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File: 541.460.000n
C.G.

THE MEMPHIS DEPOT
TENNESSEE

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 369

SCOPE OF WORK

ORDNANCE, EXPLOSIVE WASTE, AND CHEMICAL WARFARE MATERIEL

SUB SURFACE CLEARANCE,

DEFENSE DEPOT, MEMPHIS, TENNESSEE (DDMT)

1.0 BACKGROUND AND GENERAL STATEMENT OF WORK. The work required under this Scope Of Work falls under the Defense Environmental Restoration Program. Explosive ordnance contamination by past Department of Defense (DOD) activities is suspected to exists on property that was formerly owned by DOD.

1.1 Ordnance and Explosive Waste (OEW) is a safety hazard and constitutes an imminent and substantial endangerment to site personnel and the local populace.

1.2 This site is a suspected Chemical Warfare Materiel (CWM) site. Once the CWM item is identified, the contractor shall be directed to continue clearance operation, suspend operations until further notice, or begin demobilization dependent upon the direction of the Corps of Engineers on-site coordinator and the extent and type of contamination encountered.

1.3 **GENERAL DESCRIPTION.** The Defense Depot Memphis, TN (DDMT) is a Defense Logistics Agency (DLA) storage, shipping, and receiving facility located in Memphis, TN. DDMT is a National Priorities List (NPL) site and therefore must comply the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for a NPL site. The DDMT has entered into a Federal Facilities Agreement containing descriptions

of requirements, conditions, processes, and schedules for Hazardous and Toxic waste (HTW) remediation work to be performed at the facility.

1.3.1 As part of the Remediation at DDMT, actions are required to ensure appropriate protection for Chemical Warfare Materiel (CWM) remediation contractor employees and for the surrounding public due to potential exposure to CWM and associated breakdown products which may be encountered during field operations required to assess CWM contaminated areas, remove potential source areas and implement an interim groundwater remedial action, as required by the HTW remediation contract. CWM may be encountered on site due to past decontamination and disposal activities. Additionally, small quantities of Chemical Agent Identification Sets (CAIS) were buried in a disposal action on a portion of the facility. References to specific locations on the facility are derived from the DDMT RI/FS Generic Work Plan (Reference 9.28) and DDMT Archive Search Report (Reference 9.2).

1.3.2 The work required under this Scope of Work (SOW) falls under the Defense Environmental Restoration Program - Installation Restoration. These actions will be performed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP). For any actions on site, no Federal, State, or Local permits are required. The provisions of 29 CFR 1910.120 shall apply to all actions taken at this site.

1.4 DEFINITIONS

1.4.1 Unexploded explosive ordnance (UXO): An item of explosive ordnance which has failed to function as designed or has been abandoned or discarded and is still capable of functioning, causing damage to personnel or materiel. The UXO constitutes an imminent and substantial endangerment to site personnel and the local populace.

1.4.2 UXO Specialist: A graduate of the U.S. Naval Explosive Ordnance Disposal (EOD) School, Indian Head, MD, with a minimum of 3 years active duty military EOD experience.

1.4.3 EOD Specialist: Active duty military qualified graduate of the U.S. Naval Explosive Ordnance Disposal (EOD) School, currently serving in a TOE or TDA EOD position.

1.4.4 Chemical Warfare Materiel (CWM) or Recovered Chemical Warfare Materiel (RCWM). All items associated with any chemical agent, its use, testing, manufacture, storage and transportation, to include soil and items that have previously been contaminated. The U.S. Chemical Surety Program provisions are not applicable to RCWM regardless of how acquired, whether by deliberate unearthing as a part of real property remediation or by chance encounter, except as outline in Chapter 10 of AR 50-6.

1.4.5 Chemical Agent. A chemical substance that is intended for use in military operations to kill, seriously injure, or incapacitate a person through its physiological properties. Excluded from consideration are riot control agents, chemical herbicides, smoke, and flame.

1.4.6 Chemical Surety: Those controls, procedures, and actions which contribute to the safety, security, and reliability of CSM, and to the assurance that there will be no chemical events. This is a program dealing with stockpile chemical items.

