APPENDIX A

A.0 STATEMENT OF WORK

This appendix contains the NAVFAC NW SOW for the NTCRA at RG-01, CTO KR01, revised February 3, 2006.

MOD 02 Statement of Work

Revised February 3, 2006

PREPARE REMOVAL ACTION DESIGN WORK PLANS AND MOBILIZE FOR CLEARANCE OF MEC AT RIFLE GRENADE – 01 (RG-01) SITE AT THE FORMER NAVAL COMPLEX AT ADAK ISLAND, ALASKA

1.0 Background

Under CERCLA and the Federal Facilities Agreement for the former Naval Complex at Adak Island, Alaska the Navy is required to complete all necessary remedial actions for sites within Operable Unit B-2 (OU B-2) of the former Naval Complex at Adak Island, Alaska. Among these sites is a former rifle grenade training range designated as RG-01. RG-01 lies within the Moffet Creek drainage and is approximately sixteen acres in size. The western portion of the site includes a steeply sloping hillside, which forms the backstop for the range. Because of the explosively sensitive nature of the ordnance used at the site, no previous investigation or cleanup of the site has been conducted. Explosive Ordnance Disposal Detachment (EOD) reports indicate that the range was used sporadically for training purposes. These same reports indicate that a number of dud-fired grenades were fired at the target area of the site without recovery.

Because of the high potential hazard associated with the munitions types at this site, the Navy has elected to accelerate the response action for this site in advance of completion of a Record of Decision (RoD) for all OU B-2 sites. The objective of the accelerated response action for this site is to remove all munitions and explosives of concern (MEC) from this site as necessary to support the reasonably anticipated future use of the site. The Navy intends to use its lead agency authority under CERCLA to perform the response action using guidance for performance of a Non Time Critical Removal Action (NTCRA).

2.0 Objective

The objectives of this scope of work are:

Prepare work plans to support a NTCRA at the RG-01 site as described in the background section of this scope of work

Develop and execute plans to ensure public involvement requirements for NTCRAs as specified by the National Contingency Plan (NCP). To the extent possible, these plans are to be supported by the existing community relations plan for environmental cleanup actions at the Former Naval Complex at Adak Island, Alaska

Develop an Engineering Evaluation / Cost Analysis (EE/CA), EE/CA Approval Memorandum, and Action Memorandum to meet the requirements of the NCP for NTCRAs. The Navy will act as lead agency under CERCLA for processing and approval of the EE/CA

Develop an Explosive Safety Submission (ESS) for submission and approval by the Navy Ordnance Safety and Security Activity (NOSSA) and Department of Defense Explosive Safety Board (DDESB). The ESS shall be prepared as required by reference (6.1).

Provide for mobilization and demobilization of all personnel and equipment needed to accomplish the NTCRA as described in the background section of this scope of work.

3.0 Scope

The contractor shall perform tasks related to meeting the objectives as described above.

4.0 Description of Tasks

Following are tasks to be undertaken by the contractor.

4.1 Task 1. Project Management

The contractor shall perform project management duties for this contract involving the complete management of the project in consultation with the Navy Remedial Project Manager, including but not limited to: preparing budgets and schedules; reviewing project generated documents at all levels; management and supervision of personnel; management of project schedule and budget; invoicing; maintaining project files and document control; coordination with EFA NW, Naval Facilities Engineering Command, NAF Adak and other agencies as necessary or required by the basic contract.

4.2 Task 2. Prepare Work Plans for Performing NTCRA at RG-01

The contractor shall perform tasks related to developing the work plans as described above. At a minimum, the work plans will include the following elements:

a. Proposed means to accomplish removal of all MEC items from the RG-01 site to reduce or eliminate potential explosive safety hazards at the site to support the reasonably expected future use at the site
b. Description of documentation used to ensure that any ordnance detection systems meet contractual requirements for detection of ordnance at the site.
c. Method for ensuring that objective documentation packages are developed to record that required MEC investigation and removal (as specified in the work plan) have been accomplished at the site.
d. Contractor quality control plans to ensure and document that all elements (critical and non-critical) elements of the removal action have been completed as required by the work plan.

Because of the limited availability of for the RG-01 site, it is anticipated that it will be necessary for the contractor to obtain field data prior to development of these work plans. This objective of this field data collection effort will be to obtain information on site characteristics as necessary to select the method of MEC removal best suited to the site. Among other data needs, the field data collection effort is expected to include bounding information on the extent and type of MEC contamination using hand held MEC detection instruments and digital geographic information systems.

6.1 Task 3 Prepare and ESS for the Non-time Critical Removal for the Non-time Critical Removal Action at the RG-01 Site

The contractor shall prepare an ESS as required by reference (6.1) for the removal action described in the background and scope. Review and approval of the ESS by NOSSA and DDESB is required prior to initiation of the removal action. While the information requirements for the ESS are similar to the work plan described in Task 2, the ESS is a stand-alone document that is not subjected to review by regulatory agencies.

6.2 Task 3 Prepare EE/CA Approval Memorandum, EE/CA, and Action Memorandum for Non-time Critical Removal Action at RG-01 Site

The contractor shall prepare an EE/CA as required under Section 300.415(b)(4)(i) for the removal action described in this SOW. The organization and information requirements for these documents are largely similar the work plans described in the previous task, the contractor is encouraged to submit these documents in combination with the work plans as a single deliverable.

Included in this task is meeting the requirements for public involvement as specified in the NCP for all removal actions. The contractor shall utilize the existing community relation's plan, administrative record, and information repository to meet these requirements. The Navy's Remedial Project Manager shall act as the community relation's spokesman. A public notice of availability and a brief description of the EE/CA shall be published by the contractor in a local newspaper of general circulation. Public comment on the EE/CA will be solicited for a minimum of 30 calendar days after publication of this notice. The contractor will prepare written responses to all significant comments from the public.

5.0. Schedule and Submittals

ITEM	No. Submittals	Suspense Date
Internal draft ESS for NTCRA for RG-01	4	21 Feb. 2006
Navy review of draft ESS for NTCRA for RG-01	NA	27 Feb. 2006
Final ESS for NTCRA for RG-01	4	6 Mar. 2006
Internal draft EE/CA and WP for NTCRA at RG-01	4	14 Mar. 2006
Navy review of draft EE/CA and WP for NTCRA at RG-01	NA	28 Mar. 2006
Draft EE/CA and WP for NTCRA at RG-01	8	11 Apr. 2006
Agency and Navy Review of draft NTCRA at RG-01	NA	25 Apr. 2006
Final EE/CA and WP for NTCRA at RG-01	8	9 May. 2006
Notice of EE/CA Availability	NA	9 May. 2006
Responses to Public Comments on EE/CA	8	6 Jun.2006

6.0 Period of Performance
The task order completion date shall be 225 calendar days after award.

6.0 References
6.1 NOSSA Instruction 8020.15; Military Munitions Response Program Oversight

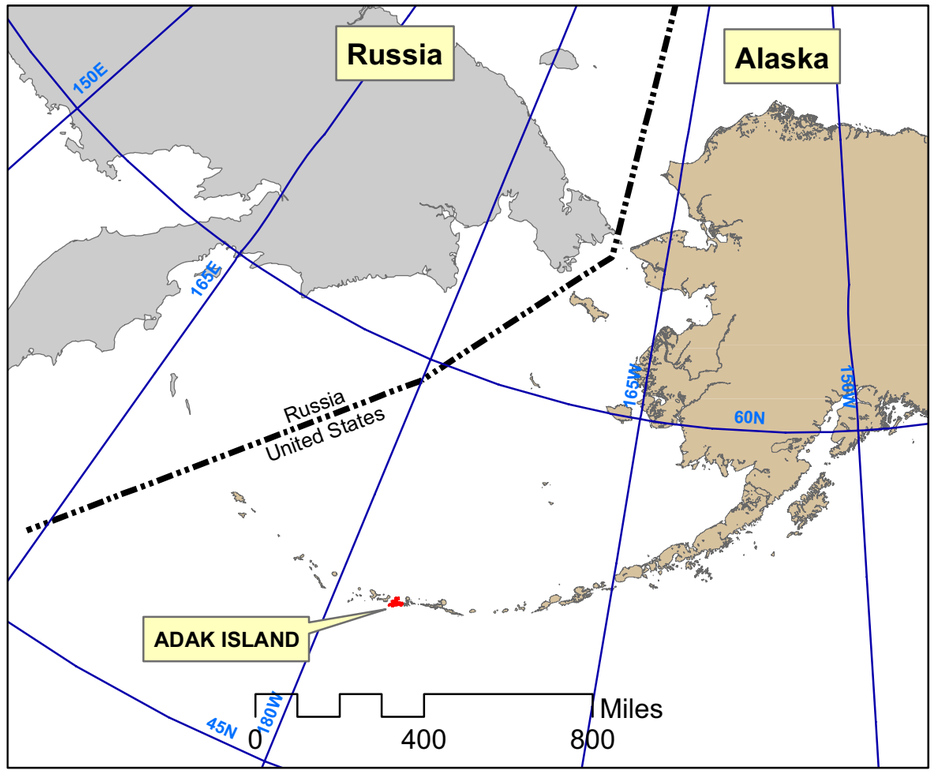
(End of Summary of Changes)

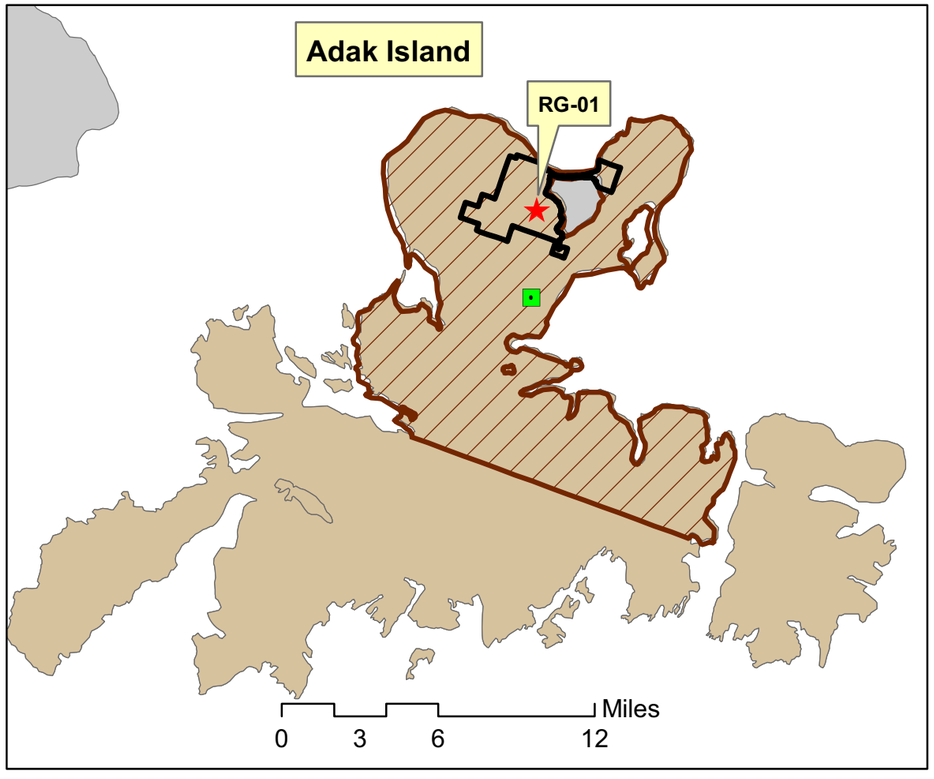
APPENDIX B

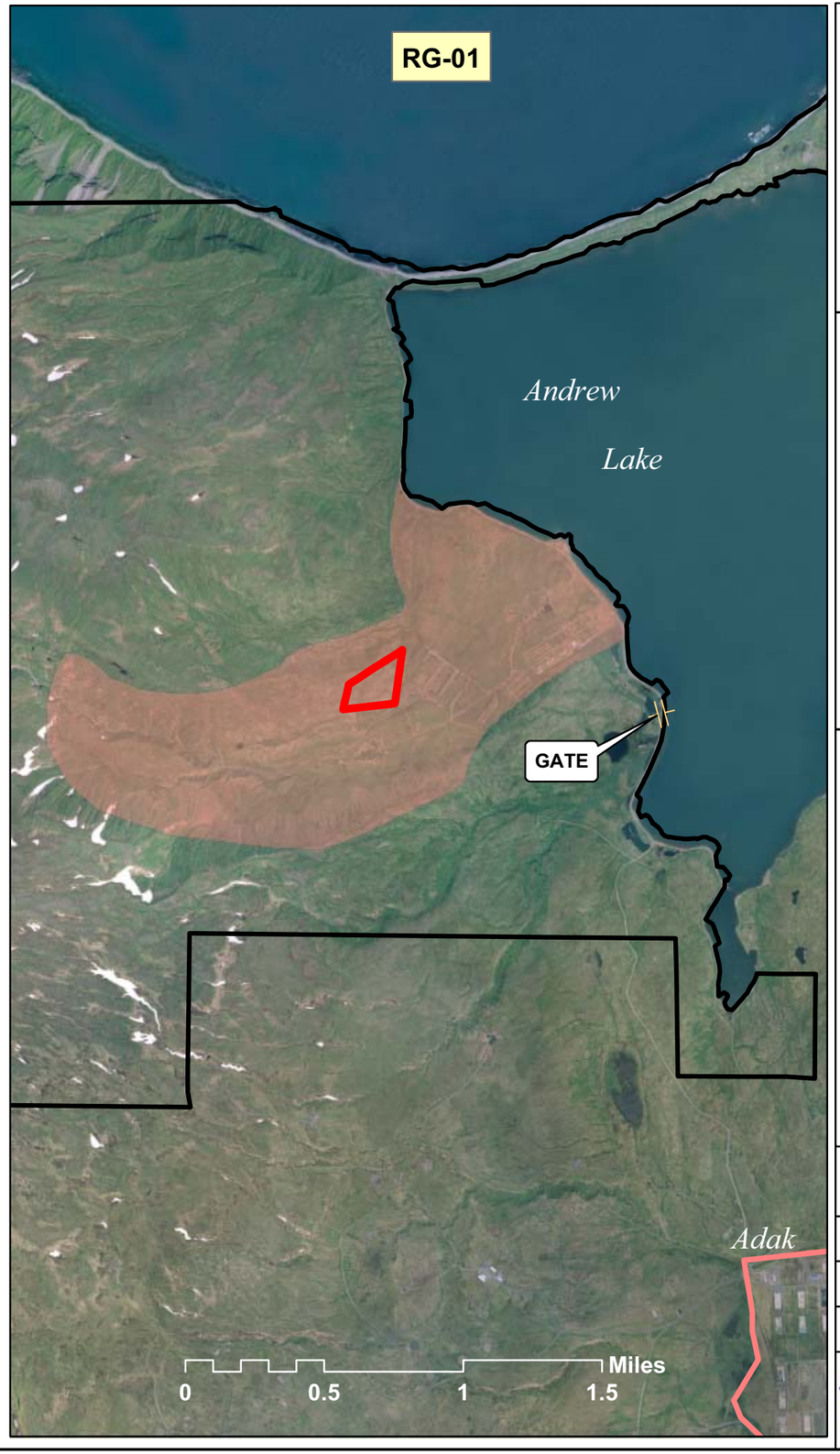
B.0 SITE MAPS

This appendix contains the following maps and figures for NTCRA operations at RG-01:

- Figure B-1: MRS RG-01 Location Map
- Figure B-2: MRS RG-01 Site Map
- Figure B-3: MRS RG-01 QD Map
- Figure B-4: Parcel 4 Master Grid System
- Figure B-5: MRS RG-01 Grids







N

0 0.5 1 Miles

Data is projected to the Alaska State Plane Coordinate System: NAD83, Units in Feet.

Figure B-1

MRS RG-01 Location Map

Adak Island, Alaska

- Adak
- Adak Naval Air Station
- RG-01
- Andrew Lake OB/OD
- Paracel 4 Boundary

USA Environmental, Inc.

NAVFAC Naval Facilities Engineering Command

Drawn By:	WAC	Scale: Varies	Rev: 1
Checked By:	GS	Date Drawn:	02-21-2006
Submitted By:	GS	Revision Date:	06-01-2006

Path: S:\Adak\B1_Location.mxd

N

0 1,000 2,000 Feet

Data is projected to the Alaska State Plane Coordinate System: NAD83, Units in Feet.

Figure B-2

MRS RG-01 Site Map

Adak Island, Alaska

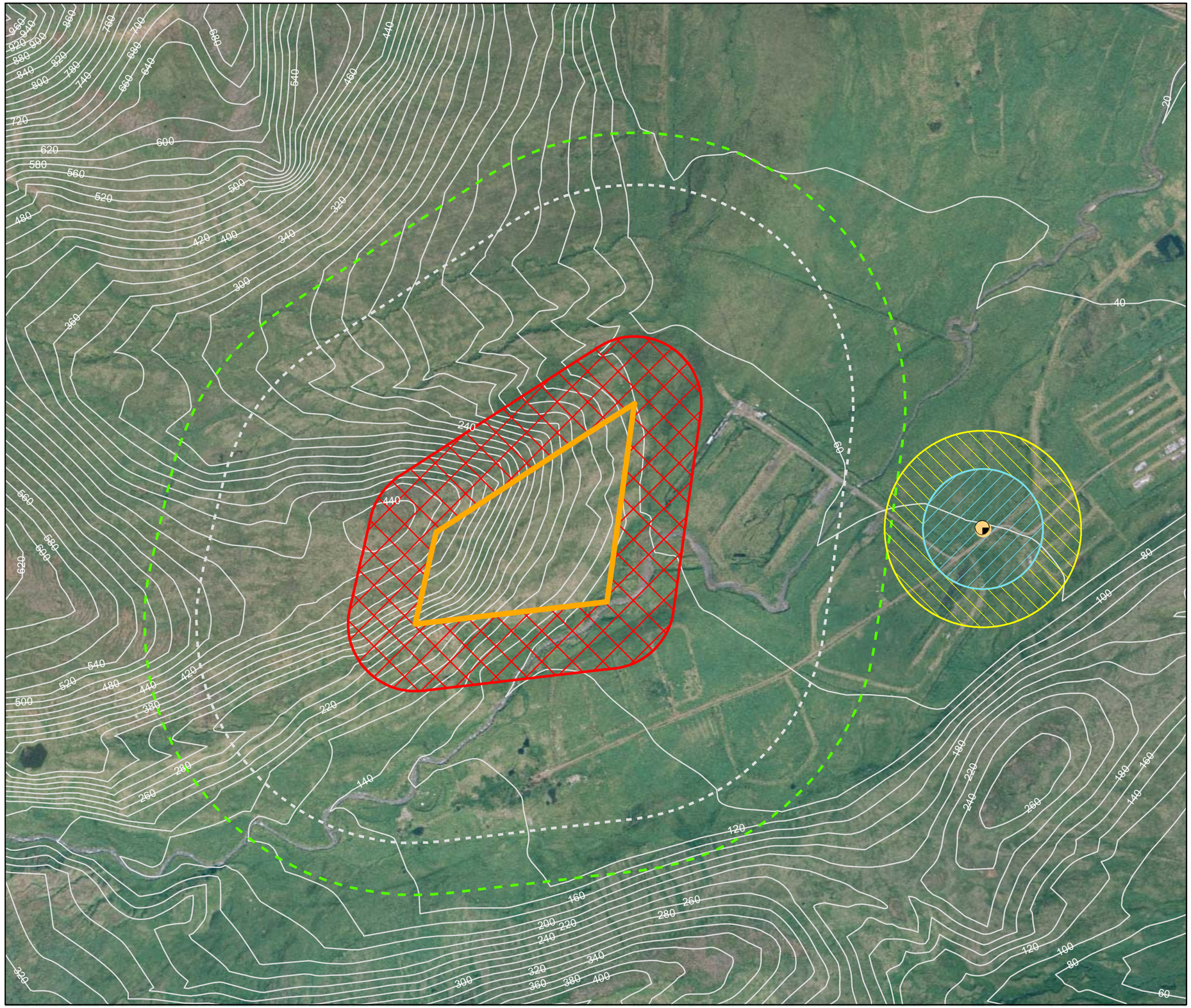
Unpaved Road
Andrew Lake OB/OD
Adjacent MRS

USA Environmental, Inc.

NAVFAC Naval Facilities Engineering Command

Drawn By:	WAC	Scale: 1" = 1000'	Rev:
Checked By:	GS	Date Drawn: 02-21-2006	
Submitted By:		Revision Date: 03-01-2006	

Path: S:\Adak\B2_Site map.mxd



Data is projected to the Alaska State Plane Coordinate System: NAD83, Units in Feet.

Figure 1-3

MRS RG-01
QD Map

Adak Island, Alaska

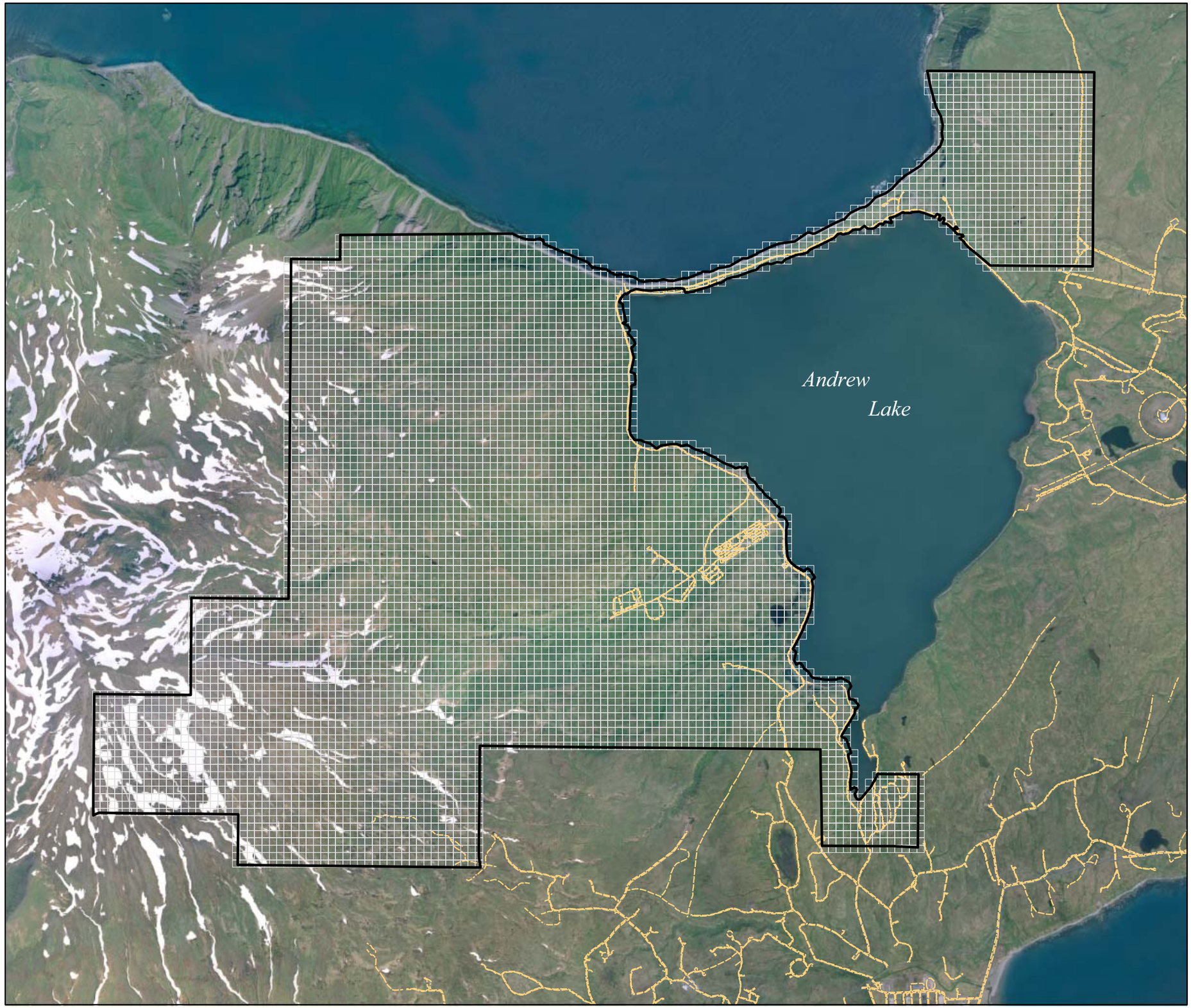
- MRS RG-01
- Primary 345 ft 40mm Grenade Buffer
- 1127 ft 60mm mortar Buffer
- 1395 ft 81mm mortar Buffer
- Temporary Portable Magazine
- 309 ft PTR QD
- 506 ft IBD QD
- 20ft Contours

USA Environmental, Inc.

