

Embassy Djibouti - Scope of Work

Fuel System Maintenance Work

February, 2021

1. Project Description

- 1.1. This project work is for maintenance and inspection of the fuel dispenser, fuel management system and fuel tank management system at the U.S. Embassy in Djibouti per this Scope of Work.
- 1.2. Inspect and maintain tank management system integrity.
- 1.3. Inspect, maintain software integrity of the fuel management system and fuel tank management system (Pneumercator) and adjust parameter deviations according to equipment commissioning document.
- 1.4. Inspect, troubleshoot, repair, and replace defective liquid level probes, liquid leak sensors, secondary containment sensors and external sensors.
- 1.5. Inspect, replace damaged fuel lines, fittings and flex hoses in the fuel storage tanks with the same material as per OEM and Standard Embassy Design (SED) requirement.
- 1.6. Inspect fuel line leakage and repair as required.
- 1.7. Calibrate the fuel dispenser meter.
- 1.8. Maintain accurate data transmission from the fuel master to the workstation computer.

2. Equipment Description

- 2.1.1. Bennette Gasoline/Diesel Fuel dispenser unit
Model 3122 SNM-SLLS2
Serial #: 2M857858
- 2.1.2. Fuel Master, Fuel Management Unit
SYN-TECH Systems, INC
Fuel Management Unit
Model# FMU2500
Serial # 8842
- 2.1.3. Fuel Tanks and Tank Management System
 - 2.1.3.1. Pneumercator Tank Management System
Model: TMS 3000, Listed 5L05, Serial #: N2415TM
 - 2.1.3.2. Pneumercator Tank Management System
Model: TMS 3000, Listed 5L05, Serial #: N2409TM
 - 2.1.3.3. Pneumercator Tank Management System
Model: TMS 3000, Listed 5L05, Serial #: N2409TM
 - 2.1.3.4. Underground Storage Tank (USTs), Qty-4
Size: 20K Gallon, 15K Gallon, 12K Gallon, 6K Gallon
- 2.1.4. Simplex Fuel Pump Control Panel
Model: Simplex Pump Selector Panel
REF#: 110338

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3. General Requirements

- 3.1. Material shipped into Djibouti for this project may be brought in duty free.
- 3.2. The Contractor must pay for transportation of all Contractor purchased material to the site and the U.S. Embassy will provide a tax exoneration certificate for customs.
- 3.3. Packaging and Marking
 - U.S. Embassy Djibouti
 - Lot 350 - B Haramous
 - B.P. 185
 - Republic of Djibouti
- 3.4. Contractor will provide airway and shipping bills to the Department of State Procurement and Shipping group for exoneration of duty on material used on this project.
- 3.5. All costs associated with shipping, transportation to the Embassy, and movement through customs is the responsibility of this contractor.
- 3.6. Security
 - 3.6.1. A list of employees who will work on this project, to include names (as shown on ID), and ID numbers must be submitted to the COR within one (1) week of the Notice to Proceed (NTP).
 - 3.6.2. Information on any vehicles which must come onto the Embassy Compound as part of this work must be submitted to the COR. This information is to include VIN number, license plate number, vehicle description, and color and must be submitted to the COR within one (1) week of the NTP.
- 3.7. Tools
 - 3.7.1. All tools must be provided by the contractor.
 - 3.7.2. All tools must be appropriate for the job. For example, the tools for working on fuel lines must be non-sparking.
 - 3.7.3. All tools must be taken off-site every day or stored in a container at the end of the workday.
- 3.8. Contractor Supplied Personnel Technical Qualifications
 - 3.8.1. Qualified Electrical and Phone/Data Labor
 - 3.8.2. Contractor shall have a U.S. Journeyman electrical certification for installation of all electrical work.
 - 3.8.2.1. The name and validation of the certificate must be submitted with the bid.
 - 3.8.2.2. The journeyman electrician must be on the job site at all times when electrical work is being performed.