2.0 **OBJECTIVE.** Prepare and coordinate Work Plan, Site Specific Safety and Health Plan, and other plans as stated to safely locate, identify, characterize, and remove sub-surface debris, conventional and chemical munitions at Defense Depot Memphis Tennessee. Prepare and maintain the DOD Safety Submission for this site. Contractor shall be supported by TEU, when suspected chemical munition is found the contractor shall continue to excavate, handing any RCWM that is safe to move off to TEU. Any RCWM deemed by the contractor as too hazardous to move will be left in place. TEU will assess it and in conjunction with CEHND, will decide if Render Safe Procedures will be employed or if a destroy in place by detonation is required. The contractor shall coordinate with TEU on any and all technical details as required for development of these plans. Execute approved plans as directed by the Contracting Officer. The work this SOW is intended to cover is the subsurface clearance at the above named site. There are three suspected locations of potential contamination. It is also the intent that this Site Safety Submission will cover subsurface remediation for all suspected sites at DDMT as they are discovered.

3.0 **DESCRIPTION OF SERVICES.**

3.1 **(TASK 1) WORK PLAN (WP) AND SITE SAFETY AND HEALTH PLAN (SSHP).** The contractor shall prepare a WP/SSHP which shall describe the contractor's proposed methods of accomplishing the work, equipment, sampling techniques, personal protective equipment (PPE) to be used and qualifications of personnel to perform the work. The WP/SSHP shall address responsibilities, internal and external communications, on-site and off-site emergency medical procedures, to include completion of ENG Form 3394 in the event of an

accident. Personnel and equipment decontamination procedures shall be addressed. A site visit of no more than ten working days, to include travel time, is authorized to assist in the preparation of the WP/SSHP. The site visit team shall not exceed three persons, and shall include one Senior UXO Supervisor. The site visit shall be coordinated with the Contracting Officer (CO) 10 days prior to arriving on site. The Site Safety and Health Plan shall be prepared in accordance with 29 CFR 1910.120. The site visit is intended to allow the contractor to gather sufficient information to develop all plans.

3.1.1 The contractor shall submit all Draft Plans for review in accordance with paragraph 6.0 of this SOW.

3.1.2 The contractor shall submit all Final Plans for approval in accordance with paragraph 6.0 of this SOW.

3.1.3 Site Specific Work Plan (SSWP) and Site Specific Safety and Health Plan (SSHP). The SSWP/SSHP shall outline the contractor's proposed method of accomplishing all field tasks as described in each plan of this SOW. The SSWP/SSHP shall include equipment, responsibilities of personnel, resumes of UXO personnel, and internal and external communication systems.

3.1.4 Specific Sub-Plans Required With in the SSWP or SSHP.

3.1.4.1 Site Mobilization and Support Plan. The contractor shall prepare a plan that details mobilization activities. These activities shall be those actions necessary to prepare the site for work prior to work crew arrival. Such activities shall include but are not limited to, telephone hookups, power to site offices, arrangements for offices, sanitary requirements, meal arrangements, lodging arrangements, explosive acquisition and storage, and demolition area preparation.

3.1.4.2 Air Monitoring Plan. The contractor shall prepare and submit an Air Monitoring sub-plan as part of the WP. The contractor shall provide in the sub-plan a description of the equipment and procedures to be used for the monitoring of air quality during all phases of work under this Delivery Order. Air monitoring shall be point source, breathing zone, and perimeter. At a minimum, air quality monitoring of the ambient air shall be conducted using portable air monitoring instrumentation. This emissions monitoring shall be carried out on a real time basis using an organic vapor detection unit and equipment capable of monitoring ambient air to local, state, federal and OSHA guideline standards. The sub-plan shall identify specific air sampling equipment, locations and frequencies. The contractor shall coordinate the air monitoring plan with the U.S. Army Engineer Division, Huntsville (CEHND), Safety Office, who in turn will coordinate with the U.S. Army Chemical Biological Defense Command (CBDCOM) and TEU.