NAVFAC Naval Facilities Engineering Command

Drawn By:	WAC	Scale: 1" = 500'	Rev:
Checked By:	GS	Date Drawn: 02-21-2006	
Submitted By:		Revision Date: 03-30-2006	

Path: S:\Adak\1-3_QD map.mxd



N

0 0.5 1 Miles

Data is projected to the Alaska State Plane Coordinate System: NAD83, Units in Feet.

Figure B-4

Parcel 4
Master Grid System

Adak Island, Alaska

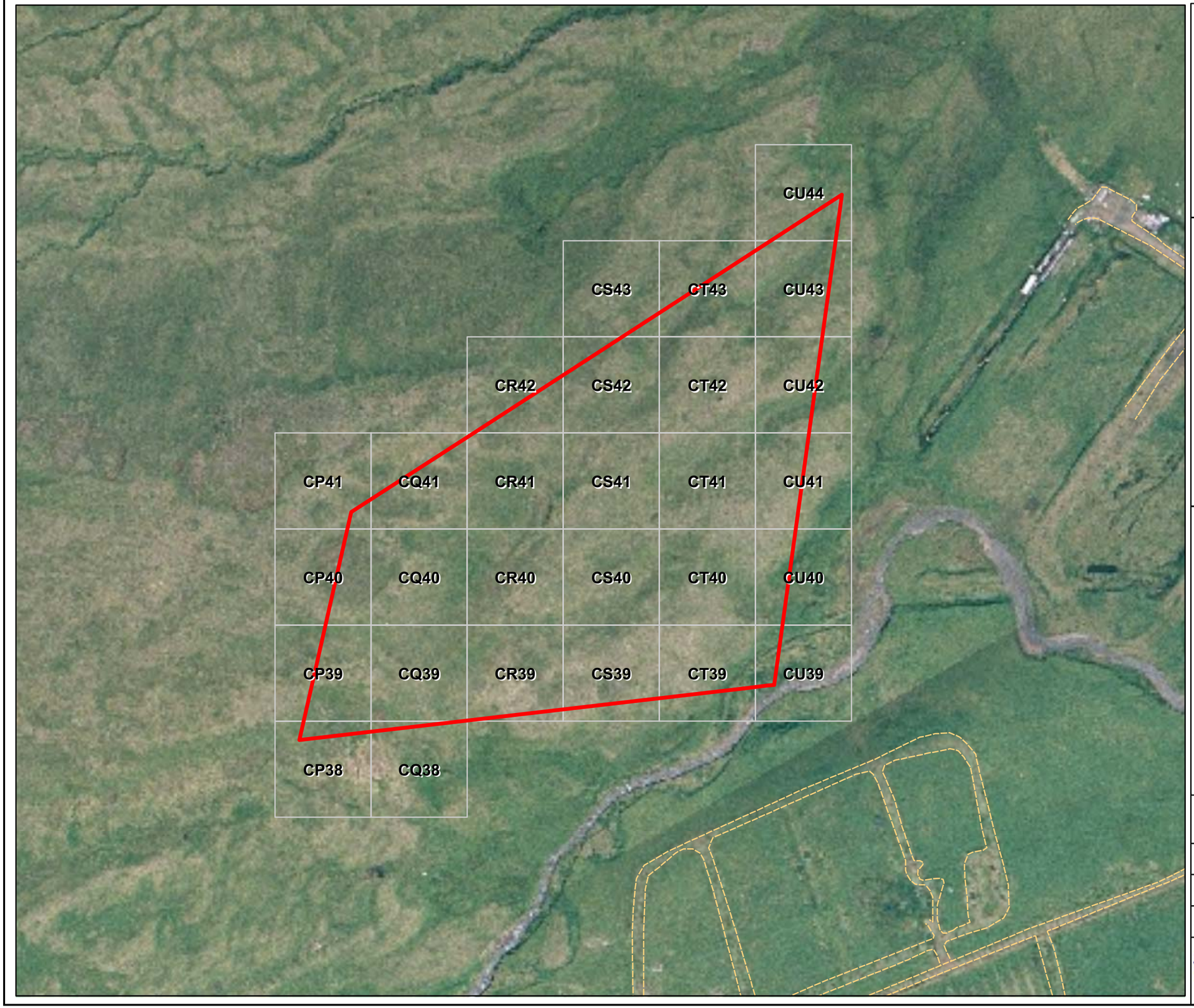
Unpaved Road
Parcel 4
200' x 200' Grids

USA Environmental, Inc.

NAVFAC Naval Facilities Engineering Command

Drawn By:	WAC	Scale: 1" = 0.5 miles	Rev:
Checked By:	GS	Date Drawn: 02-21-2006	
Submitted By:		Revision Date: 03-01-2006	

Path:
S:\Adak\B4_parcel4_grid.mxd



0 200 400 Feet

Data is projected to the Alaska State Plane Coordinate System: NAD83, Units in Feet.

Figure B-5

MRS RG-01 Grids

Adak Island, Alaska

Unpaved Road

Grids

USA Environmental, Inc.

NAVFAC Naval Facilities Engineering Command

Drawn By:	WAC	Scale: 1" = 200'	Rev:
Checked By:	GS	Date Drawn: 02-21-2006	
Submitted By:		Revision Date:	

Path: S:\Adak\B5_RG01_grid.mxd

APPENDIX C

C.0 USA ENVIRONMENTAL, INC. FORMS

This appendix contains project forms for MEC operations at RG-01.

Operations Forms:

- Daily Operations Summary
- Employee Evaluation
- Explosive Usage
- Magazine Data Card
- Explosive Vehicle Inspection
- Grid Record
- MEC Record
- Site Visitor Log
- Stop Work Order Log
- Stop Work Order
- Submittal Register
- Employee Data Form

QC Forms:

- Corrective Action Request
- Corrective Action Log
- Daily QC Report
- DFW Matrix
- Nonconformance Log
- Nonconformance Report
- Instrument Test Form
- QC Continuation Sheet
- Rework Items List
- QC Inspection Form

Safety Forms:

- USAE Accident Form
- Contractor Significant Incident Report
- Safety-QC Status
- Safety Violation
- USA Safety Inspection

DAILY OPERATIONS SUMMARY

DATE: ____/____/____ **PAGE 1 OF 5 PAGES**

SITE / LOCATION: _____

1. WORK SUMMARY

a. Work Accomplished:	**Number Completed**	**Total Remaining**
(1) Survey	_____	_____
(2) Preparation	_____	_____
(3) Mag & Flag	_____	_____
(4) Geophysical	_____	_____
(5) Intrusive	_____	_____
(6) Quality Control	_____	_____
(7) Quality Assurance	_____	_____

b. Discrepancies: _____
_____
_____
_____

c. Inspection Results:	**Pass**	**Fail**
(1) Quality Control	_____	_____
(2) Quality Assurance	_____	_____
(3) Safety	_____	_____

2. INSTRUCTIONS RECEIVED FROM CUSTOMER REPRESENTATIVE: _____
_____
_____
_____
_____

3. UXO SUMMARY

a. UXO Located:

Type:	Quantity:	Live/Prac.:	Remarks:

b. Demolition Supplies Expended:

Type:	Quantity:	Remarks:

c. Scrap Generation / Deposition:

Type:	Quantity:	Weight:	Remarks:

4. Utilization

a. Daily Man-hours:

Labor Category:	Task #	M/H Today:	M/H 0% :	M/H 4%	M/H 8%
Site Manager					
SUXOS					
UXO Technician III					
UXO Technician II					
UXO Technician I					
Laborer					
UXOSO					
UXOQCS					
Admin Personnel					
Visitor					
Sub-Contractor Personnel (List by Category)					

b. Daily Equipment:

Description:	Task:	Hours Used:	Hours Remaining:	% Hours Remaining:	Remarks:

5. Operational Remarks:

_____
_____
_____
_____
_____
_____

6. Signature / Date:

_____ **Date: ____/____/____**

SUXOS

USA Environmental, Inc.

PERFORMANCE EVALUATION RATING FORM

NAME: _____ IDENTIFICATION NUMBER: _____

Labor Category: _____

Project Location: _____

Reason for Rating: ☐ Quarterly ☐ Annual ☐ Contract Complete

☐ Transfer ☐ Termination ☐ Other

Period Covered: From _____ To _____

Noting employees work related performance, knowledge, skills and ability, would you work with this person again? ☐ Yes ☐ No

Safety: _____
Rating: 5 - Excellent 4 - Above Average 3 - Average 2 - Marginal 1 - Poor

Quality: _____
Rating: 5 - Excellent 4 - Above Average 3 - Average 2 - Marginal 1 - Poor

Productivity: _____
Rating: 5 - Excellent 4 - Above Average 3 - Average 2 - Marginal 1 - Poor

Knowledge: _____
Rating: 5 - Excellent 4 - Above Average 3 - Average 2 - Marginal 1 - Poor

Reliability: _____
Rating: 5 - Excellent 4 - Above Average 3 - Average 2 - Marginal 1 - Poor

Other: _____

Rating Supervisor: _____ Date _____

EMPLOYEE SECTION

I ☐ do ☐ do not have a statement to make (attach statement, if applicable)

Employee's Signature: _____ Date _____

MANAGEMENT REVIEW

I have reviewed this evaluation and I: ☐ Agree ☐ Disagree

Manager's Signature: _____ Date _____

Ratings of 5 or 1will require an explanation.

Comments attached if applicable.

EXPLOSIVE USAGE RECORD *Contract Number:* _____

Team Number: _____ *Date:* _____ *Project Name:* _____

Team Leader: _____ *Work area/Grid Number:* _____

EXPLOSIVES	**LOT NUMBER**	**QUANTITIES**						**Signatures**	
		Issued	*Initials*	*Used*	*Initials*	*Returned*	*Initials*	*Team Leader*	*Checker*

Reviewed and Accepted: _____ **Date:** _____

Senior UXO Supervisor

Magazine Data Card

Nomenclature:

Lot Number:

Hazard Div.

Unit Of Issue:

Date	Name	Received	Issue	Balance	Checker's Initials

The signatures in each section of this document indicate that the items listed were in fact issued, expended, or returned to storage and that all quantities listed were verified through a physical count.

Explosive Vehicle Inspection, ON-SITE

This form must be filled out for any vehicle carrying explosives, prior to loading.
This form is for use on site only, if traveling on public highways use DD Form 626

DRIVERS NAME _____ LICENSE NUMBER _____
COMPANY _____
TYPE OF VEHICLE _____ VEHICLE NUMBER _____
INSPECTION DATE/TIME _____ INSPECTOR _____

PART INSPECTED	**SAT.**	**UNSAT.**	COMMENT
HORN			
STEERING SYSTEM			
WIPERS			
MIRRORS			
FIRE EXTINGUISHERS (10 ABC, 2 EACH)			
REFLECTORS			
EMERGENCY FLASHERS			
LIGHTS			
ELECTRIC WIRING			
FUEL SYSTEM			
EXHAUST SYSTEM			
BRAKE SYSTEM			
SUSPENSION			
CARGO SPACE			
TIRES, WHEELS, RIMS			
TAILGATE			
TARPAULIN			

INSPECTION RESULTS (INSPECTOR INITIAL) ACCEPTED _____

REJECTED _____

REMARKS _____

DRIVERS SIGNATURE/DATE

INSPECTORS SIGNATURE/DATE

USAE
Grid / Area Completion Form

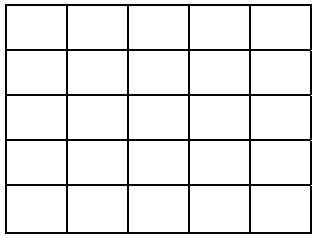
DATE START / STOP:	TIME START / STOP:	GRID #:
TEAM #:		
TYPE OF OPERATION: ☐ **Surface** ☐ **Sub-Surface** ☐ **Construction Support** ☐ **Backhoe** ☐ **Other**		
SUPERVISOR'S NAME:		
AREAS INSPECTED: (List by grid numbers, coordinates, name, or other identifier)		

WORK CHECKS

Item Description		Item Description	
1. Personnel compliant with the Work Plan	Y / N	4. Correct Instrument Setting Selected / Used	Y / N
2. Know and Understand the Task Requirements	Y / N	5. QC / QA Criteria Understood	Y / N
3. Correct Instrument / Equipment Selected	Y / N	6. Grid / Area Completed	Y / N

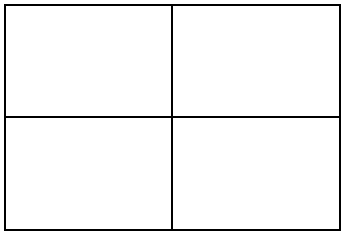
MEC / UXO ITEMS NOTED (Include type, nomenclature, #, depth, and location (map) within grid as necessary):

Anomaly Count_____



SW Corner

Grid



Area

WORK COMMENTS:

SIGNATURE: **SIGNATURE:**

_____ _____

Supervisor Sr. UXO Supervisor / Site Manager

Note: Grid / Area Completion Forms are used to document operations conducted by the team prior to submission for QC. This form will also be used to document the present status of the grids / areas being worked by various teams (UXO, backhoe, sweep, etc.).

MEC LOG

								Date			MEC					
Grid #	Date	Type	Soil	Vegetation	Depth	Orientation *	Disposition	Disposal	Location Easting and Northing		UXO	DMM	MC	MD	Remarks	Photo #

Orientation *: **Horizontal**
Vertical
° of Angle

SITE VISITOR LOG

Site:________________________ **Date:_______________**

Contract No.:_______________

DATE:	NAME:	TITLE:	COMPANY/ AGENCY:	SAFETY BRIEF:	TIME:		ESCORTED BY:	SITE:	REMARKS:
					IN	OUT			

STOP WORK ORDER LOG

MEC Response at:

C.T.O No. _____
Contract No. N62742-05-D-1868

SWO No.	Action Party/Organization	Subject	Date Issued	Date Closed

STOP WORK ORDER

Project Name/Location: _____ Project No. _____ Page 1 ____of ____

S.W.O. No. _____

Contract No. N62742-05-D-1868 C.T.O. No.: _____

1. Written Notice Issued to: Name: Title: Org.:	2. P.O. # or Activity: 3. Location: 4. Issued by (name): Issued by (title):		
5. Verbal Notice Issued to: Name: Title:	Date:		Time:
6. Associated NCR No.:	7.	Associated CAR No.	
8. Stop Work Order Condition Description:			Attachment
9. Remedial Action Required: By Whom: Required Remedial Action Determined by: Project Manager: CQC Manager:		By When:	Attachment Date: Date:
10. Follow-up of Remedial Action Taken: Verbal Notice to Resume Operations Given to: Title: Stop Work Order Cancellation Authorized by: Program CQC Manager:	Date:		Attachment Time: Date:

SUBMITTAL REGISTER (PART A)

Contract Number: Project Title:

SPEC SECTION NO.	SD NO. & TYPE OF SUBMITTAL - MAIL OR PRODUCT	SPEC PARA NO.	CLASSIFI APPR BY CO *	GOVT OR A/E REVR	TRANS CONTL NO.	PLANNED SUBMITTAL DATE
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1)	2. Internal Draft Planning Documents					
2)	3. Draft Planning Documents					
3)	4. Draft Final Planning Documents					
4)	5. Final Planning Documents					
5)	7. CD ROM of Final Planning Documents					
6)	8. RAB Fact Sheets/ Slide Show Presentations					
7)	9. Contract Management Plan					
8)	10. Corporate Health and Safety Plan					
9)	11. QC Program Plan					
10)	12. Internal Draft RI Report					
11)	13. Draft RI Report					
12)	14. Draft Final RI Report					
13)	15. Final RI Report	.				
14)	34. Draft Treatability Model Report					
15)	35. Draft Final Treatability Model Report					
16)	36. Final Treatability Model Report					
17)						
18)						

* Navy Notes:	* NASA Notes:	* Army Notes:
Approved by:	Approved by:	Classification: GA: Gov't Approval FIO: For Info ONLY

SUBMITTAL REGISTER (PART B)

Location: Contractor:

Contract Number: Project Title:

ACT CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/DATE RECD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RECD FROM 0TH REVIEWER	ACT. CODE	DATE OF ACTION	MAILED TO CONTR/RECD FROM APR AUTH	REMARKS
(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
								1)
								2)
								3)
								4)
								5)
								6)
								7)
								8)
								9)
								10)
								11)
								12)
								13)
								14)
								15)
								16)
								17)
								18)

ACTION CODES: NR: Not Reviewed AN: Approved as Noted A: Approved
RR: Disapproved; Revised and Resubmit (Others may be prescribed by the Transmittal Form)

EMPLOYEE EMERGENCY INFORMATION FORM

Employee's Name:	
Date of Birth:	SSN or Other Identifier:
Local Address and Phone #:	
Employee Information	
Medical Conditions:	Current Medications:
1.)	1.)
2.)	2.)
3.)	3.)
4.)	4.)
Allergic To:	Other Pertinent Information:
1.)	1.)
2.)	2.)
3.)	3.)
Specific Employee's Notification Procedures:	
Employee's Restrictions (i.e.; limited respirator use):	
Signature: _____ Employee	Signature: _____ UXOSO / SSO / Paramedic

Note: This form is to be included in the employee's information packet maintained on the project site by Medical Personnel.

CORRECTIVE ACTION REQUEST

MEC Response at **(Project / Task Order Number)**

<table>
<tr><td>Adverse Trend:

Yes

No</td><td colspan="2">CAR Number:</td><td>Date:</td></tr>
<tr><td colspan="2">Organization/Project/Department:</td><td colspan="2">Person Contacted:</td></tr>
<tr><td colspan="4">Discrepancy (include specific requirements violated):</td></tr>
<tr><td colspan="2">Originator:</td><td colspan="2">Response Due Date:</td></tr>
<tr><td colspan="4">Corrective Action Taken/Proposed to Correct Discrepancy:</td></tr>
<tr><td colspan="4">Corrective Action Taken to Prevent Recurrence (the cause of the discrepancy must also be included here):</td></tr>
<tr><td colspan="2">Corrective Action Taken by (signature and date):</td><td colspan="2">Date When Corrective Action Completed:</td></tr>
<tr><td colspan="2">Corrective Action Evaluated:</td><td colspan="2">Verification of Implementation:</td></tr>
<tr><td>Evaluated by:</td><td>Date:</td><td>Verified by:</td><td>Date:</td></tr>
</table>

CORRECTIVE ACTION REQUEST LOG

MEC Response at **(Project / Task Order Number)**

Contract No. N62742-05-D-1868

CAR No.	Orig. Date	Initiated By	Description	Responsible Party	C/A Due	Status	
Project No.	Close Date	Closed By				C/A Recommended & Approved	Re-inspection Results

Control Phase _____

DAILY QUALITY CONTROL REPORT
AND CONTRACTOR PRODUCTION REPORT

Daily Report No. MEC - _____ Date: _____

Contract No. N62742-05-D-1868 CTO No. _____

Project Title and Location:

Weather AM: ___ Rainfall in. ____ Temp. _____Min._____ Max. _____

Weather PM: ___ _ Rainfall in. __ Temp. _____Min._____ Max. _____

1. Personnel On-Site

NAME	LOCAL	USAE	SUB	EMPLOYEE	TYPE OF WORK	HRS

2. Job Safety Actions/Safety Inspections Conducted

Was the Job Safety Meeting Held? Yes __ No _____ (Attach. Minutes)

Were there lost time accidents?_____ Yes ____ No (Attach. OSHA Report)

Trenching/scaffold/high voltage_____ Yes ____ No (Attach. Statement)

Haz. Mat. released into environment? Yes No _____ (Desc. of Incident)

3. UXO Actions Taken

4. List of Construction Equipment on Work Site and Hours Used

5. Instructions Received from the Contracting Officer on Deficiencies or Work Required

6. Quality Control Inspections Conducted

7. Submittal Action

8. Remarks

(Work Progress and Delays)

(Safety Hazards Encountered)

(Instructions Given and Corrective Actions Taken)

Date: _____

9. Record of Visitors to the Work Site

10. Definable Feature of Work

11. Remarks: Rework:

12. **Attachments:**

13. **Certifications:** I certify that the above report is complete and correct and that I, or my authorized representative, have inspected the work performed this day by the Prime Contractor and each subcontractor, and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

MEC RESPONSE AT

PROJECT LOCATION

N62742-05-D-1868 CONTRACT TASK ORDER No.

DEFINABLE FEATURES OF WORK MATRIX

Spec. Section	Para. No.	Feature of Work	Prep		Initial		Follow up	Remarks
			Req	Date	Req	Date	Req	

CONTRACT NO. N62742-05-D-1868			**NONCONFORMANCE REPORT** **TRACKING LOG**			Page _____ Of _____	
CONTRACTTASK ORDER NO.							
NCR NO.	ORIG. DATE	INITIATED BY	NONCONFORMANCE DESCRIPTION			STATUS	
PROJECT NO.	CLOSE DATE	CLOSED BY		RESPONSIBLE PARTY	C/A DUE	C/A RECOMMENDED AND APPROVED	REINSPECTION RESULTS

NONCONFORMANCE REPORT

Contract No. N62742-05-D-1868 Contract Task Order No.

NCR Number:	Project Name and Number: MEC Response at:	Date:	Page 1 of

Nonconformance Description (include specific requirement violated):

Identified by:_____ Date: _____

Root Cause of Nonconforming Action:

Corrective Action(s) to be Taken (include date when action(s) will be complete):

To Be Performed By: _____ Date: _____

Action(s) to be Taken to Preclude Recurrence:

To Be Performed By: _____ Date: _____

Acceptance by:

Project Manager: _____ Date: _____ CQC Manager_____ Date:

Corrective Action(s) Completed by and Date:	Verification Completed by and Date:

USAE

Operator/Instrument Test Form

FOR MEC OPERATIONS

DATE:	**TIME:**	**NAME:**
TEAM #:	**INSTRUMENT/SERIAL #:**	
SITE NAME AND LOCATION:		
WEATHER CONDITIONS:		
TEST AREA (List by grid number, lane, marker number, or other identifier)**:** **TEST ITEM(S)** (List test item by type, depth, and quantity)**:** **BLIND SEED ITEM(S)** (List type, depth, and quantity)**:**		

II. TEST RESULTS

Item Description	Pass	Item Description	Pass
1. Instrument Checked for Broken/Missing Components	Y / N	9. Operator Familiar with W.P. Procedures	Y / N
2. Instrument Serviceability Check Performed	Y / N	10. Instrument Trained Operator	Y / N
3. Correct Settings Selected for the Instrument	Y / N	11. Instrument Passed Test Area	Y / N
4. Correct Survey/Sweep Techniques Employed	Y / N	12. Operator Passed Test Area	Y / N
5. Instrument Responsive to Test Item(s)	Y / N		
6. Operator Responsive to Instrument Signal/Sound	Y / N	Was a Blind Seed Item (BSI) Employed	Y / N
7. Operator Locates Point of Origin for Test Item(s)	Y / N	Did the Instrument Locate the BSI	Y / N
8 Operator Familiar with Pass/Fail Criteria	Y / N	Did the Operator Locate the BSI Origin	Y / N

SUMMARY OF DEFICIENCIES NOTED (Identify if procedural, process, instrument, or operator)**:**

CORRECTIVE ACTIONS RECOMMENDED (As required)**:**

Instruments failing the test will tagged and removed from service until repaired or replaced.

Individuals will be corrected on deficient procedures, processes, techniques, and/or re-trained to acceptable standards.

VI. SIGNATURES:

I acknowledge that I have been briefed on the results of this test and will take corrective actions as identified by the QC Section.

_____ UXOQCS/UXOT III

_____ INSTRUMENT OPERATOR

Note: QC test are to be conducted for the instrument and operator each day and documented on this form. This form will also be used to document the current status of deficiencies noted during daily tests. Any daily test forms where deficiencies have been noted will be forwarded to the Project Manager and to the USAE QC Manager.