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- 3.8.3. Contractor's journeyman electrician must have a current OSHA 30-hour training certification.
- 3.8.3.1. All personnel used in the performance of the electrical work shall be licensed and qualified electricians or electrical professionals as recognized by at least one U.S. State or local jurisdiction or possess an active National certification from a country which uses U.S. National Electric Code.
- 3.8.3.2. At least one team member must have 10 or more years of applicable electrical experience in the United States.
- 3.8.3.3. Resumes for all proposed team personnel detailing their experience **MUST** be submitted with the Cost Proposal or it will not be considered.
- 3.8.3.4. Similar installation experience must be clearly shown on all resumes submitted.
- 3.8.3.5. Equipment manufacturer technicians (factory representatives) are required to have Original Equipment Manufacturer (OEM) certifications and may supplement but not replace the U.S. staff.
- 3.8.4. Electrical Installation Labor
- 3.8.4.1. All contractor-provided electrical installation labor furnished under this task order and the electrical tasks to be completed thereto shall be executed only by journeyman and master level tradespersons, licensed to the trade which he/she practices from a recognized National Licensing organization.
- 3.8.4.2. Equipment manufacturer technicians (factory representatives) are required to have Original Equipment Manufacturer (OEM) certifications and may supplement but not replace the U.S. staff and must be under constant direction and supervision from licensed personnel.
- 3.8.5. Trade Licenses
- 3.8.5.1. All professional tradesmen licenses for Contractor personnel shall be current and valid at the time of COR review and shall be maintained and remain current and valid for the complete duration of the project execution.
- 3.8.6. Use of Non-Licensed Labor
- 3.8.6.1. Contractor use of non-licensed electrical laborers, helpers, etc. to execute, plan, lay out, or otherwise direct the execution of the electrical work activities under this task order is not allowed.
- 3.8.6.2. Local hired labor shall not perform functions beyond manual labor such as debris removal and must be directly managed and supervised by the contractor.

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4. Safety

- 4.1. Contractor must submit with the bid, a Company Safety Plan including a specific Safety Plan tailored to this project to include an Activity Hazard Analysis (AHA).
- 4.2. All safety plans must conform to USACE (Army Corps of Engineers) Safety and Health Manual EM-385.
- 4.3. General. The contractor shall provide and maintain work environments and procedures which will safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to contractor operations and activities; avoid interruptions of Government operations and delays in project completion dates; and control costs in the performance of this contract. For these purposes, the contractor shall:
 - 4.3.1. Provide appropriate safety barricades, signs and signal lights;
 - 4.3.2. Comply with the standards issued by any local government authority having jurisdiction over occupational health and safety issues; and,
 - 4.3.3. Ensure that any additional measures the contracting officer determines to be reasonably necessary for this purpose are taken.
 - 4.3.4. For overseas construction projects, the contracting officer shall specify in writing additional requirements regarding safety if the work involves:
 - 4.3.4.1. Scaffolding;
 - 4.3.4.2. Work at heights above two (2) meters;
 - 4.3.4.3. Trenching or other excavation greater than one (1) meter in depth;
 - 4.3.4.4. Earth moving equipment;
 - 4.3.4.5. Temporary wiring, use of portable electric tools, or other recognized electrical hazards. Temporary wiring and portable electric tools require the use of a ground fault circuit interrupter (GFCI) in the affected circuits; other electrical hazards may also require the use of a GFCI;
 - 4.3.4.6. Work in confined spaces (limited exits, potential for oxygen less than 19.5 percent or combustible atmosphere, potential for solid or liquid engulfment, or other hazards considered to be immediately dangerous to life or health such as water tanks, transformer vaults, sewers, cisterns, etc.);
 - 4.3.4.7. Hazardous materials—a material with a physical or health hazard including but not limited to, flammable, explosive, corrosive, toxic, reactive or unstable, or any operations which creates any kind of contamination inside an occupied building such as dust from demolition activities, paints, solvents, etc.;
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- 4.3.4.8. Hazardous noise levels.
- 4.4. Records. The contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to or theft of property, materials, supplies, or equipment. The contractor shall report this data in the manner prescribed by the contracting officer.
- 4.5. Subcontracts. The contractor shall be responsible for its subcontractors' compliance with this clause.
- 4.6. Written program. Before commencing work, the contractor shall:
 - 4.6.1. Submit a written plan to the contracting officer for implementing this clause. The plan shall include specific management or technical procedures for effectively controlling hazards associated with the project; and,
 - 4.6.2. Meet with the contracting officer to discuss and develop a mutual understanding relative to administration of the overall safety program.
- 4.7. Notification. The contracting officer shall notify the contractor of any non-compliance with these requirements and the corrective actions required. This notice, when delivered to the contractor or the contractor's representative on site, shall be deemed sufficient notice of the non-compliance and corrective action required. After receiving the notice, the contractor shall immediately take corrective action. If the contractor fails or refuses to promptly take corrective action, the contracting officer may issue an order suspending all or part of the work until satisfactory corrective action has been taken. The contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any suspension of work order issued under this clause.