3.1.4.3 Personnel and Equipment Decontamination Plan. The contractor shall prepare a plan describing the contractors proposals and methodologies for the decontamination of personnel and equipment. Decontamination should be planned in two separate and distinct methodologies. The first decontamination methodology shall describe how the contractor shall

decontaminate personnel in an abbreviated or emergency situation. This type of decontamination is intended for when emergencies arise at times and in areas where chemical contamination is not expected, but is encountered. Equipment decontamination and deliberate personnel decontamination shall be established for all situation where chemical contamination is likely or more possible. These activities include but are not limited to the surface clearance operations or any other operations where chemical warfare materiels may be encountered.

3.1.4.4 Conventional Safe Holding Area. The contractor shall plan for a Safe Holding Area somewhere on the CERCLA Site. The contractor shall include provisions for fire fighting, initial entry air monitoring, security, and other requirements for establishment and running of a Safe Holding Area. The Safe Holding Area shall be designed to safely store explosives needed to perform conventional demolition and Open Burn/Open Detonation of Chemical Warfare Materiel. It shall be designed to safely store conventional ordnance recovered while awaiting destruction.

3.1.4.5 Chemical Warfare Materiel Safe Holding Area. An additional requirement is to store Chemical Warfare Materiels while awaiting disposal. USACMDA shall develop plans for short term storage on site if the disposal is to take place at this site and be done by USACDRA. The contractor shall be prepared to assist in accomplishing this task. It is not the governments intent that the contractor is to be limited to a single structure or area. Quantity distance requirements are expected to be met. All required security requirements are also expected to be accomplished. The contractor is urged to coordinate this requirement with the Huntsville

Division of the Corps of Engineers, U.S. Army Chemical, Biological Defense Command (CBDCOM), TEU, and the U.S. Army Chemical Materiel Destruction Agency (USACMDA).

3.1.4.6 Chemical Warfare Materiel Transportation Plan. The USACMDA shall develop all necessary plans for transportation off site if applicable. In this case the contractor shall only be responsible for the planning with TEU for the support of storage as the government (USACMDA) will design, transport and is responsible for disposal.

3.1.4.7 Conventional Ordnance Disposal Plan. The contractor shall develop plans for the disposal of conventional explosive ordnance. It is anticipated that this should be done by open detonation. The contractor shall plan for setting up of a disposal area. The plan should include types of demolition materiels to be used, method of securing the site, notification of demolition to local emergency management, and other details required to conduct demolition operations. The source and handling of explosives (commercial or military) shall also be addressed here.

3.1.4.8 Intrusive Excavation Plan. The contractor shall prepare and submit an Intrusive Excavation Plan. This portion of the WP shall propose methods for excavating soil down to the anomalies as defined in the geo-physical report from previous investigations as well as discussions of equipment, PPE, materiels, personnel, air monitoring, and procedures to be used during intrusive excavation. Actual locations shall be based on the results of the geo-physical

mapping. Each anomaly shall be started, excavated, air monitoring shall be accomplished, ordnance removed, scrap removed and the area restored.

3.1.4.9 Scrap Monitoring and Disposal Plan. Contractor shall develop and propose a plan for the monitoring and disposal of all recovered scrap. Plan shall consider requirements for monitoring and any alternatives. Plan shall address alternatives for scrap disposal and propose the safest and most cost effective. Items that are determined to be from CWM operations, i.e. burstered shells that no longer contain liquid agent, one ton containers and their parts, M47 100lb. bomb bodies, shall be placed in a sealed box or container, by the contractor, and heated to 70 degrees and air samples shall be collected and analyzed. If results of the air sampling indicate no residual contamination, the items will be packaged, manifested, and transported by the contractor to a licensed receiver as Hazardous and Toxic Waste. The contractor shall recommend the HTW receiver and packaging and transport methodology. If the items are found to still have residual chemical agent contamination, the contractor shall package, manifest, and haul to a licensed HTW contractor. The contractor shall develop all necessary plans for these actions. Other items, i.e. fuzes, fragmentation, and conventional OEW scrap, shall be collected and disposed of locally as scrap if the contractor determines that the items are free of explosive residue.

