

**Project Management Plan  
Remediation of Soils at Load Lines 1-4  
Ravenna Army Ammunition Plant  
Ravenna, Ohio**

**Contract Number DACA45-03-D-0026  
Task Order 0001**

Prepared for:

**United States Army Corps of Engineers  
Louisville District**

Prepared by:

**Shaw Environmental and Infrastructure  
100 Technology Center Drive  
Stoughton, MA 02072**

April 2004

DISCLAIMER: This document is prepared by the United States Army Corps of Engineers, Louisville District (USACE) and their contractor, Shaw Environmental and Infrastructure (Shaw). Some of the information in this document has not been given final approval by the Ohio Environmental Protection Agency (OhioEPA). The opinions, findings and conclusions expressed are those of Shaw and not necessarily those of OhioEPA and USACE.

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**PROJECT MANAGEMENT PLAN**  
Ravenna Army Ammunition Plant  
Load Lines 1, 2, 3 and 4  
Ravenna, Ohio

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**List of Acronyms**

AEC	US Army Environmental Center
AOC	Area of Concern
BMP	Best Management Practices
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CIH	Certified Industrial Hygienist
COC	Compound of Concern
CQC	Contract Quality Control
DDFO	Director's Final Findings and Orders
DOD	Department of Defense
EMIS	Environmental Management Information System
EPA	Environmental Protection Agency
FAR	Federal Acquisition Regulations
FFS	Focused Feasibility Study
FPRI	Fixed-Price Remediation Services with Cost Cap Insurance
FS	Feasibility Study
GOCO	Government Owned Contractor Operated
HASP	Health and Safety Plan
IRIP	Interim Remedy In-Place
JMC	Joint Munitions Command
LTM	Long Term Monitoring
MIS	Management Information System
NCP	National Contingency Plan
NGB	National Guard Bureau
O&M	Operation and Maintenance
OEW	Ordnance and Explosive Waste
OHARNG	Ohio Army National Guard
OhioEPA	Ohio Environmental Protection Agency
OIP	Other Interested Parties
OSC	US Army Operations Support Command
PBC	Performance Based Contracts
PCB	Polychlorinated Biphenyls
PLL	Pollution Legal Liability
PMP	Project Management Plan
POC	Point of Contact
PRG	Preliminary Remediation Goals
PSOP	Procurement Standard Operating Procedure
QA/QC	Quality Assurance/Quality Control
RGO	Remedial Goal Option
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RTLS	Ravenna Training and Logistics Site
RVAAP	Ravenna Army Ammunition Plant
SBHHRA	Supplemental Baseline Human Health Risk Assessment

SOW	Scope of Work
SVOCs	Semi-volatile Organic Compound
TSCA	Toxic Substance Control Act
TCLP	Toxicity Characteristic Leaching Potential
USACE	United States Army Corps of Engineers
USCHPPM	US Army Center for Health Promotion and Preventive Medicine
UXO	Unexploded Ordnance

## **1.0 Introduction**

Shaw Environmental and Infrastructure (Shaw) was contracted by the U.S. Army Corps of Engineers (USACE) Omaha District to perform remediation activities associated with impacted soils and dry sediments in Load Lines 1-4 at the Ravenna Army Ammunition Plant (RVAAP) under the Fixed Price Remediation Insured (FPRI) Indefinite Delivery/Indefinite Quantity Contract No. DACA45-03-D-0026. Work by Shaw at the Ravenna facility in Load Lines 1-4 will be performed under Task Order 0001 of the above referenced contract. As part of the remediation activities, Shaw has been tasked with preparing a Project Management Plan (PMP) to summarize operational and management approaches to be implemented during the completion of work under this Task Order. The following document will serve as the basis for Shaw's project management procedures for work at RVAAP.

This PMP specifies the deliverables, approach, schedule and resources required for the planning, execution and completion of this Task Order. Additionally, this PMP addresses contingency or iterative regulatory activities that are or may be required for successful project completion. The PMP delineates contract management requirements, issues and controls to ensure timely and cost effective execution of this Task Order in accordance with applicable Federal Acquisition Regulations (FAR). This PMP is considered a living document and will be updated after each Milestone Presentation to reflect changes in project execution and to present proposed approaches for upcoming project activities. Changes to this PMP will be submitted as an attachment to the monthly reports and distributed to all other Interested Parties (OIPs).

## **2.0 Site Background**

### **2.1. Facility Background**

RVAAP is located in northeastern Ohio within Portage and Trumbull counties, approximately three miles east-northeast of the city of Ravenna and approximately one mile northwest of the town of Newton Falls. The RVAAP is in the process of regulatory closure and formerly consisted of 12 munitions assembly facilities, supported by several areas for storage, burning, demolition, testing of munitions, and other facilities. RVAAP is a government owned, contractor operated (GOCO) facility. It is jointly operated by the Base Realignment and Closure (BRAC) Field Office out of Hampton, Virginia and the National Guard Bureau (NGB). The BRAC Field Office controls environmental Areas of Concern (AOCs) and bulk explosives storage areas. The Ohio Army National Guard (OHARNG) controls non-AOC areas for training purposes.

The installation consists of 8,668.3 hectares (21,419 acres) contained in an 11 mile long; 3.5 mile wide tract bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX system Railroad to the south, Garrettsville and Berry roads to the west, and the CONRAIL railroad on the north. Additional communities surrounding the installation include the following: Windham to the north, Garrettsville six miles to the northwest, Charlestown to the southwest, and Wayland three miles southeast.

The four sites that require remediation under this Task Order are Load Lines 1 through 4.

Until May 1999, about 1,010 hectares (2,497 acres) of lands and some existing facilities at RVAAP were used by the National Guard Bureau for training purposes and were administered by the OHARNG/RTLS. Since May 1999, approximately 19,938 acres of land have been transferred from the Army BRAC to the National Guard Bureau. As AOCs are remediated, transfer of the remaining acreage from BRAC to the National Guard Bureau will be conducted. The OHARNG/RTLS has prepared a comprehensive Environmental Assessment and an Integrated National Resources Management Plan, that will address future uses of the property. It is the intention of the Army under this Task Order to complete the required Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) remedy selection process and attain interim regulatory closure status for Load Lines 1-4.

## **2.2. CERCLA Activity Status for Load Lines 1-4**

As of the issuance of Task Order 001, field activities associated with the remedial investigation at Load Lines 1-4 have been completed. However, the final Remedial Investigation (RI) reports and associated risk assessments are in various stages of completion. Additional field investigation and sampling activities may be required to address data gaps identified by OhioEPA or identified during the completion of the RI documents. The following paragraphs summarize the status of the RI reports.

*Load Line 1* – The RI report is complete and accepted as of June 2003. However, a Supplemental Baseline Human Health Risk Assessment (SBHHRA) for Load Line 1 Alternative Receptors Report was issued in May 2003 to address alternative National Guard receptors in the Load Line 1 area. The SBHHRA is currently in the Preliminary Draft phase and needs to be completed before completion of the remaining RI reports in Load Lines 2-4 because it will serve as the basis for the risk assessment assumptions in the remaining Load Lines. The SBHHRA will be based on assumptions and information presented in the RVAAP's Facility Wide Human Health Risk Assessor Manual (Final, dated February 2004).

*Load Line 2* – The RI report is currently in the Preliminary Draft phase. Comments have been received from OIPs and have not been incorporated into the document.

*Load Line 3* - The RI report is currently in the Preliminary Draft phase. Comments have been received from OIPs and have not been incorporated into the document.

*Load Line 4* - The RI report is currently in the Preliminary Draft phase. Comments have been received from OIPs and have not been incorporated into the document.

Work performed in Load Lines 1 through 4 will be performed in accordance with existing Facility Wide Plans established for RVAAP. At the time of issuance of this PMP, the following documents will serve as reference, where applicable, for the performance of work under Task Order 001:

- Directors Final Findings and Orders for the Ravenna Army Ammunition Plant
- RVAAP's Facility Wide Human Health Risk Assessor Manual (Final, dated February 2004).
- Facility Wide Ecological Risk Assessment Work Plan
- Facility Wide Sampling and Analysis Plan
- Facility Wide Health and Safety Plan
- Ravenna Army Ammunition Plant, Ravenna, Ohio, Community Relations Plan (dated September 2003)
- Facility Wide Quality Assurance Project Plan
- Facility Wide Groundwater Monitoring Program Plan

To facilitate the work under this Task Order, policies and regulatory limits established for Load Line 1 will serve as the platform for Load Lines 2 through 4. Actual Remedial Goal Options (RGOs) have not been established for Load Line 1 as of the preparation of this document.

### ***3.0 Summary of Work and Remedial Approach***

The following sections summarize the scope of work to be performed by Shaw under this contract and presents the selected remedial approach for Load Lines 1-4.

#### **3.1. Summary of Work**

Shaw's Scope of Work (SOW) for this project is to complete the CERCLA RI/FS process and remediate soils and sediments within Load Lines 1 through 4 to concentrations of Compounds of Concern (COCs) in soil remaining on site that will be protective of human health and the environment under proposed National Guard future land uses as established in the SBHHRA. The Scope of Work does not include remediation of groundwater, only monitoring of groundwater to assess the effectiveness of the soil and sediment remedy. The Scope of Work also does not include designation and clearing of Unexploded Ordnance (UXO) and Ordnance and Explosives Waste (OEW), but will address soils and dry sediments found to be impacted by explosives contaminants identified as being used at the site. If UXO or OEW is detected by Shaw during the completion of work, Shaw will be responsible for notifying RVAAP and USACE so that the proper precautions and avoidance programs can be implemented by others.

The intent of the SOW is to effect the implementation of an Interim Remedy In Place (IRIP) for Load Lines 1-4 that meets the stated objective of the Army, OHARNG, and the approval of the of OhioEPA. The remedy for soils and sediments in Load Lines 1-4 is considered an interim action because, at the final completion of Shaw's work, soils located under the remaining building slabs within Load Lines 1-4 may not meet the final requirements of OHARNG's stipulated land use (mounted training – no digging) as their remediation is not required as part of Shaw's contract. Concrete slabs from buildings now, or formerly, located within Load Lines 1-4 will remain after the completion of Shaw's work. Additional work associated with the remaining building slabs required to bring these areas into compliance with the requirements of the specified land use will be addressed by others under a separate contract.

