

STATEMENT OF WORK (SOW)

FOR

**FIRE PROTECTION SYSTEMS
(LIFE SAFETY)**

**U.S. EMBASSY NIAMEY,
NIGER**

MAY, 2020

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U.S. DEPARTMENT OF STATE

U.S. Embassy Niamey, Niger

1.0 INTRODUCTION

1.1 The United States Department of State (DOS) requires services to perform maintenance on the fire alarm system, fire pump and fire sprinkler system as required by the NFPA 72 and NFPA 25 standards. The objective is to perform inspection, tests and maintenance on the fire pump, fire sprinkler and fire alarm systems in order to maintain the systems in safe, reliable and efficient operating condition. The contract type is a firm fixed price contract for routine maintenance services paid at the scheduled rates. The contract will be for a one-year period, with four one-year optional periods of performance.

1.2 Service work to the fire pump and sprinkler system must be completed in accordance with the following:

NFPA 25; Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
NFPA 13; Installation of Sprinkler Systems
NFPA 72; National Fire Alarm Code
NFPA 20; Installation of Stationary Pumps for Fire Protection
NFPA 14: Installation Standpipe Systems

1.3 protected by an existing fire sprinkler system with a fire pump. The sprinkler system includes a ITT Centrifugal pump (8100 series); GPM: 1000 @ 335 Ft.hd and 145 PSI and Metron Diesel Engine Controller; Model: FD4-HJ 12V NEG.
The fire detection/alarm system is a NOTIFIER system. The system includes the following building interfaces: HVAC shutdown, elevator recall, smoke control.
The fire protection systems cover the Chancery, Marine Security Guards Residence, Utility, Support Annex and Parking Garage buildings.

2.0 OBJECTIVES

2.1 The purpose of this scope of work is to define the requirements for the maintenance tasks associated with the fire protection system. **The intent of this Task Order is to fully service and maintain the fire pump, fire sprinklers and fire alarm systems located at Post. Work shall be done in accordance with this SOW, project specifications, and be compliant with referenced codes.**

2.2 Restore full monitoring of fire sprinkler functions at fire detection/alarm panels.

2.3 The serviced fire protection system shall operate in accordance with NFPA 13, 25 and 72 as well as the original design intent at installation.

3.0 FIRE PUMP AND FIRE SPRINKLERS

3.1 All flow tests are to be performed at system designated test points/valves.

SPRINKLER/STANDPIPE SYSTEM MAINTENANCE REQUIREMENT CHART:

Device	Annual
All fire system valves including hydrants & yard sectional valves	Exercise
Flow alarm devices	Flow Test
Gauges	Inspect
Sprinkler heads	Inspect
Main Drain: control/valves	Flow Test; record static and residual pressures
Dry System low point drain	Inspect
Hi-Lo pressure alarm	Test
Tamper switches	Test
Standpipe hose valves	Flow test-exercise

DIESEL FIRE PUMP MAINTENANCE REQUIREMENT CHART:

Device	Annual
Fire Pump (pressure start)	Flow Test, Plot Curve Points
Pressure relief valve	Inspect
Coupling alignment	Inspect
Lubricate pump bearings	X
Fuel level	Inspect
Spills, vents	Inspect
Operate manual start	Flow Test
Engine oil	Inspect
Engine oil/filter	Change
Heat exchanger water flow	Inspect/Verify
Start/stop pressure setting	Inspect
Engine exhaust	Inspect/Verify
Pump house heat/ventilation functional?	Inspect/Test
Battery	Inspect
Pump Room drains	Inspect

WATER TANKS:

Device	Annual
Silt in tank	Inspect
Water level	Inspect
Water temperature above 40F	Inspect
Valves	Inspect/Exercise
Tank Interior	5 YEARS

3.2 All parts and materials will be government furnished equipment (GFE).

a) The Contractor shall provide all tools necessary to perform the work as specified in this SOW.

3.3 The contractor shall be responsible for removal and replacement of all ceiling tiles affected by the work. Contractor shall dispose of any excess materials or other construction debris.