3.1.4.10 Site Safety and Health Plan. The SSHP shall contain all known or expected hazards and how to deal with them. Hazard analysis shall be performed on each step of each work task. It shall describe on-site and off-site emergency medical care and treatment. The SSHP should describe the contractors proposed PPE and when it will be used. Action levels

shall be described, i.e. at what contamination level shall PPE be upgraded or downgraded. The SSHP shall also describe personnel decontamination procedures. Personnel performing field activities shall be required to under-go physical examinations and comply with the requirements of 29 CFR 1910.120, DA Pam 50-6, and DA Pam 385-61. The SSHP shall comply with Section C, Subsection 4.0 of the basic contract.

3.1.4.11 Quality Control Plan. Items addressed should include, as a minimum: 1) equipment testing and calibration, 2) performing and documenting QC field inspections, 3) monitoring proper functioning of all electronic equipment, and 4) OEW identification briefings.

3.1.4.12 Site Specific Environmental Protection Plan. Based on provisions of the base contract, the contractor shall develop a site specific Environmental Protection Plan for all operations performed at this site.

3.1.4.13 Property and Equipment Plan (PEP). The contractor shall prepare and submit a detailed PEP describing the equipment to be employed to perform all necessary operations. The PEP shall describe and quantify both field equipment (such as site trailer, track hoes, back hoes, trucks, bulldozers, front-end loaders, chain saws, magnetometers, etc.) and office equipment (such as computer/printer, telefax, copier, 2-way radios, cam-corder, telephones, etc.) and consumable supplies (both office and field intended to be used. The contractor shall describe in the PEP the source and rental/acquisition costs for all field and office equipment and consumable supplies. Three quotes must be obtained and provided in the PEP for each piece of field and office equipment, and the PEP must indicate that the vendor with the lowest price quote was used

for the rental/ acquisition. The contractor shall indicate in the PEP when rental cost exceed acquisition costs for a particular piece of equipment over the life of the project. In these instances, the contracting officer (KO) may direct the contractor to purchase that equipment. After KO approval of the work plans/PEP, additional field/office equipment, and consumable supplies in excess of $1000 may not be rented/acquired without KO approval.

3.1.4.14 Work, Data, and Cost Management Plan (WDCMP). The contractor shall prepare and submit a WDCMP which describes how the work is to be managed and accomplished. The WDCMP shall contain a schedule for the accomplishment of the tasks. The schedule shall contain milestones for delivery of all deliverables and associated costs, show the task components in their relative chronological positions, and state the intervals between milestones in terms of working days following the previous events. More detailed information in the WDCMP may be required on an area by area basis. The WDCMP shall also consist of the organization structure, the assignment of functions, duties and responsibilities, and functional relationships among organizational elements that will participate in the accomplishment- of the tasks.

3.1.4.15 Medical Training and Support Plan. Contractor shall recommend type of medical support that is require for this effort. Contractor shall use DA Pams 50-6, 40-8, 40-173, and 385-61 as guides for required training and support to include type of physical. Capabilities for support by local medical facilities shall be evaluated as a part of this task.

3.1.4.16 Surveying Plan. Surveying shall be done to locate survey boundaries and anomalies such as pits and trenches. Surveying requirements are to be prepared and provided by the government.

3.1.4.17 Protective Action Plan. This plan is prepared by the DDMT as the owner of the site. The development of this plan requires in-put and coordination with CEHND, CBDCOM, TEU, and USACMDA. This plan shall include but is not limited to, evacuation procedures for civilian personnel, reimbursement of expenses for evacuees, the Maximum Credible Event, the down wind hazard calculations, and the No Significant Events (NOSE) zone.

3.1.4.18 Other Sub-plans. Other sub-plans identified in Section C, Subsection 3.2.1 of the basic contract are not required for this delivery order.