Shaw's SOW includes finalization of the RI Reports, preparation of the Feasibility Studies, preparation of additional project documentation and status reporting, and execution of remedial actions. Major elements of the Scope of Work are as follows:

- Finalize Human Health Risk Assessment – This item consists of establishing the RGOs, completing the SBHHRA, preparing associated reports for review and finalizing the document.
- Prepare Plans – This item consists of preparing and submitting for review the various field and work plans required prior to conducting field work. Plans included under this item are the PMP, the Coordination Plan, preparation of the site specific Health and Safety Plan (HASP) for Shaw activities based on the Facility Wide HASP, and various other field plans. (waste management and minimization plan, QAPP, data management plan, O&M plan, emergency response/security/contingency plan, SAP, document management plan, and public relations plan). Shaw will be responsible for preparing only addendums to existing facility wide plans if a corresponding facility wide plan exists.
- If necessary, perform supplemental site investigations activities within Load Lines 1-4 as determined by Shaw to further evaluate COC nature and extent. Additional investigation activities will be required with Army and OhioEPA approval if they are necessary to finalize the RI reports;
- Obtain approval of RGOs from OhioEPA based on OHARNG/RTLS land use of Mounted Training – No Digging on the Army's behalf;
- Complete Remedial Investigation Reports for Load Lines 2 through 4 – This item consists of addressing regulatory comments received for the Preliminary RI report for Load Lines 2 through 4 through a comment response letter, preparing and submitting for review the Draft RI Reports for Load Lines 2 through 4, addressing additional regulatory comments through a comment response letter and comment resolution meetings, and, issuing final reports for Load Lines 2 through 4.
- Prepare Feasibility Study (FS)– This item consists of preparing and submitting the preliminary, draft and final FS for Load Lines 1 through 4, and addressing reviewers and regulatory comments.
- Prepare Proposed Plan – This item consists of preparing and submitting the preliminary, draft, and final Proposed Plan for interim remediation of Load Lines 1 through 4, and addressing reviewers and regulatory comments.
- Prepare Decision Documents - This item consists of preparing and submitting the draft and final Decision Document for interim remediation of Load Lines 1 through 4, and addressing reviewers and regulatory comments.
- Prepare Remedial Design - This item consists of preparing and submitting the preliminary draft, draft, and final Remedial Design for Load Lines 1 through 4 for interim remediation, and addressing reviewers and regulatory comments.
- Implement Interim Remedial Action – This item consists of implementing the Remedial Design in order to attain Interim Remedy in Place (IRIP) status. The Remedial Design proposed by Shaw consists of excavation and off-site disposal of impacted soils and has yet to be approved by the OhioEPA.

- Prepare Completion Report – This item consists of preparing and submitting the preliminary, draft, and final IRIP Completion Report for remediation activities conducted at Load Lines 1 through 4, and addressing reviewers and regulatory comments.
- Long Term Monitoring (LTM) – This item consists of conducting LTM for each of the load lines for a period of five years. This task is identified as Option 1 under the original RFP and has been included in Shaw's SOW by the Army.

A summary of individual tasks associated with this contract is included as Table 1.

Shaw is also responsible for obtaining Army (RVAAP) and OhioEPA approval of the proposed interim remedy and CERCLA decision documents and satisfactory completion of the IRIP. Shaw is also responsible for serving as the point of contact with OhioEPA for issues related to the completion of the tasks under Shaw's SOW for Load Lines 1- 4.

In accordance with the Task Order requirements, the above scope of services must be completed by December 31, 2006 barring any unforeseen changes in site conditions.

### **3.2. Remedy Selection**

Although not approved by OhioEPA and OIPs, excavation and off-site disposal was selected by Shaw during the FPRI proposal preparation phase as the primary remedial option to address soils and dry sediments found to be exceeding expected RGOs in Load Lines 1 through 4. During the remedy selection process, excavation and off-site disposal was selected for the majority of impacted areas in each of the four Load Lines based on the following factors presented in EPA RI/FS Guidance documents:

- Finality of the remedy in addressing existing and future human health and environmental risks at the site given the future land use established by OHARNG/RTLS;
- Long-Term effectiveness and permanence;
- Short-Term effectiveness;
- Compliance with State and Federal Regulations;
- Reduction of Toxicity, Mobility, or Volume through treatment/remedy;
- Implementability;
- The volume and location of soils to be remediated and the proximity of appropriate disposal facilities; and,
- Cost.

Other remedies considered for use in Load Lines 1 through 4 included bioremediation, composting, stabilization, capping, and implementation of other various land use controls. Section 3.3 discusses factors used in evaluating applicable remedies for the AOCs. These factors will be further discussed in the Focused Feasibility Study (FFS), which will be submitted to the OhioEPA for approval.

Areas to be excavated in Load Lines 1-4 will be delineated based on available data included in the RIs and subsequent field confirmation sampling activities to be performed by Shaw. Shaw will determine the level of effort required for confirmation sampling activities after final RGOs have been established for expected OHARNG future use scenario (Mounted training – no digging) in the RVAAP's Facility Wide Human Health Risk Assessor Manual, facility wide Ecological Risk Assessment Work Plans, and the final RIs for Load Lines 1-4. Shaw will solicit OhioEPA and Army approval of proposed additional sampling activities prior to the commencement of the field sampling event.

Based on the information provided in the RIs, Shaw estimates the amount of material to be excavated and disposed of off-site to be between 17,000 and 40,000 cubic yards of material. The actual disposal volumes will be dependent upon the finalized RGO values for COCs and the size and depth of excavation areas as defined by subsequent confirmatory sampling by Shaw. Waste characterization sampling protocols for materials requiring off-site disposal will be defined in the Waste Management and Minimization Plan prepared by Shaw for this project. Stockpiled materials designated for off-site disposal will be disposed of in accordance with applicable Federal, State and local regulations.

Potential data gaps in the characterization of load line soils and sediments may be encountered during the completion of the RI documents (reference OhioEPA LL4 comments dated June 2003). In the event that definable data gaps are found, additional site investigation sampling may be required to address these data gaps to reevaluate the nature and extent of COC impact. Information collected by Shaw will be compared to existing data to assess if previous assumptions used to evaluate exposure pathways and potential receptors are impacted. New information collected from data gap sampling activities will also be used to further define proposed soil excavation areas.

Off-site disposal facilities will be selected based on waste characterization data collected from representative stockpiles of removed material. Shaw expects the majority of material to be generated from around Melt-Pour structures and support facilities within each of the Load Lines.

**Table 1**  
**Milestones and Work Breakdown Structure**

<b>Task</b>	<b>Description</b>
01000300	Cost Cap Insurance
01000300	Pollution Legal Liability (PLL) Insurance
01000500	Kick-off Meeting
03000500	Final Human Health and Ecological Risk Assessment
04000500	Project Management Plan and revisions
06000500	Coordination Plan
07000500	Weekly, Bi-weekly, and Monthly Status Conference Calls
08000500	Quarterly Project Status Reports
09000500	Monthly Program Management Meetings
10000500	Milestone Presentations
11000500	Field Project Plans
20000500	RI Remedial Investigations
21000500	Draft/Final Phase II Remedial Investigation Load Line 2
22000500	Draft/Final Phase II Remedial Investigation Load Line 3
23000500	Draft/Final Phase II Remedial Investigation Load Line 4
24000500	Preliminary/Draft/Final Feasibility Study Load Line 1
25000500	Preliminary/Draft/Final Feasibility Study Load Line 2
26000500	Preliminary/Draft/Final Feasibility Study Load Line 3
27000500	Preliminary/Draft/Final Feasibility Study Load Line 4
28000500	Preliminary/Draft/Final Proposed Plan Load Line 1
29000500	Preliminary/Draft/Final Proposed Plan Load Line 2
30000500	Preliminary/Draft/Final Proposed Plan Load Line 3
31000500	Preliminary/Draft/Final Proposed Plan Load Line 4
32000500	Preliminary/Draft/Final Decision Document Load Line 1
33000500	Preliminary/Draft/Final Decision Document Load Line 2
34000500	Preliminary/Draft/Final Decision Document Load Line 3
35000500	Preliminary/Draft/Final Decision Document Load Line 4
36000500	Preliminary/Draft/Final Remedial Design Load Line 1
37000500	Preliminary/Draft/Final Remedial Design Load Line 2
38000500	Preliminary/Draft/Final Remedial Design Load Line 3
39000500	Preliminary/Draft/Final Remedial Design Load Line 4
40000500	IRIP LL 1-4 Mobilization/Demobilization
40001000	IRIP LL1-4 Setup/Teardown
40001500	IRIP LL 1-4 Excavation/Stockpile
40002000	IRIPLL1-4 Post-Excavation Sampling
40002500	IRIP LL1-4 Excavation Backfill
40003000	IRIP LL1-4 Soil Loadout
40003200	IRIP LL1-4 Seal Slabs
40003500	IRIP LL 1-4 Project Oversight
44000500	Preliminary/Draft/Final Completion Report Load Line 1
45000500	Preliminary/Draft/Final Completion Report Load Line 2
46000500	Preliminary/Draft/Final Completion Report Load Line 3
47000500	Preliminary/Draft/Final Completion Report Load Line 4
60000500	Long Term Monitoring and Reporting

### 3.3. Remedy Evaluation Factors

Based on the information provided in the Draft RI Report prepared by SAIC, the following factors were used to assess possible remedial alternatives:

- In general, analytical results from samples collected from the soils surrounding the perimeter of the buildings located in the Load Lines exceed proposed RGOs for explosives, metals (typically lead and manganese), and in some areas polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs) and pesticides. Typically, samples exceeded RGOs for both explosives and metals (lead and/or manganese). The majority of explosives and metals detections are co-located at sampling points, leading to use of the presumptive remedy approach (containment, off-site) for metals impacted soils (EPA Guidance EPA 540-F-98-054).
- Bioremediation would be a feasible option for soils containing only explosives above RGOs. However, the presence of metals above RGOs in the same samples greatly limits the feasibility of bioremediation as a sole technology as bioremediation will not reduce the concentration of metals. Stabilization and on-site placement is typically used for metals-containing soil with concentrations exceeding Toxicity Characteristic Leaching Procedure (TCLP) limits (i.e., metals will leach and impact groundwater). Stabilization prevents the metals from leaching through infiltrating water. However, implementing stabilization with on-site placement at this site would not be protective of human health for future land uses as the stabilized material would still contain concentrations of metals above RGOs, and the incidental ingestion, dermal contact and inhalation of fugitive dust exposure pathways would not be eliminated. Containment consists of placing an impermeable barrier (cap) over the impacted area to eliminate infiltration through the contaminated soils. Areas with caps could not be disturbed, as it would jeopardize the integrity of the cap. This restriction is inconsistent with the planned future land use.
- To eliminate the exposure pathways and retain the planned future land use, the metals-containing soils must be removed and disposed of off-site. It is expected that the majority of the soils containing metals do not exceed the TCLP limits, and therefore do not require stabilization prior to off-site shipment. The disposal facilities accepting soils with metals contamination, will also accept soils with explosives, PCBs, SVOCs, and pesticides contamination, eliminating the need to reduce concentrations prior to shipment through bioremediation.