Contractor Quality Control Report Continuation Sheet

(Attach additional sheets if necessary)

Page ___of ___

Contractor: **USA Environmental, Inc.** Report No.

Contract No. N62742-05-D-1868 C.T.O. No. Project No.

PREPARATORY PHASE INSPECTION

Y - Yes; N - No; N/A - Not Applicable	
Plans and Specs have been reviewed	
Submittals have been approved	
Materials comply with approved submittals	
Preliminary work was done correctly	
Testing Plan has been reviewed	
Work method and schedule discussed	

Identify Definable Feature of Work and Location, and List Personnel Present

QC Manager **Date**

Contractor Quality Control Report Continuation Sheet

(Attach additional sheets if necessary)

Page _____of _____

Contractor: **USA Environmental, Inc.**

Contract No. N62742-05-D-1868 C.T.O. No.

Report No.

Project No. _____

INITIAL PHASE INSPECTION

Y - Yes; N - No; N/A - Not Applicable	
Preliminary work was done correctly	
Sample was prepared and approved	
Workmanship is satisfactory	
Test results are acceptable	
Work is in compliance with the contract	

Identify Definable Feature of Work, Location, and Personnel Present

Testing Performed & **Who Performed Test (including number of samples and tests taken)**

QC Manager

(Attach additional sheets if necessary)

Page _____of _____

Date: _____

Contractor: **USA Environmental, Inc.** Report No.

Contract No. N62742-05-D-1868 C.T.O. No. _____ Project No.

FOLLOW-UP PHASE INSPECTION

Y - Yes; N - No; N/A - Not Applicable

Work is in compliance with the contract: ____

Identify Definable Feature of Work, Location, and Personnel Present

Testing Performed & Who Performed Test (including number of samples and tests taken)

_____

QC Manager **Date**

REWORK ITEMS LIST

MEC Response at **(Project / Contract Task Order No.)**

Contract No. N62742-05-D-1868

Item	Date Identified	Date Corrected
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
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14.		
15.		
16.		
17.		
18.		
20.		
21.		
22.		
23.		
24.		
25.		

USAE

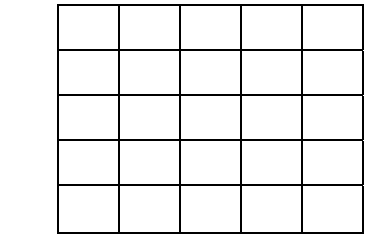
Quality Control Grid / Area Inspection Form

INSPECTION DATE:	**TIME:**	**GRID #:**
CONTRACT and TO #:		
SITE NAME AND LOCATION:		
INSPECTED BY:		
AREAS INSPECTED: (List by grid number, coordinates, name, or other identifier)		

INSPECTION RESULTS

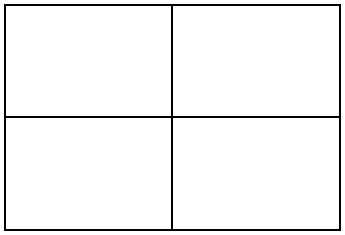
Item Description	Pass	Item Description	Pass
1. Work Performed IAW the Work Plan	Y / N	4. Correct Instrument Setting Used	Y / N
2. Compliance with QC Requirements	Y / N	5. QC Criteria Understood	Y / N
3. Correct Instrument Used	Y / N	6. GRID / AREA RESULTS	Y / N

FAILING DEFICIENCIES NOTED (Include type, #, depth, and location within grid as necessary):



SW Corner

Grid



Area

CORRECTIVE ACTIONS REQUIRED / RECOMMENDED:

REINSPECTION RESULTS: (If required)

SIGNATURES:

I acknowledge that I have been briefed on the results of this inspection and will take corrective actions (if necessary)

_____ UXOQCS

_____ Sr. UXO Supervisor / Project Manager

Note: QC Grid / Area Inspections are to be conducted prior to submission for QA and documented on this form. This form will also be used to document the present status of the grids / areas submitted for QC, and will also be used to note the current status of deficiencies noted during inspections. Any inspection where deficiencies have been noted will be forwarded to the Site Manager / SUXOS and a CC to the USAE QC Manager.

ACCIDENT/ILLNESS/NEAR MISS REPORT

SECTION 1 - GENERAL INFORMATION				
Name:		**SSN:**		**Log #:**
D.O.B.:	**Sex:**	**Age:**	**OSHA Recordable Incident:** ☐ **Yes** ☐ **No**	
Job Title:				
Date of Report:	**Date of Incident:**		**Time of Incident:**	
Task/Operation Being Conducted:				
PPE Worn:				

SITE CONDITIONS AT TIME OF ACCIDENT / INCIDENT

Temperature: _____ **Humidity:** _____
Wind Speed: _____ **Direction:** _____ **Cloud Cover:** _____
Precipitation: _____ **Other:** _____

Type of Incident: ☐ **Personal Injury** ☐ **Personal Illness** ☐ **Chemical Exposure**
☐ **Motor Vehicle** ☐ **Property Damage** ☐ **Near Miss**

If chemical exposure, what material(s) was(were) involved: _____
What was the nature of exposure (contact, inhalation, etc.): _____

Other Individual(s) Involved: _____

SECTION 2 - PERSONAL INJURY/ILLNESS INFORMATION

Nature/Type of Injury/Illness (laceration, strain, etc.): _____

Cause of Injury/Illness: _____

Body Part(s) Affected: Primary: _____ **Secondary:** _____

Injury/Illness Required: ☐ **On Site/Clinic First Aid Treatment** ☐ **Emergency Room Treatment** ☐ **Hospitalization**

Injury/Illness Resulted In: ☐ **Loss of Work Time** ☐ **Limitation of Duties** ☐ **Fatality**
☐ **Other: (Explain):** _____

Status at Time of Report: ☐ **Returned to Work: (Date: _____)** ☐ **Hospitalized: (Anticipated Stay: _____)**
☐ **Convalescing: (Anticipated Length of Convalescence: _____)**
☐ **Other:** _____

On Site First Aid Treatment Given: _____

Off Site First Aid or Other Medical Treatment (attach documentation, including Physician statement): _____

ACCIDENT/ILLNESS/NEAR MISS REPORT (cont.)

SECTION 3 - MOTOR VEHICLE ACCIDENT

Type of Vehicle/Equipment	Type of Collision	Seat Belt Use
☐ Automobile/SUV ☐ Van/Truck ☐ MHE/EMM ☐ Other:	☐ Side Swipe ☐ Rear End ☐ Backing ☐ Head on ☐ Broadside ☐ Roll	Front Seat ☐ Yes ☐ No Back Seat ☐ Yes ☐ No

Property/Material/Items Involved

Name of Item	Owner	Damage Estimate $

Accident Description (Use additional paper if needed):

SECTION 4 - POST ACCIDENT/INJURY/ILLNESS REVIEW

Has the Home Office been notified? ☐ **Yes** ☐ **No, If Yes, When?** **By Whom?**

Were operations conducted using approved USAE SOP or an APP/ SSHP?
☐ **Yes Reference:**
☐ **No Explain:**

UXOSO's / SSO's Comments:

Employee Comments:

Witnesses

Name	Organization	Phone Number

Employee Signature: **Date:**

UXOSO / SSO Signature: **Date:**

Actions Completed By: **Date:**

Corporate Review By: **Date:**

☐ Initial Report

☐ Follow-up Report

☐ Final Report

Contractor Significant Incident Report (CSIR)

1. General Information

Contracting Activity/ROICC Office:

Accident Classification:

☐ Injury ☐ Fatality ☐ Environment ☐ Procedural Issues ☐ Lessons Learned

☐ Illness ☐ Property Damage ☐ Other_____

Involving:

☐ Confined Space ☐ Equip/Mrt Ver/Mat Handling (Heavy Construction Equip.) ☐ Hazardous Material

☐ Crane and Rigging ☐ Equip/Mrt Ver/Mat Handling (Material Handling) ☐ Trenching/Excavation

☐ Diving ☐ Equip/Mrt Ver/Mat Handling (Man-Lift/Elevated Platform) ☐ Waterfront/Marine Operations

☐ Demolition/Renovation ☐ Fall from Ladder ☐ Fall from Scaffold ☐ Other_____

☐ Electrical ☐ Fall from Roof ☐ Fire

2. Personal Information

Name (Last, First, MI):	**Age:**	**Sex:**

Job Title/Description:	**Employed By:**
Supervisor Name (Last, First, MI) & Title:	**Was the person trained to perform this activity/task?** ☐ **Yes** ☐ **No**
What type of training was received (OJT, classroom, etc)?	**Date of the most recent formal training and topics discussed?**

3. Witness Information

Witness #1: Name (Last, First, MI):	**Job Title/Description:**
Employed By:	**Supervisor Name (Last, First, MI):**
Witness #2: Name (Last, First, MI):	**Job Title/Description:**
Employed By:	**Supervisor Name (Last, First, MI):**

Additional Witnesses: ☐ **Yes** ☐ **No**

(List any additional witnesses on a separate sheet and attach.)

4. Contract Information

Type of Contract:

☐ A/E ☐ BOS ☐ CLEAN ☐ Construction ☐ Design Build ☐ FSCC ☐ FSSC

☐ JOC ☐ RAC ☐ Service ☐ Other_____

Contract Number & Title:	**Industrial Group & Industrial Type:**
Prime Contractor Name/Address/Phone & Fax No: **Safety Manager (Last, First, MI):** **Insurance Carrier:**	**Sub Contractor Name/Address/Phone & FAX No:** **Safety Manager (Last, First, MI):** **Insurance Carrier:**

5. Accident Description

Date of Accident:	**Time of Accident:**	**Exact Location of Accident:**

Describe the accident in detail in your words: ***(Use the back of page if you need additional space)***

Direct Cause(s) of Accident:

Indirect Cause(s) of Accident:

Action(s) taken to prevent re-occurrence or provide on-going corrective actions:

Corrective Action Beginning Date:	**Anticipated Completion Date:**

Personal Protective Equipment:

☐ Available and used ☐ Available and not used ☐ Not Required

☐ Not related to Mishap ☐ Wrong PPE for job

List PPE Used:

Type of Construction Equipment (Make, Model, Serial #, VIN#) Involved:

Was Hazardous Material Spilled/Released? ☐ **Yes** ☐ **No**

Please List Hazardous Material(s) Involved:

Who provided first aid or cleanup of mishap site?

Any blood-borne pathogen exposure, other than EMTs? ☐ **Yes** ☐ **No**

Who?

List OSHA and EM-385-1-1 standards that were violated:

Was site secured and witness statements taken immediately? ☐ **Yes** ☐ **No**

By Whom?

6. Injury Illness/Fatality Information

Severity of Injury/Illness:

- ☐ Fatality
- ☐ Lost Workday Case Involving Days Away From Work
- ☐ Temporary Disabillity
- ☐ Recordable Workday Case Involving Restricted Duty
- ☐ Permanent Total Disability
- ☐ Other Recordable Case
- ☐ Recordable First Aid Case
- ☐ Permanent Partial Disability
- ☐ Non-Recordable Case
- ☐ No Injury

Estimated Days Lost:	**Estimated Days Hospitalized:**	**Estimated Days Restricted Duty:**

List Primary Body Part Affected:	**List Other Body Part(s) Affected:**

Nature of Injury/Illness for Primary Body Part (Examples: Amputation, Burn, Hernia):

Type of Accident (Examples: Fall same level, Lifting, Bitten, Exerted):

Source of Accident (Examples: Crane, Carbon Monoxide, Ladder, Welding Equipment):

7. Causal Factors *(Explain answers on supplementary sheet)*

• **Design – Design of facility, workplace, or equipment was a factor?**	☐ **Yes** ☐ **No**
• **Inspection/Maintenance – Inspection & Maintenance procedures were a factor?**	☐ **Yes** ☐ **No**
• **Persons Physical Condition – In your opinion, the physical condition of the person was a factor?**	☐ **Yes** ☐ **No**
• **Operation Procedures – Operating procedures were a factor?**	☐ **Yes** ☐ **No**
• **Job Practices – One or more job safety/health practices not being followed when the accident occurred contributed to the accident?**	☐ **Yes** ☐ **No**
• **Human Factors – One or more human factors, such as a person's size or strength contributed to the accident?**	☐ **Yes** ☐ **No**
• **Environmental Factors – Heat, cold, dust, sun, glare, etc., contributed to the accident?**	☐ **Yes** ☐ **No**
• **Chemical and Physical Agent Factors – Exposure to chemical agents, such as dust, fumes, mist, vapors, or physical agents such as noise, radiation, etc., contributed to the accident?**	☐ **Yes** ☐ **No**
• **Office Factors – Office setting such as lifting office furniture, carrying, stooping, contributed to the accident?**	☐ **Yes** ☐ **No**
• **Support Factors – Inappropriate tools/resources were provided to perform the task?**	☐ **Yes** ☐ **No**
• **PPE – Improper selection, use or maintenance of PPE contributed to the accident?**	☐ **Yes** ☐ **No**
• **Drugs/Alcohol – In your opinion, were drugs or alcohol a factor?**	☐ **Yes** ☐ **No**
• **Job Hazard Analysis – The lack of an adequate (IAW-EM-385-1-1 Sec 01.A) activity hazard analysis was a contributing factor.**	☐ **Yes** ☐ **No**
• **Job Hazard Analysis – JHA was not site specific and/or did not address the type of work/operations performed when the mishap occurred.**	☐ **Yes** ☐ **No**
• **Management – A lack of adequate supervision contributed to the accident.**	☐ **Yes** ☐ **No**
• **Management – Inadequate information was provided at pre con meeting.**	☐ **Yes** ☐ **No**

8. OSHA Information			
Date OSHA was Notified:	**Date(s) of Investigation:**	**Date of citation:** ***(Attach Copy)***	**Dollar amount of Penalties:**

9. Report Preparer	
Name (Last, First, MI):	**Date of Report:**
Title: **Employer:** **Phone #:**	**Signature:**

CONTRACTOR SIGNIFICANT INCIDENT REPORT (CSIR) INSTRUCTIONS
Complete Sections Appropriate to Incident (Rev. 06/02).

NOTE: THE ATTACHED CSIR FORM IS TO BE USED BY CONTRACTORS TO RECORD THE RESULTS OF THEIR ACCIDENT/INCIDENTS INVESTIGATIONS AND SHALL BE PROVIDED TO THE CONTRACTING OFFICER WITHIN THE REQUIRED TIMEFRAMES.

GENERAL. Complete a separate report for each person who was injured in the accident. A report needs to be completed for all OSHA recordable accidents, property damage in excess of $2000.00 (This amount is for record purposes only. GOV is not required to enter property damage reports into FAIR database if it is less than $10,000.00.), WHE accidents, or near miss/high visibility mishaps. Please type or print legibly. Appropriate items shall be marked with an "X" in box(es), non-applicable sections shall be marked "N/A". If additional space is needed, provide the information on a separate sheet of paper and attach to the completed form.

Mark the report:
INITIAL – If this form is being used as initial notification of a Fatality or High Visibility Mishap. The initial form is due within 4 hours of a serious accident. A form marked 'Follow-up' or 'Final' is required within 5 days.
FOLLOW-UP – If you are providing additional information on a report previously submitted.
FINAL – If you are providing a completed report and expect no changes.

SECTION 1 – GENERAL INFORMATION

CONTRACTING ACTIVITY/ROICC OFFICE - Enter the name and address of the Contracting Office administering the contract under which the mishap took place (e.g. ROICC MCBH, ROICC NORFOLK, PWC GUAM, etc.).

ACCIDENT CLASSIFICATION - INJURY/ILLNESS/FATALITY/PROPERTY DAMAGE/-PROCEDURAL ISSUES/-ENVIRONMENTAL/LESSONS LEARNED/OTHER – Mark the appropriate block(s) if the incident resulted in any of these conditions.

INVOLVING - If the mishap involved any of the conditions listed under "Involving" mark the appropriate box(es). Specific questions associated with each of these conditions are available from the Contracting Officer to assist you in your investigation. When these questions are used they shall be attached as part of this report.

SECTION 2 - PERSONAL INFORMATION

NAME - Enter last name, first name, middle initial of person involved.
AGE - Enter age.
SEX - Enter M for Male and F for Female.
JOB TITLE/DESCRIPTION - Enter the job title/description assigned to the injured person (e.g. carpenter, laborer, surveyor, etc.).
EMPLOYED BY - Enter employment company name of the person involved.
SUPERVISOR'S NAME & TITLE - Enter name and title of the immediate supervisor.
WAS PERSON TRAINED TO PERFORM ACTIVITY/TASK? - For the purpose of this section "trained" means the person has been provided the necessary information (either formal and/or on-the-job (OJT) training) to competently perform the activity/task in a safe and healthful manner.
TYPE OF TRAINING - Indicate the specific type of training (classroom or on-the-job) that the injured person received before the accident happened.
DATE OF MOST RECENT FORMAL TRAINING/TOPICS DISCUSSED - Enter the month, day, and year of the last *formal* training completed that covered the activity/task being performed at the time of the accident. List topics that were discussed at the training identified above.

SECTION 3 - WITNESS INFORMATION

The following applies to Witness #1 and Witness #2:
WITNESS NAME - Enter last name, first name, middle initial of the witness.
JOB DESCRIPTION/TITLE - Enter the job title/description assigned to the witness (e.g. carpenter, laborer, surveyor, etc.).
EMPLOYED BY - Enter the name of the employment company of the witness.
SUPERVISORS NAME - Enter name of immediate supervisor of the witness.
ADDITIONAL WITNESSES - Provide same information, as above, for each witnesses. Use additional pages if necessary.

SECTION 4 - CONTRACTOR INFORMATION

TYPE OF CONTRACT - Mark appropriate box. A/E means architect/engineer. If "OTHER" is marked, specify type of contract on line provided.
CONTRACT NUMBER/TITLE - Enter complete contract number and tile of prime contract (e.g. N62477-85-C-0100, 184 Pearl City Hsg. Revitalization).
CONSTRUCTION INDUSTRIAL GROUP AND INDUSTRIAL TYPE – This is the type of construction that will be done at this project.

1. First, you must choose the Industrial Group. You have 4 choices to choose from: (**NOTE**! Review of the Industrial Types below and knowing what the projects scope of work is will assist you in deciding what the Industrial Group should be.)

a. Buildings
b. Heavy Industrial
c. Infrastructure
d. Light Industrial

2. Once you have chosen the Industrial Group, you now select the Industrial Type. You have multiple choices under each Group, chose the one you feel fits the project most closely because on most projects there won't be an exact match:

a. Buildings:
   (1) Communications Ctr.
   (2) Dormitory/Hotel
   (3) High-rise Office
   (4) Hospital
   (5) Housing
   (6) Laboratory
   (7) Low-rise Office
   (8) Maintenance Facility
   (9) Parking Garage
   (10) Physical Fitness Ctr.
   (11) Restaurant/Nightclub
   (12) School
   (13) Warehouse
b. Heavy Industrial:
   (1) Chemical Mfg.
   (2) Electrical (Generating)
   (3) Environmental
   (4) Metals Refining/Processing
   (5) Mining
   (6) Natural Gas Processing
   (7) Oil Exploration/Production
   (8) Oil Refining
   (9) Pulp and Paper
c. Infrastructure:
   (1) Airport
   (2) Electrical Distribution
   (3) Flood Control
   (4) Highway
   (5) Marine Facilities
   (6) Navigation
   (7) Rail
   (8) Tunneling
   (9) Water/Wastewater
d. Light Industrial:
   (1) Automotive Assembly/Mfg.
   (2) Consumer Products Mfg.
   (3) Foods
   (4) Microelectronics Mfg.
   (5) Office Products Mfg.
   (6) Pharmaceuticals Mfg.

CONTRACTOR'S NAME/ADDRESS/PHONE NUMBER

(1) PRIME - Enter the exact name (title of firm), address, phone and fax numbers of the prime contractor.
(2) SUBCONTRACTOR - Enter the exact name, address, phone and fax numbers of any subcontractor involved in the accident.

SAFETY MANAGER'S NAME

(1) PRIME - Enter the name of the prime contractor safety manager.
(2) SUBCONTRACTOR - Enter the name of the subcontractors safety manager.

INSURANCE CARRIER

(1) PRIME - Enter the exact name/title of the prime's insurance company. Policy number not required.
(2) SUBCONTRACTOR - Enter the exact name of the subcontractor's insurance company. Policy number not required.

SECTION 5 - ACCIDENT DESCRIPTION

DATE OF ACCIDENT - Enter the month, day, and year of accident.
TIME OF ACCIDENT - Enter the local time of accident in military time. Example: 14:30 hrs (not 2:30 p.m.).
EXACT LOCATION OF ACCIDENT - Enter facts needed to locate the accident scene (installation/project name, building/room number, street, direction and distance from closest landmark, etc.).
DESCRIBE THE ACCIDENT IN DETAIL. Fully describe the accident in the space provided. If property damage involved, give estimated dollar amount of damage and/or repair costs involved. If additional space is needed continue on a separate sheet and attach to this report. Give the sequence of events that describe what happened leading up to and including the accident. Fully identify personnel and equipment involved and their role(s) in the accident. Ensure that relationships between personnel and equipment are clearly specified. Ensure questions below regarding direct cause(s), indirect cause(s), and actions taken are answered. **NOTE!** Review questions in Section 7 below before completing.
DIRECT CAUSE(S) - The direct cause is that single factor which most directly lead to the accident. See examples below.
INDIRECT CAUSE(S) - Indirect cause are those factors, which contributed to, but did not directly initiate the occurrence of the accident.

Examples for Direct and Indirect Cause:
1. Employee was dismantling scaffold and fell 12 feet from unguarded opening.
Direct cause: Failure to provide fall protection at elevation

Indirect causes: Failure to enforce safety requirements: improper training/motivation of employee (possibility that employee was not knowledgeable of fall protection requirements or was lax in his attitude toward safety); failure to ensure provision of positive fall protection whenever elevated; failure to address fall protection during scaffold dismantling in phase hazard analysis.

2. Private citizen had stopped his vehicle at intersection for red light when vehicle was struck in rear by contractor vehicle. (note contractor vehicles was in proper safe working condition.)
Direct cause: Failure of contractor driver to maintain control of and stop contractor vehicle within safe distance.
Indirect cause: Failure of employee to pay attention to driving (defensive driving).

ACTION(S) TAKEN TO PREVENT RE-OCCURRENCE OR PROVIDE ON-GOING CORRECTIVE ACTIONS. Fully describe all the actions taken, anticipated, and recommended to eliminate the cause(s) and prevent reoccurrence of similar accidents/illnesses. Continue on back or additional sheets of paper if necessary to fully explain and attach to the complete report form.
CORRECTIVE ACTION DATES -
(1) Beginning - Enter the date when the corrective action(s) identified above will begin.
(2) Anticipated Completion - Enter the date when the corrective action(s) identified above will be completed.
PERSONAL PROTECTIVE EQUIPMENT (PPE) - Mark appropriate box(es) and list PPE which was being used by the injured person at the time of the accident (e.g. protective clothing, shoes, glasses, goggles, respirator, safety belt, harness, etc.)
TYPE OF CONTRACTOR EQUIPMENT - Enter the Serial Number, Model Number and specific type of equipment involved in the mishap (e.g. dump truck (off highway), crane (rubber tire), pump truck (concrete), etc.).
WAS HAZARDOUS MATERIAL SPILLED/RELEASED? - Mark appropriate block and list name(s) of any reportable quantities of hazardous materials spilled/released during the mishap.
WHO PROVIDED FIRST AID OR CLEAN-UP OF MISHAP SITE? - List name(s) of individual(s) and employer, if known.
ANY BLOOD-BORNE PATHOGEN EXPOSURE, OTHER THAN EMT? - Mark appropriate block and list name(s) of individual(s) and employer, if known.
LIST OSHA AND/OR EM 385-1-1 STANDARDS THAT WERE VIOLATED. - Self explanatory.
WAS SITE SECURED AND WITNESS STATEMENT TAKEN IMMEDIATELY? - Mark appropriate block and list by whom.

