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10 January, 2013

USACE, Baltimore District
CENAB-EN-H, Attn: Elena Rubalcava
Rm 10500-K
10 South Howard Street
Baltimore, MD 21201

Re: Final Project Management Plan
AAFES Retail Fuel Facility, UST Spill Remediation
Fort Hamilton, Brooklyn, NY
W912DY-10-D-0025-DA02

Dear Ms. Rubalcava:

The PIKA-Pirnie JV is pleased to provide to the United States Army Corps of Engineers, Baltimore District this **Final Project Management Plan for the AAFES Retail Fuel Facility (Bldg. 200) UST Spill Remediation at Fort Hamilton, Brooklyn, NY**. The Project Management Plan has been prepared in accordance with the requirements of the Final Performance Work Statement for this project dated 6 September 2012 and comments received on the Draft Final Document.

Please call me at (410) 923-7828 should you have any questions regarding this document.

Sincerely,

Brian R. Stempowski, P.E., PMP
Project Manager
ARCADIS / MALCOLM PIRNIE, INC.
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FINAL

PROJECT MANAGEMENT PLAN

**ARMY & AIR FORCE EXCHANGE SERVICE RETAIL FUEL FACILITY
(BLDG 200) – SPILL NO. 9802727
UNDERGROUND STORAGE TANK (UST) SPILL REMEDIATION
U.S. ARMY GARRISON FORT HAMILTON
BROOKLYN, NEW YORK**

December 2012

Contract No.: W912DY-10-D-0025
Delivery Order No.: DA02

Prepared For:

U.S. ARMY CORPS OF ENGINEERS BALTIMORE DISTRICT
10 South Howard Street
Baltimore, Maryland 21201-2536

U. S. ARMY GARRISON FORT HAMILTON
Brooklyn, New York



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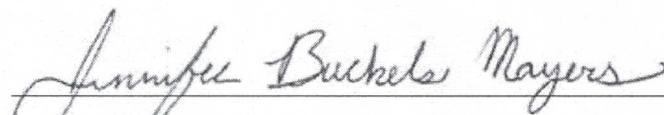
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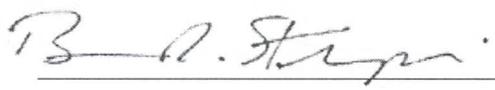
Delivery Order No.: DA02

I have reviewed this document and certify that it contains accurate content and is sufficient to guide project execution.



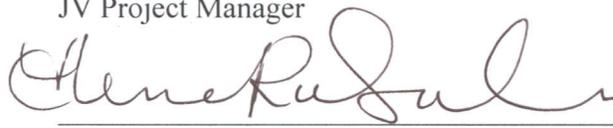
Jennifer Buckels Mayers
JV Program Manager

12/18/12
Date



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LIST OF ACRONYMS AND ABBREVIATIONS

AAFES	Army & Air Force Exchange Service
APM	Associate Project Manager
APP	Accident Prevention Plan
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CAP	Corrective Action Plan
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
COC	Constituent of Concern
COR	Contracting Officer's Representative
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
ERIS	Environmental Restoration Information System
H&S	Health and Safety
ISCO	In-Situ Chemical Oxidation
ISR	Investigative Summary Report
JV	Joint Venture
KO	Contracting Officer
LNAPL	Light Non-Aqueous Phase Liquid
MPE	Multiphase Extraction
NY	New York
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
PBA	Performance-Based Acquisition
PDT	Project Delivery Team
PIKA	PIKA International, Inc.
Pirnie	Malcolm Pirnie, Inc.
PM	Project Manager
PMP	Project Management Plan
PPE	Personal Protective Equipment
QA	Quality Assurance
QAPP	Quality Assurance Project Plan

LIST OF ACRONYMS AND ABBREVIATIONS

QASP	Quality Assurance Surveillance Plan
QC	Quality Control
RA(O)	Remedial Action (Operations)
SSHP	Site-Specific Safety and Health Plan
STIP	Stipulation Agreement
SVE	Soil Vapor Extraction
The JV Team	PIKA International, Inc./Malcolm Pirnie, Inc. Joint Venture, LLC
U.S.	United States
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1.0 PROJECT BACKGROUND AND TECHNICAL APPROACH

1.1 INTRODUCTION

PIKA International, Inc. (PIKA) Malcolm Pirnie, Inc. (Pirnie) Joint Venture (JV), LLC (the JV Team) has developed this Project Management Plan (PMP) for the environmental remediation of a gasoline release at Building 200, United States (U.S.) Army Garrison Fort Hamilton, located in Brooklyn, New York (NY) [site] under a Performance Based Contract (PBC). This PMP has been prepared on behalf of the U. S. Army Corps of Engineers, Baltimore District for use by the entire Project Delivery Team (PDT) which includes the JV Team; USACE, Baltimore District; the U.S. Army Environmental Command (USAEC); and Fort Hamilton.

This PMP is a living document that specifies the management, administrative, and technical details of work execution, including project organization, staffing, status reporting, deliverables, schedule, and payment milestones. A current version of the PMP with an updated schedule of milestones will be maintained throughout the project.

1.2 SITE SETTING AND STATUS

U.S. Army Garrison Fort Hamilton is located in Kings County, Brooklyn, NY (**Figure 1-1**) and is the only active duty military installation in the NY City metropolitan area. Its mission is to provide premium base operations and area support for the Northeast region, community housing, and protocol and foreign liaison support for the Army, the Department of Defense (DoD), and the United Nations. Major units located on the 177-acre grounds of Fort Hamilton include; The NY Army National Guard Joint Task Force – Empire Shield, USACE North Atlantic Division, Military Entrance Processing Station, NY and the NY City Recruiting Battalion.

Fort Hamilton is one of the three oldest Army posts in the United States and was first used a coastal battery position in 1776. A permanent granite fort, named for Alexander Hamilton was started in 1825 and completed in 1831. The fort was located so as to protect the Varrazano Narrows. By 1924 the fort was mostly an infantry post and by 1941 most of the coastal defense guns had been removed.

Site CCHAM0200, the Army & Air Force Exchange Service (AAFES) station Building 200, is located at 200 General Lee Avenue in Fort Hamilton, Brooklyn, NY (**Figure 1-2**). Indications of environmental concern were first noted at the site when soil staining was observed in 1991 during underground storage tank (UST) replacement activities. More recently, the New York State Department of Environmental Conservation (NYSDEC) was notified of a petroleum release in 1998 and the site was assigned Spill Number 9802727 in the spills database. Several site investigations were conducted between 1997 and 2005, and in 2006 the Army proposed to NYSDEC to use a multi-phase extraction (MPE) system to remediate light non-aqueous phase liquid (LNAPL) and soil contamination. In 2007, a Stipulation Agreement (STIP) between NYSDEC and the U.S. Army was signed including requirements for a corrective action plan (CAP), in order to remediate the site. The primary contaminants at the site include benzene, toluene, ethylbenzene and total xylenes (BTEX), additional non-chlorinated volatile organic compounds (VOCs), and LNAPL. Current site conditions include the following:

- The site is currently active as a retail gasoline service station and is publically accessible
- The MPE system is operational
- The site is currently within the Remedial Action Operations (RA[O]) phase under the Defense Environmental Restoration Program (DERP)
- Project stakeholders include USACE, U.S. Army Environmental Command (USAEC), U.S. Army Garrison Fort Hamilton, NYSDEC, and NY City Department of Environmental Protection (NYCDEP)
- Annual permits are maintained with NYCDEP in order to discharge treated groundwater into the NY city sanitary sewer system

1.3 PROJECT PERFORMANCE OBJECTIVES AND SCOPE OF WORK

The objective of this project is to achieve site closeout for spill 9802727 with NYSDEC concurrence, and achieve a change to the NYSDEC spill sites database that shows spill 9802727 as closed out, and requiring no further action, physical or administrative by the Department of Army to meet any NYSDEC requirements. Closed out shall mean that no further obligation for cleanup monitoring or reporting to NYSDEC is needed for this site, except for active tank management for the currently operating tanks of the AAFES gas station.