Additional factors considered to account for State Acceptance and Community Acceptance included:

- On-site bioremediation and stabilization with off-site disposal was considered not feasible based on the eight factors presented in Section 3.2. The increased handling of the soils would increase on-site worker risk, reducing short-term effectiveness. The addition of organic material for the biodegradation would dilute the remaining metals-containing soils, in violation of state rules OAC 3745-270-03. (Note that the position paper contained in Appendix B of the Completion

Report for the Bioremediation Pilot Study for Soils from Former Building FJ904 at Load Line 12 (AOC 12) allowed for the dilution of reactive wastes (D003). However, this stipulation is not allowed for lead containing soils.) The increased soil volume due to the bioremediation amendments would increase the volume of waste to be disposed, and may potentially affect the effectiveness of the stabilization for metals. Additionally, mixing a lead-containing waste with amendments is allowed only for stabilization if the soils exhibit the characteristic of toxicity for lead. It is assumed that the majority of the lead-containing soils at Load Lines 1 through 4 do not exhibit the characteristic of toxicity. The increased handling and volume would increase remediation costs. Finally, the method of bioremediation and on-site stabilization and off-site disposal would likely require a longer timeframe than that which is allowed by the contract.

- Shaw will implement Best Management Practices during the excavation and disposal activities to minimize the short-term impact to on-site workers and surrounding communities. Such methods include dust monitoring, moistening and covering soils taken off-site to minimize dust, washing truck and vehicle tires prior to leaving Load Line areas, and traffic control and coordination.

#### **4.0 Project Organization**

This section presents project deliverables and schedule requirements, the project organization, roles and responsibilities of project participants and a list of project participants.

##### **4.1. Regulatory Involvement**

Shaw will be responsible for presenting and finalizing the selected interim remedy for Load Lines 1-4 with the OhioEPA, with input from the USACE and all stakeholders. By contract, Shaw was originally required to submit an internal preliminary draft of required CERCLA documents to USACE for review and comment prior to the issuance of a draft to the OIPs. Subsequent discussions between Shaw, USACE and OhioEPA have resulted in an agreement that Shaw will provide OhioEPA with a copy of the internal draft concurrent with the submission to USACE. After Shaw has submitted an internal preliminary draft document to the Army for review, the Army will provide comments back within 16 calendar days. Under Shaw's contract requirements, OhioEPA has a 45 day review time from date of receipt for all submittals.

It is understood that review periods by OhioEPA will be based on prioritization of submittal documents for all sites within RVAAP by COE-LR and RVAAP personnel. OhioEPA is integrally involved with RVAAP, USACE, and AEC in prioritizing the work at RVAAP. The prioritizations of upcoming facility wide work at RVAAP will be based on a determination as to what areas can be remediated and transferred to OHARNG more quickly. The work prioritization schedule will be identified in a document review schedule prepared by USACE and approved by OhioEPA.

Shaw will then have 16 calendar days after the receipt of the comments in which to prepare subsequent draft documents before submission to all OIPs including OhioEPA, except the public. All documents will be identified as pre-draft until completion of the

required coordination for comments and response for comments, at which time the documents will become draft. Draft documents, revised as requested, will be provided to the OIPs for their review and comment. Shaw will then prepare a Final version that incorporates the review comments of OIPs of the Draft Document. One copy of each preliminary draft, draft, and final document will be placed in the project repositories, with an additional electronic copies of the draft and final versions of the documents to the RVAAP repository, and a copy of the final document placed in the Administrative Record

As necessary, Shaw will schedule meetings with OhioEPA to discuss potential regulatory issues and concerns related to the completion of work related to this project.

#### **4.2. Project Deliverables**

Project Deliverables include the following:

- Project Schedule and Updates
- Project Management Plan
- Coordination Plan
- Field Project Plans
- Final Supplemental Baseline Human Health Risk Assessment for the Load Line 1 Alternative Receptors Report
- Draft and Final Remedial Investigation Reports for Load Lines 2 through 4
- Preliminary, Draft and Final Feasibility Study Reports for Load Lines 1 through 4
- Preliminary, Draft and Final Proposed Plan for Load Lines 1 through 4
- Draft and Final Decision Document for Load Lines 1 through 4
- Preliminary, Draft and Final Remedial Design Reports for Load Lines 1 through 4
- Preliminary, Draft and Final Completion Reports for Load Lines 1 through 4
- LTM reports and work plans
- Quarterly Project Status reports
- Meeting/conference call minutes

CERCLA decision documents are required for each of the four Load Lines (1 through 4) to be remediated. To reduce regulatory and Army review time for these documents, the bulk of the iterative information related to RGOs, proposed future land use, and risk scenarios will be presented in the reports for Load Line 1. It has been agreed that the information in Load Line 1 will serve as the platform for completion of work in Load Lines 2-4. References will be made to the Load Line 1 reports in the reports for Load Lines 2 through 4. Site specific issues beyond those identified in LL1 reports will be addressed individually in reports for the other Load Lines. Load Line 1 was historically the most productive of the Load Lines, and appears to require the more extensive remediation (removal of larger volumes of soil to meet RGO standards) than Load Lines 2-4. The Load Line 1 reports will be submitted for review first. Comments received for Load Line 1 will be reviewed for applicability to the other Load Lines prior to submitting reports for Load Lines 2 through 4 for review.

Shaw will maintain a log for each of the deliverables for when deliverables were submitted and comments received. The log will be updated on a monthly basis.

Progress reporting documents (meeting minutes, status reports, etc.) and their contents are further discussed in Section 5.0 – Project Reporting

#### **4.3. Schedule and Contingencies**

The project schedule is provided in Appendix A. Execution of the field activity and associated times to complete each task is dependent on regulatory reviews and acceptance of the CERCLA decision documents. The enclosed schedule is based on a 45 day review period by OhioEPA. This schedule is subject to change, and will be updated in the quarterly Project Status Reports and presented as an addendum to this PMP. Changes in the schedule will be communicated verbally during the regularly scheduled conference calls.

A key element in maintaining the proposed schedule is adherence to the turnaround times for document review presented in Section 3.1. The proposed schedule is based on the stipulated turnaround time stated in the Request for Proposal. The schedule will be impacted (plus or minus) by changes to the turnaround time for document review. USACE, AEC, and RVAAP will prioritize all upcoming work at RVAAP and propose a document review schedule for OhioEPA (see Section 4.1).

Shaw prepared the schedule in P3 (Primavera software) with the ability to convert to SureTrak software as necessary. The updated schedule will be submitted on a regular basis to RVAAP and USACE personnel for inclusion in the facility-wide schedule for ongoing remediation and facility activities. Shaw will also submit updated milestone charts.

The following presents assumed contingencies that may affect the proposed schedule:

Regulatory Acceptance of RGOs and Proposed Remedy - Uncertainty surrounding the acceptance of the proposed RGOs and remedy by OhioEPA may have a significant impact on the project schedule. Discussions with OhioEPA will be focused on reaching a mutual agreement between all parties of revised RGOs and risk scenarios associate with OHARNG future land use. RGOs are critical in defining the extent of excavation activities included as part of the proposed remedy at each load line under this contract. Establishment of the RGOs will occur during the RI Phase of the work, and thus any variance in schedule will affect all following phases. If significant changes are necessary, those changes will likely delay the finalization of the SBHHRA for Load Line 1 by several months, and subsequently, the follow on documents and remedial action.

In addition to RGOs, Shaw will also be responsible for obtaining Army and OhioEPA approval of the proposed interim remedies for soils and sediments at Load Lines 1-4. Currently, Shaw is proposing excavation and off-site disposal of impacted soils in exceedance of established RGOs for each load line and the implementation of land use controls where applicable. The final proposed interim remedy will be presented through

the development and acceptance of CERCLA process documents. The final interim remedy will require approval from the Army and OhioEPA.

Soil Volume Variance – Variations to soil volumes based on field screening and laboratory testing results is expected by Shaw during the completion of the project. In an effort to minimize these variances, Shaw intends to perform a field screening program before and during the completion of the removal activities. Field screening kits will be used to identify areas that may require excavation. The field screening kits will be used to provide quantitative results for ranges COC concentrations (e.g., a sample has 0-100 ppm of COC) to guide the excavations. Areas previously identified as containing higher concentrations of COCs will be screened in the field using a combination of available cost-effective colorimetric, immunoassay (e.g., Dtech or Ensys for explosives, metals, PCBs, etc.), and XRF technologies (metals) as a screening tool dependent upon the COC suspected. Confirmatory samples would be collected from the excavations and analyzed by an approved laboratory for the required USEPA method associated with the expected COC. Confirmatory samples will also be used to create a correlation between field screening results and actual concentrations prior to the commencement of excavation activities to aid in the field screening program. The field screening will used as a guidance tool only. Regulatory interim closure documents will be supported by data obtained from the analysis of samples by an approved environmental chemistry laboratory.

Unexpected COCs and Hazards – Shaw does not expect to encounter any unexpected hazards at the load line facilities given the amount of available remedial investigation data and site history information. However, in the event previously unidentified COCs are encountered Shaw will evaluate any hazard or impact caused by the COC and determine the most appropriate way to manage the issue so as not to impact the project schedule and proposed path to interim closure.

Results of Additional Investigation – At present, it does not appear that any additional significant investigation will be required to complete the RIs. If determined necessary by Shaw, Shaw will evaluate the validity of the perceived data gaps and develop an expedited sampling program aimed at providing the necessary information to close the data gaps. Shaw's sampling program will be in accordance with the intent of the facility wide sampling plan.

Delays by Others – Unexpected delays due to the performance of work by other contractors may impact progress by Shaw at Load Lines 1-4. Contractors performing work within Load Lines 1-4 may experience scheduling conflicts, delays due regulatory or Army approval of required submittals, policy development, weather, and other actions that interfere with Shaw's proposed schedule. To the extent possible, Shaw will attempt to coordinate its work with the other contractors on the base to minimize delays. Unexpected delays attributable ongoing activities by others will be brought to the attention of USACE by Shaw as needed.

Disaster Impacts - Unforeseen disasters may result in limited or restricted access to the Site for extended periods of time.. Disasters may result in a change to the security condition of the facility or make portions of the site in accessible. Examples of disasters that may impact work may include weather related catastrophes (tornado, hurricane, blizzard, etc.), acts of terrorism, or industrial accident. Shaw intends to abide by the emergency planning programs and policies established by the RVAAP or governing authorities in the event of an emergency situation.