3.2 **(TASK 2) AIR MONITORING.**

3.2.1 The contractor shall coordinate with the Contracting Officer (CO), USACMDA, Edgewood Research Development Engineering Center (ERDEC), and the Commander, TEU, in determining the amount and type of monitoring equipment that shall be used. The contractor shall coordinate with the CO as to the placement and number of monitoring devices for this SOW. In addition, the contractor shall provide continuous monitoring of the identified hazards associated with the sites for controlling worker exposure during field operation. The contractor may coordinate information requests on hazards believed present on site with TEU, U.S. Army Chemical Materiel Destruction Agency (USACMDA), and CEHND. Air monitoring results

shall be used to determine the appropriateness of Personal Protective Equipment (PPE) and need to upgrade or downgrade the established levels of protection based on established action levels. When applicable, National Institute for Occupational Safety and Health (NIOSH) approved sampling and analytical methods must be used and only laboratories participating and meeting the requirements of the American Industrial Hygiene Association Proficiency Analytical Testing Laboratory Accreditation programs shall be used to conduct necessary analyses, in addition to ERDEC guidelines and standards. All intrusive excavation shall be monitored with low level monitoring equipment (R-TAP or MINICAMS or low level monitoring equipment as appropriate) by TEU and ERDEC. If, while in the process of surface clearance, low level monitoring equipment detects mustard, the contractor shall withdraw from the area and await instructions from the CO to continue clearance. Preparations will begin for mustard contaminated soils to be placed in appropriate containers and sealed for further monitoring.

3.2.2 The contractor shall be capable of setting up and monitoring low level monitoring equipment around the area of excavation so as to provide evidence that no vapors from any clearing operations have escaped the immediate site.

3.2.3 The contractor may coordinate with TEU and ERDEC for technical advise on monitoring equipment.

3.3 **(TASK 3) SAFE HOLDING AREA.** The contractor shall prepare a Safe Holding Area (SHA). This SHA shall be prepared in accordance with contractors approved plans.

3.3.1 The first SHA prepared shall be for the contractors use for the storage of Commercial Explosives the contractor will use in the disposal of any conventional ordnance items found during subsurface and surface clearance. This area shall be operated by the contractor and meet all standard sensitive items security requirements and all other requirements such as quantity distance.

3.3.2 The contractor shall also prepare an area for the temporary storage of any conventional ordnance found during
the clearances.

3.4 (TASK 4) RECOVERED CHEMICAL WARFARE MATERIEL DISPOSITION.

Task assigned to USACMDA.

3.5 (TASK 5) CONVENTIONAL ORDNANCE DISPOSAL.

3.5.1 The contractor shall furnish all necessary personnel and equipment to dispose of all UXO encountered. Since this area is not suspected of OEW contamination, it is not anticipated that UXO shall be encountered. If OEW is encountered they shall be dealt with as described in the Conventional Ordnance Disposal Plan.

3.5.1.1 The procedures utilized during this disposal shall comply with those covered in CEHND Safety Concepts and Basic Considerations for UXO.

3.5.1.2 The contractor will examine, categorize, insure the absence of explosive residue and dispose of items of ordnance.

3.5.2 UXO fragments, components, and inert ordnance items shall be collected for turn-in locally as scrape.

3.5.3 All encountered UXO shall be positively identified prior to disposal and the absence of explosive residue shall be verified.

3.5.3.1 The contractor shall destroy encountered explosive at the established Conventional Ordnance Disposal Area, established by the contractor, unless an unmovable UXO is located. In this situation, the contractor shall destroy the item on-site.

3.5.3.2 The contractor shall obtain all necessary permits for detonation of UXO.

3.5.4 Access holes and detonation pits shall be filled upon conclusion of procedures.

3.5.5 The contractor shall propose the methodology to accomplish this task in the WP.

3.6 **(TASK 6) INTRUSIVE EXCAVATION.** The contractor shall excavate anomalies. Methodology shall follow all steps described in the approved plan for this task.

3.6.1 The contractor shall furnish all necessary personnel and equipment to conduct a subsurface clearance of the project site and dispose of all conventional UXO encountered. UXO encountered on the surface or sub-surface shall be dealt with as described in the Conventional Ordnance Disposal Plan.

3.6.1.1 The procedures utilized during this clearance shall comply with those covered in CEHND Safety Concepts and Basic Considerations for UXO.

3.6.1.2 The contractor shall utilize mechanical means of excavation where practical. Excavations shall be done in layers and a magnetometer used over each layer so as not to strike OEW with the blade of mechanical excavators. When the contractor is within 12 inches of a suspected ordnance item they will back out of the excavation, move the mechanical excavator, and either turn the excavation over to TEU personnel who will uncover and positively identify the item or contractor personnel in Level A PPE will enter the excavation and uncover the last 12 inches by hand in order to positively identify the item. If the item is a suspect CWM item, it will be evaluated as to the safety in moving it. If it is safe to move, it will be turned over to and become the responsibility of TEU for Assessment, packaging and movement to storage.