SECTION 6 - INJURY/ILLNESS/FATALITY INFORMATION

SERVERITY OF INJURY/ILLNESS – Mark appropriate box.
ESTIMATED DAYS LOST - Enter the estimated number of workdays the person will lose from work. Update when final data is known.
ESTIMATED DAYS HOSPITALIZED - Enter the estimated number of workdays the person will be hospitalized. Update when final data is known.
ESTIMATED DAYS RESTRICTED DUTY - Enter the estimated number of workdays the person, as a result of the accident, will not be able to perform all of their regular duties. Update when final data is known.
BODY PART(S) AFFECTED - Enter the most appropriate primary and when applicable, secondary, etc. body part(s) affected (e.g. arm: wrist: abdomen: single eye; jaw : both elbows: second finger: great toe: collar bone: kidney, etc.).
NATURE OF INJURY/ILLNESS FOR PRIMARY BODY PART - Enter the most appropriate nature of injury/illness (e.g. amputation, back strain, dislocation, laceration, strain, asbestosis, food poisoning, heart conditions, etc.).
TYPE AND SOURCE OF INJURY/ILLNESS - Type and Source Codes are used to describe what caused the incident.
(1) TYPE Code stands for an "Action" (Example: Worker, installing conduit, lost his balance and fell five feet from a ladder. Type Code: Fell different levels".) Select the most appropriate Type of injury from the list below:

TYPE OF INJURY/ILLNESS

STRUCK BY/AGAINST	CONTACTED CONTACTED WITH (INJURED PERSON MOVING) CONTACTED BY (OBJECT WAS MOVING)
FELL, SLIPPED, TRIPPED SAME LEVEL/DIFFERENT LEVEL/NO FALL	EXERTED LIFTED, STRAINED BY (SINGLE ACTION) STRESSED BY (REPEATED ACTION)
CAUGHT ON/IN/BETWEEN	EXPOSED INHALED/INGESTED/ABSORBED/EXPOSED TO
PUNCTURED, LACERATED PUNCTURED BY/CUT BY/STUNG BY/BITTEN BY	TRAVELING IN

(2) SOURCE Code stands for an "object or substance." (Example: Worker, installing conduit, lost his balance and fell five feet from a ladder. Source Code: "Ladder".) Select the most appropriate Source of injury from the list below:

SOURCE OF INJURY/ILLNESS

BUILDING OR WORKING AREA WALKING/WORKING AREA STAIRS/STEPS LADDER FURNITURE BOILER/PRESSURE VESSEL EQUIPMENT LAYOUT WINDOWS/DOORS ELECTRICITY	DUST, VAPOR, ETC. DUST (SILICA, COAT, ETC.) FIBERS ASBESTOS GASES CARBON MONOXIDE MIST, STEAM, VAPOR, FUME WELDING FUMES PARTICLES (UNIDENTIFIED)

ENVIRONMENT CONDITION TEMPERATURE EXTREME (INDOOR) WEATHER (ICE, RAIN, HEAT, ETC.) **FIRE, FLAME, SMOTE (NOT TABACCO)** NOISE RADIATION LIGHT VENTILATION TOBACCO SMOKE STRESS (EMOTIONAL) CONFINED SPACE	CHEMICAL, PLASTIC, ETC. DRY CHEMICAL - CORROSIVE DRY CHEMICAL - TOXIC DRY CHEMICAL - EXPLOSIVE DRY CHEMICAL - FLAMMABLE LIQUID CHEMICAL - CORROSIVE LIQUID CHEMICAL - TOXIC LIQUID CHEMICAL - EXPLOSIVE LIQUID CHEMICAL - FLAMMABLE PLASTIC WATER MEDICINE
MACHINE OR TOOL HAND TOOL (POWERED: SAW, GRINDER, ETC.) HAND TOOL (NON POWERED) MECHANCIAL POWER TRANSMISSION APPARATUS GUARD, SHIELD (FIXED, MOVEABLE, INTERLOCK) VIDEO DISPLAY TERMINAL PUMP, COMPRESSOR, AIR PRESSURE TOOL HEATING EQUIPMENT WELDING EQUIPMENT	INANIMATE OBJECT BOX, BARREL, ETC. PAPER METAL ITEM, MINERAL NEEDLE GLASS SCRAP, TRASH, WOOD FOOD CLOTHING, APPAREL, SHOES
MACHINE OR TOOL HAND TOOL (POWERED: SAW, GRINDER, ETC.) HAND TOOL (NON POWERED) MECHANCIAL POWER TRANSMISSION APPARATUS GUARD, SHIELD (FIXED, MOVEABLE, INTERLOCK) VIDEO DISPLAY TERMINAL PUMP, COMPRESSOR, AIR PRESSURE TOOL HEATING EQUIPMENT WELDING EQUIPMENT	INANIMATE OBJECT BOX, BARREL, ETC. PAPER METAL ITEM, MINERAL NEEDLE GLASS SCRAP, TRASH, WOOD FOOD CLOTHING, APPAREL, SHOES
VEHICLE AS DRIVER OF PRIVATELY OWNED, RENTAL VEH. AS PASSENGER OF PRIVATELY OWNED, RENTAL VEH. DRIVER OF GOVERNMENT VEHICLE PASSENGER OF GOVERNMENT VEHICLE COMMON CARRIER (AIRLINE, BUS, ETC.) AIRCRAFT (NOT COMMERCIAL) BOAT, SHIP, BARGE	ANIMATE OBJECT DOG OTHER ANIMAL PLANT INSECT HUMAN (VIOLENCE) HUMAN (COMMUNICABLE DISEASE) BACTERIA, VIRUS (NOT HUMAN CONTACT)
MATERIAL HANDLING EQUIPMENT EARTHMOVER (TRACTOR, BACKHOE, ETC.) CONVEYOR (FOR MATERIAL AND EQUIPMENT) ELEVATOR, ESCALATOR, PERSONNEL HOIST HOIST, SLING CHAIN, JACK CRANE FORKLIFT HANDTRUCK , DOLLY	PERSONAL PROTECTIVE EQUIPMENT PROTECTIVE CLOTHING, SHOES, GLASSES, GOGGLES RESPIRATOR, MASK DIVING EQUIPMENT SAFETY BELT, HARNESS PARACHUTE

SECTION 7 - CAUSAL FACTORS

Review thoroughly. Answer each question by marking the appropriate block. **NOTE!** If any answer is yes, explain in section 5 above.

(1) **DESIGN** - Did inadequacies associated with the building or work site play a role? Would an improved design or layout of the equipment or facilities reduce the likelihood of similar accidents? Were the tools or other equipment designed and intended for the task at hand?
(2) **INSPECTION/MAINTENANCE** - Did inadequately or improperly maintained equipment, tools, workplace, etc., create or worsen any hazards that contributed to the accident? Would better equipment, facility, work site or work activity inspections have helped avoid the accident?
(3) **PERSONS PHYSICAL CONDITION** - Do you feel that the accident would probably not have occurred if the employee was in "good" physical condition? If the person involved in the accident had been in better physical condition, would the accident have been less severe or avoided altogether? Was overexertion a factor?
(4) **OPERATION PROCEDURES** - Did lack of or inadequacy within established operating procedures contribute to the accident? Did any aspect of the procedures introduce any hazard to, or increase the risk associated with the work process? Would establishment or improvement of operating procedures reduce the likelihood of similar accidents?
(5) **JOB PRACTICES** - Were any of the provision of the Safety and Health Requirements Manual (EM 385-1-1) violated? Was the task being accomplished in a manner which was not in compliance with an established job hazard analysis or activity hazard analysis? Did any established job practice (including EM 385-1-1) fail to adequately address the task or work process? Would better job practices improve the safety of the task?
(6) **HUMAN FACTORS** - Was the person under undue stress (either internal or external to the job)? Did the task tend toward overloading the capabilities of the person: i.e., did the job require tracking and reacting to many external inputs such as displays, alarms, or signals? Did the arrangement of the workplace tend to interfere with efficient task performance? Did the task require reach strengths, endurance, agility, etc., at or beyond the capabilities of the employee? Was the work environment ill-adapted to the person? Did the person need more training, experience, or practice in doing the task? Was the person inadequately rested to perform safely?
(7) **ENVIRONMENTAL FACTORS** - Did any factors such as moisture, humidity, rain, snow, sleet, hail, ice, fog, cold, heat, sun temperature changes, wind, tides, floods, currents, terrain; dust, mud, glare, pressure changes, lighting, etc., play a part in the accident?

(8) **CHEMICAL AND PHYSICAL AGENT FACTORS** - Did exposure to chemical agents (either single shift exposure or long-term exposure such as dusts, fibers, (asbestos, etc.), silica, gases (carbon, monoxide, chlorine, etc.), mists, steam, vapors, fumes, smoke, other particulates, liquid or dry chemicals that are corrosive, toxic, explosive or flammable, by-products of combustion or physical agents such as noise, ionizing radiation, non-ionizing radiation (UV radiation created during welding, etc.) contribute to the accident/incident?
(9) **OFFICE FACTORS** - Did the fact that the accident occurred in an office setting or to an office worker have a bearing on its cause? For example, office workers tend to have less experience and training in performing tasks such as lifting office furniture. Did physical hazards within the office environment contribute to the hazard?
(10) **SUPPORT FACTORS** - Was the person using an improper tool for the job? Was inadequate time available or utilized to safely accomplish the task? Were less than adequate personnel resources (in terms of employee skills, number of workers, and adequate supervision) available to get the job done properly? Was funding available, utilized and adequate to provide proper tools, equipment, personnel, site preparation, etc.
(11) **PERSONAL PROTECTIVE EQUIPMENT** - Did the person fail to use appropriate personal protective equipment (gloves, eye protection, hard-toed shoes, respirator, etc) for the task or environment? Did protective equipment provided or worn fail to provide adequate protection from the hazard(s)? Did lack of or inadequate maintenance of protective gear contribute to the accident?
(12) **DRUGS/ALCOHOL** - Is there any reason to believe the person's mental or physical capabilities, judgment, etc., were impaired or altered by the use of drugs or alcohol? Consider the effects of prescription medicine and over the counter medications as well as illicit drug use. Consider the effect of drug or alcohol induced "hangovers".
(13) **JOB/ACTIVITY HAZARD ANALYSIS** - Was a written Job/Activity Analysis completed for the task being performed at the time of the accident? If one was made, did it address the hazard adequately or does it need to be updated? If none made, will one be made? These may also need to be addressed in the Corrective Actions Taken section. Mark the appropriate box. If one was made, attach a copy of the analysis to the report.
(14) **MANAGEMENT** - Did the lack of supervisor or management support play a part in the mishap? Mark the appropriate box.

SECTION - 8 OSHA INFORMATION - Complete this section if applicable

SECTION 9 - REPORT PREPARER

Providing a completed CSIR to the Contracting Officer is the PRIME CONTRACTOR'S RESPONSIBILITY. Enter the name, date of report, title, employer, phone number and signature of person completing the accident report and provide it to the Contracting Officer, or his representative, responsible for oversight of that contractor activity. **NOTE!** If prepared by other than the Prime Contractor, a person employed by the Prime Contractor must sign that they have reviewed and concur with the report and it's findings (e.g. company owner, project supervisor/foreman, Safety Officer, etc.).

USA Environmental, Inc.

Safety / QC Weekly Status Report

Contract Number:	T.O. Number:	Project Location:	Week Ending:

Project Hours

Date:	Location:	Hours Worked:	Comments:
Sun.			
Mon.			
Tue.			
Wed.			
Thur.			
Fri.			
Sat.			
Total:			

Equipment / Heavy Equipment Utilized

Equipment Category:	Number:	Down-Time:	Comments:

Weekly Exposure Data

Required Exposure Data:	Weeks Total:	Classification:	
Reportable Work Related Injuries or Illnesses:		LWD:	RDD:
Damaged or Lost Equipment / Vehicles:		Damaged:	Lost:
Other (list):			

Important Telephone Conversations

Person Calling:	Topic of Discussion:	Conversation Record Attached?

Site Visitors

Name:	Organization:	Purpose of Visit:

Weather Conditions/Considerations

Demolition Operations:	Temperature (ºF) Low: High: Humidity: %	Weather Concerns: Wind Speed:

Verbal Communications / Direction From Customer

Explosive - Related Material Issues		
Task	**Date:**	**Comments**
Explosives Inventory:		
Demolitions Records:		
MEC / UXO Records:		

Area QC / QA Data							
Project QC				**Project QA**			
	Accepted	**Fail**	**Pass**		**Accepted**	**Fail**	**Pass**
Surface Area:				**Surface Area:**			
Subsurface Area:				**Subsurface Area:**			
Berms/Pits:				**Berms/Pits:**			
Demolitions Ranges:				**Demolitions Ranges:**			
Other:				**Other:**			
				Form 948 Issued:			

General Inspection Data			
Type of Inspection	**Pass**	**Fail**	**Comments:**
Number of General Safety Inspections			
Number of General QC Inspections			
Number of Preparatory Inspections			
Number of Instrument Inspections			

General Comments (Including any delays in work progress)
Areas of Concern/Comment:

Certification
On behalf of USA Environmental, Inc., I certify that this report is complete and accurate and to the best of my knowledge all information and work performed during this reporting period are in compliance with the contract plans and specifications excepted as noted above.
Signature and Title: **Date:**

USA Environmental, Inc.

SAFETY MEETING/TRAINING RECORD

DATE: _____ **TIME: _____** ☐ **AM** ☐ **PM**

LOCATION/SITE: _____

1. Reason for Meeting/Training: (Check all that apply)	
☐	**Daily Safety Meeting/Training**
☐	**Initial Site Safety Meeting/Training**
☐	**New Task Briefing**
☐	**Periodic Safety Meeting/Training**
☐	**New Site Procedures**
☐	**New Site Information**
☐	**Periodic Review of Site Information**
☐	**Other (Explain):**

2. Personnel Attending Meeting/Training:

Name	Signature	Company

3. Topics Covered (Check all that apply)			
	Site Safety Personnel		**Decontamination Procedures**
	Site/Work Area Description		**Emergency Response Plan**
	Site Characterization		**Hazard Communication**
	Biological Hazard(s)		**On-Site Emergency**
	Chemical Hazard(s)		**On-Site Injuries/Illnesses**
	Physical Hazard(s)		**Evacuation Procedures**
	Heat Stress		**Rally Point(s)**
	Cold Stress		**Emergency Communication**
	Site Control		**Directions to Medical Facility**
	Work and Support Zones		**Drug and Alcohol Policies**
	PPE		**Medical Monitoring Program**
	Air monitoring		**Specific Task Training**
	Safe Work Practices		**Confined Spaces**
	Engineering Controls and Equipment		**Heavy Equipment**
	Spill Containment Procedures		**Other: (Specify)**

4. Remarks:

5. Verification:

I certify that the personnel listed above on this record received the Information and/or Training described as indicated. Personnel not attending this meeting/training will receive said information/training prior to commencing their assigned duties.

_____

Site Safety Officer **Date: _____**

RECORD
OF
SAFETY VIOLATION OR NON-COMPLIANCE

Employee Name: _____ Position: _____

Site / Location: _____ Date: ____/____/____

Type of Violation: ____ PPE ____ Procedural ____ Explosive ____ Equipment ____ Other

Type of Non-Compliance: ____ Policy ____ Procedural ____ Directive ____ Contract
____ Other

Description of Violation or Non-Compliance:
_____
_____

Document Reference (Specify document, page, paragraph, etc. as applicable):
_____
_____
_____

Corrective Action(s) to be taken:
_____
_____
_____
_____

Employee or Company Response and Comments:
_____
_____
_____

Notification made to:

Manager: ____ Yes ____ No Date:

SUXOS: ____ Yes ____ No Date:

Supervisor: ____ Yes ____ No Date:

Corrective Actions Inspection Required: ____ Yes ____ No

If Yes, Date of Inspection: ____/____/___

Signature: _____ Signature: _____
Safety Officer Employee/Company Representative

USAE
Daily Safety Inspection Form

DATE:	**TIME:**	**INSPECTION #:**
CONTRACT NO.:	**TASK ORDER NO.:**	
SITE NAME AND LOCATION:		
TEAM OR NAME OF INSPECTED:		
INSPECTED ITEMS OR OPERATIONS: (List by task, item or other specific identifier)		

II. INSPECTION RESULTS

Item Description	Pass	Item Description	Pass
1. PPE (A, B,C,D)	Y / N	9. Motor Vehicles / MHE Inspections	Y / N
2. Compliance with Approved Work Plans / SOP's	Y / N	10. MEC / UXO Disposal Operations	Y / N
3. Compliance with Approved QC Plans	Y / N	11. MEC / UXO Precautions Observed	Y / N
4. Compliance with Approved Safety Plans	Y / N	12. Explosives / Ordnance Reference Material	Y / N
5. Safety / Support Equipment Checked	Y / N	13. Equipment Checks Performed	Y / N
6. On- and Off-Site Communications Available	Y / N	14. Other (list):	Y / N
7. MSDSs and Container Labeling per APP or SOP	Y / N	15. Other (list):	Y / N
8 First Aid / Trauma Kit Serviceable	Y / N	16. Other (list):	Y / N

SUMMARY OF DEFICIENCIES NOTED: (If Required)

CORRECTIVE ACTIONS RECOMMENDED: (If required)

REINSPECTION RESULTS: (If required)

VI. SIGNATURES:

I acknowledge that I have been briefed on the results of this inspection and will take corrective actions (if necessary)

_____ UXOSO / SSO

_____ Sr. UXO Supervisor / Project Manager

Note: QC / Safety Inspections are to be conducted each day and documented on this form. This form will also be used to document the present status of the site/site operations, and personnel. This form will also be used to note the current status of deficiencies noted during daily inspections. Any daily inspection forms where deficiencies have been noted will be forwarded to the Project Manager/SUXOS and a CC to the USAE QC or Safety Manager as appropriate.

USA Environmental, Inc.

Tailgate Safety Briefing

Date: _____ **Location:_____**

Time: _____ ☐ AM ☐ PM **Team #: _____**

1. Reason for Briefing:

☐	Daily Safety Briefing	☐	New Site Procedure
☐	Initial Safety Briefing	☐	New Site Information
☐	New Task Briefing	☐	Review of Site Information
☐	Periodic Safety Meeting	☐	Other: (Specify)

2. Personnel Attending:

Name	Signature	Position

Briefing Given By:

Name	Signature	Position

3. Topics: (Check All That Apply)

☐	Site Safety Personnel	☐	Decontamination Procedures
☐	Site/Work Area Description	☐	Emergency Response/Equipment
☐	Physical Hazards	☐	On-Site Injuries/Illnesses
☐	Chemical/Biological Hazards	☐	Reporting Procedures
☐	Heat/Cold Stress	☐	Directions to Medical Facility
☐	Work/Support Zones	☐	Drug and Alcohol Policies
☐	PPE	☐	Medical Monitoring
☐	Safe Work Practices	☐	Evacuation/Egress Procedures
☐	Air Monitoring	☐	Communications
☐	Task Training	☐	Confined Spaces
☐	OE Precautions	☐	Other: (Specify)

4. Remarks:

APPENDIX D

D.0 MSD SHEETS

This appendix contains DDESB Database MSD calculations for the following munitions:

- 40mm projectile
- 81mm mortar
- 60mm mortar

Fragmentation Data Review Form

Category:	HE Rounds	DODIC:	C225
Munition:	81 mm M43	Date Record Created:	7/30/2004
		Last Date Record Updated:	7/30/2004
Primary Database Category:	mortar	Individual Last Updated Record:	Crull
Secondary Database Category:	81 mm	Date Record Retired:	
Tertiary Database Category:	Comp B		

Munition Information and Fragmentation Characteristics

Explosive Type:	Comp B
Explosive Weight (lb):	1.29000
Diameter (in):	3.1890
Max Fragment Weight (lb):	0.057300
Critical Fragment Velocity (fps):	4933

Theoretical Calculated Fragment Range

Range to No More Than 1 Hazardous Fragment/600 Square FeetA (ft):	230
Vertical Range of Maximum Weight Fragment (ft):	1097
Horizontal Range of Maximum Weight Fragment (ft):	1395

Overpressure Distances

Inhabited Building Distance (12 psi), K40 Distance:	49
Inhabited Building Distance (09 psi), K50 Distance:	61
Intentional MSD (0065 psi), K328 Distance:	403

Minimum Thickness to Prevent Perforation

4000 psi Concrete (Prevent Spall):	3.62
Mild Steel:	0.68
Hard Steel:	0.56
Aluminum:	1.43
LEXAN:	4.51
Plexi-glass:	3.00
Bullet Resist Glass:	2.40

Required Sandbag Thickness

Max Fragment Weight (lb)SB:	0.057300
Critical Fragment Velocity (fps)SB:	4933
Kinetic Energy 106 (lb-ft2/s2)SB:	0.6972
Required Wall _Roof Sandbag Thickness (in)SB:	24
Expected Maximum Sandbag Throw Distance (ft)SB:	125
Minimum Separation Distance (ft)SB:	200

Water Containment System and Minimum Separation Distance:

Max Fragment Weight (lb)W:	0.057300
Critical Fragment Velocity (fps)W:	4933
Kinetic Energy 106 (lb-ft2/s2)W:	0.6972
Water Containment System:	1100 gal tank
Minimum Separation Distance (ft)W:	200

Print This Form

Close Form

Fragmentation Data Review Form

Category:	Grenades & Mines	DODIC:	B568
Munition:	40 mm M406 (grenade)	Date Record Created:	7/30/2004
		Last Date Record Updated:	7/30/2004
Primary Database Category:	projectile	Individual Last Updated Record:	Crull
Secondary Database Category:	40 mm	Date Record Retired:	
Tertiary Database Category:	Comp B		

Munition Information and Fragmentation Characteristics

Explosive Type:	Comp B
Explosive Weight (lb):	0.07050
Diameter (in):	1.5000
Max Fragment Weight (lb):	0.000364
Critical Fragment Velocity (fps):	4508

Theoretical Calculated Fragment Range

Range to No More Than 1 Hazardous Fragment/600 Square FeetA (ft):	NA
Vertical Range of Maximum Weight Fragment (ft):	242
Horizontal Range of Maximum Weight Fragment (ft):	345

Overpressure Distances

Inhabited Building Distance (12 psi), K40 Distance:	19
Inhabited Building Distance (09 psi), K50 Distance:	23
Intentional MSD (0065 psi), K328 Distance:	153

Minimum Thickness to Prevent Perforation

4000 psi Concrete (Prevent Spall):	0.79
Mild Steel:	0.15
Hard Steel:	0.12
Aluminum:	0.35
LEXAN:	1.80
Plexi-glass:	0.88
Bullet Resist Glass:	0.62

Required Sandbag Thickness

Max Fragment Weight (lb)SB:	0.000364
Critical Fragment Velocity (fps)SB:	4508
Kinetic Energy 106 (lb-ft2/s2)SB:	0.0037
Required Wall _Roof Sandbag Thickness (in)SB:	12
Expected Maximum Sandbag Throw Distance (ft)SB:	25
Minimum Separation Distance (ft)SB:	200

Water Containment System and Minimum Separation Distance:

Max Fragment Weight (lb)W:	0.000364
Critical Fragment Velocity (fps)W:	4508
Kinetic Energy 106 (lb-ft2/s2)W:	0.0037
Water Containment System:	5 gal carboys/ inflatable pool
Minimum Separation Distance (ft)W:	200/200

Print This Form

Close Form

Fragmentation Data Review Form

Category:	HE Rounds	DODIC:	B632
Munition:	60 mm M49A2	Date Record Created:	7/30/2004
		Last Date Record Updated:	7/30/2004
Primary Database Category:	mortar	Individual Last Updated Record:	Crull
Secondary Database Category:	60 mm	Date Record Retired:	
Tertiary Database Category:	TNT		

Munition Information and Fragmentation Characteristics

Explosive Type:	TNT
Explosive Weight (lb):	0.34000
Diameter (in):	2.3622
Max Fragment Weight (lb):	0.036402
Critical Fragment Velocity (fps):	4411

Theoretical Calculated Fragment Range

Range to No More Than 1 Hazardous Fragment/600 Square FeetA (ft):	200
Vertical Range of Maximum Weight Fragment (ft):	885
Horizontal Range of Maximum Weight Fragment (ft):	1127

Overpressure Distances

Inhabited Building Distance (12 psi), K40 Distance:	30
Inhabited Building Distance (09 psi), K50 Distance:	37
Intentional MSD (0065 psi), K328 Distance:	243

Minimum Thickness to Prevent Perforation

4000 psi Concrete (Prevent Spall):	3.12
Mild Steel:	0.59
Hard Steel:	0.48
Aluminum:	1.25
LEXAN:	4.19
Plexi-glass:	2.72
Bullet Resist Glass:	2.16

Required Sandbag Thickness

Max Fragment Weight (lb)SB:	0.036402
Critical Fragment Velocity (fps)SB:	4422
Kinetic Energy 106 (lb-ft2/s2)SB:	0.3559
Required Wall _Roof Sandbag Thickness (in)SB:	20
Expected Maximum Sandbag Throw Distance (ft)SB:	125
Minimum Separation Distance (ft)SB:	200

Water Containment System and Minimum Separation Distance:

Max Fragment Weight (lb)W:	0.036402
Critical Fragment Velocity (fps)W:	4422
Kinetic Energy 106 (lb-ft2/s2)W:	0.3559
Water Containment System:	5 gal carboys/ inflatable pool
Minimum Separation Distance (ft)W:	264/200

Print This Form

Close Form

APPENDIX E

E.0 STANDARD OPERATING PROCEDURES

In conflicts between these SOPs and a Site-Specific Work Plan the Work Plan procedures will apply. Modifications that impact safety must be coordinated with the on site safety officer (UXOSO) and the Health and the Program Occupational Safety Manager (POSM). Modifications or changes that impact contract requirements will be staffed through the NAVFAC NW Contracting Officer for approval prior to implementation.