#### **4.4. Project Personnel and Organization**

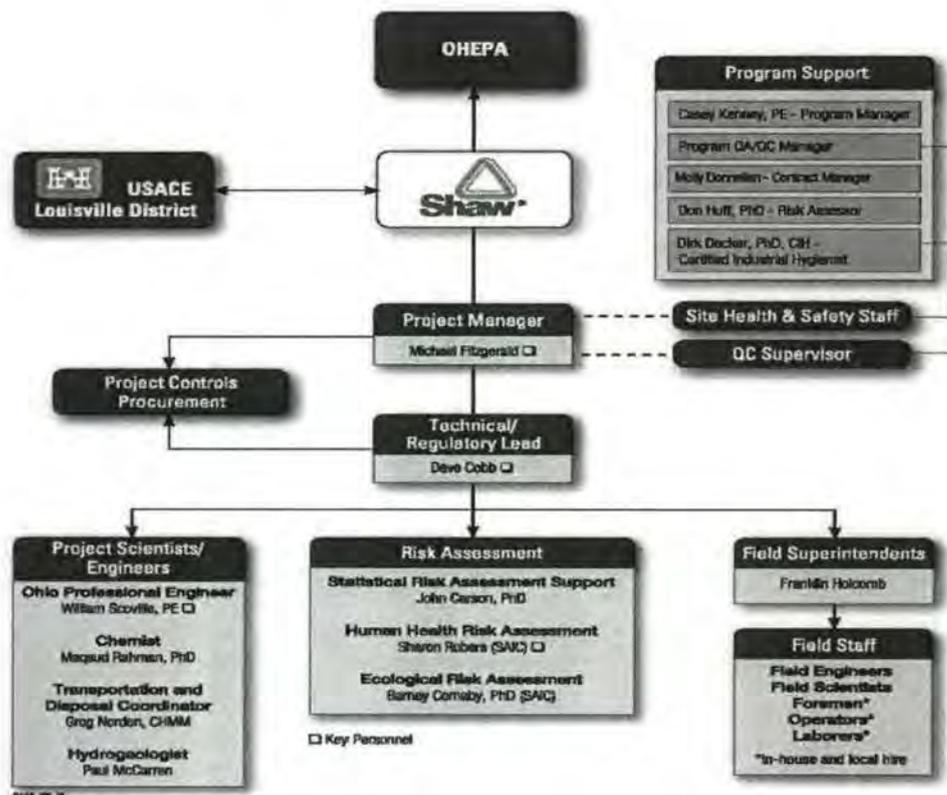
This project will be executed under the Federal Contracts Group of Shaw under the direction of the Project Manager, Mike Fitzgerald. The Federal Contracts Group maintains a small, focused program staff dedicated to the RVAAP that provides cost/schedule support and client invoicing services. Additionally, Shaw maintains numerous technical resource groups from which the Project Manager draws technical resources for project execution. This section identifies key members of the project staff and their respective roles in the project. Figure 1 illustrates Shaw's organization structure.

##### *4.4.1. PERSONNEL, ROLES AND RESPONSIBILITIES*

This project will be executed under the technical direction of the Shaw Project Manager who reports directly to the Program Manager. Key project positions are identified and assigned as follows:

- Program Manager – The Program Manager will serve as Executive Oversight to ensure the project is completed in accordance with USACE and all regulatory standards. The Program Manager is **Mr. Casey Kenney**.
- Project Manager - The Project Manager will serve as the point of contact (POC) for the USACE on all program issues, as well as Task Order-specific issues as they may arise. The Project Manager is **Mr. Michael Fitzgerald** who will ensure that contractual obligations are observed. He will be responsible for interactions with USACE Louisville District and will provide support with regulatory negotiations. Additionally, Mr. Fitzgerald will conduct a monthly review of project costs, schedule and general progress. Mr. Fitzgerald will be responsible for the planning, execution and completion of the Task Order.
- Regulatory Lead – The Regulatory Lead will serve as a regulatory expert to ensure compliance with all applicable Federal, State and Local regulations for the duration of the project. The Regulatory Lead will be **Mr. David Cobb**. Mr. Cobb will interface with regulators and stakeholders to determine final RGO and cleanup standards for the future OHARNG land use (mounted training – no digging). Mr. Cobb will also conduct regularly scheduled inspections at the site during field activities and document observations.
- Transportation and Disposal Coordinator – The Transportation and Disposal (T&D) Coordinator will serve as the coordinator for disposal of all types of excavated soils to be disposed of off-site. The T&D Coordinator will be **Mr. Greg Norden**, a Certified Hazardous Materials Manager.

Figure 1 – Shaw's Project Organization Chart



- Registered Professional Engineer – The Professional Engineer will provide professional engineering services for all site drawings and will review other documents and plans as required during remediation activities. The Professional Engineer will be **Mr. William Scoville** who is a registered civil engineer in the State of Ohio.
- Health and Safety (H&S) Officer – The H&S Officer will prepare the Health and Safety Plan (HASP) for the site and conduct periodic site inspections to ensure compliance with the HASP. The H&S Officer is **Dr. Dirk Decker**, a Certified Industrial Hygienist (CIH).

- Contract Administrator – The Contract Administrator will be responsible for procurement, invoicing, subcontractor approval, financial reporting and subcontractor closeout. The Contract Administrator is *Ms. Molly Donnellan*.
- Field Superintendent – The Field Superintendent will manage field work, be responsible for execution of the field activities, and responsible for implementation of the HASP for Shaw and its subcontractors. *Mr. Franklin Holcomb* has extensive experience with excavation and disposal, storm water management, and military site remediation.

Shaw will hire several subcontractors to execute portions of the project. Shaw has subcontracted SAIC to provide risk assessment and technical support to complete the RI reports. Ms. Sharon Robers and Dr. Barney Cornaby will provide support with Human and Ecological Risk Assessment.

Other services that may be subcontracted may include well drilling, non-hazardous disposal, hazardous disposal, Toxic Substance Control Act (TSCA) waste disposal, survey work, analytical work, and restoration landscaping. Shaw will solicit bids from Small Business and Small Disadvantaged Businesses (SB/SDB) firms to maximize Small Business content and meet contract goals.

Selection of subcontractors will be based on most qualified for the task required as determined by Shaw.

#### *4.4.2. PROJECT PARTICIPANTS AND OTHER INTERESTED PARTIES*

The organizations involved in the Project have been identified as Participant Organizations and Other Interested Parties (OIPs). The Participant Organizations will be actively involved in decision making for the Project and receive correspondence and deliverables. Listed Participant Organizations will be involved in the daily operations of work under this Contract. OIPs will not necessarily be involved in Project decision making, but will receive selected correspondence and deliverables and will be notified of required attendance at meetings or conference calls as necessary. Participant Organizations and OIPs associated with this Project include the following:

##### **Participant Organizations**

USACE – Louisville District  
RVAAP  
Ohio Army National Guard (OHARNG)/ RTLS)  
Shaw  
Ohio Environmental Protection Agency (OhioEPA)  
US Army Environmental Center (AEC)

##### **OIPs**

National Guard Bureau (NGB)  
Base Realignment and Closure (BRAC) Office  
Joint Munitions Command (JMC)  
US Army Center for Health Promotion and Preventive Medicine (USCHPPM)

Toltest, Inc.  
 RVAAP Restoration Advisory Board (RAB)

MKM Engineers, Inc. (MKM) may be involved in daily operations of the project as it relates to coordination of activities at sites where work overlaps. MKM is currently performing demolition activities in Load Lines 1-4 and may still be onsite by the time Shaw commences field activities under this contract.

*4.4.3. ROLES AND RESPONSIBILITIES*

The roles and responsibilities of Participant Organizations and Interested Parties are defined in Table 2. This list will be revised to reflect changes as necessary as the project progresses.

**Table 2**  
**Roles and Responsibilities of Project Organizations**

<b>Participant Organizations</b>	<b>Responsibilities</b>
Shaw	Overall management and execution of PBC FPRI services for implementation of remedial approach required to attain interim closure status for soils and sediment at Load Lines 1-4 through the CERCLA process; interface with regulators and other interested parties; obtain regulatory approval of submitted CERCLA documents; provide support at public meetings; preparation of contract required submittals; coordinate and attend all project related meetings/calls; and coordination of Shaw's site activities with facility, USACE, and regulatory personnel.
USACE - Louisville	General oversight of Shaw activities; maintenance of facility wide schedules; preparation of the facility wide documents; review and conditional approval (document specific from internal draft forward) of Shaw submittals; attend all project related meetings/calls; support Shaw in issues related to interim closure at Load Lines 1-4; and approval of payment milestones and Shaw invoices.
RVAAP	Provide facility maintenance of institutional and security controls; on-site security, review, comment and approval of PBC/FPRI related CERCLA decision documents, designs, investigation reports, work plans, and status reports (document specific, from preliminary draft forward); attend all project related meetings/calls; coordinate and oversee public meetings; coordinate operations on facility side as it relates to Shaw's work under the PBC/FPRI contract at Load Lines 1-4; serve as Shaw's POC for facility operations.
OhioEPA	Provide review, comment and approval of PBC/FPRI related CERCLA decision documents, designs, investigation reports, work plans, and status reports (document specific, from preliminary draft forward); approve Load Line 1-4 specific cleanup standards; interface with public and RAB members as it relates to regulatory side of project; monitor project for compliance with regulatory standards; and attend all project related meetings/calls
OHARNG	Provide review, comment and approval of PBC/FPRI related CERCLA decision documents, designs, investigation reports, work plans, and status reports (document specific, from preliminary draft forward); and attend all project related meetings/calls

AEC	Provide general background oversight and efficiency evaluation of project progress; attend all project related meetings/calls if necessary; review project submittals (technical, regulatory, work plans, status reports, etc.)
<b>Interested Parties</b>	
NGB	Review and comment on project related documents, as applicable, from preliminary draft forward; attend project related conference calls and meetings as necessary;
BRAC Office	Review and comment on project related documents, as applicable, from preliminary draft forward; attend project related conference calls and meetings as necessary;
JMC	Review and comment on project related documents, as applicable, from preliminary draft forward; attend project related conference calls and meetings as necessary;
USCHPPM	Review and comment on project related documents, as applicable, from preliminary draft forward; attend project related conference calls and meetings as necessary;
RAB	Review and comment on project related documents, as applicable, from draft forward; attend project related conference calls and meetings as necessary;
Toltest	Review and comment on project related documents, as applicable, from preliminary draft forward; attend project related conference calls and meetings as necessary;

Table 3 provides a summary of the Participant Organizations responsible for the approval of required project related submittals and tasks under Shaw's FPRI contract for Load Lines 1-4 at RVAAP. The table is meant to show final contractual approval. OIP comment and input will be incorporated during preparation of draft documents as appropriate.

