GATEHOUSE FUEL TANK REPLACEMENT
U.S. ARMY CORPS OF ENGINEERS
KNIGHTVILLE DAM
HUNTINGTON, MA
Statement of Work
August 2018

I. General

1. Scope of work
   Furnish all materials, equipment, and labor to remove one (1) existing above ground heating fuel storage tank and secondary concrete containment wall and install one (1) new above ground storage tank in the Knightville Dam Gatehouse.

2. Location
   Knightville Dam is located at 49 Knightville Dam Road in Huntington, MA.

3. Site Visit
   To arrange a site visit contact the Technical Point of Contact Keith Goulet (978-318-8296, Keith.A.Goulet@usace.army.mil).

4. Schedule
   Work shall commence within 14 days after the contract is awarded. The entire work shall be completed and ready for use no later than 90 days after the Contract award. The Government shall be given 7 days' notice prior to the start of work. The project area will be open to the contractor Monday through Friday 7:00 AM to 3:00 PM and all work must be done during those hours unless additional hours are approved by the Technical Point of Contact. No work shall be done on weekends or Government holidays.

5. Preconstruction Conference
   Prior to the start of any work, the Technical Point of Contact will schedule and conduct a "Preconstruction Conference". The Contractor's Project Manager and Quality Control Personnel will attend this meeting. This conference will be held at the time and location agreeable to the government and contractor. No work may be performed under this contract prior to this conference. The purpose of the conference is to enable the Technical Point of Contact to outline the procedures that will be followed by the Government in its administration of the contract, and to discuss the performance that will be expected from the Contractor. This conference will allow the Contractor an opportunity to ask questions about the Government's administration and inspection of contract work or obtain other pertinent information that might be required. At the Preconstruction conference the contractor shall provide to the name of the project superintendent with a telephone number for project coordination.

   The following is a general list of items for discussion during this Preconstruction Conference:

   i. Authority of the Technical Point of Contact and Quality Assurance Inspectors.
   ii. Contractor's Safety Program (including sub-contractors).
   iii. Modified Activity Hazard Analysis (Submitted & accepted prior to start of work on site)
   iv. Weekly Safety Meetings
   v. Accident Reporting (ENG Form 3394)

vi. Safety Data Sheet (SDS) requirements
vii. Correspondence, Communication and Administrative Procedures.
viii. Invoice and payment.

6. Permits
The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses, permits, and letters of certification. The Contractor shall comply with any applicable Federal, State, County, and Municipal laws, codes, and regulations in connection with the performance of the work specified under this contract.

7. Security
The contractor will comply with all established security policies at Knightville Dam. Due to periods of heightened security that may affect the access to the areas covered under this contract, areas may be subject to periodic closures, which in turn may reduce or inhibit the Contractor's ability to access certain areas. During periods of heightened security, the Government reserves the right, at any time, to close any property or portion of property and reschedule and/or cancel any subsequent service in an area. The Contractor shall be given at least 24 hour notice of any such closure.

8. Contractor Conduct
Alcohol and firearms are prohibited on project grounds. Contractor and employees must comply with CFR 36 Rules and Regulations.

9. Payment
Payment shall be made on a per job basis. After final inspection and acceptance by the Government, the Contractor must submit an invoice to the Technical Point of Contact. The invoice shall include the invoice date, contract number, dates of service, description of work, quantities, process, and total amount due per line item. For jobs greater than 30 days the contractor may request progress payment.

All invoices may be mailed to:
U.S. Army Corps of Engineers
ATTN: Keith Goulet
49 Knightville Dam Road
Huntington, Massachusetts 01050

Or Emailed to Keith.A.Goulet@usace.army.mil

II. Technical Requirements:

Part 1 General:

Furnish all materials, equipment and labor to remove, decontaminate and dispose of existing storage tank and concrete retaining wall and install a new heating fuel storage tank and plumb the tank into existing lines.

Existing Conditions:

The existing storage tank is a 500 gallon, single-walled above ground storage tank with no known leaks. The tank services the existing hot air furnace and standby electric generator.

Requests for Information:
Requests concerning the work of this project should be directed to the Technical Point of Contact at 978-318-8296 or Keith.A.Goulet@usace.army.mil).