This project is also intended to achieve a change in site status to “Site Closed” in the Army Environmental Database for site CCHAM0200.

The following major scope items and requirements are associated with achieving site closeout:

1. Completion of all restoration activity necessary to achieve cleanup consistent with applicable land use standards and regulatory requirements.
2. Obtaining from the regulatory agency written documentation of “no further action” with respect to contamination resulting from the site that includes no Land Use Controls (LUCs) or 5-year reviews.
3. Removal from existing permits.
4. Decommissioning and removal of all treatment systems, wells and infrastructure associated with the cleanup and restoration of the site.

Table 1-1 lists the project performance objectives and defines performance standards.

1.4 TECHNICAL APPROACH

A technical approach that satisfies the performance objectives summarized in **Table 1-1** will be utilized. The details of the technical approach outlined below are preliminary; the approach implemented is dependent upon site conditions, regulatory approvals and overall performance of selected technologies. Therefore, the final approach may vary somewhat from that presented herein and will be consistent with final work plan and corrective action plan approvals.

The existing MPE system will be operated and maintained in accordance with the existing Operations and Maintenance Manual (Plexus, 2007) until such time as approval is obtained to modify or cease MPE operation. Data collected to date indicates that hydrocarbon recovery via the existing MPE system is approaching asymptotic levels. Permission will be requested from NYSDEC to modify the operation of the existing MPE system to improve the influence and mass recovery. This approach assumes the existing MPE system will need to be operated for approximately four to six months before the NYSDEC approves the request to modify the system.

Review of site data also suggests source material may be present beneath the station building. Historical investigations and associated reports suggest the original release moved from the UST area northward, as well as to the west, consistent with groundwater flow directions. This could result in a portion of the mass potentially being present beneath the northeast corner of the existing station building – outside much of the influence of the original MPE layout. To investigate whether constituents of concern (COCs) exist beneath the station building, additional investigation in this area will be conducted and may include installing a directional well next to and beneath the station building.

The existing MPE system will be modified by removing the drop tubes from extraction wells and operating the system as a soil vapor extraction (SVE) system with temporary, periodic, enhanced fluid recovery using pneumatic pumps. Performance monitoring will be conducted approximately one month after completion of each fluid recovery event. The performance monitoring results will be evaluated to document treatment effectiveness and schedule the next fluid recovery event. When LNAPL is no longer observed and the dissolved phase total VOC concentrations have reached appropriate levels, a report will be submitted to the NYSDEC requesting permission to shut down the MPE system and implement an alternate remedy.

The planned alternate remedy is In-Situ Chemical Oxidation (ISCO). ISCO utilizes abiotic chemical reactions to destroy organic compounds (e.g., petroleum hydrocarbons) in soil and groundwater. These technologies include the injection of chemical reagents such as peroxide, permanganate, persulfate, or ozone. Each of these compounds produce strongly oxidizing chemical species, such as hydroxyl radicals from peroxide or sulfate radicals from the persulfate anion, which promote desorption of organic compounds from soils for reaction and destruction in the dissolved phase. Oxidation end-products are innocuous and include carbon dioxide and water. For the ISCO application at the site, sodium persulfate presently represents the most suitable, safe and cost-effective oxidation strategy. Sodium persulfate can be applied in conjunction with an activator (e.g., heat, iron, sodium hydroxide, or hydrogen peroxide) or without activation (e.g., “ambient activation”). Sodium persulfate chemical oxidation is an accepted and proven technology for remediation of petroleum hydrocarbons in NY, based on experience with other similar sites working with the NYSDEC. The use of injection wells (as

opposed to direct push points) will help ensure that the sodium persulfate solution is evenly distributed throughout the target treatment area such that sufficient contact between the oxidant and the petroleum hydrocarbons is achieved.

The scope of the alternate remedy includes performing a preliminary pilot test to collect the necessary hydraulic parameters for full-scale application. The pilot phase will consist of installing an injection well adjacent to MW-5. Injections here will have the dual benefit of reducing COC concentrations at MW-5, but also delivery and treatment beneath the building itself.

Following the preliminary injection and evaluation of the data from associated monitoring, full-scale sodium persulfate injection events will be conducted to address residual hydrocarbons. Existing MPE well, MPE-2, will be proposed for reagent injection to target COCs present after LNAPL removal in MW-1. In addition, it is assumed that an additional injection well will be installed in the vicinity of MW-4 to target COC mass in this area. The pilot injection well installed near MW-5, and a potential directional well may also be used for full scale injection events.

The alternate remedy will include performance monitoring and following completion of the remedial program, attainment sampling will be performed to demonstrate the effectiveness of the remedial activities. When adequate groundwater attainment sampling events have been completed, soil attainment sampling will be conducted, if required by NYSDEC. Using direct-push drilling technology, soil samples will be collected from the vicinity of locations where hydrocarbon impacts were previously identified. Sampling activities and procedures will be conducted in compliance with NYSDEC Commissioner Policy CP-51.

When NYSDEC concurs that BTEX and VOC concentrations in the soil and groundwater have attained acceptable levels, a request to obtain Spill Close-Out will be submitted to NYSDEC. Once remedial activities are completed, the Investigative Summary Report (ISR) will be completed and submitted to secure administrative completion and closure. The existing remedial system and subsurface structures will be decommissioned upon receipt of ISR approval and project closure from the NYSDEC. This includes removal and disposal of MPE system,

extraction wells, connecting piping, and the transformer. All wells will be abandoned and infrastructure removed from the site in accordance with applicable state requirements.

1.4.1 Risk Approach

The technical approach to complete remediation at the AAFES Retail Fuel Facility (Bldg. 200) at Fort Hamilton has been designed to meet the goals of the PWS in a timely and efficient manner while minimizing the potential for negative impacts from associated technical risks. The planned technical approach recognizes technical risks and will be implemented in a manner that best avoids, mitigates or accepts and addresses technical risk. **Table 1-2** identifies risks associated with conducting the site remediation activities and approaches to managing the risks in compliance with the performance objectives (**Table 1-1**) and projected schedule included in **Appendix A**.