**Table 3 – Project Task and Submittal Approval Matrix**

Task	Acceptance Criteria	Required Approvals		
		Army (RVAAP) Approval	OEPA Approval	LRL COR Approval
<b>Project Management Plans</b>				
Kickoff Mtg./Time Line Schedule	At Completion	X	X	X
<b>Project Plans</b>				
Project Mgt. Plan and Revisions	App. Final	X	X	X
Coordination Plan	App. Final	X	X	X
Final Field Plans	App. Final	X	X	
<b>Final HH and Eco Risk Assessments</b>				
Draft Final SBHHRA	App. Draft	X	X	X
Final SBHHRA	App. Final	X	X	
<b>Remedial Investigation Rpts.</b>				
RI Investigation	At completion			X
Draft Ph II RI, LL2 – LL4	App. Draft	X	X	X
Final Ph II RI, LL2 – LL4	App. Final	X	X	
<b>Feasibility Studies</b>				
Draft FS, LL1 – LL4	App. Draft	X	X	X
Draft FS, LL1 – LL4	App. Final	X	X	
<b>Proposed Plans</b>				
Draft PP, LL1-4	App. Draft	X	X	X
Final PP, LL1-4	App. Final	X	X	
<b>Decision Documents</b>				
Draft DD, LL1-4	App. Draft	X	X	X
Final DD, LL1-4	App. Final	X	X	
<b>Remedial Designs</b>				
Draft RD, LL1-4	App. Draft	X	X	X
Final RD, LL1 - 4	App. Final	X	X	
<b>Interim Remedy In Place</b>				
IRIP LL 1,2,3,4 Mob/Demob	At Comp.			X
IRA LL 1,2,3,4 Setup/Teardown	At Comp.			X
IRA LL1 – 4 Exc./Stockpile/Disp./Sample	At Comp.			X
IRA LL1-4 Exc. Backfill/Seed	At Comp.			X
IRA LL1, 2,3,4 Sealing Slabs	At Comp.			X
<b>IRIP Closure Documentation</b>				
Draft Completion Report, LL1-4	App. Draft	X	X	X
Final Completion Report for LL1-4	App. Final	X	X	

In addition to the roles listed above, the following Participant Organizations will participate in project related progress meetings as necessary: Shaw, USACE, RVAAP, OhioEPA at a minimum, with OIPs invited at our discretion.

Table 4 provides the contact information for personnel from the Participant Organizations on the RVAAP FPRI Contract for Load Lines 1-4.

**Table 4 –Contact List For Load Line 1-4 FPRI Contract**

Name	Association	Address	Telephone, Fax, e-mail
Casey Kenney	Shaw – Program Manager	4005 Port Chicago Highway Concord, CA 94520	T: (925) 288-2000 F: (925) 827-2148 Casey.Kenney@shawgrp.com
Mike Fitzgerald	Shaw- Project Manager	200 Horizon Center Blvd. Trenton, NJ 08691	T: (609) 588-6380 F: (609) 588-6300 Mike.Fitzgerlad@shawgrp.com
Molly Donnellan	Shaw – Contracts Administrator	3347 Michelson Drive Suite 200 Irvine, CA 92612	T: (949) 660-5348 F: (949) 660-5382 Molly.donnellan@shawgrp.com
David Cobb	Shaw – Technical Lead/Task Manager	100 Technology Center Drive Stoughton, MA 02072	T: (617) 589-5561 F: (617) 589-2160 Dave.Cobb@shawgrp.com
Bernie Olesky	Shaw- Cost & Schedule Engineer	16406 US Route 224 East Findlay, OH 45840	T: (419) 425-6291 Bernie.olesky@shawgrp.com
Mark Patterson	RVAAP Facility Manager	RVAAP Building 1037 8451 State Route 5 Ravenna, OH	T: (330) 358-7312 F: (330) 358-7314 pattersonm@BRAC.army.mil
Glen Beckham	US Army Corps of Engineers – Louisville, FPRI Restoration Project Manager	USACE CELRL-PM (Beckham) 600 Martin Luther King Jr. Place Louisville, KY 40201	T: (502) 315-6799 F: (502) 315-6793 Glen.beckham@lrl02.usace.army.mil
Paul Zorko	US Army Corps of Engineers – Louisville, Contracting Officer's Representative (COR)	CELRL-PM (Zorko) 600 Martin Luther King Jr. Place Louisville, KY 40201	T: (502) 315-6353 F: (502) 315-6309 Paul.L.zorko@lrl02.usace.army.mil
John Jent	US Army Corps of Engineers – Louisville, Technical Specialist (COR)	CELRL-PM (Jent) 600 Martin Luther King Jr. Place Louisville, KY 40201	T: (502) 315-6343 F: (502) 315-6309 john.p.jent@lrl02.usace.army.mil
Denise Bush	US Army Corps of Engineers – Louisville, Contracting Officer	CELRL-PM (Bush) 600 Martin Luther King Jr. Place Louisville, KY 40201	T: (502) 315-6209 F: (502) 315-6195 denise.bush@lrl02.usace.army.mil
Dr. David Brancato	US Army Corps of Engineers – Louisville, Technical Specialist (Risk Assessment)	CELRL-PM (Brancato) 600 Martin Luther King Jr. Place Louisville, KY 40201	T: (502) 315-6494 F: (502) 315-6309 David.J.brancato@lrl02.usace.army.mil
Ms. Robin Fatz	National Guard Bureau	NGB-ARE 111 South George Mason Drive Arlington, VA 22204-1382	T: (703) 607-7966 F: (703) 607-7993 robin.fatz@ngb.army.mil
LTC Tom Tadsen	Ohio Army National Guard	Ohio Army National Guard 1438 State Route 534, SW Newton Falls, OH 44444-8503	T: (614) 336-6790 F: (614) 336-6796 tom.tadsen@oh.ngb.army.mil
Tim Morgan	Ohio Army National Guard	Ohio Army National Guard 1438 State Route 534, SW Newton Falls, OH 44444-8503	T: (614) 336-6568 F: (614) 336-6135 Timothy.morgan@oh.ngb.army.mil
Eileen Mohr	Facility Coordinator, Ohio EPA	Ohio EPA- NE District, DERR 2110 E. Aurora Road Twinsburg, OH 44087	T: (330) 963-1221 F: (330) 487-0769 eileen.mohr@epa.state.oh.us
Bonnie Buthker	Federal Facilities Coordinator, Ohio EPA	Office of Federal Facilities Oversight, SW District Office 401 E. 5 <sup>th</sup> Street Dayton, OH 45402	T: (937) 285-6469 F: (937) 285-6249 Bonnie.buthker@epa.state.oh.us
Todd Fisher	Ohio EPA – Second Coordinator	Ohio EPA- NE District, DERR 2110 E. Aurora Road	T: (330) 963-1148 F: (330) 487-0769

Name	Association	Address	Telephone, Fax, e-mail
		Twinsburg, OH 44087	<a href="mailto:Todd.fisher@epa.state.oh.us">Todd.fisher@epa.state.oh.us</a>
Laurie Moore (Eggert)	Ohio EPA – Technical Specialist	Office of Federal Facilities Oversight, SW District Office 401 E. 5 <sup>th</sup> Street Dayton, OH 45402	T: (937) 285-6457 F: (937) 285-6404 <a href="mailto:laurie.eggert@epa.state.oh.us">laurie.eggert@epa.state.oh.us</a>
Brian Tucker	Ohio EPA – Technical Specialist	Ohio EPA Central Office Lazarus Government Center PO Box 149 122 S. Front Street Columbus, OH 43216-1049	T: (614) 644-3120 P: (614) 644-3146 <a href="mailto:brian.tucker@epa.state.oh.us">brian.tucker@epa.state.oh.us</a>
Major Kim O'Keefe	National Guard Bureau	NGB-ARE 111 South George Mason Drive Arlington, VA 22204-1382	T: (703) 607-9835 <a href="mailto:Kim.okeefe@ngb.army.mil">Kim.okeefe@ngb.army.mil</a>
Scott Weber, Contractor JTI	National Guard Bureau	NGB-ARE-1 Building E-4430, 1 <sup>st</sup> Floor Aberdeen Proving Ground, MD 21010-5420	T: (410) 436-1781
CPT Thomas Daugherty	Adjutant General Department, Ohio Army National Guard	Attn: AGOH-FM-EN- (CPT Thomas Daugherty) 2825 W. Dublin-Granville Road Columbus, OH 43235-2789	T: (614) 336-7095 F: (614) 336-7154 <a href="mailto:thomas.daugherty@oh.ngb.army.mil">thomas.daugherty@oh.ngb.army.mil</a>
Tom Lederle	BRAC Office	Hampton Field Office Building 015A 3A Bernard Road Ft. Monroe, VA 23651-5000	T: (757) 788-4350 <a href="mailto:thomas.lederle@us.army.mil">thomas.lederle@us.army.mil</a>
JoAnn Watson	US Army Environmental Center	SFIM-AEC-ER 5179 Hoadley Road Aberdeen Proving Ground, MD 21010-5401	T: (410) 436-1529 F: (410) 436-1548 <a href="mailto:joann.watson@aec.apgea.army.mil">joann.watson@aec.apgea.army.mil</a>
Janet Kim	US Army Environmental Center	SFIM-AEC-ERT Building E-4480 5179 Hoadley Road Aberdeen Proving Ground, MD 21010-5401	T: (410) 436-1528 <a href="mailto:Janet.kim@aec.apgea.army.mil">Janet.kim@aec.apgea.army.mil</a>
Bob Whelove	US Army Environmental Center	SFIM-AEC-ER US Army Environmental Center 1 Rock Island Arsenal Building 350 Rock Island, IL 61299-7130	T: (309) 782-1092 F: (309) 782-1379 <a href="mailto:Robert.whelove@aec.apgea.army.mil">Robert.whelove@aec.apgea.army.mil</a>
Bob Matthys	JMC	Headquarters JMC 1 Rock Island Arsenal AMSJM-CLA-IR Building 350 Rock Island, IL 61299-6000	T: (309) 782-5554 <a href="mailto:matthysb@BRAC.army.mil">matthysb@BRAC.army.mil</a>
Bill Ingold	JMC	Headquarters JMC 1 Rock Island Arsenal AMSJM-CLA-IR Building 350 Rock Island, IL 61299-6000	T: (309) 782-1395 <a href="mailto:ingoldb@BRAC.army.mil">ingoldb@BRAC.army.mil</a>
Keith Williams	US Army Center for Health Promotion and Preventive Medicine	MCHB-TS-HER Building 1675 Aberdeen Proving Ground, MD 21010-5402	T: (410) 436-7722 <a href="mailto:Keith.Williams@apg.ameDD.army.mil">Keith.Williams@apg.ameDD.army.mil</a>
Irv Venger	RVAAP	RVAAP, Building 1037 8451 State Route 5 Ravenna, OH	T: (330) 358-7304 F: (330) 358-7304 <a href="mailto:vengeri@BRAC.army.mil">vengeri@BRAC.army.mil</a>
Public	RVAAP RAB		

## **5.0 Project Reporting**

The Coordination Plan, contained in Appendix B, further discusses project reporting, and communications for this project.