3.6.2 The contractor shall utilize a magnetometer capable of locating a 105mm projectile at a depth of 5-feet.

3.6.2.1 During the magnetometer search of an area, search lanes shall not be wider than 5-feet.

3.6.2.2 UXO fragments, components, and inert ordnance items shall be collected for turn-in locally as scrape.

3.6.3 All encountered UXO shall be positively identified prior to disposal.

3.6.3.1 The contractor shall destroy encountered UXO at the established Conventional Disposal Area, unless an unmovable UXO is located. In this situation, the contractor shall detonate the item on site or in the immediate vicinity.

3.6.4 Excavation to gain access to subsurface UXO shall not normally exceed a depth of 5-feet. If an anomalies is still present in the ground below five feet, the CEHND on site representative shall be notified, who will determine the necessity of further excavation. If excavation beyond 10-feet is required, the contracting officer shall be notified. The contracting officer, with concurrence of the on-site safety coordinator shall make the determination to continue digging.

3.6.4.1 All access holes and detonation pits shall be filled upon conclusion of procedures.

3.6.5 The contractor shall propose the methodology to accomplish this task in the WP.

3.7 **(TASK 7) PROCESS SCRAP METAL.** All scrap metal recovered from excavations shall be placed in a container capable of being sealed and heated to 70 degrees F.

After heating and retention, the container shall then be monitored for low levels of mustard. If monitoring reveals mustard vapor to be present or confirms that the scrap metal is vapor free, the contractor shall package it for shipment. The contractor shall provide the capability to haul contaminated waste. The contractor shall provide a hazardous waste storage and/or disposal facility capable of accepting and treating contaminated waste. The contractor shall provide all necessary personnel and equipment to accomplish this task. Prior to beginning work, the contractor shall submit his proposed method of accomplishing this task for approval.

3.8 **(TASK 8) PROCESS CONTAMINATED SOIL.** Soil that is found to be contaminated with mustard above the detectable level shall be containerized and shipped in the same method as for the scrap metal in Task 7, paragraph 3.7, above. The contractor shall provide all necessary personnel and equipment to accomplish this task. Prior to beginning work, the contractor shall submit his proposed method of accomplishing this task for approval.

3.9 **(TASK 9) PREPARE SOP FOR EACH OPERATION.** The contractor shall prepare an SOP for each operation at each excavation. The SOPs will set forth site specific details for the execution of the approved Site Safety Submission (SSS) identified in Task 16. They will augment but will not change any of the procedures approved by the SSS and will be submitted as addenda to that document as needed. An example of this is when an approved step such as excavation with heavy equipment cannot be accomplished because of soil conditions, an alternative method of excavation such as hand digging may be used. These SOPs will be submitted to and be approved by the CEHND Safety Specialist on site.

3.10 **(TASK 10) PUBLIC AFFAIRS.** The contractor shall assist CEHND, and the DDMT PAO in developing and executing a Public Affairs program. A press release will be issued by the DDMT Public Affairs Office (PAO). This press release is to update the local residents of the ongoing activity and anything that is planned for the immediate future. This press release will be coordinated with the CEHND-PAO. Future plans, unless definitely approved by DA, Deputy Chief of Staff for Operations (DCSOPS), will not be discussed or speculated upon.

3.11 **(TASK 11) RECORD AND SUBMIT VIDEO TAPE.** The contractor shall furnish the necessary personnel and equipment to video tape activities from all tasks except Task 1 of this SOW.

3.11.1 The video tape shall be standard VHS 1/2-inch color tape with voice background describing the actions being filmed, containing a minimum of 60 minutes footage.

3.11.2 Two copies of the video tape shall be submitted to CEHND and two copies shall be submitted to DDMT as part of the Report of Investigation.

3.12 **(TASK 12) PERFORM QUALITY CONTROL.**

3.12.1 The contractor shall provide the necessary personnel and equipment to administer a Quality Control Program to manage, control and document his own and his sub-contractor's activities.