2.0 MANAGEMENT APPROACH

2.1 ROLES AND RESPONSIBILITIES

Under this project, USAEC serves as the program manager, providing programmatic coordination. USACE, Baltimore District is the executing organization and provides technical oversight. The JV Team will work directly with USAEC and USACE and other project stakeholders under this Performance Based Acquisition (PBA) Task Order to achieve project objectives.

The organizational chart for the project is presented in **Figure 2-1**. Each position within the team organization carries with it a defined set of responsibilities and authorities. The roles and responsibilities of key project personnel specified for Fort Hamilton are summarized in **Table 2-1**.

2.2 POINTS OF CONTACT

Points of contact for Fort Hamilton, USACE, USAEC, NYCDEP, NYSDEC and the JV Team are provided in **Table 2-2**.

2.3 PROJECT STAKEHOLDERS

The following project stakeholders, at a minimum, are anticipated to be involved with this project:

- USACE, Baltimore District
- USAEC
- U.S. Army Garrison, Fort Hamilton
- NYSDEC
- NYCDEP

Stakeholders responsible for the review of deliverables include: USACE, Baltimore District, USAEC, U.S. Army Garrison, Fort Hamilton, NYSDEC and NYCDEP.

3.0 COORDINATION AND COMMUNICATION

This section describes the coordination of and communication with stakeholders that is necessary to ensure the successful completion of the projective objectives. Key stakeholders will be kept informed of project status, existing or potential problems, and changes required to manage the project. During key project phases (i.e. remedial plan development and construction activities) regular status calls may be held and field efforts documented in daily or weekly status reports.

3.1 MONTHLY STATUS REPORTS

Monthly status reports will be prepared in accordance with the PWS (USACE, 2012) and distributed in accordance with the document distribution list provided on **Table 3-1**. Monthly status reports will be submitted by the 10th of the following month and will provide summary information that includes:

- General project information (i.e., contracting office, contracting officer [KO] and contracting officer's representative [COR]);
- Contract, task and delivery order number;
- Beginning and ending dates covered by the report;
- Date of the report;
- Contract completion date;
- Contractor name, address, phone number, email address and identity of Contractor employee entering data;
- Summary of accomplishments for the report month and planned accomplishments for the following month;
- Safety reporting;
- Record of deliverables submitted;
- Record of communication, correspondence, and invoices;
- Estimate of percentage complete for each task and overall percentage complete;
- Personnel changes;
- If applicable an updated project schedule.

3.2 MANPOWER REPORTING

The Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs) operates and maintains a secure Army data collection site where the JV Team will report all contract manpower (including subcontractor manpower) required for performance of this contract on an annual basis. The web address for the data collection site is: <https://cmra.army.mil>. The JV Team will completely fill in all required information.

3.3 PHONE CONFERENCES/INFORMAL SITE MEETINGS

Phone conferences and informal site meetings with Fort Hamilton will be documented appropriately through follow-up email and summaries in the monthly status reports.

3.4 REGULATORY NEGOTIATIONS

Regulatory interaction and negotiations are anticipated for this project. Fort Hamilton, USACE and USAEC will be made aware of all scheduled regulatory interactions and invited to participate. As this project is being conducted through the support of a PBA Task Order, some non-scheduled interactions may also occur from time to time and involve only the JV team. In both cases the interactions will be documented and that information provided promptly to Fort Hamilton, USACE and USAEC contacts and also summarized in the monthly status report.

3.5 PUBLIC INVOLVEMENT

The JV Team will not make public announcements or publicly disclose any data or report generated under this contract unless specifically authorized by the KO through the COR. If any person or entity requests information pertinent to the scope of work or work being conducted hereunder, the JV Team will refer them to the COR. All reports and other information generated during this project will be the property of the Government, and the JV Team will not distribute to any other entity unless authorized by the KO.

4.0 DELIVERABLES, MILESTONES, AND SCHEDULE

4.1 DELIVERABLES

Documents will be produced in draft, draft final and final versions in accordance with the timeframes specified in the PWS (USACE, 2012). The JV Team will distribute each submittal in accordance with the document distribution list provided as **Table 3-1**.

The COR will provide consolidated Army comments on draft documents to the JV Team within fifteen (15) business days or as otherwise agreed upon and documented in the project schedule. The JV Team will submit draft and final Responses to Comments by email before submitting subsequent document versions. All documents will be identified as draft or draft final until accepted by the COR, when they will be signed and finalized.

The key deliverables included under this performance-based, firm fixed price DO are summarized in **Table 4-1**.

4.2 MILESTONES

The COR will be responsible for contract management, inspection, oversight, review, and approval activities. Certification and approval of project milestones by the COR is necessary before distribution of performance-based milestone payment(s). The major milestones for this project are summarized in **Table 4-2**.

Certification by the Army is contingent upon the JV Team performing in accordance with the terms and conditions of the contract, the PWS, the QASP and all amendments/options.

The payment schedule for major milestones and additional sub-milestones is detailed in **Appendix B**. The purpose of interim milestones is to minimize the time between significant incurrence of expenses (such as for field work) and the next milestone (such as approval of a report) which can often take extended periods of time to achieve. Successful completion of a milestone will be as defined in the QASP:

- Completion of a report means that comments on the previous version have been received, addressed, and approved, and the document has received Army Approval by the COR.

- Completion of fieldwork means that the field logs and associated records (i.e. daily or weekly reports) and data collected or received have been submitted to the Army and received Army Approval by the COR.

4.3 SCHEDULE

A complete activity-based schedule that fully supports the currently planned technical approach and outlines the projected due dates for all deliverables, milestones and sub-milestones is included in **Appendix A**. The project schedule will be updated and submitted with the monthly status report, as necessary, when significant changes are made. The schedule will include the notable activities and events that impact the project and will be updated for actual starts and finishes. It is noted that the schedule will remain dynamic throughout the project as the actual start and end dates of many activities are controlled by assumed USACE review and regulatory approval timeframes.

5.0 RECORDS AND DATA MANAGEMENT

5.1 ENVIRONMENTAL RESTORATION INFORMATION SYSTEM

Chemical data generated under this task order will be uploaded to the Army's Environmental Restoration Information System (ERIS). The JV Team will also be responsible for providing the COR with the data and documentation necessary for the closeout of site CCHAM0200 in the Army Environmental Database.

6.0 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

All work conducted by the JV Team at Fort Hamilton will require concurrence from the Army COR and be consistent to meet the evaluation criteria set forth within the QASP.

The PDT will work together closely to determine program requirements and project expectations. The project will include the use of Standard Operating Procedures (SOPs), a Quality Assurance Project Plan (QAPP) and verification sign-offs in accordance with the QASP to ensure quality. The QA/QC processes are further defined in the remainder of this Section. Understanding of the QA/QC process and each employee's role within is ensured through training and project documentation. The PMP touches on the many aspects of QA/QC that the PDT will initiate and maintain throughout the project. For example, key positions within the project management structure and each position's responsibility for maintaining project QA/QC are listed in **Table 2-1**. Additionally, many of the project-specific QA/QC aspects will be detailed in other documents where they apply to specific technical parameters, such as in the QAPP to be incorporated into the Investigation/Corrective Action Work Plan.