- 3.4 Project Manager: Shall have a minimum of 2 years working experience with OBO projects and will be familiar with the requirements and procedures needed to produce a quality project for post and OBO/FIR division. – Proposed Project Manager's resume shall be included in the bid documents.
- 3.5 Fire Pump Certified Representative: Contractor personnel conducting fire pump work and/or testing shall be qualified and fire pump certified by the pump manufacturer. (fire pump located on post if US domestic fire pump – foreign fire pump technician shall have min 5 years of experience) – Copies of the certification(s) shall be included in the bid documents.
- 3.6 Automatic Sprinkler Technicians: Contractor personnel conducting automatic sprinkler and testing shall be qualified and experienced (min 5 years) and with NICET Inspection, Testing and Maintenance Level II – Copies of technician's resume and certification shall be included in the bid documents submitted to post.
- 3.7 Fire Alarm Technicians: Contractor personnel conducting fire alarm system work and/or testing shall be qualified and experienced in accordance with Section 4.3.3 of NFPA 72, *National Fire Alarm Code* and a minimum of NICET Level II certified. Copies of the certification(s) shall be included in the bid documents.
- 3.8 Acceptance of Work. The Contractor shall provide certification that work was approved and accepted by the POC at post. The Contractor shall fill out a work order completion form showing work was completed as required in section 3.0 and 4.0 of this SOW and provide the form to the Post Facilities Manager or his official representative. The contractor must submit validation that work was completed satisfactorily with request for payment.
- 3.9 The Contractor shall coordinate all work and testing of systems with the POC at post.
- 3.10 Contractor shall provide security clearance and travel information to Post and copy OBO/OPS/FPS for personnel traveling to post for generation of the country clearance cable. Information shall be provided at least 14 days prior to the day of travel.
- Full name.
 - Date of birth.
 - Place of Birth
 - Social security number.
 - Dates of visit.
 - Level of clearance.
 - Name of Company for third party contractors.
 - Flight Itinerary
 - State whether meets and assist at airport is needed.
 - State whether post is requested to arrange lodging/hotel accommodations.
 - State whether laptop, digital cameras or other electronics is needed for the task.

4. FIRE ALARM:

Device	Annual
Smoke Detectors	Test
Heat Detectors	Test

Beam Detectors	Test
Pull Stations	Test
Duct Smoke Detectors	Test
Water flow Switch	Test
Tamper Switch	Test
Strobes/Horns	Test

4.1 Smoke Detectors:

- a) All detectors shall be tested with a listed spray test smoke.
- b) All detectors shall be tested in all areas accessible to the contractor.
- c) Validation of all building interfaces shall be noted on test report (HVAC shut-down, elevator recall, etc).

4.2 Heat Detector:

- d) All restorable heat detectors shall be tested utilizing a heat gun (on low setting) or a hair dryer.
- e) Validation of all building interfaces shall be noted on test report (HVAC shut-down, elevator recall, etc).
- f) Non-restorable heat detectors SHALL NOT be tested using a heat source.

4.3 Pull Station:

- g) All pull stations shall be tested and re-set.
- h) Validation of all building interfaces shall be noted on test report (HVAC shut-down, elevator recall, etc).

4.4 Beam Detector:

- i) The beam detector shall be tested using the manufacturer's obscuration screen or equivalent.
- j) Test detector for total blockage of beam (trouble).

4.5 Flow-switch (building equipped with sprinklers only):

- k) The Contractor shall activate each flow switch utilizing the inspector's test valve.
- l) Time delay of alarm activation shall not exceed 90 seconds.

4.6 Tamper Switch (building equipped with sprinklers only):

- a) Each system valve tamper switch shall be tested by partially closing the valve to initiate a tamper signal, locking in the nearby monitor module.

Dry Valve:

- a) Test pressure switch using the inspectors test located on valve.

Alarm Devices:

- b) All sprinkler alarm devices shall be serviced per the table in section 3.0. Verify alarm panel device description/location for accuracy.
- c) All sprinkler flow initiation devices shall alarm within 90 seconds.

Tamper Switch:

- d) Switch shall give immediate activation of supervisory signal at the fire alarm panel.

System Checks:

- e) No visible water leaks or standing water (clogged drains).
- f) Record all test data, static pressures, residual pressures
- g) Fire pump test shall not activate general alarm (denotes system pressure problems).
- h) During weekly pump runs: verify fire pump and jockey pump start and stop pressures.

5.0 A COR AND POC AT POST

- 5.1 All questions concerning the scope and requirements of the U.S. Embassy, shall be directed to the COR (see below):

COR
Edward Richmond (FM)
RichomondEP@state.gov
Telephone # +227 99499000

- 5.2 The Point of Contact (POC) will be the contractor's contact at the U.S. Embassy. The POC will assist and direct the contractor when scheduling work, obtaining approved local supplies, and liaison with Embassy personnel during the course of the Project. All questions concerning coordination of installation activities while at post shall be directed to the POC (see below):

POC at Post

6.0 TASK ORDER PROPOSAL REQUEST

- 6.1 The contractor shall submit, within seven (7) calendar days of the receipt of a Task Order Proposal Request, to the CO, a proposal for the project. The cost shall be reimbursable for per diem and transportation based on actual costs submitted by the Contractor. Remaining costs shall be Firm Fixed Price. Site visit date will be established in the letter request for the site visit. Cost proposal shall include amounts for the following:

- a. The required number of labor hours by labor classification and labor rates.