This appendix contains the following USA Standard Operating Procedures (SOP):

- Accident Reporting
- Demolition Operations
- Explosive Storage
- Explosive Transportation
- Vehicle SOP
- Field Change Request Protocol
- Fire Prevention and Protection
- Hazard Communication
- Site Rules & Prohibited Practices
- SSHO Program

ACCIDENT REPORTING
PROCESSING ACCIDENT FORMS

1.0 BACKGROUND

Accident forms are used to document and record injuries, illnesses, and damage to equipment that occur on USA Environmental, Inc. (USAE) project sites. Injuries, illnesses, and damaged equipment meeting the reporting requirements of Federal, State, and contractual directives will be submitted in a complete and timely manner per the reporting instructions, directives, and policies.

1.1 SCOPE

This Standard Operating Procedure (SOP) contains information specific to completing, submitting, and tracking Accident Reporting Forms. It may also require the addition of policies and publications relevant to updating, correcting, or changing information pertaining to accidents and investigations. It is incumbent upon all designated personnel who are responsible for completing, signing, submitting, or tracking Accident Reporting Forms and to familiarize themselves with this SOP and its accompanying documents, and to periodically review the material in an effort to remain current with procedures.

2.0 OPERATIONS

USAE employees who work on project sites are required to report all accidents, injuries, illnesses, and damaged equipment to their Supervisor and/or Safety personnel immediately. Corrective action is to be taken to eliminate or mitigate the potential for hazardous or dangerous conditions on the project site, which may result in accidents, injuries, illnesses, or damaged equipment. Documentation is a key element in operations.

3.0 RESPONSIBILITIES

The following personnel, by position, are responsible for the completion, review, signing, and submitting of Accident Reporting Forms:

- USAE Unexploded Ordnance Safety Officer (UXOSO)/Site Safety and Health Officer (SSHO): responsible for compiling and submitting the initial form(s) in accordance with form instructions and guidance. Making the initial notification of reportable accidents to the USAE Corporate Office and performing an investigation into the accident.

- USAE Program Occupational Safety Manager (POSM): responsible for reviewing, completing, signing, and sending the accident form(s) with attachments to the USAE Corporate Office in Tampa, FL. Following up on the notification made from the project site and ensuring updated information is received and personnel are medically tracked to completion.

- USAE Health and Safety Manager: responsible for reviewing and signing the accident from(s) for submittal. Follows up notification from the project site and tracks personnel medically when the USAE Program Occupational Safety Manager is not available.

- USAE Munitions Response Contract Project Manager: responsible for implementation of policies and procedures. May be required to perform in the capacity of either the Site Manager or Project Manager in their absence for reviewing, completing, signing, and submitting accident form(s).

- Human Resources Administrator: responsible for the mailing (FedEx) and tracking of the form(s) to the appropriate agencies or personnel. Generating copies of required documents. Other duties as assigned by the USAE Human Resources Director.

- USAE Corporate Office: responsible for reviewing and physically submitting the form(s) and attachments to the Workers Compensation Insurance Carrier. Confirming to program and project personnel that receipt and submission has been completed.

- USAE Corporate Safety and Health Manager: responsible for the corporate implementation and enforcement of the USAE Safety Program.

4.0 REPORTING REQUIREMENTS AND PROCESS

The following reporting requirements will be observed when preparing, signing, and submitting Accident Reporting Form(s):

- Only the authorized USAE forms will be submitted. See the attached blank copy located in the Accident Prevention Plan/Site Safety and Health Plan for an example.

- Signature blocks will be signed by safety personnel or designated representative.

- Activity Hazards Analysis (AHA) Sheet(s) will be submitted with the Accident Reporting Form. Tasks that do not have an AHA at the time of the accident will have them generated for approval.

Upon completion of the Accident Reporting Form, attachment of the AHA, as applicable, and any other supporting documents (statements, photographs, drawings) the packet will be sent by FedEx to the USAE Corporate Office in Tampa, FL, addressed to the Program Health and Safety Manager. There, it will be placed into the appropriate reporting system.

Projects requiring Accident Reporting Forms from sources other than USAE will follow those specific requirements as directed. Forms, instructions, and reporting requirements will be supplied on a project by project basis.

4.1 REFERENCES

- USAE Safety Program;

- Engineer Manual 385-1-1; and

- Occupational Safety and Health Administration.

5.0 SUMMARY

This SOP is designed for USAE personnel who have the responsibility of preparing, signing, and submitting Accident Reporting Forms for work related injuries, illnesses, damaged equipment, and accidents meeting the reporting requirements and guidance provided by Federal, State, and company directives and policies. The information contained within this SOP is not all inclusive, it requires the responsible personnel to follow the referenced material and submit the Accident Reporting Forms in a timely manner.

STANDARD OPERATING PROCEDURES
DISPOSAL/DEMOLITION OPERATIONS

TABLE OF CONTENTS

1.0 GENERAL

The following USA policies are not all inclusive nor are they applicable in all situations. This Standard Operating Procedure (SOP) is not a stand-alone document and is to be used together with the Work Plan (WP), Site Specific Safety and Health Plan (SSHP), applicable Federal, State, local regulations and, contract restrictions and guidance.

1.1 REFERENCES

- USA Safety and Health Program (SHP);
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- OSHA, 29 CFR 1926, Construction Standards;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- DoD 6055.9-STD, DoD Ammunition and Explosives Safety Standards;
- DoD 4160.21-M, Defense Reutilization and Marketing Manual;
- DA PAM 385-64, Ammunition and Explosives Safety Standards;
- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications.

1.2 DISPOSAL/DEMOLITION OPERATIONS

The following demolition procedures are not all inclusive. Additional safety and procedures information are found in the references cited in paragraph 1.1.

1.3 GENERAL DISPOSAL OPERATIONS

The following is a general guide for disposal operations:

- Analyze explosive operations with a view towards reducing the number of personnel and quantity of explosive material subject to an accident. However, never allow one person to work alone;
- Prohibit tasks not necessary to the explosive operation in the fragmentation zone of such operations;
- Use sufficient warning signals and maintain a restricted/exclusion area when explosive operations are conducted. Cease operations when non-UXO personnel are present;
- Comply with the authorized explosive limits and safe separation distances;
- Discontinue explosive operations when unforeseen hazard conditions develop and do not resume until the condition is corrected;
- Smoke only in designated areas;
- Plan for, provide for, and know the emergency procedures in the event of an accident;
- Use special care in handling and disposal of damaged or deteriorated explosives, munitions items, and other hazardous materials;
- Disperse explosives awaiting destruction, in small quantities at safe distances, and protect them from unintentional initiation;
- Protect explosives and munitions items from the elements and static electricity;
- Provide an emergency vehicle outside the fragmentation zone for response in the event of an accident;
- Perform disposal operations during daylight hours;
- Carry blasting caps in an approved container and handle them carefully;
- Do not use UXOs for donor charges in demolition operations. They may be in an extremely sensitive and hazardous condition;
- Use caution when investigating post demolition shots. Search the area after each shot for any remaining explosives or explosive components.

1.4 DEMOLITION PROCEDURES

USA personnel will perform demolition operations in a manner consistent with industry standards and safety practices. The following procedures and safety precautions will be adhered to at all times.

1.5 MEC/UXO BASIC AND GENERAL SAFETY PRECAUTIONS

These basic safety precautions are the minimum MEC safety requirements required of all personnel on site. Other precautions and requirements are in other applicable MEC manuals.

1.5.1 BASIC CONSIDERATIONS

The following should be taken into consideration when planning or conducting UXO operations:

- SAFETY IS PARAMOUNT;
- The preferred method of disposal is Blow (detonate) in Place (BIP), however, items that are safe to move may be consolidated to reduce the number of shots;
- Do not move or disturb unidentified items;
- All UXOs will be identified, independently, by two (2) UXO technicians;
- Do not collect souvenirs;
- Do not smoke except in designated areas;
- Do not carry fire or spark producing devices into the site;
- All UXO operations will use the "Buddy" system;
- Prohibit unnecessary personnel from visiting the site;
- Demolition operations will be IAW EODB 60A-1-1-31.

1.5.2 BASIC SAFETY PRECAUTIONS

The following safety precautions are applicable to all UXOs:

- Suspend all operations immediately upon approach of an electrical storm;
- Observe the hazards of electromagnetic radiation (EMR) precautions and grounding procedures when working with, or on, electrically initiated or susceptible MEC;
- Do not dismantle, strip, or handle any UXO unnecessarily;
- Avoid inhalation and skin contact with smoke, fumes, dust, and vapors of detonations and MEC residue;
- Do not attempt to extinguish burning explosives or any fire which might involve explosive materials;
- Do not manipulate external features of ordnance items;
- Incorporate appropriate property and personnel protective measures for shock and fragmentation when conducting MEC operations;
- Do not subject MEC to rough handling or transportation. Sand bag, chock, and block appropriately;
- Carry explosives in an appropriate container;
- Hand carry no more than two items (one in each hand) at a time and then only as required by the operation being performed;
- Destroy shaped charge munitions by counter charging the cone to prevent formation of the explosive jet;
- The preferred method for disposing of white phosphorous (WP) is to blow the munition in a manner that disperses the WP into the air versus down into the ground;
- Do not transport damaged WP munitions unless fully submerged in water;
- Avoid unnecessary movement of armed or damaged UXOs;
- Avoid the forward portions of munitions employing proximity fuzing;
- Assume unknown fuzes contain cocked strikers or anti-disturbance features.

1.5.3 GENERAL SAFETY PRECAUTIONS

The following sub-paragraphs describe safety precautions for various types of munitions/disposal operations:

1.5.3.1 Bombs

- Ensure fuze wells do not contain fuze components;
- Exercise caution when packing fuze wells of bombs or projectiles with explosives as there may be components of the fuze remaining.

1.5.3.2 Clusters, Dispensers, Launchers

- Approach and work from the sides of a dispenser;
- Consider an intact dispenser as fully or partially loaded;
- Consider any payloads outside the container or dislodged inside as armed;
- Take precautions for the most hazardous payloads until positively identified.

1.5.3.3 Projectiles

- Determine if the projectile has been fired and if so consider it armed;
- Check for the presence of unburned tracers;
- Avoid the rear and front of rocket assisted projectiles;
- Handle projectile components such as powder increments, cartridges, and primers with caution;
- Seal the open ends of projectiles or sheared projectile components with tape or other suitable material before transporting.

1.5.3.4 Grenades

- Do not attempt to re-install safety pins on a dud fired grenade;
- Do not attempt to withdraw impinged firing pins from the fuze of a dud fired grenade;
- Do not dispose of grenades by functioning them as designed.

1.5.3.5 Rockets

- Approach and work on rockets from the side;
- Do not dismantle or strip dud fired rockets or rocket motors;
- Do not expose electrically fired munitions to radio transmissions within 25 feet;
- Do not transport an unfired rocket motor until having shielded the motor igniter from EMR;
- Dispose of unfired rocket motors, with or without warheads, in such a manner as to prevent them becoming propulsive.

1.5.3.6 Guided missiles

- When found, restrict vehicular movement in the area of a guided missile;
- Avoid entanglement with guidance wires of wire guided missiles;
- Restrict radio communications in the vicinity of a dud fired missile;
- Approach and work on missiles from the side and rear quarter;
- Do not dismantle or strip dud fired missiles or missile motors;
- Do not transport an unfired missile motor until having shielded the motor igniter from EMR;
- Dispose of unfired missile motors, with or without warheads, in such a manner as to prevent them becoming propulsive.

1.6 DEMOLITION PROCEDURES

The following sub-paragraphs outline the procedures USA personnel will use to perform both electric and non-electric demolition operations.

1.6.1 BASIC PROCEDURES:

- The method that provides the most positive control over the specific time of detonation is electric. However, situations may occur, such as an area with a high EMR hazard, when non-electric firing may be the only option;
- Cut fuse long enough when initiating a non-electric charge to reach a safe distance by walking at a normal pace. Use a minimum of six (6) feet of fuse under normal conditions for safe separation time on all shots;
- A minimum of 30 seconds separation time will be observed between multiple non-electric shots initiated simultaneously;
- A mandatory 60 minute, plus the burn time of the fuse, wait will be observed on non-electric mis-fires;
- For all buried charges use a dual priming system and Detonating Cord, **DO NOT BURY CAPS ;**
- The demolition UXO Technician III will investigate mis-fires;
- A “fire in the hole” warning will be sounded three times, verbally and on the radio prior to firing a shot.

1.6.2 NON-ELECTRIC DEMOLITION PROCEDURES

The following safety and operating procedures will be used to assemble and detonate explosive charges using non-electric firing trains.

1.6.2.1 Safety Considerations

- Do all demolition cap preparation procedures a safe distance (minimum 50 feet downwind) from the item(s) to be destroyed and demolition charges. Observe the following safety considerations:
- Do not strike, roughly handle, tamper with or attempt to remove or investigate the contents of a blasting cap;
- Handle caps only by their open end except during attachment to time fuse or detonating cord;
- Maintain positive control of caps;
- Do not force time fuse or detonating cord into caps;
- Always point explosive end of caps away from body and other personnel during handling and crimping;
- Handle primed safety fuse and sensitized detonating cord with care. Avoid contact between caps and/or between caps and other hard objects;
- Do not allow time fuse to coil up and contact itself, other time fuse, or explosives.

1.6.2.2 Procedures

Assemble all equipment and explosives. Keep blasting caps away from explosives until priming the shot.

- Test burn time fuse;
- Cut, and dispose of on the shot, the first 6 inches of fuse. This will preclude an inaccurate burn rate or misfire due to moisture;
- Cut and test burn an appropriate length of fuse(no less than 3 feet) to determine burn rate;
- These procedures will be accomplished at least 50 feet downwind from explosives;
- Compute and cut time fuse to length (minimum 5 minutes) required for safe separation time;
- Inspect cap for foreign matter. Do not blow into cap to clear. Holding cap by the open end, lightly tap wrists together. If the foreign matter remains dispose of the cap on the shot and use a new cap;
- Crimp cap on time fuse, 1/8 to 1/4 inch from the base of the cap and attach fuse lighter;
- Lay out and weight down time fuse;
- Prime explosive charge, sound the warning, initiate the fuse, and return to the safe area.

1.6.2.3 Non-Electric Misfire Procedures:

Note: Wait a minimum of 60-minutes plus burning time of fuse after maximum delay calculated for any part of the disposal shot before proceeding down-range.

- Up range, prepare a new non-electric firing system to include a new donor charge;
- After the required wait time has elapsed proceed down range. Place a new charge close enough to the original charge to ensure detonation of both charges. When employing a detonating cord firing system: after the wait time, proceed down range, cut the detonating cord between the cap and the charge, and attach a new firing system to the end of the detonating cord going to the original charge. Destroy the cut detonating cord and cap with the newly primed shot;
- Sound the warning, initiate the new firing system and return to the safe area.

1.6.3 ELECTRIC DEMOLITION PROCEDURES

The following procedures apply to the use of firing devices both manual and wire controlled devices. Personnel performing electrically initiated demolition operations will strictly adhere to the following safety and operating procedures.

1.6.3.1 Safety Considerations

- Do all demolition preparation procedures a safe distance (minimum 50 feet downwind) from the item(s) to be destroyed. Observe the following safety considerations:
- Never hook up caps to un-shunted wire;
- Never leave caps un-shunted unless actually testing or hooking to firing wire;
- Observe explosive safety (i.e., do not strike, handle roughly, tamper with or attempt to investigate the contents of the blasting cap.

1.6.3.2 Procedures

The following procedures will be used to assemble, test, and function electric firing trains:

- Prior to going down range, gather all equipment and explosives;
- Lay out (from the site to the safe area) and test firing wire;
- Ground yourself prior to breaking out caps. Keep explosive end of cap pointed away from the body and other personnel;
- Grip the cap lead wires 3" to 6" behind the base of the cap, pull an initial arm's length of wire off the wire coil;
- Barricade the cap, at least 50 feet downwind from other explosives;
- Un-shunt and test blasting cap(s);
- Splice the cap leads to the firing wire in a parallel circuit and insulate connections;
- Prime the shot;
- Return to the safe area and test the circuit for continuity;
- Hook up the firing machine, sound the warning, and fire the shot.

1.6.3.3 Electric Misfires:

In order to prevent misfires, insure that:

- All blasting caps are included in firing circuit;
- All connections between blasting cap wires, connecting wires, and firing wires are properly made.
- Short circuits are avoided;
- Grounds are avoided;
- Number of blasting caps in any circuit does not exceed rated capacity of power source on hand.

1.6.3.4 Causes of Electric Misfires

Common specific causes of electric misfires include:

Note: Wait a minimum of 30 minutes after the last attempt to fire before proceeding down range.

- Inoperative or weak blasting machine or power source;
- Improperly operated blasting machine or power source;
- Defective and damaged connections, causing either a short circuit, a break in the circuit, or high resistance with resulting low current;
- Faulty blasting caps;
- The use in the same circuit of blasting caps made by different manufacturers or of different design;
- The use of more blasting caps than power source rating permits.

1.6.3.5 2.4.3.5 Clearing Electric Misfires

If charge is primed electrically, proceed as follows:

- Make several successive attempts to fire;
- Check firing wire connections to blasting machine terminals to be sure that contacts are good;
- Make two or three more attempts to fire charge;
- Disconnect blasting machine and short firing wire;
- A mandatory 30-minute wait will be observed on mis-fires.
- Test firing circuit with circuit tester for breaks and short circuits, and correct any defects discovered;
- Remove and disconnect old blasting cap(s) and short wires;
- Connect wires of new blasting caps(s) to firing circuit and re-prime charge;
- Reconnect firing wire ends to blasting machine, sound the warning, and fire charge(s).

1.6.3.6 Multiple Sensitive UXOs Destruction Trunk and Branch Line Procedure

Personnel will use the following procedures to explosively link multiple shots, using detonating cord:

- Lay out detonation (Det) cord trunk line from the initiation point to the farthest UXO, being careful not to contact the UXOs with the Det cord, and weighing down (securing) the Det cord as you go;
- Working from the farthest UXO to the initiation point, cut Det cord branch lines of sufficient length, to include additional length for knots and overlap, to reach from the trunk line to the UXO;
- Prepare one end of the branch line, (i.e., sensitize with a knot);
- Attach the bare end of the branch line to the trunk line;
- Utilizing the sensitized end of the branch line, prime a charge and place it as close as possible to, but not touching, the UXO;
- Inspect the trunk and branch lines to make sure none of the primed charges have moved and that no branch line is less than a 90 angle with the trunk line from the direction of initiation;
- Proceed to the initiation point, prepare a firing system, either electric or non-electric, sound the warning, and initiate the shot.

1.7 SUMMARY

USA uses proven procedures and methods to assemble and function both electric and non-electric explosive demolition shots. Only UXO Trained personnel will perform tasks associated with the assembly and functioning of demolition charges. The procedures outlined in this SOP are based on industry standards and ensure that operations are safely and efficiently performed.

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

TABLE OF CONTENTS

1 GENERAL

The following USA policies are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with the Work Plan (WP), Site Safety and Health Plan (SSHP), applicable Federal, State, local regulations and, contract restrictions and guidance.

1.1 REFERENCES

Procedures and information contained in this document were obtained from the below listed references:

- USA Safety and Health Program (SHP);
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- OSHA, 29 CFR 1926, Construction Standards;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- ATF P 5400.7, ATF-Explosives Law and Regulations;
- DoD 4145.26-M, Contractors' Safety Manual for Ammunition and Explosives;
- DoD 6055.9-STD, DoD Ammunition and Explosives Safety Standards;
- DoD 4160.21-M, Defense Reutilization and Marketing Manual;
- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

- TM 60 Series Publications.

1.2 STORAGE AND ACCOUNTABILITY

Demolition operations require the availability and storage of explosive materials. To the maximum extent possible, local government facilities will be used.

1.2.1 STORAGE

USA will comply with local storage criteria and procedures when using Government facilities. When required to provide explosive storage USA will:

- Use portable approved Bureau of Alcohol, Tobacco, and Firearms (ATF) Type 2 structures or existing government furnished magazines;
- Locate, install, and maintain the magazines to comply with the magazine criteria and quantity distance requirements established in DoD 6055.9-STD, DoD Ammunition and Explosives Safety Standards;
- Install sufficient magazines to comply with explosive compatibility requirements, (i.e., bulk explosives, initiating explosives, and OE;
- Establish security, such as fencing and/or guards, to prevent unauthorized access and/or theft.

1.2.2 TYPE 2 OUTDOOR MAGAZINES

A type 2 magazine is a box, trailer, semi-trailer, or other mobile facility.

1.2.2.1 General

Outdoor magazines will be bullet-resistant, fire-resistant, weather-resistant, theft-resistant, and ventilated. They will be supported to prevent direct contact with the ground and, if less than one cubic yard in size, will be securely fastened to a fixed object. The ground around outdoor magazines must slope away for drainage or other adequate drainage provided. When unattended, vehicular magazines must have wheels removed or otherwise effectively immobilized by kingpin locking devices or other methods.

1.2.2.2 Exterior Construction

The exterior and doors are to be of not less than 1/4 inch steel and lined with at least two inches of hardwood. Magazines with top openings will have lids with water-resistant seals or which overlap the sides by at least one inch when in a closed position.

1.2.2.3 Hinges and Hasps

Hinges and hasps will be attached to doors by welding, riveting, or bolting (nuts on inside of door). Hinges and hasps will be installed so they cannot be removed when the doors are closed and locked.

1.2.2.4 Locks

Each door will be equipped with two padlocks fastened in separate hasps and staples. Padlocks must have at least five tumblers and a case-hardened shackle of at least 3/8 inch diameter. Padlocks will be protected with

not less than 1/4 inch steel hoods constructed so as to prevent sawing or lever action on the locks, hasps, and staples.

1.2.3 ACCOUNTABILITY

USA will employ the following procedures to account for explosive materials:

- Control of and access to explosive magazines will be strictly controlled by the project manager. All issues and turn-ins of explosives will be properly documented and verified, though physical count, by a UXO Quality Control Specialist (UXOQCS);
- On receipt, the type, quantity, and lot number of each explosive item is recorded in the magazine data card and the original receipt documents will be maintained on file by the Site Manager;
- All requests for explosives, from the individual operating sites, will be reviewed by the Senior UXO Supervisor. Only sufficient explosives for the day's operations are issued;
- Issues of explosives are recorded on explosive usage records (Figure 2) and deducted from the magazine data card(s) (Figure 1). This procedure will ensure that the quantities of explosives on-the-floor in the magazine reflect the quantities listed on the magazine data card, and that issued explosives are accounted for while they are in the possession of individual users;
- Entries made on the explosive usage records and magazine data cards will be verified through physical count by the UXO Team Leader drawing or turning-in the explosives and the UXOQCS.
- All unused explosives are turned-in at the end of each day, re-entered on the magazine data card and recorded on the explosive usage record;
- At the end of each day the SUXOS and the UXO Team Leader reconcile the entries on each explosive usage record, and will turn these records over to the project manager;
- Weekly, the Site Manager will direct that the UXOQCS perform a 100% inventory of all explosives on hand. These inspections will include a physical count of the explosives and a comparison of this amount with the amount listed on the individual magazine data cards. Discrepancies and the results of these inventories will be recorded and reported to the Site Manager.