Periodic QC meetings, which may occur in conjunction with other meetings, such as the daily safety brief, will be held to review and/or resolve QA/QC issues and to discuss changes in procedure or scope of work. The focus of these meetings is to facilitate continuous improvement throughout the duration of the project. Discussions during these meetings will be documented, including problems encountered, corrective actions taken, and recommendations for improvement to the work process. The objective of the continuous improvement process is to capture and document recognized potential problems or experienced problems in an effort to achieve the following:

- prevention of the recurrence of repetitive planning / execution deficiency,
- clarification of interpretation of regulations or standards,
- reduction of the potential for mistakes in high risk / probability areas of concern,
- promotion of good work practice that should be ingrained for repeat application, and
- promotion of efficient and cost effective practice.

A list of lessons learned will be maintained and shared with the PDT.

As part of the field activities, the JV Team will implement QA/QC measures to ensure that data generated is of sufficient quality to meet the project data quality objectives described in associated work plans. For example, the QA/QC objectives for sampling and analytical tasks will be met by collecting the proper quantities and types of samples, using the correct analytical methodologies, implementing field and laboratory QA/QC procedures, and using various data validation and evaluation processes. Documentation of field and analytical activities, as well as system checks and reviews, will be integral parts of the QA/QC process.

Quality Control shall be provided whenever sampling or analysis for chemical constituents is required in order to achieve milestones. All sampling and analysis shall comply with the requirements of the most recently approved DoD Quality Systems Manual. The laboratory (ies) to be used by the Contractor shall be DoD Environmental Laboratory Accreditation Program (ELAP) and New York State ELAP certified.

A QAPP will be developed to support the sampling, analysis, and QA/QC evaluation activities associated with this project. The QAPP will consist of policies, procedures, specifications, standards, and documentation sufficient to produce data of quality adequate to meet the data quality objectives for the project and to minimize loss of data due to out-of-control conditions or malfunctions. Laboratory requirements for the analytical methods being used for this project will also be provided in the QAPP. These procedures include requirements for sample preparation, sampling containers, preservation methods, and holding times.

The QAPP will ensure that the responsibility for QA/QC is met throughout the duration of this project. It addresses procedures to assure the precision, accuracy, representativeness, completeness, and comparability of field and laboratory data generated during the course of this project. It also provides a framework for evaluating existing data and newly obtained data that will be used in this project. The QAPP defines the QC requirements for sample and data acquisition, handling, and assessment. The QA procedures, such as tracking, reviewing and auditing, will be implemented as necessary to ensure that all project work is performed in accordance with professional standards and Army regulations and guidelines..

7.0 REFERENCES

Plexus Scientific Corporation (Plexus). 2007. *Operations and Maintenance Manual Multi-Phase Extraction System AAFES Station, Building 200, U.S. Army Garrison, Fort Hamilton, NY*. October 2007.

TABLES

Table 1-1 Performance Requirements

CLIN	Performance Objective	Performance Standards
0001	Approved final Project Management Plan (PMP) and draft final Quality Assurance Surveillance Plan (QASP).	Army approval through the Contracting Officer's Representative (COR).
0002	Conduct RA(O) of the existing MPE system at Site CCHAM0200 in accordance with the existing approved workplan for contract duration, or until Army and regulatory approval of an alternate approach, or Response Complete occurs. This includes but is not limited to maintaining the discharge permit, paying for the discharge permit and utilities used by the MPE system, preparing and obtaining approval of quarterly and annual operations reports, and monitoring sampling of the site.	Operating duration greater than or equal to 80% for each month unless variation is approved in writing by the Government. No notifications of violation shall be received from the State or City of New York. All air effluent shall meet NYSDEC/NYCDEP stipulation agreement requirements. Water effluent shall meet NYCDEP requirements for discharge to sewers.
0003 (Option)	In 4 years from NTP achieve Response Complete at site CCHAM0200. Upon achievement of RC, perform any necessary Long-Term Management (LTM) at the site for the duration of the contract or until achievement of Site Close-Out (SC), whichever comes first. LTM shall include development and implementation of an exit or ramp-down strategy for LTM activities at the site. Prior to implementing any remedial action other than the current MPE system, achieve an Army/NYSDEC approved Corrective Action Plan (CAP) and	Army approval through the COR and Regulator acceptance (e.g., receipt of documentation confirming RC; RA(O)/LTM exit or ramp down strategy; annual RA(O)/LTM reports implementing the exit or ramp down strategy).

CLIN	Performance Objective	Performance Standards
	<p>workplan. Prior to beginning any investigation fieldwork achieve a Army/NYSDEC approved workplan. POP of this option is 48 months.</p>	
0005 (Option)	<p>Complete removal and disposal of the MPE system, including extraction wells, connecting piping, and transformer. POP of this option is 12 months from NTP.</p>	<p>Army approval through the COR.</p>
0006 (Option)	<p>Perform site demobilization: remove all remedy infrastructure and abandon all wells in accordance with NYS requirements no later than 3 months before POP end date. Achieve Army approval of demobilization plan prior to beginning field work. Achieve Army approval of closeout and demobilization report NLT 30 days before POP end date. POP of this option is 12 months from NTP.</p>	<p>Army approval through the COR.</p>

Table 1-2: Identified Risks and Management Approaches

Risk Description	Approach to Manage Risk
Approval for revised approach is delayed or withheld	A kickoff meeting will be held with the appropriate stakeholders, including regulators, to gain project understanding and buy-in. Plans, including the Remedial Action Work Plan (RAWP) addendum will be prepared and submitted in a very clear and adequately detailed manner. Additional meetings will be held with the regulators to review the RAWP addendum and/or their comments to answer questions and expedite approval.
Identification of significant soil and/or groundwater contamination beneath the station building	The JV technical approach contemplates this risk and addresses it directly by installing an angled well and including potential treatment of this area in our proposed remedial approach.
Subsurface characteristics encountered vary from those previously reported	The proposed additional investigation and pilot testing will provide the necessary data to ensure the remedial design adequately addresses and accounts for site characteristics.
Remediation is not as effective, or effective as quickly as envisioned	Pilot test data will help to mitigate this risk. In addition, the planned technical approach accounts for some level of uncertainty by proposing several injection events. Further, operating data and results will be closely evaluated and the remedial approach will be proactively revised in a timely manner, if necessary. This may include adding additional injection wells and/or conducting additional injection events or operating the active remediation system for a longer period of time.