Submittals:
Although the Government technically reviews submissions required by this scope of work, it is emphasized that the Contractor's work must be prosecuted using proper internal controls and review procedures. The documents identified below must be prepared in accordance with the applicable standards, submitted for review and accepted by the government prior to the commencement of any field activities.

1. Abbreviated Accident Prevention Plan (APP) and associated Activity Hazard Analyses (AHA's)
2. Tank Removal and Disposal Work Plan
3. Manufacturer's Product Information Sheets for all products to be used such as:
    a. Cleaner/De-Greaser
    b. Concrete Patch
4. Safety Data Sheets (SDS) for hazardous chemicals
5. Product specification sheet for new storage tank system to include the following
    a. Double walled about ground storage tank
    b. Automatic Level Alarm System
    c. Digital Tank Gauges
    d. Electronic Monitoring/Alarm Panel
    e. Leak Detection System
6. Manufacturer Warranty
7. Operations and Maintenance Manual

Safety Requirements:
1. Accident Prevention Plan:

The Contractor shall prepare an Accident Prevention Plan (APP) specific to the activities being performed. It shall include an Activity Hazard Analysis (AHA) as described in Section 2 below. All work shall be conducted in accordance with the APP, the U.S. Army Corps of Engineers Safety and Health requirements Manual (EM 385-1-1, most recent edition), and all applicable federal, state, and local safety and health requirements. A copy of EM 385-1-1 can be accessed electronically at Headquarters USACE website under publications using the following link: http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf

The APP shall detail how safety and health will be managed during the project. The APP shall address the requirements of applicable Federal, State and local safety and health laws, rules, and regulations. The Contractor shall comply with Federal Acquisition Regulation Clause No. 52.236-13 for Accident Prevention, which is added by reference. Special attention shall focus on the requirements of EM 385-1-1, specifically Section 01.A.12 through 01.A.17 and Appendix A, (Minimum Basic Outline for Accident Prevention Plan). The APP shall be developed by a qualified person. The contractor shall be responsible for documenting the qualified person's credentials. Work shall not proceed until the APP has been reviewed by the Government Designated Authority (GDA) and deemed acceptable for use on the project. USACE will provide a non-mandatory, fillable template APP. However, the contractor is permitted to submit their own plan, at a minimum it must meet the requirements listed in EM 385-1-1.

The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract, the penalties for noncompliance, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.

The Contractor shall conduct a safety meeting at the project site on the first day of work, whenever a new activity or phase of work begins, or at least weekly during the progress of work. All safety meetings shall be documented. The attached safety meeting form or a similar contractor-prepared form shall be used. Records of the safety briefings shall be submitted to the GDA weekly.

2. AHA:

An AHA shall be submitted for each major phase of work. A major phase of work is defined as an operation involving a type of work presenting hazards not experienced in previous operations or where a new subcontractor or work crew is to perform the work. The analysis shall define all activities to be performed, identify the sequence of work, the specific hazards anticipated, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level. Work shall not proceed on a phase of work until the AHAs have been accepted by the GDA. A preparatory meeting shall be conducted by the contractor to discuss the AHAs contents with all engaged in the activity. The preparatory meeting shall be conducted by the prime contractor and shall include all subcontractors and Government on-site representatives. The AHA shall be continuously reviewed and revised to address changing site conditions as appropriate.

3. Accident Reporting:

All accidents and near misses shall be investigated by the Contractor. All work-related recordable injuries, illnesses and property damage accidents (excluding on-the-road vehicle accidents), in which the property damage exceeds $5,000.00, shall be verbally reported to the GDA within 4 hours of the incident. Serious accidents as described in EM 385-1-1 Section 01.D shall be immediately reported to the GDA. ENG Form 3394 shall be completed and submitted to the GDA within five working days of the incident.

The Contractor shall complete the attached “USACE Contractor Monthly Summary Record of Injuries/Illness and Work Hour Exposure” (for prime and its subcontractors) and forward the completed form to the GDA no later than close of business on the 5th calendar day of the following month. The method of transmission by the prime contractor to the GDA shall be electronically.