5. Scope

4.1 FUEL OIL PUMPS CONTROL (Simplex or Phillips Typically):

Works will include all the below items as well as any other manufacturer recommended annual maintenance for the below listed components.

- 1. Control Panel(s)
 - a. Visually inspect controller
 - b. Check and tighten electrical connections as necessary
 - c. Test all fuses
 - d. Test all lights, LEDs, and alarm horns
 - e. Observe condition of contactor contacts as all pumps are turned off/on. Note: contactor to be replaced if severe arcing or chattering is observed.

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- f. Perform sequence testing as per original start-up documentation
- 2. Field Devices. Inspect and perform operational test on the following:
 - a. Manifold solenoids
 - b. Motorized supply / return valves
 - c. Supply Pumps
 - i. Leakage
 - 1. Observe for leakage from external pressure seals, special attention to functional element and leak detector port (if applicable)
 - 2. Is packer seal manifold seal tight to keep water from inside of the tank?
 - 3. Check tightness of Functional or Pressure stat element screws.
 - 4. Check integrity of all fittings attached to Fuel Oil Pump (FOP). Any kinked, missing, corroded, or damaged fittings or tubing should be noted
 - ii. Conduit
 - 1. Is conduit corroded or broken?
 - 2. Confirm that ground paths are installed and functional per NEC requirements.
 - iii. Yoke
 - 1. Verify Yoke screw is tight, and the threads are not stripped.
 - 2. Observe O-ring sealing surfaces under yoke are in good, non-corroded condition.
 - iv. Electrical
 - 1. Check ground wire to neutral for resistance (should be less than 2 ohms)
 - 2. Check the amp draw of the FOP while it is running at shut-of pressure and ensure it is within published norms.
 - 3. Check incoming voltage to the pump. High or low voltages can be detrimental to pump life.
 - d. Return Pumps
 - e. Specialty Valves
 - f. Remote Pushbuttons
- 3. Sequence Testing: Test system sequencing and alarms as per required for specific controller.
- 4. Inspect spares inventory.
- 5. Record all results

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4.2 FUEL DISTRIBUTION SYSTEM:

1. Inspect all piping runs for damage and leakage including:
 - a. Fill from remote fill points to UST
 - b. Supply and return between day tank and UST
2. Ensure USTs and sumps are properly vented, and sumps are clear of water, fuel, and debris.
3. Inspect manhole gaskets.
4. Inspect brine levels for USTs with interstitial fluid.
5. Ensure day tanks are properly vented and emergency vented.
6. Adjust fill rate of day tanks to be below the level of the return pump.
7. Ensure manual valves and bypass valves are in the proper position and locked out where necessary.
8. Clean or replace all strainers and filters
9. Inspect and test all specialty valves
10. Record Results

4.3 LEAK AND LEVEL MONITORING SYSTEM (Pneumercator or Veeder Root Typically):

1. Before inspection, verify that system configuration has not been damaged or corrupted from the settings that were programmed at start-up.
2. Test all lights, LEDs, and alarm horns.
3. Investigate and clear all alarms.
4. Test all sensors. Test discriminating sensors with both water and fuel. Clean all sensors
5. Pull probes:
 - a. Inspect for damage
 - b. Clean probe shaft
 - c. Test and recalibrate probes as necessary in comparison with manual gauging on the tank with the tank calibration chart.
6. Check that Fuel Pump Controller levels match those of the Leak and Level Monitoring System
7. Test remote alarm panels at remote fill
8. Ensure proper operation of remote displays
9. Test operation of all inputs and outputs
10. Record all results