Table 2-1: Roles and Responsibilities of Key Personnel

Project Personnel	Roles and Responsibilities
U.S. Army Personnel	
Mary Ellen Maly Brad Wright <i>USAEC Environmental Restoration Manager</i>	<ul style="list-style-type: none"> •Overall Program Management, responsible for programmatic coordination
Elena Rubalcava <i>USACE Project Manager</i>	<ul style="list-style-type: none"> •Overall project management/execution and quality assurance •Document quality assurance/conduct reviews •Performance approval
Chuck Lechner <i>USACE Project Engineer</i>	<ul style="list-style-type: none"> •Technical review and oversight
Peter Koutroubis <i>Fort Hamilton, Customer</i>	<ul style="list-style-type: none"> •Review project implementation plans •Assist in coordinating on-site logistics for implementation
The JV Team	
Heather Polinsky, PMP <i>Program Officer</i>	<ul style="list-style-type: none"> • Execute project scope in accordance with applicable regulations as well as meeting the expectations of USACE, USAEC and Customer • Conduct and document quality control reviews • Identify, document, report, and ensure completion of all corrective actions to ensure compliance with QAPP • Stop, amend, or curtail work for quality or H&S deficiencies
Jennifer Buckels Mayers <i>Program Manager</i>	<ul style="list-style-type: none"> • Responsible for monitoring overall project progress • Responsible for overall project quality • Ensure PM has the resources available to efficiently and safely complete project tasks • Programmatic communication and information distribution will occur through the PM
Brian R. Stempowski P.E., PMP <i>Project Manager</i>	<ul style="list-style-type: none"> • Single point of contact for the task order activities • Execute project scope in accordance with applicable regulations • Ultimately responsible for implementing the APP for the project • Direct day-to-day project operations and preparation of all deliverables • Ensure quality of work performed • Assign project resources/coordinate workflow • Compliance with project scope, schedule and budget • Prepare/submit monthly progress reports • Review all invoices and cost details • Meet contractual obligations • Implement procedures to eliminate conflicts, errors, and omissions and ensure the accuracy of all output • Stop, amend, or curtail work for quality, H&S, regulatory, or operational deficiencies • Maintain communication/coordination with USACE

Project Personnel	Roles and Responsibilities
Andrew Korik <i>Associate Project Manager</i>	<ul style="list-style-type: none"> • Assist the Project Manager on day-to-day project operations and project deliverables • Communicate with and appropriately manage subcontractors, suppliers and support personnel • Ensure that the JV and subcontractor, supplier and support employees have appropriate current qualifications • Ensure all parties comply with the approved APP
Carla DaParma <i>Task Manger</i>	<ul style="list-style-type: none"> • Responsible for assisting project manager and associate project manager with day-to-day operations and project deliverables • Responsible for coordinating field work and system operation and maintenance
David A. Lamoureux, P.E. <i>Senior Contracts Manager</i>	<ul style="list-style-type: none"> • Acquisition and contract management • Subcontract management • Federal, state, and local regulations pertaining to contract management and acquisition
Cullen Flanders, P.E. Jeff Burdick <i>Senior Engineer/Scientist</i>	<ul style="list-style-type: none"> • Develop technical approach • Guide preparation and lead review of all technical deliverables • Assist PM with execution of technical tasks
Nadine Weinberg <i>Risk Assessor</i>	<ul style="list-style-type: none"> • As necessary, assist project teams in evaluating direct and indirect exposure pathways associated with contaminated soils, groundwater and air and developing practical risk based remedial requirements and strategic plans for cost effective investigation and remediation efforts • Assists in developing sampling and analysis strategies and Data Quality Objectives to ensure data are appropriate for use in risk assessment reports • Provides technical oversight and direction to technical staff
Tom Burgess, CSP <i>Safety and Health Manager</i>	<ul style="list-style-type: none"> • Responsible for developing, implementing, and overseeing all safety and health aspects of project during investigation and remediation operations per approved site plans and federal, state, and local regulations to ensure a safe workplace is maintained; he is available for emergencies and on-site consultation • Develops and/or approves all project accident prevention and safety and health plans, activity hazard analyses, and emergency response plans • Evaluates toxicological risks and defines response action levels, leads site-specific supervisory training for on-site personnel in exposure assessment and air monitoring techniques

Project Personnel	Roles and Responsibilities
<p>Marvin Gunter, CECM <i>Site Safety/Health Officer</i></p>	<ul style="list-style-type: none"> • Ensure that safety and health measures and plans have been properly reviewed and approved prior to beginning field activities • Enforce all provisions of the approved APP/Site-Specific Safety and Health Plan (SSHP) • Report all matters that pertain to environmental H&S to the Corporate H&S officer • Maintain logs and records in the field • Direct responsibility for overseeing the safe operation of team members at the project site • Ensure that safety and health measures and plans have been properly reviewed and approved prior to beginning field activities • Stop any operation that threatens health or safety
<p>Paul Boyko <i>System Operator/O&M Technician</i></p>	<ul style="list-style-type: none"> • Responsible for conducting system operation and maintenance activities, responding to any emergency responses or system alarms and for collecting system samples in compliance with the discharge permit and stipulation agreement

Table 2-2: Points of Contact Information

Name	Title/Project Function	Address	Contact Information
AAFES Retail Fuel Facility (Bldg 200) – UST Spill Remediation, U.S. Army Garrison Fort Hamilton, Brooklyn, NY			
Peter Koutroubis	Environmental Chief	U.S. Army Garrison Fort Hamilton Directorate of Public Works 129 Wainwright Drive Brooklyn, New York 11252-6800	718-630-4485 (office) 917-865-3423 (mobile) peter.h.koutroubis.civ@mail.mil
USACE			
Phyllis Della Camera	Project Manager	USACE, Baltimore District CENAB-EN-H, Attn: Phyllis Della Camera Rm 10500-K 10 South Howard Street Baltimore, Maryland 21201	410-962-6643 (office) 443-844-8194 (mobile) Phyllis.a.della-camera@usace.army.mil
Elena Rubalcava	Project Manager	USACE, Baltimore District CENAB-EN-H, Attn: Elena Rubalcava Rm 10500-K 10 South Howard Street Baltimore, Maryland 21201	410-962-4006 (office) Elena.V.Rubalcava@usace.army.mil
Chuck Lechner	Environmental Engineer	USACE, Baltimore District CENAB-EN-H, Attn: Chuck Lechner 10 South Howard Street Baltimore, Maryland 21201	410-962-5642 (office) 443-956-8193 (mobile) Charles.a.lechner@usace.army.mil
Jeffrey May	Contracting Officer	USACE, Baltimore District Environmental and Munitions Design Center Attn: Jeffrey May 10 South Howard Street Baltimore, Maryland 21201	410-962-5617 (office) Jeffrey.b.may@usace.army.mil