Template APP.pdf


Weekly Safety Meeting.pdf


AHA template.pdf


ENG 3394 accident report.pdf


Contractor monthly record of accidents ai

Clean Up:
The Contractor shall practice good housekeeping to maintain a safe job site. The contractor shall keep the work area, including any storage areas, free from the accumulation of waste materials. Upon completing work in an area the contractor shall remove any tools, equipment, and

materials that are not the property of the government. Upon completion of work, the Contractor shall clean up the job site to the satisfaction of the Government.

Environmental Protection:
Containers for excess and/ or waste materials, rubbish, etc. shall be provided by the contractor at the site, and the site will be inspected/ cleaned on a daily basis. Water, air and land resources shall not be adversely impacted during the course of the work. Contractor will take necessary steps to ensure all federal, state, and local environmental regulatory requirements are met.

Government Resources:
The contractor is responsible for providing all materials to complete the project. Unless specified in the contract, the Government will not provide any equipment, telephone services or other resources. The contractor may use the restroom at the Project Office but must proceed directly to and from the restroom.

Omissions:
This contract may not cover all specified activities, steps, and procedures required to supply the contract product. In case of omission, the normal industry, state, or federal standards, practices, specifications, and/or guides shall prevail. In no instance shall an omission be reason to produce less than an acceptable product.

Quality Assurance:
The contractor is responsible for the quality control of the contract work. The government has the right to inspect and test all items called for by the contract, to the extent practicable at all times and at all places during the term of the contract.

Damage to Government or Private Property:
The Contractor shall be responsible for restoring any Government facilities or structures damaged as a result of the firm's operation. The Contractor shall also be responsible for any damage to private property or injury to any person as a result of the firm's operations. The Contractor shall notify the Technical Point of Contact immediately of damage to Government and private property and injury to any person resulting from the firms' operation.

Other Contracts:
The Government may undertake or award other contracts for additional work not related to this contract, and the Contractor shall fully cooperate with other Contractors and Government employees. The contractor shall not commit or permit any act, which will interfere with the performance of work by another contractor, or by Government employees.

Receiving and Storing Materials:
The contractor is responsible for protecting any stored material until it is placed in service. The contractor is responsible for receiving and unloading of delivered goods. Government employees will not receive material or supplies for the contractor and will not be responsible for damage to contractor equipment or material.

Part 2 Products:

1. **Above Ground Storage Tank System**
    a. **Double Walled Above Ground Storage Tank** – The secondary containment reservoir shall be the factory fabricated, steel type that fully encloses the primary storage tank. The containment reservoir shall conform to UL 142. The interstitial space between the primary tank and the containment reservoir shall be both

pressure testable and verifiable. Replacement tank shall have a capacity of no less than 400 gallons and no more than 500 gallons.

b. **Above Ground Tank Emergency Vent** – Vent shall be the normally closed, UL listed type that vents outward and upward. Vent shall conform to NFPA 30 and UL 142. Provided vent shall list the Liters per second (L/s) and/or the cubic feet per minute (cfm) rating permanently on the vents exterior.

c. **Automatic Level Alarm System** – Provide a system that will monitor 3 programmable liquid level set points. The system shall delineate between each individual set point. The system shall produce and audible and visible alarm in the event of monitoring and alarm condition. Mechanically actuated float assemblies shall be field adjustable. The system shall be totally independent of the tank gauging system. The set points shall be as follows:
    i. High Level Set Point – Produce an alarm condition when the tanks liquid level rises above 95 percent capacity.
    ii. High-High Level Set Point – Produce an alarm condition when the tanks liquid level rises about 98 percent capacity.
    iii. Low Level Set Point – Produce and alarm condition when the tanks liquid level drops below 15 percent capacity.

d. **Digital Tank Gauge System** – Gauge system shall be the mechanically or electronically actuated type that can continuously monitor a tanks usable liquid level storage capacity. The system shall provide a digital readout of a tanks liquid level in terms of inches and gallons. The system shall be accurate to plus or minus $1/16^{th}$ of an inch. The system shall measure water accumulation in inches from ¾ to 5 inches off the bottom of the storage tank. Construct system components to be chemically compatible with the fuel to be handled. For each tank monitored provide a sending unit that transmits the digital readout from the tank to an electronic display panel. Panel shall be standard industrial enclosure. The panel shall display the digital readout of each monitored tank on an LCD mounted exterior to the panel. The panel shall also have external controls to allow operators to toggle between information on the LCD without having to open the panel.