### **5.1. Project Management Meetings**

Monthly program management meetings will be held with the Participant Organizations through the duration of the Contract. The Shaw Project Manager will prepare a draft agenda for the FPRI Project Manager (USACE) at least seven days prior to the meeting. Following the meeting, the Shaw Project Manager will prepare draft meeting minutes. The draft meeting minutes should be distributed to Participant Organizations representatives within 10 working days after the meeting. Shaw will incorporate the comments and circulate the final meeting minutes no later than the subsequent monthly meeting. Participant Organizations representatives are responsible for transmitting comments to the Shaw Project Manager, or designated Shaw representative, in a timely fashion. Shaw will provide the agenda and meeting minutes electronically in Microsoft Word format.

### **5.2. Weekly/Biweekly Status Calls**

Briefings, in the form of conference calls, coordinated by the Shaw Project Manager, or designee, will be held periodically to discuss the project status with Participant Organizations. Shaw will prepare and distribute a draft agenda two days prior to each conference call for review and comment by OIPs. Shaw will incorporate initial comments and re-distribute the revised agenda to Participant Organizations prior to the conference call. Shaw will be responsible for leading the conference call and covering the items set forth in the agenda. Minutes of each conference call will be prepared by Shaw and distributed for review and comment to Participant Organizations. Shaw will incorporate comments and re-distribute the final minutes within one week of the conference call. Participant Organization representatives are responsible for transmitting comments on both the draft agenda and draft minutes to the Shaw Project Manager, or designated representative, in a timely fashion. Shaw will provide the agenda and meeting minutes electronically in Microsoft Word format. Shaw will hold weekly conference calls with the Participant Organizations for the first six months. An open invitation will be extended to USACE, OhioEPA, OHARNG/RTLS, JMC, BRAC, NGB and AEC with the decision to dial in or attend at the discretion of the invitees.

### **5.3. RAB meetings**

Shaw will initiate, coordinate, schedule and prepare for RAB meetings and public activities regarding this contract under the direction and oversight of the RVAAP Facility Manager. Shaw will prepare and present briefings, presentations, fact sheets, newsletters, annual tours, and articles to news media, if necessary. Shaw will conduct all necessary public involvement activities necessary under CERCLA.

### **5.4. Milestone Updates**

Shaw will conduct a milestone presentation at the completion of each major component activity to provide an in-depth analysis and lessons learned for that activity and to present

the proposed approaches for completion of the next component activity. Milestone presentations may be grouped together, where appropriate.

### **5.5. Quarterly Status Reports**

The quarterly status reports will contain updates on field activities performed during the quarter and those planned in the near future, the overall project schedule, and a summary of analytical data received during the quarter. These reports will be provided to the OIPs in hard copy by the 7<sup>th</sup> of each month (or the first working day after the 7<sup>th</sup> if that date falls on a weekend) following the close of the quarter. The text of the status reports will also be available electronically in PDF format by request. Based on the date of award, it is expected that the first status report will be generated in January 2004.

### **5.6. Ravenna Environmental Management Information System**

Shaw will update the Ravenna Environmental Management Information System (EMIS) for data related to this contract. New laboratory data and field screening results, along with sample location will be added to the EMIS once the data are verified. Data obtained during field screening activities will be denoted as screening data to eliminate confusion between actual laboratory analyzed data and field screening results. The EMIS will also include a tracking system for CERCLA document submittal and review that will be used to update the schedule.

## **6.0 Cost Control and Reporting**

### **6.1. Procurement**

All goods and services required to execute this project will be procured in accordance with the Federal Acquisition Regulations (FAR) as presented in the FPRI base contract (DACA45-03-R-0027) and Task Order 001 of DACA95-03-R-0026, and will be routed through the project cost and schedule manager (Mr. Bernie Olesky in Shaw's Findlay, Ohio office). The cost and schedule manager will maintain an open commitment log, and open commitments will be shown as part of the project status report. As necessary, the Project Manager will be both the cost/schedule manager and the designated procurement personnel at his disposal for securing services under this contract.

Shaw uses VISION as our internal cost accounting tracking system. VISION can provide up to the minute cost tracking by task or job number, or labor summary. VISION is accessible to any Shaw Project Manager from any location with a computer and Internet access. The Project Manager has direct access for real time job status, as well as access to inception, period, and yearly costs per project.

For Quality control, the relevant project commitments and costs will be imported into P3/Suretrack by the cost scheduler to provide comparison of projected and actual status.

### **6.2. Invoicing**

Invoicing will be done on a milestone completed basis in accordance with the milestones presented in Table 1. Shaw will prepare invoices upon completion of milestones or at previously negotiated intervals. Payment terms are Net 30 days per the base contract.

Shaw's Project Manager or designee will verify quantities and/or completion status with the USACE Contracting Officer's Representative prior to invoice submittal.

All invoices will be reviewed and signed by the Project Manager as a condition of payment. Open purchase orders will be closed as soon as the last invoice is processed for payment. Invoices will be directed to the USACE Contracting Officer in Louisville, KY.

### **6.3. Purchasing**

The procurement manager and buyer are responsible for expediting materials and equipment to support the project schedule, including maintaining contact with subcontractors and vendors to ensure timely material deliveries. Other project staff will support the Project Manager to ensure the proper level of efficiency. VISION and an automated status tracking system for equipment, supplies and materials will be used to monitor the progress of each item procured from the time the order is placed until delivery is completed. The costs scheduler will update this tracking system based on input from the Project Manager. Records and reports will be maintained and updated in the Management Information System (MIS). Expediting requirements will be determined based on the required delivery date, the nature of the equipment vendor experience, and the importance of the delivery to the schedule.

### **6.4. Subcontractors**

At RVAAP, Shaw will subcontract to SAIC for risk assessment support. Shaw may solicit additional bids for the following services:

- Well drilling
- Non-hazardous disposal
- Hazardous disposal
- TSCA Waste Disposal
- Survey Work
- Analytical Work
- Seeding.

Shaw will follow our internal Standard Operating Procedures for subcontracting. Shaw will solicit bids from SB/SDB firms to maximize our SB content and meet contract goals. Shaw will actively promote partnering and team work. For each task, everyone involved in the project, including subcontractors, will be involved in the kickoffs, inspections and control of the work (from integration and coordination perspectives). Table 3 illustrates Shaw's process for integration and successful use of subcontractors. The cost scheduler will integrate cost and schedule information from subcontractors into the Shaw MIS. Subcontractor work may be performed either as a stand-alone task with clearly defined deliverables, or performed by subcontractors working in an integrated team side-by-side with Shaw under Shaw's field supervision. In the former case, as with SAIC, the Project Manager will monitor and administer technical, schedule, and cost performance as described in the following paragraphs. In the latter case, subcontractor employees will fill out daily time sheets and will report to the Project Manager through Shaw's on-site remediation manager.

The Subcontractor Integration and Utilization Process is presented in Table 5.

<b>Table 5 -Subcontractor Integration and Utilization Process</b>
<b>Off-Site Providers</b>
Establish and Communicate Performance-Based Standards Develop Quality Control Monitoring Program Monitor and Enforce Quality Standards Perform Weekly Reviews of Work Progress Provide Subcontractor Training and Improvement Invoice Payment to Performance Subcontractors
<b>On-Site Performance Subcontractors</b>
<b>Establish Project Performance Goals</b>
<b>Project Initiation</b> <ul style="list-style-type: none"> <li>• Off-site Post-Award Meeting to Resolve Scope</li> <li>• Develop Project Tracking Metrics</li> <li>• Identify Subcontractor Definable Features of Work</li> <li>• Establish Interim Goals and Associated Milestone Dates</li> <li>• Produce Resource and Cost Loaded Schedule</li> </ul>
<b>On-Site Activities</b> <ul style="list-style-type: none"> <li>• Kickoff meeting/Site Orientation</li> <li>• Subcontractor Orientation to Shaw's H&amp;S and Quality Programs</li> <li>• Daily Management of Site QC Monitoring Program</li> <li>• Monitor and Enforce H&amp;S program</li> </ul>
<b>Daily Reviews and Weekly Meetings to Assess Work Progress</b> <ul style="list-style-type: none"> <li>• Daily Cost and Schedule Updates – Subcontractor Performance</li> <li>• Project Team Orientation Meetings – Prior to Initiation of New Definable Feature of Work</li> <li>• Invoice Payments Coupled with Performance Tracking</li> </ul>
<b>Proper Subcontractor Closeout</b> <ul style="list-style-type: none"> <li>• Real-Time closeout of Subcontractors at Completion of Activities</li> <li>• Debrief Closeout on Performance/Identify Areas for Improvements</li> </ul>

### 6.5. Roles and Responsibilities

The Project Manager is responsible for ensuring effective administration and management of subcontracts. The Project Manager will be supported by a project team with specific responsibilities to ensure contract administration and subcontractor performance requirements are properly managed. Roles and responsibilities of the project team are as follows:

- **Subcontract Documents, Records and Files:** The Procurement Manager establishes and maintains files on each subcontract including original subcontractor acceptance copies, insurance certificates, required bonds, change orders, and all other pertinent correspondence. These data shall be maintained and updated through contract closeout.

- **Expediting and Status Reporting:** The Procurement Manager and Buyer are responsible for expediting materials and equipment to support the project schedule, including maintaining contact with subcontractors and vendors to ensure timely material deliveries. Other project staff will support the Project Manager to ensure the proper level of efficiency. The MIS and an automated status tracking system for equipment, supplies and materials will be used to monitor the progress of each item procured from the time the order is placed until delivery is completed. The Cost Scheduler will update this tracking system based on input from the Project Manager. Records and reports will be maintained and updated in the MIS. Expediting requirements will be determined based on the required delivery date, the nature of the equipment, vendor experience, and the importance of the delivery to the project schedule.
- **Subcontractor Data Submittal:** The Technical Lead is responsible for coordination of all data submittals, including reports, schedules, as-built drawings, vendor data, Operation and Maintenance manuals, Health and Safety information and Quality Assurance Quality Control (QA/QC) information. The assigned Certified Industrial Hygienist (CIH) and Contract Quality Control (CQC) system manager will support the review of safety and quality submittals, respectively, and the Project Chemist will review analytical submittals and coordinate data validation. Other technical staff, including engineers and scientists, will be involved in data review as appropriate. The Procurement Manager will maintain records of all submittals to ensure that subcontract submittal requirements are met, and will coordinate the timely review and approval of submitted documents. The Field Superintendent will review and comment on the submittals and interact directly with the subcontractor for changes, improvements, and final submittals.
- **Progress Payments:** For each subcontract, progress payments will be tied to deliverables or receipts of equipment/supplies or will be based upon daily work accomplished depending on the type of contract and Scope of Work. The procurement manager will work with the subcontractor to establish the progress payment schedule before work commences. The Project Manager will review subcontractor requests for payments and will give final approval for processing. Approved requests will be forwarded electronically to Shaw's corporate accounting department for payment. The Project Manager will forward the updated cost/schedule data from invoices to the cost scheduler who will integrate them into the contract MIS.
- **Warranty Management:** The Project Manager, supported by the Procurement Manager, the CQC System Manager, and technical staff, is responsible for monitoring and enforcing subcontractor/vendor compliance with all warranties including repair and replacement of defects resulting from defective design, materials, or workmanship; satisfactory completion of required tests; and the satisfactory performance of warranted design, materials, and workmanship for the period of service specified. Documentation will be prepared by the CQC System Manager and forwarded to the Project Manager.