4.4 DISPENSING

1. Control panel(s) or Control Boxes
 - a. Visually inspect controller
 - b. Check and tighten electrical connections as necessary
 - c. Test all fuses
 - d. Test all lights, LEDs, and alarm horns

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- e. Observe condition of contactor contacts as all pumps are turned off/on. Note: contactor to be replaced if severe arcing or chattering is observed.
- f. Perform sequence testing as per original start-up documentation.
- 2. Field Devices. Inspect and perform operational test on the following:
 - a. Supply Pumps
 - i. Leakage
 - 1. Observe for leakage from external pressure seals, special attention to functional element and leak detector port (if applicable)
 - 2. Is packer seal manifold seal tight to keep water from inside of the tank?
 - 3. Check tightness of Functional or Pressure stat element screws.
 - 4. Check integrity of all fittings attached to Fuel Oil Pump (FOP). Any kinked, missing, corroded, or damaged fittings or tubing should be noted
 - ii. Conduit
 - 1. Is conduit corroded or broken?
 - 2. Confirm that ground paths are installed and functional per NEC requirements.
 - iii. Yoke
 - 1. Verify Yoke screw is tight, and the threads are not stripped.
 - 2. Observe O-ring sealing surfaces under yoke are in good, non-corroded condition.
 - iv. Electrical
 - 1. Check ground wire to neutral for resistance (should be less than 2 ohms)
 - 2. Check the amp draw of the FOP while it is running at shut-off pressure and ensure it is within published norms.
 - 3. Check incoming voltage to the pump. High or low voltages can be detrimental to pump life.
 - b. Shear Valve Operation
 - c. Dispenser:
 - i. Dispenser components inside cabinet clean and dry; sump dry
 - ii. Emergency shutoff valve properly anchored, positioned and tested
 - iii. Filter(s) within owner's expected service life
 - iv. Fire extinguisher has proper pressure and is in good condition
 - v. Dispenser door panels and licks operate easily.
 - vi. Nozzle flow rate within tolerances
 - vii. Nozzle automatic shutoff working properly
 - viii. Nozzle no-pressure/no-flow feature working properly
 - ix. Electrical conduit, junction boxes, and wiring in good condition hanging hardware continuity tested and passed.

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- x. Dispenser properly grounded
 - xi. Emergency stop switch(es) tested and working properly
 - xii. Nozzle spout tight, round, no cracks, no excessive wear
 - xiii. Automatic shutoff hole open and in good condition
 - xiv. Nozzle hold-open latch straight, moves freely, return spring operates properly
 - xv. Nozzle body and scuff guard clean, in good condition, warnings easily read.
 - xvi. Nozzle/hose connection clean and dry
 - xvii. Swivel fitting clean, dry, and moves easily
 - xviii. Hose in good condition, no cuts, cracks, bulges, blisters, flat spots, kinks or worn spots
 - xix. Dispenser/hose connection clean and dry
 - xx. Breakaway is clean and dry
 - xxi. Whip hose in good condition, no cuts, cracks or blisters.
 - xxii. Fittings at end of whip hose clean and dry
 - xxiii. Island or pavement around the dispenser shows no sign of recent spills or leaks
 - xxiv. Calibrate and verify dispenser pulse rate per liter with volume of calibration vessel
- 3. Inspect spares inventory
 - 4. Record all results

4.5 MATERIALS:

Unless otherwise noted in the proposal, the contractor will only bring what replacement materials are specifically requested for the service.

4.6 TRAINING:

Training will be offered to the Embassy appointed maintenance staff upon request. Training of the maintenance team will be conducted to ensure that whoever is performing the maintenance form that point forward is doing it correctly and in accordance with the manufacturer's recommendations.

6. PROPOSAL SUBMITTAL: proposal shall be submitted to Procurement Group, U.S. Embassy Djibouti (DjiboutiProcurement@state.gov)

END SOW

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