Name	Title/Project Function	Address	Contact Information
Tom Meyer	Contracting Officer's Representative	USACE, Baltimore District Environmental and Munitions Design Center Attn: Tom Meyer Rm 10000-F 10 South Howard Street Baltimore, Maryland 21201	410-962-0032 (office) Tom.Meyer@usace.army.mil
USAEC			
Mary Ellen Maly	AEC ERM	Army Environmental Command (AEC) 2450 Connell Road, Bldg 2264, Room 129-013 Fort Sam Houston, Texas 78234-7664	210.466.1732 (office) mary.e.maly.civ@mail.mil
Brad Wright	AEC ERM	Army Environmental Command (AEC) 2450 Connell Road, Bldg 2264, Room 129-013 Fort Sam Houston, Texas 78234-7664	210.466.1896 (office) bradford.c.wright.civ@mail.mil
NYSDEC			
Jonathan Kolleeny	Engineering Geologist	NYSDEC Region 2 **Send to Bobby Whitaker**	718-482-6388 (office) jakollee@gw.dec.state.ny.us
New York City, Dept. of Env. Protection, IPP Inspection & Permit Section			
Sean Hulbert	Engineer	New York City, Dept. of Env. Protection, IPP Inspection & Permit Section	718-595-4715 (office) shulbert@dep.nyc.gov
JV Team			
William T. Davis, PE	Program Manager	PIKA International 12723 Capricorn Drive Suite 500 Stafford, Texas 77477	281-299-5022 (office) bdavis@pikainc.com

Name	Title/Project Function	Address	Contact Information
Jennifer Buckels Mayers	Federal Program Manager	ARCADIS/Malcolm Pirnie 300 East Lombard Street Suite 1510 Baltimore, Maryland 21202	410-332-4805 (office) 434-390-3273 (mobile) 410-230-0491 (fax) jennifer.buckelsmayers@arcadis-us.com
Heather Polinsky, PMP	Corporate Quality Manager	ARCADIS/Malcolm Pirnie 300 East Lombard Street Suite 1510 Baltimore, Maryland 21202	410-230-9961 (office) 410-353-7855 (mobile) 410-230-0491 (fax) heather.polinsky@arcadis-us.com
Brian Stempowski	Project Manager	ARCADIS U.S., Inc. 1114 Benfield Blvd. Suite A Millersville, Maryland 21108	410-923-7828 (office) 410-598-2914 (mobile) brian.stempowski@arcadis-us.com
Andrew Korik	Assistant Project Manager	ARCADIS U.S., Inc. 6723 Towpath Road Syracuse, New York 13214-0066	315-671-9323 (office) 607-345-7534 (mobile) andrew.korik@arcadis-us.com
Carla DaParma	Task Manager	ARCADIS U.S., Inc. One Adams Place 310 Seven Fields Blvd. Suite 210 Seven Fields, Pennsylvania 16046	724-742-9180 (office) 412-848-4231 (mobile) carla.daparma@arcadis-us.com
Paul Boyko	System Operator	ARCADIS U.S., Inc. 8 South River Road Cranbury, New Jersey 08512	609-860-0590 (office) 732-762-1315 (mobile) paul.boyko@arcadis-us.com
David A. Lamoureux, PE	Senior Contracts Manager	ARCADIS U.S., Inc. 701 Town Center Drive Suite 600 Newport News, Virginia 23606	757-873-4495 (office) 757-344-9945 (mobile) 757-873-8723 (fax) dave.lamoureux@arcadis-us.com

**Table 3-1
Document Distribution List**

	MPR	APP	PMP	QASP	Quarterly O&M	Work Plans	Reports
Peter Koutroubis U.S. Army Garrison Fort Hamilton Directorate of Public Works 129 Wainwright Drive Brooklyn, NY 11252-6800	1 PDF (cc)		Draft 1 PDF Draft Final 1 PDF Final 2 PDF		Draft 1 PDF Final 2 PDF	Draft 1 PDF Draft Final 1 PDF Final 2 PDF	Draft 1 PDF. Draft Final 1 PDF. Final 2 PDF.
Mary Ellen Maly Army Environmental Command (AEC) 2450 Connell Road, Bldg 2264, Room 129-013 Fort Sam Houston, TX 78234-7664	1 PDF (cc)		Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper Final 1 PDF and 1 paper	Draft 1 PDF Final 1 PDF	Draft 1PDF Final 1PDF	Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper Final 2 PDF and 1 paper	Draft 1 PDF and 1 paper. Draft Final 1 PDF and 1 paper. Final 2 PDF and 1 paper.
Brad Wright Army Environmental Command (AEC) 2450 Connell Road, Bldg 2264, Room 129-013 Fort Sam Houston, TX 78234-7664	1 PDF (cc)		Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper Final 1 PDF and 1 paper	Draft 1 PDF Final 1 PDF	Draft 1PDF Final 1PDF	Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper Final 2 PDF and 1 paper	Draft 1 PDF and 1 paper. Draft Final 1 PDF and 1 paper. Final 2 PDF and 1 paper.
USACE, Baltimore District CENAB-EN-H, Attn: Elena Rubalcava Rm 10500-K 10 South Howard Street Baltimore, MD 21201 *Phyllis Della-Camera to be copied on all electronic (PDF) submittals	1 PDF (cc)	Draft 1 PDF and 1 paper. Final 1 PDF and 1 paper.	Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper Final 1 PDF and 1 paper	Draft 1 PDF and 1 paper Draft Final 1 PDF and 1 paper	Draft 2 PDF and 2 paper Final 3 PDF and 2 paper	Draft 4 PDF and 4 paper Draft Final 4 PDF and 4 paper Final 5 PDF and 2 paper	Draft 4 PDF and 4 paper. Draft Final 4 PDF and 4 paper Final 5 PDF and 2 paper
USACE, Baltimore District Environmental and Munitions Design Center Attn: Tom Meyer Rm 10000-F 10 South Howard Street Baltimore, MD 21201 emdc.admin@usace.army.mil	1 paper and 1 PDF (to) 1 PDF (cc)						
Jonathan Kolleeny (NYSDEC) **Send to Peter Koutroubis**					Final 1 PDF and 1 paper	Draft Final 1 PDF and 1 paper Final 1 PDF and 1 paper	Draft Final 1 PDF and 1 paper Final 1 PDF and 1 paper

Table 4-1: Key Project Deliverables

Deliverable Number	Deliverable	Versions	Delivery Date
1	Project Management Plan	Draft	12September 2012
		Draft Final	NLT 15 DARGC
		Final	NLT 15 DARGC
2	Quality Assurance Surveillance Plan	Draft	12 September 2012
		Draft Final	NLT 15 DARGC
3	Monthly Progress Reports	Final	NLT 10 th day of the following month
4	Milestone Presentations	Draft	NLT 15 DAGR
		Draft Final	NLT 7 DARGC
		Final	NLT 7 DARGC
5	Investigation/Corrective Action Work Plan	Draft	60 DPPSD
		Draft Final	NLT 7 DARGC
		Final	3 DPPSD
6	Corrective Action Plan	Draft	120 DPPSD
		Draft Final	NLT 14 DARGC
		Final	NLT 7 DARGC
7	Remedy-In-Place Report	Draft	NLT 45 DAAC
		Draft Final	NLT 14 DARGC
		Final	NLT 15 DARGC
8	Quarterly Remedial Action/Operation Reports	Draft	NLT 21 DAEQ
		Draft Final	NLT 14 DARGC
		Final	NLT 7 DARGC
9	Annual Remedial Action/Operation Reports	Draft	NLT 21 DAEY
		Draft Final	NLT 14 DARGC
		Final	NLT 7 DARGC
10	Long Term Monitoring Report	Draft	NLT 45 DAE
		Draft Final	NLT 14 DARGC
		Final	NLT 7 DARGC
11	Remedial Action/Operation Exit/Ramp-Down Strategy Document	Draft	90 DPIC
		Draft Final	NLT 14 DARGC
		Final	NLT 14 DARGC