- **Subcontractor Closeout:** When all work specified in the contract reaches completion, the Project Manager is responsible for ensuring that all work has been satisfactorily completed, and the CQC System Manager will prepare a punch list of outstanding items, as appropriate. The daily Quality Control reports will provide a primary source of completion documentation.

After satisfactory completion of the punch list items and cleanup by the subcontractor, as well as closeout certification, the Project Manager will prepare a Subcontractor Acceptance Report. The key elements of this report are detailed as follows:

- Acknowledge that the work performed is complete and in accordance with the technical requirements of the subcontract and that the field area cleanup is complete.
- Ensure that contractual technical obligations, such as reports, drawings, installation instructions, operation and maintenance (O&M) manuals, and spare parts lists have been provided by the subcontractor.
- Ensure that all construction, office and other tools, materials and equipment procured under the subcontract have been inventoried and properly recorded and dispositioned as government property.
- Ensure that all classified data and materials under the subcontract have been safeguarded.
- Ensure that all invoices and claims have been reconciled.
- Ensure that the subcontractor has provided all cost and schedule reports.
- Ensure that QA/QC contractual obligations have been fulfilled in coordination with the CQC System Manager.
- Ensure that the subcontractor has completed all commercial requirements and that the various reviews and approvals have been completed.

After the acceptance report is approved, the subcontractor will execute a "release of waiver of lien," prepared by the Procurement Manager. When the release is received, the Project Manager will direct Shaw's accounting department to process the subcontractor's final invoice for payment.

The final subcontract closeout action is the preparation of a Subcontractor Evaluation Report. The report will contain evidence of the subcontractor's performance with respect to technical quality of work, adherence to schedule, adherence to contract price, change orders, number of questionable claims, H&S adherence, site cleanup, and data submittal. The report will be maintained in the Procurement Manager's file.

The Project Manager, supported by the Procurement Manager, the CQC System Manager, and technical staff, is responsible for monitoring and enforcing subcontractor/vendor compliance with all warranties including repair and design, materials, or workmanship; satisfactory performance for the warranted design, materials and workmanship for the period of service specified. Documentation will be prepared by the CQC System Manager and forwarded to the Project Manager. When all work specified in the contract reaches completion, the Project Manager is responsible for

ensuring that all work has been satisfactorily completed, and the CQC system manager will prepare a punch list of outstanding items, as appropriate. The daily QC reports will provide a primary source of completion documentation.

## **7.0 Project Execution**

### **7.1. Project Implementation**

Once the Final Remedial Design Reports for Load Lines 1 through 4 are approved, Shaw intends to conduct the field work at one time to provide a more efficient remedial implementation. Shaw will start excavation from area of the highest COC concentrations detected in historical data and move outward from the assumed source location to remove the most grossly impacted soils first. The presence of COCs will be confirmed by the use of field screening kits for quantitative measurement. The intention is to focus excavation activities at areas demonstrating the highest concentration of COCs instead of delineating an area to be removed that may include soils unimpacted by the contaminants. Once the "hot spot" areas are removed, Shaw will methodically excavate in areas designated for excavation, using field test kits to guide further excavation.

Field screening kits will be used to identify areas that may require excavation. The field screening kits will be used to provide quantitative results for ranges COC concentrations (i.e. sample has 0-100 ppm of COC) to guide the excavations. Areas previously identified as containing higher concentrations of COCs will be screened in the field using a combination of available cost-effective colorimetric, immunoassay (e.g., Dtech or Ensys for explosives, metals, PCBs, etc.), and XRF technologies (metals) as a screening tool dependent upon the COC suspected of being present. Confirmatory samples would be collected from the resulting excavations and analyzed by an approved laboratory for the required EPA method associated with the expected COC. Confirmatory samples will also be used to create a correlation between field screening results and actual concentrations prior to the commencement of the excavation activities to aid in the field screening program. The field screening will be used as a guidance tool only. Regulatory interim closure documents will be supported by data obtained from the analysis of samples by an approved environmental chemistry laboratory.

Once the field test kits indicate that the soil exceeding RGOs is removed, confirmatory samples will be collected and sent to an approved laboratory for analysis. Details of the sampling methodology and rationale will be included in the Sampling and Analysis Plan. Shaw will manage the field work such that the analytical results will be received prior to demobilization of the excavation equipment, allowing for further excavation based on the laboratory results, if necessary. During removal activities, Shaw will implement Best Management Practices to minimize surface water runoff, dust, and deposition of the excavated material. Such practices include the following:

- Using haybales and silt fence downgradient of the excavation ahead of wetlands;
- Using of sprayed water and polyethylene covers to minimize dust generated from excavated materials;

- Washing truck and vehicle tires prior to leaving the Load Lines to minimize tracking of soils to other areas; and,
- Monitoring dust generation at the excavation and at the perimeter.

## **7.2. Quality Assurance and Quality Control**

### *7.2.1. DOCUMENTATION*

Prior to submittal, all documents will be reviewed by a technical person associated with the project who did not prepare the report, and the Project Manager. Shaw will maintain a log of when submittals were made, and when comments were received from the Army and other OIPs. The log will contain document specific information such as the title and author, addressee list, date of submission, and other pertinent information.

### *7.2.2. FIELD OPERATIONS*

The Field Superintendent or Lead Shaw Field Personnel will conduct daily inspections of the work, and will inspect equipment arriving and leaving the site. The Field Superintendent will document the inspections on a daily QA/QC inspection report that will summarize the activities, equipment, personnel and any issues or corrective actions. The Field Superintendent will take photographs on a daily basis, as needed, to document progress or issues. Issues that may impact the schedule or other areas of RVAAP will be brought to the Project Manager's attention as soon as possible. The Project Manager will then notify the both the RVAAP Facility Manager and USACE of the issue and the planned course of action. OhioEPA will also be notified after Shaw has contacted USACE and RVAAP. The Field Superintendent will be responsible for proper implementation of the Best Management Practices (BMP) to minimize risks to on-site workers and surrounding communities. BMP include the following:

- Using dust suppression methods during excavation such as wetting;
- Using covers over stockpiled material and truck loads carrying soil for off-site disposal;
- Conducting dust monitoring; and,
- Washing vehicle tires, particularly trucks transporting soils for off-site disposal, prior to leaving the load line area.

## **7.3. Site Security**

At the time of this submittal, security status of the site is at Bravo level. All personnel will fill out a security form and forward it to Mark Patterson of RVAPP prior to coming on-site. Upon arrival and departure, all personnel will sign the roster and record the time at the main gate. Personnel shall provide to RVAAP the specific locations where they will be working. No person with a felony conviction will be allowed on-site. First time visitors will require an escort. Personnel who will be at RVAAP more than two weeks will be issued a security badge. RVAAP must be given 24 hours advance notice on any deliveries or arrivals. Trucks will be subjected to random searches. The field engineer will conduct a walkover of the active remediation area prior to and after daily activities to ensure security and erosion control measures are maintained. Potential security breeches will be reported immediately to RVAAP. Issues will be documented in the daily QA/QC field Report. Hours of operation are weekdays during daylight hours, and by prior

arrangement with RVAAP on the weekends. Deer hunting is conducted at the site on Saturdays from mid-October through December. The preferred method of remote communication during an emergency is by radio.

#### **7.4. Health and Safety**

All Shaw employees will read, understand and sign the Facility Wide Health and Safety Plan (HASP) for the proposed work. Site-specific HASPs will be generated for work at Load Lines 1 through 4, and updated as necessary. The Field Superintendent will be responsible for implementation of the HASP. A copy of the HASP will be provided to all on-site subcontractors for their use; however, they are responsible for preparing and adhering to their own health and safety plan. All Shaw employees and their on-site subcontractors will have the authority to stop work in the event of an unsafe working condition. Upon identification of an unsafe working condition, the person will immediately notify the Field Superintendent, who will notify the Facility Manager, if necessary. OhioEPA also has the authority to stop work for activities that are not protective of human health.

The field engineer will participate in a site-wide Contractors meeting, held every Monday from 8:30 am to 9:30 am when work is conducted at RVAAP to discuss health and safety issues and logistics. There will be no smoking except in designated areas. Lunch areas are designated. The speed limit is 35 MPH during the day and 25 MPH at night. All emergency calls will go through the guard at Post 1.

**APPENDIX A**  
**PROJECT SCHEDULE**

**APPENDIX B**  
**COORDINATION PLAN**

**Coordination Plan  
Remediation of Soils at Load Lines 1-4  
Ravenna Army Ammunition Plant  
Ravenna, Ohio**

**Contract Number DACA45-03-D-0026  
Task Order 0001**

Prepared for:

**United States Army Corps of Engineers  
Louisville District**

Prepared by:

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April 2004

**DISCLAIMER:** This document is prepared by the United States Army Corps of Engineers, Louisville District (USACE) and their contractor Shaw Environmental and Infrastructure (Shaw). Some of the information included in this document has not been given final approval by the Ohio Environmental Protection Agency (OhioEPA) or the USACE. The opinions, findings and conclusions expressed are those of the author and not necessarily those of OhioEPA and USACE.

**COORDINATION PLAN**  
Ravenna Army Ammunition Plant  
Load Lines 1, 2, 3 and 4  
Ravenna, Ohio

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### ***1.0 Purpose and Scope***

In accordance with the provisions presented in the Scope of Work (SOW) included in the Request for Proposal, Shaw Environmental and Infrastructure, Inc. (Shaw) has prepared the following Coordination Plan for activities to be performed at Load Lines 1 through 4 at the Ravenna Army Ammunition Plant (RVAAP). Shaw will be performing the environmental remediation activities under USACE's performance based contract (PBC), Fixed Price with Remedial Insurance (FPRI) Contract No. DACA45-03-D-0026, Delivery Order 1 (issued September 24, 2003; the "Contract"). These remediation activities will be referred to collectively as the "Project" throughout this document.

The purpose of the Coordination Plan is to identify expected activities to be performed by Shaw for the Project under the Contract, identify Other Interested Parties (OIPs), establish a chain of command, and present a clear approach to coordinating Project activities among these groups on- and off-Site. This Coordination Plan applies to the formal exchange of information among the organizations involved (identified in the following section) and ensures effective and open communications by means of standard and proceduralized lines of communication. The responsibilities of each organization for coordination and communication are discussed herein.