1.3 SUMMARY

The procedures contained in this SOP ensure that explosive materials are properly stored, accounted for, and issued. These procedures will be strictly followed and violations of these policies may result in an employee's immediate dismissal.

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

Magazine Data Card

Nomenclature:

Lot Number: Unit Of Issue:

Date	Name	Received	Issued	Balance	Checkers Initials

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

Figure 1: Magazine Data Card

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

Explosives Usage Record

Contract Number:

Team Number: Date: Project Name:

Team Leader: Work Areas & Grid Numbers:

Explosives Issued — Signature Of Team Leader:

Item	Quantity	Lot Number	Checkers Initials

Explosives Expended — Signature Of Team Leader

Item	Quantity	Lot Number	Checkers Initials

Explosives Returned — Signature Of QC Officer:

Item	Quantity	Lot Number	Checkers Initials

The signatures in each section of this document indicate that the items listed in that section were in fact issued, expended, or returned to storage and that the quantities listed were verified through a physical count.

STANDARD OPERATING PROCEDURES
EXPLOSIVES STORAGE & ACCOUNTABILITY

Figure 2: Explosive Usage

STANDARD OPERATING PROCEDURES
EXPLOSIVES TRANSPORTATION

TABLE OF CONTENTS

1 GENERAL

The following USA policies are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with the Work Plan (WP), Site Safety and Health Plan (SSHP), applicable Federal, State, local regulations and, contract restrictions and guidance.

1.1 REFERENCES

Procedures and information contained in this document were obtained from the below listed references:

- USA Safety and Health Program (SHP);
- 27 CFR Part 55, Commerce in Explosives;
- 29 CFR 1910, Occupational Safety and Health Standards;
- 29 CFR 1926, Construction Standards;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- ATFP 5400.7, Alcohol Tobacco and Firearms Explosives Laws and Regulations;
- DoD 4145.26-M, Contractors' Safety Manual for Ammunition and Explosives;
- DoD 6055.9-STD, DoD Ammunition and Explosives Safety Standards;
- DoD 4160.21-M, Defense Reutilization and Marketing Manual;
- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications.

STANDARD OPERATING PROCEDURES
EXPLOSIVES TRANSPORTATION

1.2 TRANSPORTATION REQUIREMENTS FOR EXPLOSIVES AND MEC

Transportation of MEC and explosives will comply with all Federal, State, and local regulations. Permits are not required under CERCLA for on-site or on Federal Installation transportation of explosives or MEC. Off-site shipment of MEC will be made using commercial carriers approved to transport ammunition and explosives, Class A and B, for the Department of Defense. For off-site shipment:

- MEC will be packaged IAW 49 CFR part 173;
- Drivers will be provided DD Form 836 (Special Instructions for Motor Vehicle Drivers);
- Vehicles will be inspected using DD form 626, Motor Vehicle Inspection, and be properly placarded;
- Compatibility requirements will be observed;
- The load shall be well braced and, except when in closed vans, covered with a fire-resistant tarpaulin.

1.3 FEDERAL INSTALLATIONS/ON-SITE

Transportation of explosives and MEC on site and on Federal Installations will comply with the following:

- Vehicles will be inspected daily using the USAE Vehicle Inspection form or DD form 626, Motor Vehicle Inspection, and will be properly placarded;
- Explosives will be transported in closed vehicles whenever possible. When using an open vehicle explosives will be covered with a flame resistant tarpaulin (except when loading/unloading);
- Vehicle engine will not be running when loading/unloading explosives;
- Beds of vehicles will have either a plastic bed liner, dunnage, or sand bags to protect the explosives from contact with the metal bed and fittings;
- Vehicles transporting explosives will have a first aid kit, two 10 BC rated fire extinguisher, and communications capability;
- Initiating explosives, such as blasting caps, will remain separated at all times;
- Compatibility requirements will be observed;
- Operators transporting explosives will have a valid drivers license;
- Drivers will comply with posted speed limits but will not exceed a safe and reasonable for conditions. Vehicles transporting explosives off-road will not exceed 25 MPH;

1.4 SUMMARY

Transportation of explosives presents risks to both the vehicle operator and the surrounding populace. The procedures contained in this SOP are designed to eliminate and/or mitigate these risks. Personnel engaged in these activities will strictly comply with these procedures and those contained in the referenced documents.

STANDARD OPERATING PROCEDURE
LEASED AND RENTAL VEHICLES

TABLE OF CONTENTS

1 GENERAL

The following USA policies and/or procedures are to be used by personnel utilizing leased or rental vehicles for project purposes. Personnel are reminded to obey and observe all applicable Federal, State, and Local traffic laws, regulations or guidance, as well as contractual restrictions and requirements posed by the leasing or rental company.

1.1 REFERENCES

Information contained in this document was obtained from the below listed references:

- USA Safety and Health Program (SHP);
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- Vehicle owners manual;
- Leasing/Rental agreement;
- Administrative SOP.

1.2 REQUIREMENTS

Personnel utilizing leased or rental vehicles will comply with the following:

- Only properly licensed personnel will operate vehicles;
- Operators will obey and observe all applicable traffic laws;
- Operators will be familiar with the vehicle in use;
- Operators will observe the cautions and warnings located in the owners manual;
- Operators will be familiar with accident reporting procedures;
- Operators will perform daily inspections of vehicles;

- Operators will report all unsafe or defective conditions found;
- Unsafe conditions will be corrected prior to vehicle use;
- Vehicles are to maintained in a clean and serviceable condition;
- Contractual requirements will be followed.

1.3 PROCEDURES

The following procedures are to be followed by personnel receiving, using and returning leased or rental vehicles.

- Receiving: Personnel responsible for receiving leased or rental vehicles are to ensure that:
  - Vehicle documentation is accurate and complete, with proper signatures;
  - Operators are properly licensed;
  - Vehicle is clean and in a serviceable condition;
  - Vehicle has all required safety/spare equipment;
  - Owners/operators manual on hand;
  - Copy of lease or rental contract is in vehicle;
  - Perform an inspection of the vehicle prior to acceptance;
  - Use "Lower Option" vehicle if available (ie; vinyl instead of cloth or leather interior);
- Use: Personnel responsible for the use of leased or rental vehicles are to ensure that:
  - They are properly licensed;
  - They obey and observe all applicable traffic laws;
  - They observe safe operating procedures;
  - They do not allow unauthorized use of the vehicle;
  - They maintain the vehicle in a clean and serviceable condition;
  - They report all unsafe or defective conditions;
  - They do not operate an unsafe vehicle;
  - They report all accidents immediately;
  - They follow all contractual requirements;
  - They perform daily/weekly inspections and document these inspections on the Weekly Vehicle Inspection Sheet;
  - They maintain added safety equipment (ie; fire extinguishers and 1st aid kits);
  - Purchase (at company expense) materials to assist in keeping the vehicle clean;
  - Purchase (at company expense) inexpensive floor mats and/or seat covers if necessary;
  - Utilize "Wash Racks" (at company expense) if high pressure washing is necessary;
  - Wipe down and sweep out the vehicle interior as needed;
  - Do not use vehicle off road unless necessary;
  - Do not overload the vehicle;

- Utilize/maintain the vehicle in a manner that reflects favorably upon the personnel and the project.

- Turn-In: Personnel responsible for the turn-in of leased or rental vehicles are to ensure that:
  - The vehicle is **cleaned**, inside and out, prior to turn-in (should be in "as good or better" than when received condition;
  - The vehicle is inspected and results are recorded;
  - All documentation is accurate and complete, with proper signatures;
  - Any discrepancies are corrected or reported prior to departure;
  - All contractual requirements have been met;
  - Copies of all documentation are received;
  - Copies of all documentation are forwarded to Tampa;
  - Damage requiring claims forms have been initiated and Tampa notified;
  - Points of Contact for all parties involved in a claim are listed.

1.4 SUMMARY

The procedures contained within this SOP are not all inclusive. Personnel are reminded to comply with referenced material. To eliminate, reduce and/or mitigate the risks to the vehicle operator, vehicle passengers and the surrounding populace, good, safe driving skills and habits are essential to an accident free project.

STANDARD OPERATING PROCEDURE
FIELD PROCEDURE DOCUMENT CHANGE PROTOCOL

1.0 PURPOSE

The purpose of this SOP is to ensure that all changes to field procedures are properly vetted by the proper personnel at USA Environmental, Inc. (USAE) and approved by the Contracting Officer prior to implementation. These procedures will ensure proper scoping, safety, and procedural integrity in the field environment. Changes to regulations, references, directives, policies, or contracts may require a change to or revision of the previously issued document. All documents will be reviewed by authorized appropriate personnel for review and approval prior to change and implementation.

2.0 SCOPE

This Field Procedure Document Change Protocol Standard Operating Procedure (SOP) applies to all site personnel, to include contractor and subcontractor personnel, and all operations involved on each individual project site.

3.0 RESPONSIBILITIES

3.1 FIELD PERSONNEL

Field personnel (to include site supervisors) are responsible for forwarding any request for change/revision to an existing document using the procedures outlined within this SOP. Under no circumstance (with the sole exception of immediate safety concerns) should a change/revision be incorporated until it has been reviewed and approved by authorized USAE personnel and the appropriate Contracting Officer or his/her representative as needed.

3.2 PROJECT QUALITY MANAGER

The Project Quality Manager (PQCM) is responsible for determining the validity of the change/revision recommendation and, if deemed valid, forwarding the recommendation expeditiously within the USAE organizational chain to those personnel responsible for review and approvals.

3.3 PROJECT MANAGER

The Project Manager (PM) is responsible for the overall project management of all operations at USAE project sites that the PM manages. The PM sets the tone for procedural integrity at each site. As such, the PM is responsible for ensuring that procedures specified by the Statement of Work (SOW), Work Plan (WP), and accepted SOPs and supporting documents are strictly adhered to throughout the project. However, projects are always dynamic processes and thus changes and/or revisions can and will be identified throughout its duration. It is the responsibility of the PM to ensure that any change/revision to an already agreed upon procedure is processed and authorized prior to implementation.

3.4 PROGRAM QUALITY MANAGER

The Program Quality Control Manager (PQM) is responsible for the continuous improvement of all processes within his/her program to include the management of specific projects. To accomplish this, the PQCM will be responsible for the following:

- Becoming thoroughly familiar with the procedures of all projects under his/her cognizance.
- Observing periodically project management on-site.

- Reviewing procedural change recommendations from field crews and/or project managers.
- Recommending authorization for specific changes/improvements to field operations to the Program Manager.

3.5 PROGRAM MANAGER

The Program Manager will be the final arbiter of the validity for the recommendation within the USAE organizational chain. If deemed valid, the PM will contact the Contracting Officer or his/her representative and request that the change be incorporated into field procedures. Documents generated by USAE will be drafted, reviewed, finalized, and approved for use by the appropriate sections to include Safety, QC, and Operations.

4.0 SUBMITTAL OF CHANGES OR REVISIONS

Personnel identifying a need for change or revision to an existing document will complete a Change/Revision Request Form and submit it to the management chain for processing. The following guidance is designed to assist in properly addressing the change/revision being sought.

Objective of the Change/Revision	What is the procedural change or document revision trying to do?
Scope	What areas of work or operations are to be covered by the change or revision?
Stages of the Change/Revision	Describe how the task is to be carried out using the change or revision.
Other Useful Information	Is there any other information that may be useful and could be included in the Document?

Request for a change or revision to an existing document must be accompanied by a draft of the change or revision being sought. This draft must include the original text, the proposed text, references for the proposed change or revision (i.e., regulatory update, contract change, variation of equipment) to include page, paragraph, bullet, drawing, figure, section, or subsection of the reference material.

5.0 REVIEW AND APPROVAL PROCESS

Request for changes or revisions to an existing document will follow a review and approval process that incorporates the various sections or departments as needed to determine the validity of the request and

ensure that authorized, appropriate personnel have agreed to and signed the approval form for a change or revision to be completed. Personnel assigned to review the request will determine the following:

- Has the request been submitted for an existing document;
- Does the request document the change or revision needed;
- Has a draft, with reference material, been submitted;
- Have the various sections or departments affected by the request been notified.

Once the request has been entered into the review and approval process personnel assigned to the request will determine the following:

- Is the change or revision required by a regulatory or contractual document;
- Is the change or revision necessary due to variations in equipment, training, or personnel;
- Will the change or revision affect other document(s) and have they been identified;
- Will the change or revision impact safety, quality, or production in a positive or negative manner; and
- Does the proposed change or revision meet the needs of the requirement?

Once a change or revision has been accepted and implemented, outdated or obsolete documents will be removed from use and the change or revision disseminated and briefed to affected personnel, sections or departments. Those changes or revisions that affect other documents will be briefed as well to ensure continuity between the various documents.

Training required by a change or revision will be addressed by site management and have the necessary training scheduled as appropriate.

6.0 SUMMARY

This SOP is designed to assist those personnel requesting a change or revision to an existing document. This document is not to be considered all inclusive and is to be used in conjunction with existing policies, directives, regulations, and guidance. Personnel requesting, reviewing, approving, and implementing documents have an obligation to ensure that subject material, references, interpretations, or other input is accurate and its inclusion suited to the request for change or revision.

USAE

FIELD CHANGE/REVISION REQUEST FORM

Date:	**Department:**	**Name:**
Change or Revision:	**Plan/Procedure/SOP Name or #:**	
Site Location:		

Preliminary Information

Current Document	Check All That Apply	Supporting Documentation (List document, page, para., etc.)	Submitted By (Initials)	Reviewed By (Initials)
Change or Revision Due To:				
1. Regulatory Update				
2. Contract Requirement				
3. Equipment Change				
4. Newly Identified				
a) Safety Hazard				
b) QC Measure				
c) Operational Issue				
5. Other:				

Summary of Change or Revision: (Identify procedural, contractual, equipment, or operator and how this affects the current SOP)**:**

Change or Revision Requested: (Identify page, para, figure, table, etc. that is changed or revised)

Requestors Signature:	
Change or Revision: Accepted Rejected Reason for Rejection -	**Reviewers Signature:** **Safety/QC Signature:**
Corporate: Concurrence Non-Concurrence	**Corporate Approval Signature:**

STANDARD OPERATING PROCEDURE 109
FIRE PREVENTION AND PROTECTION

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide the minimum safety and health requirements and procedures applicable to the conduct of operations involving fire prevention.

2.0 SCOPE

This SOP applies to all site operations requiring fire prevention and protection. This SOP is not intended to contain all requirements needed to ensure regulatory compliance. Consult the documents listed in Section 3.0 of this SOP for additional compliance issues.

3.0 REGULATORY REFERENCES

The following Occupational Safety and Health Administration (OSHA) standards and U.S. Army Corps of Engineers (USACE) requirements directly apply to the conduct of operations associated with this SOP. In the event that other hazards are associated with the conduct of this SOP, consultation of other SOP's and regulatory references may be needed:

- OSHA Construction Industry Standard 29 CFR, Part 1926, Subpart F, Applicable parts
- OSHA General Industry Standard 29 CFR, Part 1910, Subpart L, Applicable parts
- USACE EM 385-1-1, Section 9
- NFPA 30, Flammable and Combustible Liquids Code Current Edition

4.0 RESPONSIBILITIES
4.1 PROGRAM OCCUPATIONAL SAFETY MANAGER

The Program Occupational Safety Manager (POSM) shall be responsible for ensuring the availability of the resources needed to implement this SOP, and shall also ensure that this SOP is incorporated into plans, procedures, and training for sites where this SOP is to be implemented.

4.2 SENIOR UXO SUPERVISOR (SUXOS)

The Senior UXO Supervisor (SUXOS) will ensure that this SOP is trained and implemented for operations where fire protection and prevention is needed. The SUXOS will also ensure that relevant sections of this SOP are discussed in the tailgate safety briefings, and that information related to its daily implementation is documented in the Site Operational Log.

4.3 UXO SUPERVISOR (UXOT III)

The UXO Supervisor (UXOT III) shall be responsible for the field implementation of this SOP, and for implementing the safety and health requirements outlined in Section 5.0 of this SOP. In the absence of a SUXOS, the UXOT III shall be responsible for implementing the SUXOS's responsibilities, outlined in Paragraph 4.2.

4.4 UXO SAFETY OFFICER/SITE SAFETY AND HEALTH OFFICER (UXOSO/SSHO)

The UXOSO/SSHO will be responsible for ensuring that the safety and health hazards and control techniques associated with this SOP are discussed during the initial site hazard training and the daily tailgate safety briefings. The UXOSO/SSHO will also be responsible for daily inspection of site operations and conditions to ensure their initial and continued compliance with this SOP and other regulatory guidelines.

5.0 PROCEDURE

All personnel, including contractor and subcontractor personnel, involved in operations shall be familiar with the potential safety and health hazards associated with the conduct of this SOP, and with the work practices and control techniques to be used to reduce or eliminate these hazards.

5.1 CAUSES OF FIRES AND EXPLOSIONS

Although fires and explosions may arise spontaneously, they are more commonly the result of carelessness during the conduct of site activities, such as moving drums, mixing/bulking of site chemicals, and during refueling of heavy or hand held equipment. Some potential causes of explosions and fires include:

1. Mixing incompatible chemicals which cause reactions that spontaneously ignite due to the production of both flammable vapors and heat
2. Ignition of explosive or flammable chemical gases or vapors by external ignition sources
3. Ignition of materials due to oxygen enrichment
4. Agitation of shock- or friction-sensitive compounds
5. Welding and cutting operations
6. Hot surfaces and frictional heat sources
7. Sparks, whether from static, electrical, or mechanical sources
8. Careless handling of matches, cigarettes, and other lighted materials

5.2 FIRE PREVENTION

Explosions and fires not only pose the obvious hazards of intense heat, open flames, smoke inhalation, and flying objects, but may also cause the release of toxic chemicals into the environment. Such releases can threaten both personnel on site and members of the general public. Site personnel conducting operations involving flammable or combustible material shall follow the guidelines listed below to aid in the prevention of fires and explosions.

5.2.1 IGNITION SOURCES

All sources of ignition will be prohibited within 50 feet of a potential fire or explosion hazard. Ignition sources which may be of concern are: smoking; small engines and their exhausts; heavy equipment engines and their exhaust; non-intrinsically safe electrical hand tools, lights, equipment, etc.; steel hand tools capable of creating sparks; open flames; non-intrinsically safe monitoring instruments; and room/area heating devices.

5.2.2 SITE INSPECTIONS

To ensure adequate fire protection, the UXOSO/SSHO will inspect the site daily to ensure that all flammable and combustible materials are being safely stored in appropriate containers in properly configured and segregated storage areas. The UXOSO/SSHO will also ensure that sources of ignition are removed to a safe distance from storage areas.

5.2.3 STORAGE OF FLAMMABLE AND COMBUSTIBLE MATERIALS

5.2.3.1 Approved Containers

Quantities of flammable liquids greater than one gallon shall be stored or handled in OSHA approved safety cans only. These cans have a built-in flame arrestor, and a tight-fitting self-closing lid to reduce the possibility of vapors escaping from the can. For quantities of flammable liquids of one gallon or less, the original container, or an OSHA-approved safety can, shall be used for handling or storage. There will be no glass containers.

5.2.3.2 General Storage Requirements

Site personnel shall utilize the guidelines and procedures listed in this paragraph when storing flammable and combustible materials on site.

- Flammable materials shall be stored in a segregated area located away from spark or ignition sources, with flagging, or other barrier materials, erected at a radius of fifty feet from the storage area, and "NO SMOKING, MATCHES, OR OPEN FLAME" signs posted at the fifty-foot barrier line.
- If, due to site configuration, a fifty-foot radius barrier cannot be erected around the storage area, signs stating "NO SMOKING, MATCHES, OR OPEN FLAME WITHIN 50 FEET" will be posted at the storage location.
- For storage inside a building, no more than 25 gallons of flammable materials may be stored outside of approved fire cabinet, and no more than 60 gallons of flammable or 120 gallons of combustible liquids may be stored in each cabinet.
- For storage of containers (of not more than 60 gallons each) outside, no more than 1,100 gallons shall be stored in one designated area, with at least five feet separating storage areas.
- Outdoor storage areas shall be at least 20 feet from the nearest building, and there shall be a 12-foot-wide fire truck access lane within 200 feet of the storage area.
- Storage areas outside shall be graded to allow collection of spilled material, or provided with a 12-inch curbed or earthen dike containment system of sufficient volume to contain the contents stored in the area; provisions shall be made for drainage or collection of accumulated rain water or spilled materials.
- Metal drums used for storing flammable/combustible liquids shall be equipped with self-closing safety faucets, vent bung fittings, grounding cables, and drip pans, and shall be stored outside buildings in an area approved by the UXOSO/SSHO.
- The storage area shall be kept free of weeds, debris, and other combustible materials not related to the storage.
- At least one fire extinguisher rated 20B units or greater shall be located between 25 and 75 feet of outdoor storage areas.

5.2.4 DISPENSING FLAMMABLE AND COMBUSTIBLE LIQUIDS

When dispensing flammable or combustible liquids from one container to another, the following requirements shall apply:

- Areas where flammable or combustible liquids are dispensed in quantities greater than five gallons shall be separated from other operations by at least 25 feet.
- Spill containment shall be provided in the dispensing area.
- All tanks, hoses, and containers of five gallons or less shall be kept in metallic containers with a bonded contact during transfer operations.
- Transfer of flammable liquids in containers in excess of five gallons shall be done only when the two containers are electrically bonded, and the container being dispensed from shall be grounded.
- Natural or mechanical ventilation shall be provided to maintain flammable vapors below 5% of the lower explosive limit.
- Transfer of liquids by air pressure is not permitted, and either a non-sparking hand pump or gravity feed shall be used.

5.2.5 HANDLING LIQUIDS AT POINT OF FINAL USE

When using flammable or combustible liquids at the point of final use, the following requirements shall apply:

- Flammable liquids shall be kept in closed containers.
- Leakage or spillage of flammable or combustible liquids shall be collected and disposed of quickly and properly.
- No open flames or other sources of ignition will be allowed within 50 feet of operations involving flammable or combustible liquids.

5.2.6 SERVICE AND REFUELING AREAS

The following requirements shall apply to service and refueling areas:

- Only approved storage containers, trucks, and hoses shall be used.
- No smoking will be allowed within 50 feet of areas where fueling operations are being conducted, and conspicuous signs shall be posted prohibiting smoking in the areas.
- The motors of all equipment being fueled shall be shut off during fueling.
- A fire extinguisher of at least 20B units or greater shall be located within 75 feet of fueling operations.

5.2.7 HANDLING AND DISPENSING

Site personnel shall utilize the guidelines and procedures listed in this paragraph when dispensing flammable and combustible materials.

5.3 FIRE PROTECTION

5.3.1 GENERAL REQUIREMENTS

The general requirements listed below shall be followed to help provide effective fire protection, and shall apply to all sites:

- All areas where potentially explosive/flammable atmospheres may accumulate shall be monitored using a combustible gas indicator.
- Prior to initiation of site activities involving explosive/flammable materials, all potential ignition sources shall be removed or extinguished.
- Non-sparking and explosion-proof equipment shall be used whenever the potential for ignition of explosive/flammable gases, vapors, and/or liquids exist.
- Dilution or induced ventilation may be used to decrease the airborne concentration of explosive/flammable atmospheres to below 5% of the lower explosive limit.

5.3.2 TRAINING

All site personnel involved in operations where flammable or combustible liquids or materials are used, or may be encountered, shall be given training as part of the initial mobilization training which covers the anticipated hazards and the relevant control techniques. This training shall include fire extinguisher training that covers the selection and use of fire extinguishers.

5.3.3 FIRE EXTINGUISHERS

Portable fire extinguishers shall be selected and conspicuously located on site IAW the type of fire or explosion hazard anticipated. To determine the size and type of extinguishers required, consult the Site Health and Safety Plan.

5.3.4 FIRES

The decision to attempt to extinguish a fire using available site personnel and equipment will be made by the UXOSO/SSHO, and based on whether the fire is small, large, or involves explosives.