12	Long Term Monitoring Exit/Ramp-Down Strategy Document	Draft	90 DPIC
		Draft Final	NLT 14 DARGC
		Final	NLT 14 DARGC

NLT – No Later Than

DARGC – Days After Receipt of Government Comments

DAGR – Days After Government Request

DPPSD – Days Prior to Planned Start Date

DAAC – Days After Action Completed

DAEQ – Days After End of Quarter

DAEY – Days After End of Year

DAE – Days After Event

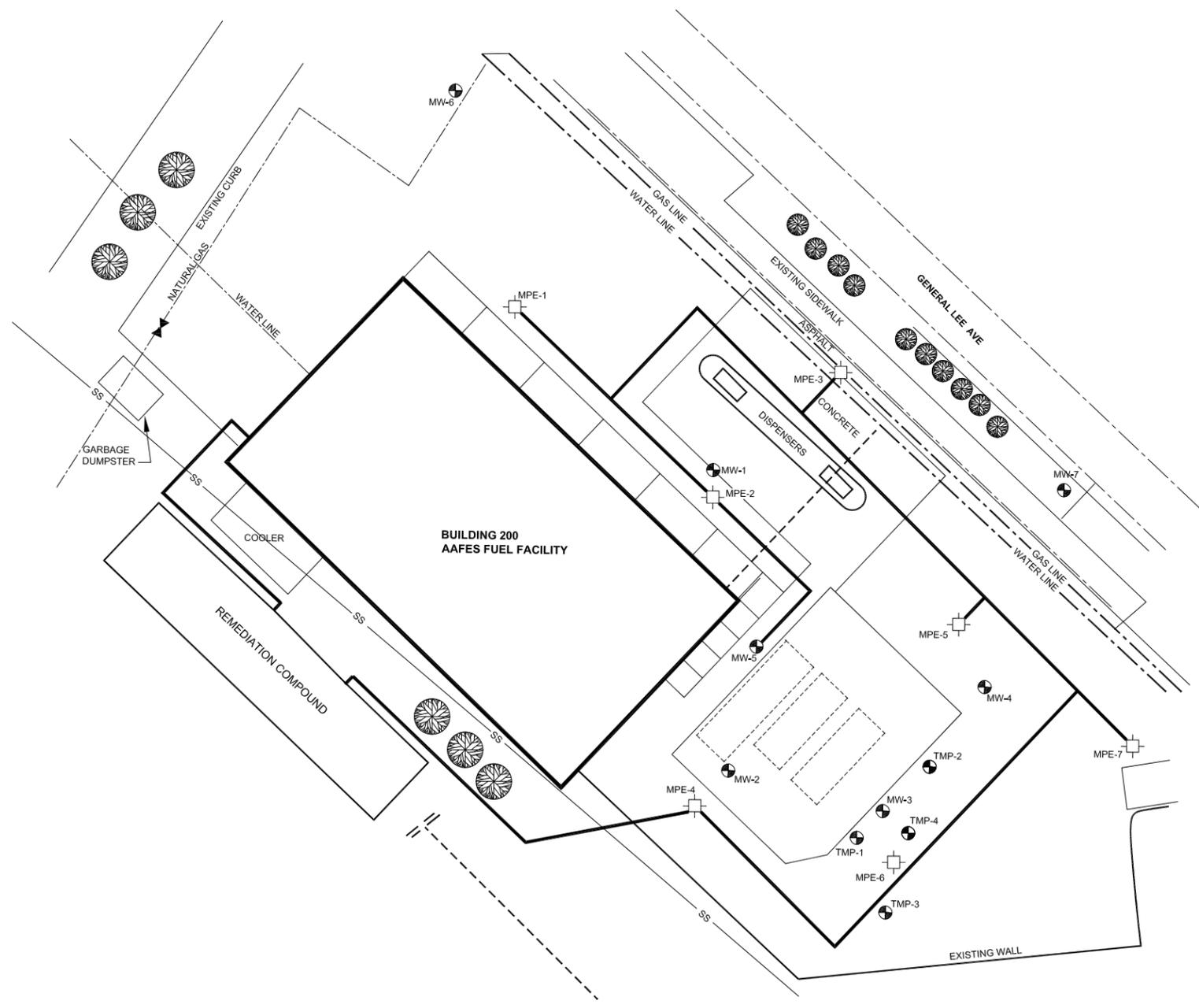
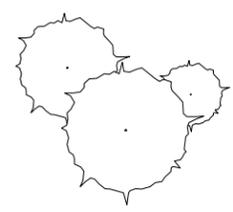
DPIC – Days Prior to Intended Change

Table 4-2: Major Performance-Based Milestones

Milestone
Army approval of the final Project Management Plan
Army approval of the draft final QASP
CLIN 0002 completion
Army approval of final workplans for site investigation (if proposed by the contractor)
Army approval of final Corrective Action Plans
Army approval of final Corrective Action Plan workplans
CLIN 0003 completion
Documentation of the completion of successful alternate remedy operation
CLIN 0005 completion
CLIN 0006 completion

FIGURES

CITY: SYRACUSE, NY; DIV: GROUP: ENV/CAD; DB: R. BASSETT; LD: (OP); PIC: PM: T.M.A. KORIK; LVR: ON; OFF: REF; G:\ENV\CAD\SYRACUSE\ACT\06261024\0001\000001\DWG\06261B01.dwg; LAYOUT: 1-2; SAVER: 10/4/2012 4:22 PM; ACADVER: 18.1; S (LMS TECH); PAGESETUP: C:\D2B\PDF-GMS; PLOTSTYLETABLE: PLT\FULL.CTB; PLOTTED: 10/4/2012 4:22 PM; BY: BASSETT, RICHARD; XREFS: IMAGES: 06261X01 (2).jpg; PROJECTNAME: --

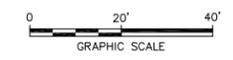


LEGEND:

- EXISTING MONITORING WELL
- MPE EXTRACTION WELL
- SANITARY SEWER LINE
- MPE HEADER PIPE
- UNDERGROUND STORAGE TANKS.

NOTE:

1. BASE MAP PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT AND PLEXUS SCIENTIFIC.
2. ALL LOCATIONS AND SCALE ARE APPROXIMATE.



U.S. ARMY CORPS OF ENGINEERS
BALTIMORE DISTRICT
AAFES STATION, FT. HAMILTON, N.Y.