3.12.1.1 The QC shall be a separate function from other functions in this SOW.

3.12.2 The contractor shall include in the WP the QC procedures to be used to assure accuracy of the sampling results.

3.13 (TASK 13) PREPARE AND SUBMIT REMOVAL REPORT.

3.13.1 The contractor shall furnish the necessary personnel and equipment to prepare and submit the report of investigation.

3.13.2 The Report of Investigation shall consist of:

3.13.2.1 A daily journal of all activities associated with this SOW.

3.13.2.2 A topographic or planimetric map at a scale no smaller than 1 inch equals 100 feet, showing all survey lines and all significant ground surface features. Should a new map be created for this purpose, a reproducible (mylar) copy will be furnished to CEHND and the map shall be referenced to NAD83, show grid lines or tic marks at 500 foot intervals, have a grid north and a magnetic north arrow, exhibit a legend showing standard and non-standard symbols used, display a tabulation of the horizontal control monuments used to provide the coordinates, and bear a standard Corps of Engineers title block. A "Description Card" for each monument used to establish the control and the original copy of all field books, abstracts, computation sheets, sketches, etc. used on this project shall be provided with the reproducible submission.

3.13.2.3 Video tape of all Tasks 2 through 10. Distribution of the video tape shall be limited to provisions of paragraph 3.12.1.2 of this SOW.

3.13.2.4 Presentations of all data generated and conclusion drawn.

3.13.2.5 A recapitulation of exposure data. This shall include the total number of man-hours worked on site and total motor vehicle mileage. All air monitoring data will be included as exposure data. Exposure data refers to possible exposure to hazards and man-hours worked on the project.

3.13.2.6 QC documentation.

3.13.2.7 Public meeting record.

3.14 **SITE SAFETY SUBMISSION.** As directed by CEHND, the contractor shall compile, maintain, and submit the official SSS for coordination and approval by the Department of Defense Explosive Safety Board. The SSS will consist of a Work Plan (WP), a Site Safety and Health Plan (SSHP), a Protective Action Plan, Transportation Plan, Interim Holding Area Plan, Technical Escort Plan, and Explosive Ordnance Disposal Plan. Though several of these documents are prepared by other agencies, the contractor will be responsible for their incorporation into the SSS, keeping all incorporated documents current, and preserving document control so that all copies remain identical. The SSS must be approved by the Department of Defense Explosive Safety Board prior to beginning any work at the site.

3.14.1 Control: The contractor will devise a system to control and account for all copies of the SSS. This system will ensure holders of all copies prepared by the contractor are provided full opportunity to keep them identical with the original.

3.14.2 Initial Draft: The contractor shall submit all Initial Draft SSS for review in accordance with paragraph 6.0 of this SOW. The contractor will retain the original.

3.14.3 Draft Final: The contractor shall take action on comments which affect portions of the SSS prepared by him. He will receive corrective actions taken on portions prepared by other agencies and, if necessary, adapt them to a consistent format. He will then prepare a single package of corrections to the Initial Draft SSS, instructions for their incorporation, and distribute it with a new cover sheet as the Draft Final SSS in accordance with paragraph 6.0 of this SOW. The contractor will make 9 additional copies of the up-to-date Draft Final SSS and distribute them to approximately 4 addressees in the Washington DC area. CEHND will provide specific recipients at that time. The contractor will retain the original.

3.14.4 Final: The contractor shall take action (or receive and format actions taken) on comments as appropriate, prepare a corrections package, and distribute it with a new cover sheet as the Final SSS to all holders of the 22 copies of the Draft Final SSS. The contractor will retain the original.

3.14.5 Corrected Final: If necessary, this sequence will be repeated for Corrected Final versions of the SSS until the required Department of Defense approval is received.

3.14.6 Original: The contractor will retain and maintain the approved original along with any approved changes and addenda. Should any dispute arise as to the content of the SSS, the contractor will make the original and all approval documentation available to the CO for resolution. Upon completion of the work under this delivery order, the up-to-date and complete original will be sent to CEHND.

