

U.S. Embassy Djibouti - Scope of Work
FIRE PUMP DIESEL ENGINE EXHAUST SYSTEM REPAIR WORK
MARCH 2016

1. Project Description

- 1.1. This project work is to repair the defective installation on the exhaust system of the fire pump diesel engine at the U.S. Embassy in Djibouti per this Scope of Work.
- 1.2. Align the exhaust stack to the Engine exhaust tailpipe.
 - 1.2.1. The existing exhaust stack is misaligned from the engine exhaust tailpipe. The misalignment has broken the flex connector. The contractor has to align the existing exhaust stack to the engine exhaust tailpipe with good thermal expansion, structural integrity and optimal back pressure as per the manufacturer requirement.
 - 1.2.2. Replace and install new exhaust flex connector. The new flex connector must meet the manufacturer part requirement.
- 1.3. Exhaust System Leakage Repair.
 - 1.3.1. With the fire pump engine set operating, inspect the entire exhaust system, including the exhaust manifold, muffler, and exhaust pipe. Check for leaks at all connections, welds, gaskets, and joints — and make sure that the exhaust pipes are not heating surrounding areas excessively. Repair any leaks immediately.

2. General Requirements

- 2.1. Material shipped into Djibouti for this project may be brought in duty free.
- 2.2. 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.
- 2.3. Packaging and Marking

U.S. Embassy Djibouti
Lot 350 - B Haramous
B.P. 185
Republic of Djibouti
- 2.4. 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.
- 2.5. All costs associated with shipping, transportation to the Embassy, and movement through customs is the responsibility of this contractor.
- 2.6. Security
 - 2.6.1. 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).

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2.6.2. 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.

2.7. Tools

2.7.1. All tools must be provided by the contractor.

2.7.2. All tools must be taken off-site every day or stored in a container at the end of the work day unless specific arrangements are made for storage with the Facility Manager.

2.8. Contractor Supplied Personnel Technical Qualifications

2.8.1. Contractor shall have a U.S. Journeyman electrical certification for installation of all electrical work.

2.8.1.1. The name and validation of the certificate must be submitted with the bid.

2.8.1.2. The journeyman electrician must be on the job site at all times when electrical work is being performed.

2.8.2. Contractor's journeyman electrician must have a current OSHA 30 hour training certification.

2.8.2.1. 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.

2.8.2.2. At least one team member must have 10 or more years of applicable electrical experience in the United States.

2.8.2.3. Resumes for all proposed team personnel detailing their experience MUST be submitted with the Cost Proposal or it will not be considered.

2.8.2.4. Similar installation experience must be clearly shown on all resumes submitted.

2.8.2.5. Equipment manufacturer technicians (factory representatives) are exempt from this requirement and may supplement but not replace the U.S. staff.

2.8.3. Electrical Installation Labor

2.8.3.1. 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.

2.8.3.2. Equipment manufacturer technicians (factory representatives) are exempt from this requirement and may supplement but not replace the U.S. staff and must be under constant direction and supervision from licensed personnel.

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2.8.4. Trade Licenses

2.8.4.1. All professional tradesmen licenses (Certified Welder, Sprinkler Fitter, Pipe Fitter, Engine Mechanic, etc) 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.

2.8.5. Use of Non-Licensed Labor

2.8.5.1. 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.

2.8.5.2. Local hired labor shall not perform functions beyond manual labor such as debris removal and must be directly managed and supervised by the contractor.

3. Safety

3.1. 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).

3.2. All safety plans must conform to USACE (Army Corps of Engineers) Safety and Health Manual EM-385.

3.3. 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:

3.3.1. Provide appropriate safety barricades, signs and signal lights;

3.3.2. Comply with the standards issued by any local government authority having jurisdiction over occupational health and safety issues; and,

3.3.3. Ensure that any additional measures the contracting officer determines to be reasonably necessary for this purpose are taken.

3.3.4. For overseas construction projects, the contracting officer shall specify in writing additional requirements regarding safety if the work involves:

3.3.4.1. Scaffolding;

3.3.4.2. Work at heights above two (2) meters;

3.3.4.3. Trenching or other excavation greater than one (1) meter in depth;

3.3.4.4. Earth moving equipment;

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- 3.3.4.5. 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;
 - 3.3.4.6. 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.);
 - 3.3.4.7. 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.; or
 - 3.3.4.8. Hazardous noise levels.
- 3.4. 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.
- 3.5. Subcontracts. The contractor shall be responsible for its subcontractors' compliance with this clause.
- 3.6. Written program. Before commencing work, the contractor shall:
- 3.6.1. 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,
 - 3.6.2. Meet with the contracting officer to discuss and develop a mutual understanding relative to administration of the overall safety program.
- 3.7. 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.

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4. Scope of Work

- 4.1. Comply with the following industry standards contain provisions which are explicitly applicable to work of this section
 - 4.1.1. NFPA 20, Installation of stationary pumps for fire protection 2003 Edition.
 - 4.1.2. NFPA 37, Stationary Combustion Engines and Gas Turbines 2002 Edition.
- 4.2. Cut and extend (weld) the existing extended exhaust pipe to align to the engine exhaust tailpipe.
- 4.3. Welding: comply with ASME “Boiler and Pressure Vessel code”, section IX, for qualifications of welding processes and operators, including engine exhaust pipe welding where required. The welding certificates shall be to AWS D1.1 for structural and pipe welding.
- 4.4. The contractor has to align the existing exhaust stack to the engine exhaust tailpipe considering thermal expansion, structural integrity and optimal back pressure as per the manufacturer requirement.
- 4.5. Supports, anchors, and guides must comply with OBO SED standards, and Engine manufacturer requirements (see attachment for engine info).
- 4.6. The exhaust stack must be building supported; not engine supported.
- 4.7. Seismic: all new exhaust piping installation and bracing must be analyzed to be constructed to withstand a 0.5”G” force earthquake.
- 4.8. Install new Flex connector between the engine exhaust tailpipe and exhaust stack. Stainless Steel Flex 4” with one side four hole 150# flange and engine side clamp connection.
- 4.9. The flex connector shall not be used for misalignment. The purpose of the flex is to allow for thermal expansion and for isolating engine vibration for the rest of the exhaust system. Refer to NFPA 20
- 4.10. Test back pressure in the exhaust system and deliver readings to the Facility Manager with the engine manufacturer’s limit.
- 4.11. Insulate extended exhaust piping system except where shown to be non-insulated; apply SED specified thickness of exhaust piping insulation in compliance with insulation manufacturer’s instructions and recommendation. See attached SED spec reference.
- 4.12. With the fire pump engine operating, inspect the entire exhaust system, including the exhaust manifold, muffler, and exhaust pipe. Check for leaks at all connections, welds, gaskets, and joints — and make sure that the exhaust pipes are not heating surrounding areas excessively. Repair any leaks immediately.
- 4.13. Contractor is responsible for replacing any broken or damaged hardware damaged by this Contractor during this Work.

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5. AFTER IMPLEMENTATION

5.1. Provide 1 year installation warranty

6. Attachments

6.1. Equipment nameplate:

6.2. Equipment picture:

6.3. SED Spec for Fire Pump Installation.

7. POINTS OF CONTACT

7.1.CONTRACTING OFFICER: The Contracting Officer (CO) shall be the Embassy General Services Officer.

7.2.CONTRACTING OFFICER REPRESENTATIVE (COR) shall be the Embassy Facility Manager.

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

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