5.3.5 SMALL FIRES

A small fire is defined as a fire that can most likely be extinguished by site personnel using one or two 10-20 lb portable extinguishers. A small fire must also be free and clear of explosive materials, especially UXO/MEC. If a small fire occurs, the UXOSO/SSHO will direct site personnel to perform the following, if safe to do so:

1. Evacuate unnecessary personnel to an upwind position.
2. Attempt to extinguish the fire using portable fire extinguishers, or by smothering.
3. Remove any essential or flammable items from the path of the fire.
4. Notify emergency response services (fire, police, ambulance, hospital, etc.), as needed.

5.3.6 LARGE FIRES

A large fire is defined as a fire which cannot be extinguished or one which, due to its size, cannot be extinguished using one or two 10-20 lb. fire extinguishers. In the event that a large fire occurs and the fire

does not involve explosive materials, the UXOSO/SSHO will direct personnel to conduct the following, if safe to do so:

1. Evacuate all non-essential personnel from the site to an upwind location.
2. Notify the fire department and other emergency response services, as needed.
3. Order the appropriate level of PPE to be worn by personnel responding to the fire.
4. Attempt to control the fire to the extent possible.
5. Remove any essential or flammable items from the path of the fire.

5.3.7 FIRES INVOLVING EXPLOSIVE MATERIALS

If a fire occurs which involves explosive materials such as chemicals, fuels, or UXO/MEC, the UXOSO/SSHO will order the immediate evacuation of all site personnel to a predetermined upwind assembly point. The assembly point will be located at a safe distance from the site. The UXOSO/SSHO will then notify the fire department and any other emergency services (e.g., police, ambulance, hospital), as needed.

5.4 SAFETY AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

The following safety measures and personal protective equipment (PPE) shall be used in preventing or reducing exposures associated with fire prevention and protection operations. These requirements will be implemented, unless superseded by site-specific requirements stated in the Site Safety and Health Plan and approved by the POSM.

Personnel who may come in contact with flammable or combustible liquids shall be assigned appropriate PPE to avoid skin or eye contact with the material.

In the event of an on-site fire, the UXOSO/SSHO will assess the situation, determine the potential hazards, and, if need be, assign levels of PPE to be worn during firefighting.

STANDARD OPERATING PROCEDURE
HAZARD COMMUNICATION

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide the minimum safety and health requirements and procedures applicable to the conduct of operations involving the use of products containing hazardous substances.

2.0 SCOPE

This SOP applies to all site personnel, to include contractor and subcontractor personnel, and operations involved in the use of products containing hazardous substances. This SOP is not intended to contain all requirements needed to ensure regulatory compliance. Consult the documents listed in Section 3.0 of this SOP for additional compliance issues.

3.0 REGULATORY REFERENCES

The following Occupational Safety and Health Administration (OSHA) standards and U.S. Army Corps of Engineers (USACE) requirements directly apply to the conduct of operations associated with this SOP. In the event that other hazards are associated with the conduct of this SOP, consultation of other SOPs and regulatory references may be needed:

- OSHA Construction Industry Standard 29 CFR, Part 1926.59
- OSHA General Industry Standard 29 CFR, Part 1910.1200
- USACE Engineer Manual 385-1-1, Sections 6.A and 6.B

4.0 RESPONSIBILITIES

4.1 PROGRAM OCCUPATIONAL SAFETY MANAGER

The Program Occupational Safety Manager (POSM) shall be responsible for ensuring the availability of the resources needed to implement this SOP, and shall also ensure that this SOP is incorporated into plans, procedures, and training for sites where this SOP is to be implemented.

4.2 SENIOR UXO SUPERVISOR

The Senior UXO Supervisor (SUXOS) will ensure that this SOP is implemented in all operations involving the use of products containing hazardous substances. The SUXOS will also ensure that relevant sections of this SOP are discussed in the tailgate safety briefings, and that information related to its daily implementation is documented in the Site Operational Log.

4.3 UXO SUPERVISOR (UXO TECHNICIAN III)

The UXO Supervisor/UXO Technician III (UXOTIII) shall be responsible for the field implementation of this SOP, and for implementing the safety and health requirements outlined in Section 5.0 of this SOP. In the absence of a SUXOS, the UXOTIII shall be responsible for implementing the SUXOS's responsibilities, outlined in Paragraph 4.2.

4.4 UXO SAFETY OFFICER/SITE SAFETY AND HEALTH OFFICER

The UXO Safety Officer (UXOSO)/Site Safety and Health Officer (SSHO) will be responsible for ensuring that the safety and health hazards and control techniques associated with this SOP are discussed during the initial site hazard training and the daily tailgate safety briefings. The UXOSO/SSHO will also be responsible for daily inspection of site operations and conditions to ensure their initial and continued compliance with this SOP and other regulatory guidelines.

5.0 PROCEDURE

All personnel, including contractor and subcontractor personnel, in operations involving hazardous substances shall be familiar with the potential safety and health hazards associated with the conduct of those operations, and with the work practices and control techniques to be used in order to reduce or eliminate these hazards.

5.1 MATERIAL SAFETY DATA SHEETS

5.1.1 MSDS AVAILABILITY

A material safety data sheet (MSDS) for each product containing a hazardous chemical to which employees are or may be exposed, will be obtained and made readily available to all site employees. MSDSs will be located at each project site. The UXOSO/SSHO will be responsible for obtaining and maintaining MSDSs. The UXOSO/SSHO will also be responsible for reviewing MSDSs for significant safety and health information, which will then be passed on to the affected employees during formal training sessions. MSDSs will also be reviewed by the UXOSO/SSHO for completeness. If an MSDS is missing or considered to be incomplete/insufficient, a new MSDS will be requested from the manufacturer. A copy of all MSDSs obtained for the site will be sent to the POSM for further review, and will be included in the corporate MSDS file.

MSDSs will be available for all employees in their work area for review. If MSDSs are not available, or a new chemical being used on site does not have a corresponding MSDS, the UXOSO/SSHO will obtain the MSDS from the manufacturer as soon as possible. An MSDS that does not specifically identify the hazardous chemicals contained in the project will be accepted if:

- Approved by the UXOSO/SSHO
- The information has been classified as a trade secret
- The MSDS contains adequate information related to the physical and health hazards associated with the product

5.2 CHEMICAL INVENTORY

A Site-Specific Chemical Inventory will be maintained by the UXOSO. This inventory will include all products containing hazardous chemicals. The Hazardous Chemical Inventory Form will be used to maintain the site-specific chemical inventory. A copy is to be sent to the POSM.

5.3 LABELING

5.3.1 CONTAINER LABELING

No container of hazardous chemicals will be released for use until the following label information is verified:

- Identification of the chemical

- Appropriate hazard warnings
- Name and address of chemical manufacturer, or distributor (applies only to manufacturer's labels)

5.3.2 SECONDARY CONTAINER LABELING

To further ensure that employees are readily provided with information concerning chemicals in their work areas, the UXOSO/SSHO will ensure that all secondary containers are properly labeled with an appropriate hazard communication label. This label must communicate the identity of the hazardous chemicals contained in the product and their appropriate physical and health hazard warnings.

5.4 EMPLOYEE INFORMATION AND TRAINING

5.4.1 GENERAL

The UXOSO/SSHO will arrange for employee information and training at the time of initial assignment (for existing hazardous chemicals), whenever a new hazardous chemical is introduced into the work area, or when an employee changes job locations where new chemicals are encountered.

5.4.2 REQUIRED INFORMATION

Employees will be trained to recall, in simple language, the following basic information about each hazardous chemical:

- The basic requirements of the OSHA Hazard Communication Standard, including employee rights under the regulation
- Operations/processes where the potential exists for exposure to hazardous chemicals
- Location of the written Hazard Communication (HAZCOM) Program, the Chemical Inventory, and the MSDSs
- How chemicals may be detected/monitored (instrumentation, color, odor, state)
- Physical hazards (i.e., flammability, reactivity)
- Chemical hazards, including the effects a chemical has on the body (long- and short-term) through inhalation, ingestion, or skin contact
- How workers can protect themselves from overexposure or emergency situations (engineering controls, work practices, personal protective equipment (PPE), and emergency procedures)
- Steps that have been taken to lessen or prevent exposure to hazardous chemicals through implementation of the HAZCOM
- Spill response procedures for chemical emergencies
- Emergency and first aid procedures to follow in case of employee overexposure to any hazardous chemicals
- How to read labels and review MSDSs to obtain appropriate hazard information

5.4.3 DOCUMENTATION OF TRAINING

Hazard Communication Training will be documented by the UXOSO/SSHO using the Employee Hazard Communication and Training Checklist.

5.5 HAZARDS FROM NON-ROUTINE TASKS

Periodically, employees are required to perform potentially hazardous, non-routine tasks which may involve chemical or physical hazards. Prior to starting work on such tasks, the UXOSO/SSHO will give the affected employees information about the hazards to which they may be exposed. This training will

be documented in the Site Training Log, and will include:

- Specific hazards (chemical and physical)
- Protective safety measures to be utilized
- Measures that have been, or will be, taken to lessen the hazards, including ventilation, respirators, PPE, a standby person, and emergency procedures

5.6 INFORMING CLIENTS/SUBCONTRACTORS

Each client/subcontractor will be instructed to inform the UXOSO/SSHO of any hazardous chemicals which they bring on site, and will provide a copy of the MSDS for each specific chemical(s). The UXOSO/SSHO will ensure that outside clients/subcontractors are provided with the following information to allow them to work safely on site:

- Hazardous chemicals to which they may be exposed while on the job site
- Precautions and protective measures to be taken by employees to avoid possible exposure
- The rules and regulations regarding fire and ignition sources around flammable materials, and rules regarding smoking, welding, grinding, and other similar activities.

5.7 INDUSTRIAL HYGIENE SURVEY

Periodic surveys will be performed to evaluate the potential for employee exposure to chemicals on project sites. These surveys will be used to assess exposure levels and the effectiveness of engineering, work practices, and personal protective equipment controls. These efforts will be coordinated by the UXOSO/SSHO and the SUXOS, and will include:

- A walk-through evaluation of potential chemical exposures utilizing the chemical inventory, MSDSs, and, when required, air sampling equipment
- A review of occupational illness records, for trends of hazard exposure
- A review of engineering controls and personal protective measures
- Recommendations for future control methods

Where a question exists concerning employee exposure to hazardous chemicals, engineering controls, or PPE requirements, the Certified Safety Professional will be contacted immediately.

5.8 SAFETY AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

The following operational precautions and personal protective equipment shall be used in preventing or reducing exposures associated with operations involving the use of products containing hazardous substances:

- Operations where hazardous substances are used will be conducted in well-ventilated areas; and where needed and available, direct-reading instruments will be used to assess personnel exposure.
- All personnel will wear chemical-protective gloves, clothing, or other PPE, as specified by the MSDS, Site Health and Safety Plan, or sampling.

STANDARD OPERATING PROCEDURE
SITE RULES AND PROHIBITED PRACTICES

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide the minimum safety and health requirements, procedures, and site standing orders applicable to the conduct of operations on site. These standing orders outline the rules, which will be strictly enforced during all on-site activities.

2.0 SCOPE

This SOP applies to all site personnel, to include contractor and subcontractor personnel, who are involved in operations in the exclusion, contamination reduction, and support zones (EZ, CRZ, and SZ). The rules and prohibited practices outlined here are required to help ensure the safety and health of all site personnel, the environment, and the general public. This SOP is not intended to contain all requirements needed to ensure regulatory compliance. Consult the documents listed in Section 3.0 of this SOP for additional compliance issues.

3.0 REGULATORY REFERENCES

The following Occupational Safety and Health Administration (OSHA) standards and U.S. Army Corps of Engineers (USACE) requirements directly apply to the conduct of operations associated with this SOP. In the event that other hazards are associated with the conduct of this SOP, consultation of other SOP's and regulatory references may be needed:

- OSHA Construction Industry Standard 29 CFR, Part 1926.65
- OSHA General Industry Standard 29 CFR, Part 1910.120
- USACE Engineer Manual 385-1-1, Section 28

4.0 RESPONSIBILITIES

4.1 PROGRAM OCCUPATIONAL SAFETY MANAGER

The Program Occupational Safety Manager (POSM) shall be responsible for ensuring the availability of the resources needed to implement this SOP, and shall also ensure that this SOP is incorporated into plans, procedures, and training for sites where this SOP is to be implemented.

4.2 SENIOR UXO SUPERVISOR

The Senior UXO Supervisor (SUXOS) will ensure that this SOP is implemented in all operations. The SUXOS will also ensure that relevant sections of this SOP are discussed in the tailgate safety briefings, and that information related to its daily implementation is documented in the Site Operational Log.

4.3 UXO SUPERVISOR (UXO TECHNICIAN III)

The UXO Supervisor/UXO Technician III (UXOTIII) shall be responsible for the field implementation of this SOP and for implementing the safety and health requirements outlined in Section 5.0 of this SOP. In the absence of a SUXOS, the UXOTIII shall be responsible for implementing the SUXOS's responsibilities outlined in Paragraph 4.2.

4.4 UXO SAFETY OFFICER/SITE SAFETY AND HEALTH OFFICER

The UXO Safety Officer (UXOSO)/Site Safety and Health Officer (SSHO) will be responsible for ensuring that the safety and health hazards and control techniques associated with this SOP are discussed during the initial site hazard training and the daily tailgate safety briefings. The UXOSO/SSHO will also be responsible for daily inspection of site operations and conditions to ensure their initial and continued compliance with this SOP and other regulatory guidelines.

5.0 PROCEDURE

All site personnel, including contractor and subcontractor personnel, involved in any site operation shall be familiar with the rules and prohibited practices listed in this SOP. The items outlined in the standing orders listed below are considered to be the minimum rules and prohibited practices which will be enforced onsite. This list may be expanded by the UXOSO/SSHO, based upon site conditions and characteristics. Since the safety and health of all site personnel, the environment, and the general population is of paramount importance, all personnel will be expected to follow the standing orders at all times. Violation of these standing orders, or those imposed by the UXOSO/SSHO, may lead to personal injury or property damage, and may be grounds for positive disciplinary action.

5.1 SITE STANDING ORDERS

5.1.1 GENERAL STANDING ORDERS FOR THE SITE

The standing orders listed below shall be followed at all times by on-site personnel conducting operations in any location of the site:

1. The Accident Prevention Plan (APP)/Site Health and Safety Plan (SHSP), Corporate Safety and Health Program, and all other required safety and health guidelines will be met at all times.
2. All necessary, and feasible, precautions will be taken to prevent injury to personnel.
3. Potentially harmful situations will be immediately reported to the UXOSO/SSHO.
4. Spillage and splashing of hazardous materials will be prevented to the extent possible, and spills of hazardous materials will be reported to the UXOSO/SSHO.
5. Good housekeeping shall be practiced by keeping the work area neat, clean, and orderly.
6. All personal injuries, no matter how minor, will be reported to the UXOSO/SSHO.
7. Site equipment shall be maintained in good working order, and defective equipment shall be reported to the UXOSO/SSHO.
8. Personnel shall properly inspect, use, and maintain personal protective equipment (PPE) as required by the SHSP and applicable SOPs.
9. Running and horseplay are prohibited in all areas of the site, at all times.
10. Tobacco product use, eating, and drinking will be allowed only in designated areas while personnel are performing operations within a work zone. The designated break area will, in most cases, be determined by the UXOTIII. Personnel will conduct personal hygiene

(i.e., cleaning of hands and face) prior to taking a break in the designated area.

11. If site hazards include the potential for airborne or physical contact with chemical contaminants, personnel will refrain from eating, drinking, using tobacco, applying cosmetics, or any other hand-to-face activity while they are in the area of chemical contamination. This requirement will hold true at all times unless procedures are specified in the SHSP which allow for the taking of breaks in the work zone or for using back-mounted hydration packs.
12. Ignition of flammable materials in any work zone is prohibited, unless directed otherwise by the UXOSO/SSHO.
13. Buddy system procedures shall be enforced during all site operations.
14. The number of personnel in the SZ, CRZ, or EZ shall be the minimum number necessary to perform work tasks in a safe and efficient manner.
15. Site personnel shall check in with the UXOSO/SSHO prior to leaving the site, and again upon returning to the site.
16. Site personnel will report to the UXOSO/SSHO any medical conditions or medications which could affect their ability to perform operations safely.
17. Site visitors are to be escorted by UXO-qualified personnel at all times, and site operations will cease if non-UXO-qualified personnel enter an area where UXO operations are being conducted.
18. Site personnel shall perform only those tasks that they are trained and qualified to perform.
19. Site personnel shall remain aware of site conditions at all times and shall alert the UXOSO/SSHO to any changes which could pose additional hazards.

5.1.2 STANDING ORDERS FOR THE CRZ

The standing orders listed below shall be followed at all times by on-site personnel conducting operations in the CRZ:

1. No tobacco product use, eating, drinking, application of cosmetics, or other hand-to-face activities are allowed in this area, unless specifically provided for in the SHSP.
2. No matches or lighters in this zone.
3. Personnel will check in and out at the access control point upon entrance to or exit from this zone.
4. Personnel handling potentially contaminated items shall wear appropriate PPE.
5. Entry and exit from this zone will be through designated corridors only.
6. Only "Buddies" will enter/exit through this zone, no one passes through this zone alone, unless directed by the UXOSO/SSHO, and then only when line of sight can be maintained.
7. Hands and face shall be thoroughly washed upon leaving this zone.

8. **Remember**: "The Contamination Stops Here". Do your best to keep it that way.

5.1.3 STANDING ORDERS FOR THE EZ

The standing orders listed below shall be followed at all times by on-site personnel conducting operations in the EZ:

1. No tobacco product use, eating, drinking, application of cosmetics, or other hand-to-face activities are allowed in this area unless otherwise directed by the UXOSO/SSHO. The exception to this rule may be the use of hydration backpacks.
2. No matches or lighters in this zone, unless otherwise directed by the UXOSO/SSHO.
3. Personnel will check in/out at the access control point upon entrance to or exit from this zone.
4. Personnel will always have their buddy with them in this zone, and follow the buddy system procedures.
5. No personnel are allowed in this area without appropriate PPE, as specified by the SHSP.
6. Personnel will remain alert to site conditions, and report any changes or unusual occurrences to the UXOSO/SSHO.
7. Personnel will avoid contact with contaminated or potentially contaminated surfaces.
8. Whenever possible, personnel will not walk through puddles, mud, or any discolored ground surface.
9. Personnel will not kneel on the ground or lean, sit, or place equipment on drums, containers, potentially contaminated vehicles, or the ground, unless the potentially contaminated surface has been covered with plastic.
10. Visual or verbal contact shall be maintained between the site personnel and the Command Post at all times.
11. **Remember**: Site Safety and Health is Everyone's Responsibility. Do your part.

5.2 USE OF MODIFIED WORK SCHEDULES TO CONTROL EXPOSURES

Except as outlined in the Heat and Cold Stress SOPs, modification of work schedules is not considered an acceptable method to control personnel exposure to chemical or physical hazards. Any and all other feasible and effective means of controlling the degree and level of exposure, to include the use of personal protective equipment, will be developed and used prior to using modified work schedules as a means of control. Only in extreme cases where no other feasible, effective control method is available will work schedules be modified to reduce exposures. In the event that modified work schedules must be used, the procedures for monitoring the respective hazard and modifying personnel work schedules will be clearly outlined in the monitoring section of the SHSP.

5.3 SAFETY AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

Site personnel will at all times comply with safety precautions, safe work practices, and PPE requirements detailed in the SHSP for each task. Deviation from assigned safety precautions, practices, and PPE will be allowed only after approval by the UXOSO/SSHO and the POSM.

STANDARD OPERATING PROCEDURE
UXO SAFETY OFFICER (UXOSO)/SITE SAFETY AND HEALTH OFFICER (SSHO) PROGRAM

1.0 PURPOSE

USA Environmental, Inc. (USAE) recognizes that ensuring project safety requires a coordinated team effort in which each member of the team plays an integral part. For each project site, this coordinated team effort is directed and organized by the Unexploded Ordnance Safety Officer (UXOSO)/Site Safety and Health Officer (SSHO), who has the ultimate on-site responsibility for maintaining a safe and healthful work environment. Therefore, it is the objective of this program to outline the procedures and requirements related to the position of the UXOSO/SSHO.

2.0 SCOPE

This program is applicable to all USAE projects where USAE personnel are assigned to the role of UXOSO/SSHO. This shall include both known hazardous waste sites and those not classified as hazardous waste sites where a UXOSO/SSHO is assigned to ensure the safety and health of on-site personnel. The procedures in this program will be strictly adhered to unless otherwise amended within project plans. The purpose of this procedure is to supplement the USAE Corporate Safety and Health Program (CSHP), and to act as a working tool toward the implementation of each site-specific Site Health and Safety Plan (SHSP).

3.0 RESPONSIBILITIES
3.1 PROGRAM OCCUPATIONAL SAFETY MANAGER

The Program Occupational Safety Manager (POSM) is responsible for the overall management of this program, and coordinating the availability of the resources needed to ensure its effective implementation. In this role, the POSM will:

- Develop and implement this program.
- Prepare and manage budgeting and resource management for the implementation of this program, and for the programmatic implementation of the CSHP, Accident Prevention Plan (APP), and SHSP.

The POSM is responsible for the continued development and implementation of this program and the CSHP. To effectively implement this program, the POSM will take an active role in providing consultation, guidance, and training to those personnel assigned to the role of UXOSO/SSHO. To this end, the POSM will:

- Provide approval of those personnel selected for the UXOSO/SSHO position by the USAE Project Managers assigned to USAE projects.
- Ensure that those personnel assigned to the role of UXOSO/SSHO meet the requirements specified by the client, and that each UXOSO/SSHO has the specific training, knowledge, and experience necessary to implement the SHSP and verify compliance with applicable safety and health regulations.
- Provide periodic review and update of this program and the CSHP to ensure their continued integrity and their compliance with applicable

federal, state, and local regulations.

- Consult with each UXOSO/SSHO to ensure that all site-specific safety and health issues are addressed and resolved.
- Provide technical assistance and expertise to the UXOSO/SSHO regarding the implementation of safety- and health-related regulations.
- Coordinate with, and provide consultation to, the USAE Equipment Manager to ensure that safety and health equipment used on site is appropriate for the level of work and the degree of hazards.
- When needed, assist the UXOSO/SSHO in providing mobilization safety training.
- Conduct periodic inspections of project sites to assist the UXOSO/SSHO with the effective implementation of compliance measures, and to ensure their compliance with this program, the specific SHSP, and any other project-related plans.

The POSM is not UXO-qualified, but will be responsible for lending assistance and consultation to the UXOSO/SSHO for issues related to safety. When on-site audits are conducted by the POSM, the audit of UXO-related field operations will be conducted with the UXOSO/SSHO and following UXO safety restrictions.

4.0 GENERAL UXOSO/SSHO RESPONSIBILITIES

The UXOSO/SSHO has the overall responsibility for the safety and health of all USAE, subcontractor, government, and visitor personnel while on site. In this role, the UXOSO/SSHO must ensure that the requirements of the APP/SHSP are implemented by all site personnel for the duration of site activities.

The UXOSO/SSHO will also ensure that all personnel are properly trained, qualified, equipped, and physically protected from the site and operational hazards to the greatest extent feasible.

For all matters related to the implementation of the APP/SHSP, the UXOSO/SSHO will report directly to the POSM. However, during daily operations, the UXOSO/SSHO will report administratively to the on-site supervisor, such as the USAE Senior UXO Supervisor (SUXOS) or the USAE on-site Project Manager. For issues solely related to UXO safety, the UXOSO/SSHO may consult with the Corporate Safety and Health Manager (CSHM). For all occupational safety and health matters, and where chemical warfare materiel (CWM) is involved, the UXOSO/SSHO will consult directly with the POSM and CSHM. For on-site management of USAE's safety and health program, the UXOSO/SSHO will:

- Initiate and authorize a "Stop Work Order" for any imminent safety or health concerns.
- Implement and enforce the requirements outlined in the APP/SHSP.
- Conduct the safety portion of the daily tailgate briefings.
- Conduct and document site training related to site-specific hazards.
- Specify proper levels of personal protective equipment (PPE) in accordance with the requirements of the SHSP.
- Implement and enforce the USAE Alcohol/Drug Abuse Policy.
- Investigate and report injuries, illnesses, accidents, incidents, and near misses.