4.0 CONTRACTOR QUALIFICATIONS. The contractor shall furnish a staff that is qualified through training and experience that will safely accomplish the objective and tasks of this SOW. All personnel shall be identified in the work plan and their resumes included in same.

4.1 Training requirements of 29 CFR 1910.120e(i) shall apply to this project.

4.2 Equipment operators shall be experienced on equipment operated.

4.3 The person assisting in conducting the public meeting shall have experience in public speaking and conducting public meetings.

5.0 PERSONAL PROTECTIVE CLOTHING.

5.1 Contractor PPE shall comprise that equipment necessary to adequately protect the personnel working on or visiting any site under the contractor's jurisdiction. The PPE shall be the minimum level required for adequate protection of the hazard expected to be encountered. The contractor shall recommend PPE levels. The CO shall make the final determination of adequate PPE levels.

5.2 The PPE levels will match those levels deemed adequate by DA Safety for the agent or contaminate suspected. Where possible, these levels will coincide with appropriate Occupational Safety & Health Administration (OSHA) and NIOSH PPE levels. When OSHA and the DA Safety levels do not agree, a final determination as to the acceptable level will be made by the DA. The Level A PPE that is currently approved is the Responder Suit.

5.3 The contractor shall describe in detail and provide appropriate PPE to ensure workers, official visitors and Government employees are not exposed to levels greater than the action level for identified hazards for each operation stated for each work zone. The level of protection shall be specified in the SOP for each operation and shall be in compliance with all requirements of 29 CFR 1910 and DA Pam 385-61. The contractor shall provide and maintain all PPE.

6.0 SUBMITTALS.

6.1 The contractor shall furnish copies of the plans and reports as indicated in this paragraph to each addressee listed below in the quantities indicated. The contractor shall utilize express mail services for delivering these plans and reports. Following each submission, comments generated as a result of their review shall be incorporated.

ADDRESSEE	COPIES
U.S. ARMY ENGINEER DIVISION, HUNTSVILLE	5

ATTN: CEHND-OE (MR. C. TWING)
4820 University Square
HUNTSVILLE, AL 35805-1957

COMMANDER
Defense Depot Memphis, Tennessee
2163 Airways Boulevard
ATTN: DDMT-DE (Mr. Novitzki)
Memphis, TN 38114-5210

COMMANDER 2
Technical Escort Unit
ATTN: SMCTE-OP
Aberdeen Proving Grounds, MD 21010

COMMANDER 2
U.S. Army Chemical Materiel
Destruction Agency
ATTN: SFIL-NSP
Aberdeen Proving Grounds, MD 21010-5401

Technic Director
Edgewood Research Development Engineering Center

DACA87-94-D-0019

ATTN: SCBRD-ODC

Aberdeen Proving Grounds, MD 21010-5423

6.2 **Submittals and Due Dates.**

SUBMITTALS	DUE DATES
Draft SSWP	TBD
Draft SSHP	TBD
Final SSWP	TBD
Final SSHP	TBD
Draft Removal Report	TBD
Final Removal Report	TBD

7.0 REFERENCES.

7.1 The contractor shall use the following references as applicable:

7.1.1 AR 50-6

7.1.2 AR 190-11

7.1.3 AR 385-40 with USACE Supplement

7.1.4 AR 385-61

7.1.5 EM 385-1-1, CE Safety and Health Requirements Manual

7.1.6 EM 385-1-92

7.1.7 TM 9-1300-206, Ammunition and Explosive Standards

7.1.8 CEHND Safety Concepts and Basic Considerations for UXO

7.1.9 DA Pam 40-8

7.1.10 DA Pam 40-173

7.1.11 DA Pam 50-6

7.1.12 DA Pam 385-61

7.1.13 29 CFR 1910

7.1.14 29 CFR 1926

8.0 GOVERNMENT-FURNISHED.

8.1 Right of Entry (CEHND).

8.2 Archives Search Report, DDMT.

8.3 Other DDMT documentation.

9.0 SPECIAL INSTRUCTIONS.

9.1 The 29 CFR 1926.100(a) requires personnel to wear protective helmets in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock or burns. During field activities on ordnance projects, hard-hats need not be worn unless a head injury threat is present.

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