- b. Travel, lodging and per diem rates in accordance with the Federal Travel Regulations/Joint Travel Regulation, and other similar costs.
- c. Airfare costs.
- d. Cost loading.
- e. Total proposed price.

6.2 Contractor shall provide a project schedule showing (at minimum) start/completion dates for the project.

7.0. SECURITY CLEARANCES

7.1 Cleared American workers with valid Top Secret security clearances must perform work within the CAA area.














8.0 DELIVERABLES/PAYMENTS

8.1 The Contractor shall receive payments per the basic contract.



8.2 The contractor must provide completed Inspection, Testing and Maintenance NFPA 25 and 72 form(s) showing work was accepted by post, with the invoice. A copy must be submitted/emailed to post and OBO/OPS/FIR/FPS Division. Recommended repairs and or replacement of equipment shall be commented on the completed inspection forms – NO REPAIRS ARE TO BE PERFORMED UNDER THIS CONTRACT. Email completed forms to Keith Lynn at LynnKE@state.gov and Jeff Berthiaume at BerthiaumeJA@state.gov.

9.0 Attachments

NOB Fire Alarm Devices

Item#	Device	Symbol	Manufacturer	Part Number	Qty Installed
1	Manual Pull Station/Addressable		Notifier	NBG-12LX	54
2	Photoelectric Smoke Detector		Notifier	FSP-851R	50
3	High Heat Detector/Addressable		Notifier	FST-851H	9
4	Heat Detector/Addressable		Notifier	FST-851R	18
5	Photo-heat Smoke Detector/Addressable		Notifier	FAPT-851	366
6	Beam Detector/Addressable	 BT  BR	Notifier	FSB-200	3
7	Wall Horn-Strobe	 15cd	System Sensor	P2WL	19
8	Wall Strobe	 15cd	System Sensor	SWL	3
9	Outdoor Wall Horn-Strobe	 15cd wp	System Sensor	P2WK	2
10	Ceiling Horn-Strobe	 15cd	System Sensor	PC2WL	147
11	Ceiling Strobe	 15cd	System Sensor	SCWL	100
12	Wall Horn		System Sensor	HRL	7

US Embassy NIAMEY**Scope Of Work****Fire Protection System Service Contract**

					
13	Outdoor Wall Horn	wp	System Sensor	HRK	2
14	Duct Smoke Detector		System Sensor	DNR	36

FIRE ALARM PREVENTIVE MAINTENANCE CHECKLIST: ANNUAL**Procedure**

- ☐ Operational Test Fire Alarm Control Panel.
 - Perform operational test on fire alarm control panel.
 - De-activate signal circuits on fire alarm control.
 - Simulate alarms on each zone - check system for proper operation including alarm bells, elevator
 - Capture, releasing of fire doors, notification of fire department, smoke control, etc.
 - Verify proper operation of all audible and visual devices.
 - Check that all sub panels and slave panels are working properly and are properly interfaced.
 - Perform lamp test. Replace defective lamps. Verify functionality of LEDs.
 - Restore signal circuits.
 - Verify proper operation of system trouble signals.
- ☐ Verify proper fuse size.
- ☐ Check disconnect switches for mechanical soundness.
- ☐ Check ground fault circuits.
- ☐ Inspect optical connections for defects.
- ☐ Perform a battery charger test.
- ☐ Perform a 30 minute battery discharge test.
- ☐ Measure regulated power supply voltage. Adjust as required.
- ☐ Submit work orders on improperly operating devices.

Fire Pump Assembly

Fire pump specifications	
Name brand:	AC FIRE PUMP
Pump Model #	ITT CENTRIFUGAL
Pump Serial#:	10-059046-10-01/QKL801

May, 2020

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Rated capacity	1000GPM
Speed (same as driver)	137.4 BHP @ 3000RPM
Fire pump Controller	
Name brand:	FIRETROL
Model#	FTA1100-JL12N
S/N	1824018-01RE
Electrical rating	220VAC-50Hz-20A – 12VDC NEG GND
Max Pressure	300 Psi
Fire pump Driver	
Manufacturer	CLARKE
Model	JU4H-UF54 – Diesel engine
S/N	PE4045T809625
Speed (same as Pump)	145BHP @ 3000RPM
Engine Series	JU4H Series
Jockey Pump	
Make	Goulds Water Technology
S/N	3SV18FE2M20
HP/RPM	2/2900
Psi	360
Jockey Pump Driver	
Make	Baldor Motors
Cat.no.	1200869953-000020
Model#	M35A13T123
RPM	2850
Voltage/Frequency/Amps	380VAC/50HZ/3.20Amps
Jockey Pump Controller	
Brand Name	Firetrol
Model No	M15-AH-2-380
SN	JK – 11N47867-21
HP/Voltage/Frequency	2HP/380V/50HZ
Amps/Phase	6.3A/3ph

END OF STATEMENT OF WORK

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