TECHNICAL SPECIFICATIONS

Electric Plant Fire Protection System Inspection, Testing & Maintenance Services

1. SCOPE

1.1 JEA is seeking a licensed and experienced local Company to provide the inspection, testing and maintenance (ITM) of fire alarm, fire sprinkler, CO2, Foam, Halon, and FM200 systems installed at their existing electric plants located throughout Duval County in Jacksonville, Florida.

1.2 Specific items in the proposal include the following:

- ITM of fire alarm systems.
- ITM of water-based fire suppression systems (to include fire pumps, backflow preventers, sprinklers/deluge, fire hydrants, PIV's, standpipe and hose systems, and underground fire main loop).
- ITM of dry pipe fire suppression systems.
- ITM of Clean Agent (CO2, FM200, Halon, & FE-227) fire suppression systems.
- ITM of Foam-based fire suppression systems.
- Time & Material (T&M) rates for Maintenance/Repairs.

2. APPLICABLE PUBLICATIONS

2.1 All materials and workmanship shall be compliant with the applicable requirements and advisory provisions of the latest edition of the following publications, as codified by the State of Florida and interpreted by the Authority Having Jurisdiction (AHJ):

National Fire Protection Association

NFPA 12	Standard on Carbon Dioxide Extinguishing Systems
NFPA 12A	Standard on Halon 1301 Fire Extinguishing Systems
NFPA 13	Standard for the Installation of Sprinkler Systems
NFPA 14	Standard for the Installation of Standpipes and Hose Systems
NFPA 16	Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems
NFPA 20	Standard for the Installation of Stationary Pumps for Fire Protection
NFPA 25	Standards for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
NFPA 37	Standards for Combustion Engines and Gas Turbines
NFPA 70	National Electrical Code
NFPA 72	National Fire Alarm and Signaling Code
NFPA 101	Life Safety Code
NFPA 850	Recommended Practice for Fire Protection for Electric Generating Facilities
NFPA 1962	Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems
NFPA 8506	Standard on Heat Recovery Steam Generator Systems

2.2 Materials and workmanship shall comply with the most recent Florida Building Code and all local codes and ordinances. The Company is responsible for obtaining any required permits and paying all permitting fees and charges associated with work on this contract. Local Alarm registrations and associated costs are the responsibility of JEA.

2.3 JEA is insured by Factory Mutual Insurance Company, also known as, FM Global. **Exhibit D** lists the FM Global Property Loss Prevention Data Sheets. This reference provides the insurance company's expected Fire Protection Inspection Frequency intervals.

3. FACILITY LOCATIONS AND CONTACTS

3.1 The JEA Representative or their designee shall be the primary contact and authorization for all work performed at the electric plants during normal work hours. In order to facilitate "Contractor Responsibilities", the Company shall, upon award, provide a contact to the respective JEA Representatives responsible for implementation.

	Contacts During Normal Work Hours	***Contacts After Hours***
3.2	Northside Generating Station (NGS) 4433 William Ostner Road, Jacksonville, FL 32226 Josh Howard (904) 665-7831 Office (904) 591-7930 Cell	904-665-6701 or 904-665-6703
3.4	Brandy Branch Generating Station (BBGS) 15701 West Beaver Street, Jacksonville, FL 32234 Mike Lafayette (904) 665-4607 Office (904) 422-2632 Cell	904-665-6602
3.5	Kennedy Generating Station (KGS) 4215 Talleyrand Ave, Jacksonville, FL 32206 Mike Lafayette (904) 665-4607 Office (904) 422-2632 Cell	904-665-6602
3.6	Greenland Energy Center (GEC) 6850 Energy Center Drive, Jacksonville, FL 32256 Mike Lafayette (904) 665-4607 Office (904) 422-2632 Cell	904-665-6602

4. GENERAL REQUIREMENTS

4.1 Qualifications: ITM tasks shall be performed by technicians trained or qualified in the inspection, maintenance and repair of fire protection systems and/or subsystems.

4.1.1 Only "trained or qualified" personnel shall perform ITM and repair tasks on the systems for which these personnel have been specifically qualified. Trained or qualified personnel may supervise other less qualified personnel in the execution of the tasks covered in this specification. At no time shall apprentice-level technicians be allowed to execute the ITM tasks under this specification without a qualified supervisor on site. Trained or qualified personnel shall perform ITM and repair tasks only within the scope of their specific qualification. Generally accepted qualifications include:

- National Institute of Certification in Engineering Technologies (NICET), Subfield of Inspection and Testing of Fire Protection Systems Level II or higher.
- Equivalent training and education as approved by the Division of State Fire Marshall.
- Certified Florida Fire Alarm System Agent (FASA).

4.1.2 All ITM work on fire sprinkler systems, CO2 systems, foam-water systems, and clean agent fire extinguishing systems must be performed by or under the on-site supervision of a person permitted by the State Fire Marshall employed under a **Contractor I** Certified Fire Protection Contractor as defined in Florida Statutes Section 633.021.