SITE MAP



FIGURE
1-2

U.S. Army Environmental Command -
Mary Ellen Maly, Environmental
Restoration Manager

Fort Hamilton – Peter Koutroubis,
Customer



U.S. Army Corps of Engineers
Baltimore District
Project Manager
Elena Rubalcava

Program Officer

Heather Polinsky, PMP

Project Manager

Brian Stempowski, PE, PMP

Associate Project Manager

Andy Korik, CCM

JV Program Manager

Bill Davis, PE
Jennifer Buckels Mayers

JV Senior Contracts Manager

David A. Lamoureux, PE

JV Corporate Quality Manager

Mark Albe, PMP

JV Corporate Health
and Safety Officer

Laura Lee Casey, CSP

Project Personnel

Senior Scientist / Engineer

Cullen Flanders, PE - *Remedial Design Engineer*
Jeff Burdick - *In-situ Remediation Specialist*

Regulatory Specialist

William McCune, PG

Task
Manager/Engineer

Carla DaParma

O&M
Technician

Paul Boyko

Risk
Assessor

Nadine
Weinberg

Certified Industrial
Hygienist

James Young, CIH,
CSP

Safety and
Health Manager

Tom Burgess,
CSP

Site Safety /
Health Officer

Marvin Gunter,
CECM

■ PWS Identified Key Personnel

■ Other Personnel

■ JV Management Team

U.S. Army Corps of Engineers
Baltimore District
AAFES Station, Ft. Hamilton, N.Y.

Project Organization Chart
Figure 2-1

APPENDIX A
PROJECTED IMPLEMENTATION SCHEDULE

APPENDIX B
PERFORMANCE BASED MILESTONE PAYMENT SCHEDULE

Performance Based Milestone Payment Schedule
AAFES Retail Fuel Facility
Fort Hamilton, Brooklyn, NY

CLIN	Major PWS Milestone	Contract Milestone	Description	Milestone Payment	Acceptance Criteria	Milestone Activities Total by Year					
						Year 1 (12/13)	Year 2 (13/14)	Year 3 (14/15)	Year 4 (15/16)	Year 5 (16/17)	
						\$876,074	\$289,372	\$297,344	\$104,401	\$97,793	\$87,164
1			PMP / QASP	\$35,928		\$35,928	\$0	\$0	\$0	\$0	\$0
	1	1.1	Final PMP	\$28,742	Acceptance by Army	\$28,742					
	2	1.2	Draft Final QASP	\$7,186	Acceptance by Army	\$7,186					
2			RA(O) of Existing MPE System	\$104,111		\$104,111	\$0	\$0	\$0	\$0	\$0
	3	2.1	Final APP	\$15,616	Acceptance by Army	\$15,616					
	3	2.2	MPE System Operation Q4 2012	\$26,028	Acceptance by Army/Meet Operational Objectives	\$26,028					
	3	2.3	MPE System Operation Q1 2013	\$26,028	Acceptance by Army/Meet Operational Objectives	\$26,028					
	3	2.4	Draft Final Annual Report 2013	\$26,028	Acceptance by Army	\$26,028					
	3	2.5	CLIN 2 Completion	\$10,411	Regulatory Approval to Modify System	\$10,411					
3			Achieve Response Complete	\$660,765		\$149,333	\$297,344	\$104,401	\$97,793	\$11,894	
	4	3.1	Draft Final Investigation/Corrective Action Work Plan	\$13,216	Acceptance by Army	\$13,216					
	4	3.2	Investigation Complete (Field Work Complete)	\$23,788	Documentation Submitted/Army Acceptance	\$23,788					
	4	3.3	Modifications to Existing System Complete (Field Work Complete for Change to SVE)	\$33,038	Documentation Submitted/Army Acceptance	\$33,038					
	4	3.4	ISCO Pilot Test Complete (Field Work Complete)	\$46,254	Documentation Submitted/Army Acceptance	\$46,254					
	5,6	3.5	Draft Final Corrective Action Plan	\$26,431	Acceptance by Army		\$26,431				
	5,6	3.6	Corrective Action Plan Implementation Complete (Injection Event #1 Complete)	\$79,292	Documentation Submitted/Army Acceptance		\$79,292				
	5,6	3.7	Alternate Remedy Operation Q2 2013 (SVE)	\$16,519	Documentation Submitted/Army Acceptance	\$16,519					
	5,6	3.8	Alternate Remedy Operation Q3 2013 (SVE)	\$16,519	Documentation Submitted/Army Acceptance	\$16,519					
	5,6	3.9	Alternate Remedy Operation Q4 2013 (SVE)	\$16,519	Documentation Submitted/Army Acceptance		\$16,519				
	5,6	3.1	Alternate Remedy Operation Q1 2014 (SVE/ISCO)	\$69,380	Documentation Submitted/Army Acceptance		\$69,380				
	5,6	3.11	Alternate Remedy Operation Q2 2014 (SVE/ISCO)	\$52,861	Documentation Submitted/Army Acceptance		\$52,861				
	5,6	3.12	Alternate Remedy Operation Q3 2014 (SVE/ISCO)	\$52,861	Documentation Submitted/Army Acceptance		\$52,861				
	5,6	3.13	Alternate Remedy Operation Q4 2014 (SVE/ISCO)	\$52,861	Documentation Submitted/Army Acceptance			\$52,861			
	5,6	3.14	Alternate Remedy Operation Q1 2015 (ISCO)	\$19,823	Documentation Submitted/Army Acceptance			\$19,823			
	5,6	3.15	Alternate Remedy Operation Q2 2015 (LTM)	\$9,911	Documentation Submitted/Army Acceptance			\$9,911			
	5,6	3.16	Alternate Remedy Operation Q3 2015 (LTM)	\$9,911	Documentation Submitted/Army Acceptance			\$9,911			
	5,6	3.17	Alternate Remedy Operation Q4 2015 (LTM)	\$9,911	Documentation Submitted/Army Acceptance				\$9,911		
	5,6	3.18	Alternate Remedy Operation Q1 2016 (LTM)	\$9,911	Documentation Submitted/Army Acceptance				\$9,911		
	5,6	3.19	Draft Final Annual Report 2014	\$11,894	Acceptance by Army			\$11,894			
	5,6	3.2	Draft Final Annual Report 2015	\$11,894	Acceptance by Army				\$11,894		
	5,6	3.21	Draft Final Annual Report 2016	\$11,894	Acceptance by Army					\$11,894	
	7,8	3.22	NFA Requested and Approved/CLIN 3 Completion	\$66,077	Regulatory Approval of NFA					\$66,077	
5			Complete Removal and Disposal of the MPE System	\$31,253		\$0	\$0	\$0	\$0	\$0	\$31,253
	10	5.1	Complete Removal and Disposal of MPE System (Field Work Complete)	\$28,128	Documentation Submitted/Army Acceptance						\$28,128
	10	5.2	Final Documentation Report for Removal and Disposal of MPE System/CLIN 5 Completion	\$3,125	Acceptance by Army						\$3,125
6			Perform Site Demobilization	\$44,017		\$0	\$0	\$0	\$0	\$0	\$44,017
	11	6.1	Final Demobilization Work Plan	\$13,205	Acceptance by Army						\$13,205
	11	6.2	Complete Demobilization Activities (Field Work Complete)	\$26,410	Documentation Submitted/Army Acceptance						\$26,410
	11	6.3	Final Closeout and Demobilization Report/CLIN 6 Completion	\$4,402	Acceptance by Army						\$4,402