This Coordination Plan was prepared in conjunction with the living Project Management Plan (PMP; Shaw, 2003), which describes the majority of the topics presented in this plan in greater detail. References are made to the PMP for specific topics where appropriate. Once approved, these documents will be issued as "stand alone" documents for use by project personnel. In addition, Shaw will execute the Project in coordination with existing Facility-wide guidance, including the following:

- Directors Final Findings and Orders for the Ravenna Army Ammunition Plant
- RVAAP's Facility Wide Human Health Risk Assessor Manual (Final, dated February 2004).
- Facility Wide Ecological Risk Assessment Work Plan
- Facility Wide Sampling and Analysis Plan
- Facility Wide Health and Safety Plan
- Ravenna Army Ammunition Plant, Ravenna, Ohio, Community Relations Plan (dated September 2003)
- Facility Wide Quality Assurance Project Plan
- Facility Wide Groundwater Monitoring Program Plan

### ***2.0 Participant organizations and OIPs***

The organizations involved in the Project have been identified as Participant Organizations and OIPs. The Participant Organizations will be actively involved in decision making for the Project and receive correspondence and deliverables. OIPs will not necessarily be involved in Project decision making, but will receive selected correspondence and deliverables. Participant Organizations and OIPs associated with this Project include the following:

**Participant Organizations**

USACE – Louisville District

RVAAP

Ohio Army National Guard (OHARNG/ RTLS)

Shaw

Ohio Environmental Protection Agency (OhioEPA)

US Army Environmental Center (AEC)

**APPENDIX B**

**COORDINATION PLAN**

### **3.2 Field Activity Pre-Approval**

Shaw will obtain approval from OhioEPA, as necessary, on proposed field activities and associated protocols prior to conducting the field work. In addition, Shaw will notify OhioEPA a minimum of 14 days in advance of mobilizing to the Facility for those activities in the event OhioEPA needs to coordinate an observer or arrange for split sampling.

### **3.3 Field Activities Coordination**

As shown in the organizational chart in the PMP (Figure 1), Shaw will report to USACE as per the Contract. However, field activities will be coordinated with TolTest, MKM, OHARNG/RTLS and SAIC activities being performed at the Facility in accordance with security measures identified in Section 8.0. In addition, Shaw personnel and their subcontractors will observe Facility security and "check-in" procedures as identified by TolTest.

### **3.4 Payment Schedule**

USACE will pay Shaw upon completion of progress milestones and sub-milestones (line-items). The milestones are detailed in the PMP (Shaw, 2003) and included on the schedule (Appendix A of the PMP).

### **4.0 Meetings**

For the duration of the Project, briefings and meetings will be coordinated periodically among the Participant Organizations as defined in the SOW or as deemed necessary by Shaw. The proposed frequency of the meetings is included on the schedule illustrated in Appendix A of the PMP.

### **4.1 Briefings**

Briefings, in the form of conference calls, coordinated by the Shaw Project Manager will be held periodically to discuss the project status with Participant Organizations. The Shaw PM will prepare and distribute a draft agenda two days prior to each conference call for review and comment by Participant Organizations. The Shaw Project Manager will incorporate initial comments and re-distribute the revised agenda to Participant Organizations prior to the conference call. The Shaw Project Manager will be responsible for leading the conference call and covering the items set forth in the agenda. Minutes of each conference call will be prepared by the Shaw Project Manager and distributed for review and comment to Participant Organizations. The Shaw Project Manager will incorporate comments and re-distribute the final minutes within one week of the conference call. Participant Organization representatives are responsible for transmitting comments on both the draft agenda and draft minutes to the Shaw Project Manager in a timely fashion. Shaw will provide the agenda and meeting minutes electronically in Microsoft Word format. Shaw will hold weekly conference calls with the OIPs for the first six months. An open invitation will be extended to USACE, OhioEPA, OHARNG/RTLS, JMC, BRAC, NGB and AEC with the decision to dial in or attend at the discretion of the invitees.

#### **4.2 Monthly Program Management Meetings**

Monthly program management meetings will be held with USACE, OhioEPA, OHARNG/RTL, JMC, BRAC Office, NGB, AEC, USEPA and the Restoration Advisory Board (RAB) through the duration of the Contract. The Shaw Project Manager will prepare a draft agenda for the USACE FPRI Project Manager at least seven days prior to the meeting. Following the meeting, the Shaw Project Manager will prepare draft meeting minutes. The draft meeting minutes should be distributed to Participant Organization representatives within 10 working days after the meeting. Shaw will incorporate the comments and circulate the final meeting minutes no later than the subsequent monthly meeting. Participant Organization representatives are responsible for transmitting comments to the Shaw PM Project Manager, or designated Shaw representative, in a timely fashion. Shaw will provide the agenda and meeting minutes electronically in Microsoft Word format.

#### **4.3 Public Involvement**

Shaw will coordinate public involvement activities under the direction and oversight of the RVAAP Facility Manager (Mark Patterson), USACE, and AEC. These activities may include presentations, newsletters, conducting tours and submitting articles to the media. Shaw will ensure that public involvement activities necessary under CERCLA are conducted for the Project. Shaw's public relations efforts shall apply only to this Project as defined in the Contract and not to other activities at the Facility.

#### **5.0 Reporting**

Shaw will prepare status and Contract reports as discussed in this section. In addition, Shaw will maintain Project data. The proposed delivery schedule for Project reports is identified in the schedule contained in Appendix A of the PMP. Report contents and distribution are described in further detail in the PMP (Shaw, 2003).

#### **5.1 Quarterly Status Reports**

The quarterly status reports will contain updates on field activities performed during the quarter and those planned in the near future, the overall project schedule, and a summary of analytical data received during the quarter. These reports will be provided to the Participant Organizations in hard copy by the 7<sup>th</sup> of each month (or the first working day after the 7<sup>th</sup> if that date falls on a weekend) following the close of the quarter. The text of the status reports will also be available electronically in PDF by request.

#### **5.2 Contract Deliverables**

Shaw will prepare RIs, Feasibility Studies, Proposed Plans, Decision Documents and RDs for the Project as required under Shaw's SOW. The documents will be distributed in hard copy to Participant Organizations and Interested Parties as listed above for review and comment. Shaw will obtain written approval of satisfactory completion of project related documents and interim remedial activities from both OhioEPA and Army (RVAAP). USACE will be responsible for approval of documents primarily as it relates to attaining submitted project milestones and invoicing. Responsibilities and approval authorities of RVAAP Interested Parties are provided in Tables 2 and 3, respectively, in Shaw's Project Management Plan for work at Load Lines 1-4.

## **6.0 Records Management**

Shaw will maintain a multimedia (i.e., both hard and electronic formats to the extent that they exist) repository of all FPRI Project-related information to ensure that pertinent documentation is available for Project reviews or justification and to provide a clear record of the FPRI/PBC approach. This includes, but is not limited to, field data, analytical reports, correspondence and deliverables. This repository is the property of the Army. For security purposes, Shaw shall be required to obtain permission from the JMC prior to providing any maps to the public. Shaw will integrate CERCLA/NCP-required information developed from the conduct of the Contract into existing repositories in the Administrative Record (RVAAP Building 1037), the Ravenna, OH Library and the Newton Falls, OH Library. The Shaw PM is responsible for ensuring that Project personnel use the appropriate formats.

### **6.1 Electronic Formats**

Electronic text documents shall be in Microsoft Word format, and all engineering drawings shall adhere to the DOD Tri-Service Criteria for computer-assisted design. Analytical and associated data will be prepared in electronic format suitable for submission into the AEC Environmental Restoration Information System (ERIS).

## **7.0 Procurement**

The Shaw task managers are responsible for completing procurement requisitions in accordance with the contract/task order SOW and provide signature approval of the requisition in accordance with the organizational chart presented in the PMP (Figure 1). In addition, task managers are responsible for reviewing the requisitions for adherence to the budget and schedule. The Shaw Procurement Manager will ensure that procurement activities are carried out in accordance with the Shaw Procurement Standard Operating Procedures (PSOP) Manual and maintain the appropriate records of such activities.

## **8.0 Security**

TolTest has identified Facility security measures for personnel visiting or performing work at the Facility. TolTest security offices operate on weekdays during daylight hours and on weekends with pre-approval. Personnel arriving at the Facility must notify TolTest at least 24-hours in advance and complete a security form. Contractors frequenting the Facility for two weeks or more require a security badge from TolTest. TolTest will process forms for Facility access and badging. Any person with a felony conviction will not be allowed to enter the Facility. Visitors and badged contractors are required to sign a roster with times of arrival and departure from the Facility and specify area where work will be performed at the Facility. First time visitors to the Facility will be escorted by a TolTest representative. Badged contractors will be required to attend weekly meetings with TolTest during active field work to review health and safety issues and work week logistics. These meetings are held at 8:30 am on Monday's in Building 1037.

### **8.1 Deliveries**

TolTest must be notified 24-hours in advance for deliveries to the Facility. Trucks are subject to search by Facility security at any time. Personnel are expected to observe

posted speed limits at the Facility or a default of 35 miles per hour (mph) during daylight hours and 25 mph at night.

### **8.2 Smoking**

Smoking is allowed only in designated areas of the Facility.

### **8.3 Communication**

The use of walki-talkies and cell phones are permitted at the Facility; however, personnel should have a backup form of communication in the event service is not provided in the area of work.

### **8.4 Hazardous and Non-hazardous waste**

Contractors are required to remove non-hazardous trash brought to or generated at the Facility during work. Hazardous materials require manifests to be removed from the Facility. TolTest will generate manifests.

### **8.5 Food**

Food should be consumed in designated areas of the Facility.

## ***9.0 Health and Safety***

Shaw will develop a Health and Safety Plan (HASP) for the Project. It will incorporate Facility-wide health and safety procedures and Facility check-in procedures identified by TolTest and USACE. In addition, the Shaw HASP will include Project-specific considerations in the form of Activity Hazard Analyses (AHAs). The AHAs identify the potential chemical and physical hazards which workers may be exposed while performing Project-specific tasks.

### **9.1 Shaw Subcontractors**

The Shaw Project Manager is responsible for ensuring that subcontractors hired for Project-related tasks have read the Shaw HASP prior to performing work at the Facility and meet the training requirements. The Shaw field supervisor will be responsible for ensuring that subcontractors observe To Test security procedures and the Shaw HASP when performing Project work at the Facility. Shaw subcontractors will be accompanied on-site by Shaw personnel.

### **9.2 Emergency**

The Shaw HASP will include an emergency response and contingency plan. This section of the HASP identifies emergency contacts such as police, fire and ambulance services and directions to the nearest hospital. As identified in the existing Facility-Wide HASP, Shaw will contact TolTest in Post 1 at (330) 358-2017 in the event of an on-site emergency.