- Conduct visitor orientation, daily safety inspections, and weekly safety audits.
- Ensure that all safety- and health-related forms are properly initiated and completed in a timely manner to ensure the capture of all relevant safety and health data.
- Immediately inform the POSM when a Statement of Work (SOW) change occurs that affects the tasks addressed in the SHSP.
- Provide the POSM with task hazard data for any new tasks added to the SOW or any tasks that significantly change during the conduct of site operations.
- Ensure that no task is performed until all safety and health provisions required by this SOP and the SHSP are implemented (i.e., Certification of Task Hazard Assessment [CTHA] is completed; personnel training is conducted, etc.).
- Ensure field implementation of the APP/SHSP.

5.0 UXOSO/SSHO MOBILIZATION AND SITE SET-UP PROCEDURES

The UXOSO/SSHO will become completely familiar with the site-specific Work Plan, which includes the APP/SHSP and USAE Standard Operating Procedures (SOPs). These documents will be used by the UXOSO/SSHO as the basis for the mobilization training presented to site personnel, and for ensuring the safe performance of site operations. Whenever possible, these documents will be given to the UXOSO/SSHO prior to departure to the site. Additionally, when feasible, the UXOSO/SSHO should be a member of the pre-mobilization team, so that the UXOSO/SSHO can:

- Coordinate with all applicable local agencies (i.e., Police, Sheriff, Hospital, Life Flight, Ambulance Service, and Fire Department).
- Determine if Federal Aviation Administration (FAA) or Marine Band notices need to be made prior to demolition operations.
- Survey the site for hazards, and assist in completing the Certification of Task Hazard Assessment forms.
- Establish medical evacuation routes and personnel assembly points.
- Inventory first aid equipment, PPE, fire extinguishers, and other safety equipment.
- Designate the number, type, and location of toilet facilities in accordance with the APP/SHSP.
- Obtain any local certificates required.
- Prepare evacuation maps, and confirm contact lists for hospital and ambulance services.

If the UXOSO/SSHO is not a member of the pre-mobilization team, or if no pre-mobilization is allowed, the UXOSO/SSHO will implement Items 1 – 10 listed in Section 4.0 during the first day's operations. If USAE is acting as subcontractor to a project, many of the above tasks will already have been completed by the prime contractor prior to the UXOSO/SSHO's arrival on site. However, this does not relieve the UXOSO/SSHO of the responsibility of ensuring that all of the steps listed above have been accomplished. It is imperative that the UXOSO/SSHO do everything possible to ensure safe, uninterrupted site

operation, and that a good rapport is established with all applicable local authorities.

6.0 TRAINING REQUIREMENTS AND PROCEDURES
6.1 CONDUCT AND DOCUMENT TRAINING

All site training required by the SHSP shall be conducted, or arranged for, by the UXOSO/SSHO. For the training topics required by the SHSP, the UXOSO/SSHO will ensure that the data specified in the following paragraphs are presented to all affected workers. Unless otherwise specified in this section or the SHSP, all training will be documented using the USAE Documentation of Training Log. At no time will USAE personnel be permitted to conduct any site operations involving the potential for exposure to safety or health hazards until they have received appropriate training.

6.2 SITE-SPECIFIC TRAINING

This training shall be used to review important topics outlined in the SHSP, and to inform site personnel of the hazards, control techniques, and PPE associated with on-site operations. To ensure coverage of all topics, the outline specified in Table 1 will be utilized for this training.

6.2.1 HAZARD INFORMATION TRAINING

Hazard information training shall be presented utilizing the USAE Hazard Information Program, which meets the requirements specified in 29 CFR 1910.120(I). This training shall be presented to all personnel who will be involved in the conduct of on-site operations. The training outlined in Table 1 will also be used for this training, which will cover:

- A description of the chemical contaminants expected on site, including a description of the physical properties, symptoms of exposure, exposure limits, potential fire or explosion hazards, and routes of exposure for each contaminant, as well as a review of all Material Safety Data Sheets (MSDS).
- The physical hazards associated with conducting site operations, including temperature extremes, heavy equipment and hand tool hazards, electrical hazards, high-noise operations, and any other applicable general safety and health hazards.
- The biological hazards associated with the site, to include poisonous/hazardous plants, animals and insects, and the potential for contact with medical/biological wastes.
- Recognition of UXO/MEC safety-related issues that could be present on site.

6.2.2 EQUIPMENT TRAINING

Equipment operation training will also be provided by the UXOSO/SSHO for site personnel who will be responsible for the operation of monitoring instruments (in coordination with the POSM), earth-moving equipment, power tools, or hand tools. This training will include the following:

- Purpose of the equipment and theory behind use
- Calibration procedures (as required)

- Starting equipment
- Safety precautions
- Proper operating techniques
- Shutting down equipment
- Care, inspection, maintenance, and storage

TABLE 1: SITE-SPECIFIC TRAINING TOPICS

TOPIC	SUB-TOPICS TO BE COVERED
* Welcome/Introduction	
* Work Plan	*A. Safety and Health Chain of Command *B. Safety and Health Implications of the Proposed Work/Project Schedule *C. Methods/Requirements For On- And Off-Site Communications *D. Logs & Records
* History of Facility	
* SHSP	*A. Site Description *B. Site-Specific Hazard Information and APP *1. Chemical Contaminants *2. Physical Hazards *3. Biological Hazards *C. Task-Specific Hazard Analysis/Sampling *D. Engineering Controls *E. PPE Requirements and Decontamination *F. General Safety Precautions *G. Prohibited Activities *H. Site Access Control *I. Buddy System Procedures *J. UXO Safety +K. Safety Precautions for Suspected Fuzes On Site +L. Safety Precautions for Suspected Ordnance On Site +M. Render Safe Procedure (RSP) and Disposal of UXO *N. Contingency and Emergency Response Plan *1. Evacuation *2. Potential/Actual Fire/Explosion Hazards *3. Personnel Injury *4. Adverse Weather Conditions *5. Chemical Spills (when applicable)

Methods and Procedures	*A. Marking Plots/Lanes *B. Safety and Health Hazards of Vegetation Grubbing (if applicable) *C. OE Detection Identifications and Markings +1. General +2. Sweep Lanes +3. Surface/Subsurface Anomaly Detection Techniques +D. UXO/OE Marking Procedures *E. Surface Investigation and Clearance +F. Subsurface Investigation and Clearance +G. UXO/OE Disposal and Collection Site +H. Safety and Health Issues of UXO/OE Disposal +1. UXO/OE Disposal and Collection Site +2. UXO Disposal Procedures (Range Operations) +3. Inert OE Disposal Procedures *I. Safe Equipment Use +1. UXO Detection *2. Mechanical/Hand Tools *3. Heavy Equipment License Requirements *4. Vehicles

* Training presented to all on-site personnel.

\+ Training presented to UXO-qualified personnel only.

6.2.3 PERSONAL PROTECTIVE EQUIPMENT TRAINING

As specified by 29 CFR 1910.132, all site personnel required to use PPE shall be given training in the use, care, and limitations of the PPE they are to use. Prior to using the designated PPE on site, all affected personnel shall demonstrate an understanding of the training and their ability to properly use the assigned PPE. PPE training shall address the following topics:

- PPE selection decisions
- When PPE is needed
- What PPE is needed
- How to properly don, doff, adjust, and wear PPE, with demonstration
- The limitations of specific pieces/types of PPE
- The proper care, maintenance, useful life, and disposal of PPE

6.2.4 HAZARD COMMUNICATION TRAINING

In order to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication (HAZCOM) Standard, 29 CFR 1910.1200, training shall be provided for all site personnel who will use products that contain hazardous substances. This training shall be provided upon initial assignment to the site, and again prior to use of the product containing the hazardous substance. Supplemental HAZCOM training shall be scheduled and presented whenever a new hazardous substance is introduced into the work area, or when an employee changes job locations where new

products are encountered. Personnel will review all MSDSs associated with the project.

6.2.4.1 General Information Provided

To ensure that site personnel are knowledgeable of the general requirements of the OSHA HAZCOM standard, the following shall be maintained on site, and site personnel shall be familiarized with the relevant information presented in the following:

- The basic OSHA HAZCOM Standard, including employee rights under the regulation
- A listing of the operations/processes where hazardous chemicals are used and the potential for exposure exists
- The location and basic elements of the USAE HAZCOM Program, an inventory of the hazardous substances used on site, and the location and availability of the MSDSs

6.2.4.2 Product-specific Information Provided

To ensure that site personnel are knowledgeable of the chemical and physical hazards associated with hazardous substances used on site, all personnel shall be trained to recall, in simple language, the following basic information about each hazardous substance to which they are exposed:

- Chemical hazards, including the toxic effects a chemical has on the body (long- and short-term), and the routes of exposure
- Physical hazards (i.e., flammability, reactivity)
- How chemicals may be detected/monitored (instrumentation, color, odor, state)
- How workers can protect themselves from overexposure or emergency situations (engineering controls, work practices, PPE, and emergency procedures)
- Steps that have been taken to lessen or prevent exposure to hazardous substances
- Spill response procedures for chemical emergencies
- Emergency and first aid procedures to follow if employees are overexposed to any hazardous chemicals
- How to generate and read hazard warning labels and review MSDSs

6.2.4.3 Documentation of Hazard Communication Training

HAZCOM training shall be documented by the UXOSO/SSHO using the USAE HAZCOM Training Form. This documentation shall be maintained on site for the duration of the project, and later incorporated into the employee's personal training file.

6.3 VISITOR TRAINING

Site visitors are defined as persons: (1) who are not employed at the project site, (2) who do not routinely enter restricted work areas, and (3) whose presence is of short duration (i.e., 1 to 2 days per visit). Site

visitors may include client personnel, USAE personnel, commercial vendors, political representatives, and auditors or inspectors from federal, state, or local regulatory agencies. It is the responsibility of all site personnel to watch for visitors approaching the site, and to immediately notify the UXOSO/SSHO or SUXOS of any visitor's arrival. Visitors will be required to comply with the general requirements listed in Paragraph 6.5.1, and will be given general and hazard information training in accordance with the applicable provisions of Paragraph 6.5.2, which follow.

6.3.1 GENERAL REQUIREMENTS FOR ALL SITE VISITORS

Regardless of the purpose of the site visit, or the control zones to be entered, the following requirements will apply to all site visitors:

- The USAE SUXOS and the UXOSO/SSHO will be notified of the nature and duration of the visit before visitors are permitted to enter the site.
- Visitors will sign the USAE Site Visitor Log, and will record their name, date of visit, and the name of the company or agency represented.
- Site visitors will be escorted by an UXO-qualified representative at all times while in the area.
- Visitors will comply with the specific safety and health requirements described below, as applicable.

6.3.2 HAZARD INFORMATION TRAINING FOR SITE VISITORS

6.3.2.1 Visitors Entering the Support Zone Only

Visitors wishing to observe site activities from the support zone (SZ) only, without entering any other site exclusion zone (EZ), will receive general hazard information training, which incorporates the following topics:

- Location and description of potential hazards and risks
- A short briefing about the chemical hazards found on site
- Areas of the site that are closed to visitors
- The site evacuation plan and emergency procedures
- Other topics, as deemed appropriate

6.3.2.2 Visitors Entering the EZ

Site visitors wishing to enter the EZ during site operations will be subject to the same site-specific and hazard information training as specified in Paragraphs 6.3.1 and 6.3.2 of this section. These visitors will also be required to read the SHSP and sign the USAE SHSP Team Review Form. This shall be done prior to receiving the required site-specific and hazard information training. The UXOSO/SSHO, or a designated alternate, will give the visitor the required training prior to the visitor's entering the EZ. At no time will a visitor be allowed to enter the EZ without having first received this training.

NOTE: Visitors requesting entry into the EZ will be required to present documentation of OSHA hazardous waste training and medical surveillance, consistent with the requirements of 29 CFR 1910.120.

6.4 THREE-DAY ON-SITE TRAINING

The UXOSO/SSHO, along with the SUXOS, will be responsible for conducting and documenting the OSHA-required, three-day, on-site training for all site personnel. Part of this training is covered when the site-specific and hazard information training is conducted. The balance of this training involves the UXOSO/SSHO and SUXOS instructing site personnel on the site-specific procedures related to the safety and health plan, APP/SHSP, chain of command, PPE donning and doffing, decontamination, general safe work practices, emergency notification and response, and evacuation routes.

6.5 DAILY AND WEEKLY SAFETY BRIEFINGS

6.5.1 DAILY TAILGATE SAFETY BRIEFING

It is essential that the UXOSO/SSHO be involved in the Tailgate Safety Briefing that is given each day prior to commencing work. This briefing must be pertinent and informative, and documented using the USAE Documentation of Training Form. The items to be covered include, but are not limited to:

- Expected weather conditions (Heat Stress/Cold Stress, possible storm conditions, etc.)
- Driving conditions/hazards
- Working conditions
- Required PPE, to include PPE decontamination or PPE hygiene procedures
- Site-specific hazards (chemical, physical, or biological hazards)
- Buddy system procedures
- Emergency notification procedures, and evacuation route
- Review of any safety violations noted the previous day

6.5.2 WEEKLY SAFETY BRIEFING

At the beginning of each work week, which is normally Monday, a 10-15 minute Weekly Safety Briefing (WSB) will be presented to highlight and discuss a site-specific safety or health topic. All site personnel will be required to attend the training, and the UXOSO/SSHO will document this training on the USAE Documentation of Training Form. The training will be presented by the UXOSO/SSHO, or a designated representative, and will cover topics specified by either the CSHM or relevant to site-specific hazards (e.g., chemicals, ordnance, cold/heat stress). The documentation of each WSB, to include the topic covered and the names/signatures of the personnel attending the training, will be forwarded each week to the POSM.

6.5.3 END OF PROJECT DE-BRIEF

At the end of each project, a project de-brief will be given by the SUXOS and UXOSO/SSHO. This de-brief will cover "Lessons Learned" and safe vehicle operation for the return trip home. This meeting will also act as a forum for site personnel to express both critical and constructive views and opinions related to the operation of the project. This input will allow the UXOSO/SSHO, SUXOS, and USAE management personnel to gain further insight into the project operation and what areas, if any, can be improved.

7.0 LOGS, FORMS, REPORTS, AND RECORDS

An essential role of the UXOSO/SSHO is the continued maintenance of logs, reports, and records which

are used to document the on-site safety and health process, and to log any significant events which may occur on site. The logs, records, and reports which the UXOSO/SSHO will maintain are described below.

7.1 DAILY SAFETY LOG

A Daily Safety Log will be maintained on site by the UXOSO/SSHO. This log will be recorded in a bound book with numbered pages and, as a minimum, will include: weather conditions, inspections conducted, results of the inspections, safety issues addressed each day, and any significant occurrences related to site safety. An example of a typical Daily Safety Log is presented below:

18 Oct. Monday: Weather Conditions:	Morning - 70 and cloudy; Afternoon – 82 Sunny and Clear
0700	Conducted Tailgate Safety Brief. See Documentation of Training this date for attendees and topics.
0830	Captain Kirk cut his right index finger opening a can of beanie-weenies while driving down Rt. 3 to Site #12. First aid was given by Dr. McCoy, and Capt Kirk was transported to the hospital. (see note below)
1000	Gave site safety brief to M. Read, who visited the site today.
1130	30-minute lunch break.
1300	Called for a halt in operations, and required site personnel to evacuate the work site due to the proximity and approach of an electrical storm.
1400	Re-entered area after electrical storm passed.
1530	Secured operations for the day, and departed for hotel.

NOTE: If such an accident occurred, the incident would be discussed at the next Tailgate Safety Briefing. Information related to the cause of the accident, and the procedures/practices to be used to prevent a reoccurrence, would be discussed.

The UXOSO/SSHO must understand that the Daily Safety Log is an integral part of ensuring and maintaining the safety and health of on-site personnel. The data contained in the log should be of sufficient detail so as to fully document any incidents that could impact the manner in which operations are conducted or have any type of impact on safety and health policies/procedures used on site. Of special importance is the use of the log to document any guidance or directives given to either the UXOSO/SSHO or the SUXOS by an on-site contractor representative. The log can also be used to record statements/suggestions made by site personnel. When logging events, it is also of importance to log not only the initial elements of the event, but also the final disposition and outcome of the event. The UXOSO/SSHO should periodically review the log to ensure that there is closure for each significant event logged.

7.2 TRAINING LOG

The UXOSO/SSHO is responsible for ensuring that training conducted on site is recorded daily, and that the USAE Documentation of Training Form is properly completed. Depending upon the number of personnel on site, the UXOSO/SSHO may record the site training in the bound site Safety Log, without the generation of a dedicated, bound Training Log book. Regardless of where the training is recorded in the permanent record, the Documentation of Training Form will be completed and maintained on site with the other site records.

7.3 VISITOR LOG

A visitor record will be kept at the entrance to all USAE work sites to record site visits made by off-site personnel. Visitors to the site must be given a safety briefing, and must be logged in and out by the UXOSO/SSHO as soon as they enter the Support Zone. Again, depending upon site size and conditions, the USAE Site Visitor Log may be used to initially record the entry and exit of site visitors. However, details of the visit, to include the purpose of the visit and the personnel involved, should be recorded in the bound Safety Log.

7.4 DAILY SAFETY INSPECTIONS AND WEEKLY SITE AUDITS

The UXOSO/SSHO will conduct daily inspections and weekly audits. The UXOSO/SSHO will use the USAE Daily/Weekly Safety Inspection and Audit Log, and will ensure that the results are expressed to the SUXOS. Copies of all inspections shall be maintained at the site; at the conclusion of the weekly audit, a copy of the inspection checklist will be forwarded to the POSM for review. Additionally, any daily checklist with deficiencies noted will also be forwarded to the POSM. Once a deficiency has been corrected, the UXOSO/SSHO will notify the POSM of the resolution. It is imperative that for each deficiency noted, there is documentation (both on the inspection/audit form and in the Daily Safety Log) of the remedial actions taken to correct the deficiency.

7.5 VEHICLE INSPECTION LOG

The UXOSO/SSHO will ensure that the USAE Weekly Vehicle Inspection Checklist is completed on a weekly basis for each site vehicle, and on a per-day basis for any vehicle used to transport explosives. Copies of the inspection logs will be maintained on site and categorized by vehicle. The POSM will be faxed a copy of any vehicle checklist that has a deficiency noted. For any deficiencies noted, additional documentation will be added to the checklist outlining the remedial actions taken to correct the deficiency. The POSM will also be faxed a copy of the checklist when the remedial action is implemented.

7.6 ACCIDENT/ILLNESS/NEAR-MISS REPORT

In the event of an emergency, illness, injury, or property accident, the UXOSO/SSHO will be responsible for ensuring that all appropriate forms are completed and submitted in a timely fashion. The USAE Accident/Injury/Illness/Near-Miss Report will be completed by the UXOSO/SSHO for:

- Any injury or illness requiring on-site first aid or assistance at a medical facility
- Any accident involving property damage in excess of $250.00
- Any near-miss where personnel were nearly injured or property was nearly damaged

A copy of this report will be faxed to the POSM within 24 hours of the incident occurrence, and the original maintained on site. If required by the client's SOW, the POSM will either complete the client's accident forms or forward a copy of the USAE form to the client's representative. The POSM will also be responsible for any necessary reporting to federal or state OSHA offices. For an accident or illness where the individual is treated at a medical facility, copies of the medical evaluation and treatment forms will be included with the accident report when it is forwarded to the POSM. For property accidents involving site vehicles, a copy of the police report and repair estimates will also be forwarded to the POSM with the accident report.

If the project involves a federal work site, and the injury/illness involves first aid or a greater level of care,

or property damage in excess of $2,000.00, the appropriate Accident Investigation Report will be completed. To complete the form, follow the instructions provided and send it to the POSM prior to submission to the requesting agency or office. Once the form has been approved, it should be signed by the UXOSO/SSHO, submitted to the POSM for signature, and forwarded by the POSM to the Corporate Health and Safety Manager (CHSM). Prior to completion of the Accident Form, verbal information will be given to the government representative and the CSHM within 24 hours of the incident occurrence. A preliminary copy of the Accident Form will be forwarded to the CSHM within three working days, and the final version presented to the CSHM within 10 working days.

7.7 CERTIFICATE OF TASK HAZARD ASSESSMENT FORMS

During the performance of site operations, there is always a potential for changes to the assigned tasks. This may occur because the contractor's Project Manager changes or adds to the SOW or a task or operation may be needed that was not anticipated during the development of the SHSP. Additionally, actual on-site conditions related to a task addressed by the SHSP may affect the anticipated degree or nature of hazards. If any task is added or changed, the UXOSO/SSHO will immediately notify the POSM of the change and complete a new Certification of Task Hazard Assessment (CTHA) form outlining the hazards. The POSM will then finalize the CTHA and, if required, submit it to the client for approval. If client approval is required, the effected task will be halted until approval is obtained. This is especially true for new tasks added to the SOW. At no time should a new task be initiated on site until the new task has been evaluated by the POSM, and all relevant changes to the POSM have been integrated and approved.

7.8 EXCLUSION ZONE ENTRY/EXIT LOG

The UXOSO/SSHO will be responsible for ensuring that the USAE Exclusion Zone (EZ) Entry/Exit Log is maintained. This log is required at all hazardous waste sites where an exclusion zone is established, in order to control personnel exposures to both Hazardous, Toxic, and Radioactive Waste (HTRW) and UXO hazards. If this log is required, the UXOSO/SSHO or a designated appointee, will ensure that all personnel working in the EZ are logged in and out. This will be required to provide accountability for EZ personnel in the event of an emergency.

7.9 PERSONAL AIR SAMPLING DATA SHEET

Whenever personal breathing zone or other on-site airborne samples are collected, the UXOSO/SSHO will be responsible for completing the USAE Personal Air Sampling Data Sheet. This log is required to record all relevant information related to the sampling, and the UXOSO/SSHO will complete the form with as much information as possible. Once the sample results have been received, the UXOSO/SSHO will forward a copy of the sampling form and the sample results to the POSM, who will then calculate the sample concentration, excursion concentration (if needed), and the 8-hour time-weighted average. These results will then be sent to the UXOSO/SSHO, who will enter them on the sampling form. A copy of the completed sampling form will then be sent to the POSM, who will ensure that the form is added to the employee's medical and exposure files.

7.10 SITE MONITORING LOG

The UXOSO/SSHO, or a designated appointee, will be responsible for ensuring that all information related to on-site monitoring will be recorded in the USAE Site Monitoring Log. This log is required at all hazardous waste sites where real-time and/or direct-reading instruments are used to measure the levels of chemical and physical hazards. This form contains headings and columns for recording some of the most frequently monitored hazards, as well as several blank header columns where the UXOSO/SSHO can fill in site-specific hazards to be monitored. The Site Monitoring Log also contains a section for

recording the instruments used and the calibration dates, as well as a "Remarks" column to note any unusual occurrences.

7.11 HEAT STRESS MONITORING LOG

The UXOSO/SSHO will be responsible for ensuring that the USAE Heat Stress Monitoring Log is maintained during all site activities conducted in high-heat environments. This log is required to track the physiological stress experienced by site personnel working in hot weather.

7.12 SITE-SPECIFIC CHEMICAL INVENTORY

The UXOSO/SSHO will be responsible for ensuring that all chemicals used on site are recorded in the USAE Site-Specific Chemical Inventory Log. This log is required under the OSHA Hazard Communication Standard for all products containing known or potentially hazardous substances that are used during site activities. The information required in this log can be found on the MSDSs for each product.

7.13 HAZARD COMMUNICATION TRAINING FORM

The UXOSO/SSHO will be responsible for ensuring that the USAE Documentation of Hazard Communication Training Log is completed whenever site personnel receive hazard communication training on site. This form contains a section for general site information, training elements to be covered, the products/substances that were reviewed, and a signature block for those attending the training. The UXOSO/SSHO will complete all applicable information in the site and product/chemical information sections, and will initial the topics covered.

8.0 INFORMATION REQUIRED ON SITE

The UXOSO/SSHO will generate a standard safety-briefing outline, a site map, and a hospital route map, which will be kept in a protected location and utilized as guides for the daily tailgate and visitors briefings. A copy of the hospital route map, with written directions, will be located in each site vehicle, and the site map will be used to designate site-specific evacuation routes and assembly points.