, Dave							
		2	32 92 19 1.4.2.2	Topsoil Composition Tests	TEST REPORTS	GA		Bala, Dave							

Section 33 51 39

		1	33 51 39 3.6.2	Well Installation Report Draft	TEST REPORTS	GA		Bala, Dave							
		2	33 51 39 3.6.2	Well Installation Report Revised Draft	TEST REPORTS	GA		Bala, Dave							
		3	33 51 39 3.6.2	Well Installation Report Final	TEST REPORTS	GA		Bala, Dave							
		4	33 51 39 3.6.3	Well Decommissioning/Abandonment Records	TEST REPORTS	FIO		Bala, Dave							
		5	33 51 39 1.5.1	Personnel Qualifications	PRECON SUBMTL	GA		Bala, Dave							
0001		6	33 51 39 1.5.6, 7	Well Install & Well Decom/Abndmt Plan	PRECON SUBMTL	GA		Bala, Dave							
		7	33 51 39 2.2	Well Casing	PRODUCT DATA	FIO		Bala, Dave							
		8	33 51 39 2.2	Well Screen	PRODUCT DATA	FIO		Bala, Dave							
		9	33 51 39 2.2	Bottom Plugs	PRODUCT DATA	FIO		Bala, Dave							
		10	33 51 39 2.2	Filter Pack	PRODUCT DATA	FIO		Bala, Dave							
		11	33 51 39 2.2	Annular Sealants	PRODUCT DATA	FIO		Bala, Dave							
		12	33 51 39 2.2	Protective Outer Casing and Bollards	PRODUCT DATA	FIO		Bala, Dave							
		13	33 51 39 2.2	Polyethylene Sheeting (if required)	PRODUCT DATA	FIO		Bala, Dave							



APPENDIX G

TESTING LOG



TESTING PLAN AND LOG

Instructional Notes

As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was conducted, the date the test results were forwarded to the Contracting Officer, remarks and acknowledgement that an accredited or Contracting Officer approved testing laboratory was used. Attach a copy of the updated "Testing Plan and Log" to the last daily Contractor QC Report each month.

[illegible]



APPENDIX H

DEFICIENCY LOG



REWORK ITEMS LIST

Instructional Notes

The QC Manager shall maintain a list of work that does not comply with contract requirements, identifying what discrepancy needs to be reworked, the date the discrepancy was originally discovered, the date the discrepancy will be corrected by, and the date the discrepancy was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of this list to the last daily Contractor QC Report of each month. The Contractor shall be responsible for including on this list discrepancies needing rework including those identified by the Contracting Officer.



[illegible]



APPENDIX I

DAILY CQC REPORT



CONTRACTOR QUALITY CONTROL REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 	
				REPORT NO 	
PHASE	CONTRACT NO	CONTRACT TITLE			
PREPARATORY	WAS PREPARATORY PHASE WORK PERFORMED TODAY? <input type="radio"/> YES <input type="radio"/> NO				Add
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.				Del
	Schedule Activity No	Definable Feature of Work (DFOW)			Index #
INITIAL	WAS INITIAL PHASE WORK PERFORMED TODAY? <input type="radio"/> YES <input type="radio"/> NO				Add
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.				Del
	Schedule Activity No	Definable Feature of Work (DFOW)			Index #
FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? <input type="radio"/> YES <input type="radio"/> NO				Add
	WORK COMPLIES WITH SAFETY REQUIREMENTS AND INSPECTION COMPLIES WITH EM385-1-1? <input type="radio"/> YES <input type="radio"/> NO				Del
	Schedule Activity No	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specifications, Section, Location and List of Personnel Present			
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)		Add	
				Del	
Schedule Activity No	Description		Schedule Activity No	Description	
REMARKS (Use Explain Any Follow-Up Phase checklist item From Above That Was Answered "NO"; Work Deficiency, Safety Deficiency; Manuf. Rep On-Site, etc.					Add
					Del
Schedule Activity No	Description				
<p>On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.</p> <div style="text-align: right;">  </div>					
				AUTHORIZED QC MANAGER AT SITE	
				DATE	
GOVERNMENT QUALITY ASSURANCE REPORT					
DATE					
QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT: FOR GOVERNMENT USE ONLY.					Add
					Del
Schedule Activity No	Description				
<div style="text-align: right;">  </div>					
				GOVERNMENT QUALITY ASSURANCE MANAGER	
				DATE	




CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>						DATE
CONTRACT NO <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		TITLE AND LOCATION <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			REPORT NO <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
CONTRACTOR <div style="border: 1px solid black; height: 20px; width: 100%;"></div>				SUPERINTENDENT <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		
AIR WEATHER <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		PM WEATHER <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		MAX TEMP (F) <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	MIN TEMP (F) <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
WORK PERFORMED TODAY						
<small>Schedule Activity No</small>	<small>WORK LOCATION AND DESCRIPTION</small>	<small>EMPLOYER</small>	<small>NUMBER</small>	<small>TRADE</small>	<small>HRS</small>	
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(YES attach copy of the meeting minutes)</small> <input type="radio"/> YES <input type="radio"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE, INCL. BONT SHEETS <small>CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT TOTAL WORK HOURS FROM START OF CONSTRUCTION </small>		
WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(YES attach copy of completed OSHA report)</small> <input type="radio"/> YES <input type="radio"/> NO		WAS CRANE/MANLIFT/TRIBUNCHING/SCAFFOLD/HV ELEC/HIGH WORK/HAZMAT WORK DONE? <small>(YES attach statement or checklist showing inspection performed)</small> <input type="radio"/> YES <input type="radio"/> NO		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(YES attach description of incident and proposed actions.)</small> <input type="radio"/> YES <input type="radio"/> NO		
<small>Schedule Activity No</small>	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)						
<small>Schedule Activity No</small>	<small>Submittal #</small>	<small>Description of Equipment/Material Received</small>				
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.						
<small>Schedule Activity No</small>	<small>Owner</small>	<small>Description of Construction Equipment Used Today (incl Make and Model)</small>			<small>Hours Used</small>	
<small>Schedule Activity No</small>	<small>REMARKS</small>					
CONTRACTOR/SUPERINTENDENT _____				DATE _____		



APPENDIX J

MATERIAL INSPECTION FORM



		 ENVIRO-FIX SOLUTIONS LLC		MATERIALS INSPECTION FORM	
Project Name:					
Description Of Material For Inspection:				MIR NO.	
				Date	
				Contract No.	
				Transmittal No.	
				Spec./Drwg. ref.	
Item/Qty. Required	Qty. Deleted	T/L Deleted	Test/Mill Certificates Copy of packing list Copy of purchase order Copy of invoice stamped by customs		
Inspection Location			Date of Material Delivery		
Comments					
Contractor's Signature:				Date: _____	
Inspection Comments					
Confirm compliance with approved transmittal YES/NO {If NO confirm issuance of Inspection Memo}					
Signature of Q.C. Engineer:				Date: _____	
Comments					
Signature of Q.C. Manager:				Date: _____	
Signature of Prime Contractor Representative:				Date: _____	
Distribution:					



APPENDIX K

PREPARATORY PHASE CHECKLIST



PREPARATORY PHASE CHECKLIST				SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK (DFOW)	SCHEDULE ACT NO.	INDEX #		
PERSONNEL PRESENT		GOVERNMENT REP NOTIFIED	HOURS IN ADVANCE:	<input type="radio"/> YES <input type="radio"/> NO	Add Del
NAME	POSITION	@COMPANY@GOVERNMENT			
SUBMITTALS					
REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN SUBMITTED AND APPROVED? (IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED OR APPROVED?) <input type="radio"/> YES <input type="radio"/> NO					
ARE ALL MATERIALS ON HAND? (IF NO, WHAT ITEMS ARE MISSING.) <input type="radio"/> YES <input type="radio"/> NO					
CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)					
COMMENTS:					
MATERIAL STORAGE					
ARE MATERIALS STORED PROPERLY? (IF NO, WHAT ACTION IS TAKEN?) <input type="radio"/> YES <input type="radio"/> NO					
SPECIFICATIONS					
REVIEW EACH PARAGRAPH OF SPECIFICATIONS.					
DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK.					
CLARIFY ANY DIFFERENCES.					
PRELIMINARY WORK					
ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN?					
TESTING					
IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM.					
WHEN REQUIRED?					
WHERE REQUIRED?					
REVIEW TESTING PLAN.					
HAS TEST FACILITIES BEEN APPROVED?					
SAFETY					
ACTIVITY HAZARD ANALYSIS APPROVED? (REVIEW APPLICABLE PORTION OF EM 385-1-1.) <input type="radio"/> YES <input type="radio"/> NO					
MEETING COMMENTS					
NAVY/POIC COMMENTS DURING MEETING.					
OTHER ITEMS					
OTHER ITEMS OR REMARKS.					
<div style="text-align: center; margin-top: 10px;"> </div>					
QC MANAGER					DATE



APPENDIX L

INITIAL PHASE CONTROL FORM



INITIAL PHASE CHECKLIST			SPEC. SECTION	DATE
CONTRACT NO.	DEFINABLE FEATURE OF WORK (DFOW)	SCHEDULE ACT NO.	INDEX #	
PERSONNEL PRESENT	GOVERNMENT REPROFITED <input type="text"/> HOURS IN ADVANCE:		<input type="radio"/> YES <input type="radio"/> NO	<input type="button" value="Add"/> <input type="button" value="Del"/>
NAME	POSITION	COMPANY/GOVERNMENT		
PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS AND SUBMITTALS			
COMMENTS:				
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?			
WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP WHERE IS WORK LOCATED?			
IS SAMPLE PANEL REQUIRED? WILL THE INITIAL WORK BE CONSIDERED A SAMPLE? (IF YES, PROVIDE THE LOCATION WHERE THE INITIAL WORK CONSIDERED AS A SAMPLE IS LOCATED AND THE PRECAUTIONS TAKEN TO PRESERVE THE SAMPLE			<input type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
RESOLUTION	RESOLVE ANY DIFFERENCES.			
COMMENTS:				
CHECK SAFETY	REVIEW JOB CONDITIONS USING GEM 385-1-1, ACTIVITY HAZARD ANALYSIS AND MSDS			
COMMENTS:				
OTHER	OTHER ITEMS OR REMARKS			
<div style="text-align: center;"> </div>				
QC MANAGER			DATE	



APPENDIX M

SIGN-IN SHEET



Date:

Time:

[illegible]