e. **Leak Detection System** – Provide a system, including sensors and detectors that is intrinsically safe for use in a Class 1, Division 1, and Group D environment as defined by NFPA 70. System shall be compatible with the fuel to be handled. Sensors shall distinguish and report the difference between hydrocarbons and water. Output and transmission from sensors and detectors shall be electronic. Sensors shall have a minimum probability of detection of 95 percent and a maximum probability of false alarm of 5 percent. Sensors and detectors shall be compatible with the electronic monitoring/alarm panel. Sensors shall be reusable after an alarm condition is sensed.

f. **Electronic Monitoring/Alarm Panel** – Panel shall perform continuous integrity check on the status of each sensor's connections and wiring. Panel shall include a battery backup (rechargeable) that can operate the complete leak detection system during a power failure for a minimum period of 48 hours. Submit shop drawings of the panel layout along with panel mounting and support details. Panel shall be compatible with and connected to the following:
    i. Tank interstitial sensors and detectors.
    ii. Sump sensors and detectors.
    iii. Automatic line leak detectors.
    iv. Monitoring well sensors and detectors.
    v. Digital tank gauge system.

Part 3 Execution:

1. **General Requirements:**
   Furnish labor, materials, and equipment necessary to remove storage tank and secondary retaining wall around storage tank, dispose of tank and concrete per state of Massachusetts regulations, and install new tank and monitoring system.

2. **Preparation:**
   a. Before removal of storage tank all fuel in lines will be piped back into the tank
   b. Existing fuel will be pumped out of the tank and stored on site in contractor provided storage containers for reuse by the government.
   c. Remove residual liquids trapped in lines and remove all residual product from the tank and dispose of per state of Massachusetts regulations.
   d. Contractor is responsible for obtaining all required permits and submitting all required certifications for the work of the contract.

3. **Removal Concrete Wall:**
   a. Concrete wall around storage tank shall be cut out using concrete saw or similar device.
   b. Wall shall be removed so that remaining area is flush with surrounding floor and wall and similar in appearance.
   c. All concrete shall be disposed of in accordance with state and federal laws.
   d. Floor shall be painted to match existing floor color.

4. **Removal Storage Tank:**
   a. All piping and ancillary equipment shall be disconnected from the storage tank.
   b. Storage tank shall be removed and disposed of in accordance with state and federal laws.
   c. Fuel in existing tank shall be placed in temporary storage during construction
   d. Existing filler pipe from tank to exterior of building shall be removed and hole in gatehouse wall shall be sealed with concrete

5. **Spills:**
   a. All spills will be cleaned up immediately.
   b. All spills shall be reported to the Technical Point of Contact immediately.
   c. Contractor will use best practices to prevent spills or leakage of any hazardous material.
   d. Contractor will take immediate action to contain or minimize any spill or leak.

6. **Installation of New Storage Tank:**
   a. New storage tank will be installed in accordance with the manufacturer's installation instructions, NFPA 30 and the Massachusetts Building Code.
   b. New storage tank will be inspected for visual damage prior to installation.
   c. The electronic monitoring / alarm panel will be located in the gatehouse adjacent to the new tank on the wall where the existing fuel level indicator is located.
   d. Contractor shall clean stored fuel and put it into the new tank

7. **System Tests & Training:**
   a. Contractor shall perform a leak detection system test.
   b. Contractor shall perform a level alarm system test.

c. Contractor shall provide a training session for government employees in the operation and maintenance of the electronic monitoring system.

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Informational Photos

Informational Photo Number 1: Overview of tank.

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Informational Photos

Informational Photo Number 2: Fuel pipe connections

Informational Photos

Informational Photo Number 3: Secondary containment wall.

Informational Photos

Informational Photo Number 4: Fuel Level Indicator.

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Bid Schedule

ITEM	UNIT	QTY	UNIT PRICE	TOTAL
Knightville Dam Gatehouse – Fuel Storage Tank Replacement	Job	1		