4.1.3 All ITM work on fire alarm systems must be performed by or under the on-site supervision of a Fire Alarm System Agent as defined in Florida Statutes Section 489.5185.

4.1.4 All Contractor personnel shall have and display an identification card compliant with the Florida Statute pertaining to his or her area of expertise anytime that they are on JEA premises to perform work.

4.1.5 Contractor shall have access to a Florida registered fire protection engineer available for engineering modifications.

4.2 Contractor's Responsibilities

4.2.1 Contractor shall maintain a sufficient fleet of vehicles for the reliable and timely transportation of personnel and materials from the Companies central location to the various JEA electric plant facilities.

4.2.2 Contractor shall provide communications between the base station and the service technicians at all times.

4.2.3 Contractor shall provide a single point of contact to be assigned to this Contract that will be accessible during straight time work hours. This person shall be the primary contact between the JEA and the Contractor. Should there be a change in employment for the primary contact (i.e., resignation, termination, etc.) the Contractor shall notify the JEA Representative within 24 hours of the event.

4.2.4 Contractor shall provide all labor, tools and equipment, including all personal protective equipment (i.e., safety glasses, safety-toed boots, hard hat, and hearing protection) needed for the scope of work.

4.2.5 Upon completion of inspections and/or maintenance services, the Contractor shall review the work performed to the satisfaction of the JEA Representative and provide a copy of the service report. In the case of a scheduled inspection, the Contractor shall immediately identify any as-found system deficiencies to the JEA Representative.

4.2.6 Contractor shall submit fire protection system inspection reports to the JEA Representative within one (1) week of the date of completion of the inspection.

4.2.7 Contractor shall notify the JEA Representative of all fire protection system deficiencies and categorize them as non-critical, critical or impairment. In addition, the Contractor shall provide corrective measures for the deficiencies, as well as, appropriate tagging procedures and cost estimates for repairs.

4.2.8 Contractor shall be responsible for all permits, fees, approvals, licenses and taxes.

4.2.9 Contractor shall verify existing conditions and dimensions prior to starting work. Any discrepancies must be immediately brought to the attention of the JEA Representative for review.

4.2.10 Estimates for maintenance and repairs shall be submitted in writing to the JEA Representative and must include, at a minimum, the estimated labor hours and material costs associated with the work.

4.2.11 Job sites are to be kept clean at all times. Contractor shall provide any and all dust curtains, temporary partitions, walk-off mats or any other barricade or process necessary to keep the job site clean. Contractor shall supply their own cleaning products. In office environments, the site will be vacuumed at the end of work each day. In field environments, areas will be kept broom-clean.

4.2.12 Contractor shall be responsible for removing from JEA sites; all debris, demolished items, and construction waste, including the proper and legal disposing of such.

4.2.13 The Contractor shall be responsible for repairing all damage caused to any building, structure, or its contents as a result of inspecting, maintain, testing or repairing damages to the fire protection systems or equipment. The Contractor shall work with the JEA Representative to make the repairs in an expeditious manner with as little impact as possible to plant O&M activities.

4.3 Contractor Safety

4.3.1 All employees of the Contractor, who perform work on JEA property, shall be JEA Safety Qualified. Supervisors will be required to receive Safety Leadership training as required by JEA Contractor Safety Program.

4.3.2 Site specific training will be required to work at each electric plant location. JEA Representatives will provide a PowerPoint Training module for the site location. Contractor is responsible for ensuring ALL personnel have received the appropriate safety training, as required by JEA Contractor Safety Program.

4.3.3 Contractors are required to wear proper Personal Protective Equipment (PPE). PPE minimums include safety footwear, hard hat and safety glasses. Hearing protection is required while working in electric plant power block areas and when operating machinery or equipment (including saws). Ripped jeans, shorts, tennis shoes, sleeveless shirts, and shirts with offensive logos or messages are not permitted. Footwear must have safety toes.

4.3.4 Contractor shall maintain a safe work environment at all times.

4.3.5 Contractor shall abide by the JEA Hot Work Permit Program, Lock Out/Tag Out Procedure and the Confined Space Entry Procedure.

4.3.6 Contractor shall abide by the JEA Contractor's Safe Work Practices Manual.

4.4 Security

4.4.1 A JEA issued security badge shall be visible at all times while on JEA property.

4.4.2 Background checks and mandatory training may be required for entry to NERC regulated spaces.

4.4.3 Contractor shall check-in and check-out with the JEA Representative to review the scope of work for the day.

4.4.4 Contractor may be required to obtain a valid TWIC (Transportation Worker Identification Credential) card prior to beginning work at JEA fuel unloading dock facilities.

4.4.5 Contractor shall wear uniforms displaying Contractor logo.

4.4.6 Parking is the responsibility of the Contractor. Parking on JEA property shall be approved through the JEA Representative.

4.5 Work Hours

4.5.1 Work Hours for Normal Hours or Straight Time (ST) are 7:00 AM to 5:00 PM or as scheduled by JEA.

4.5.2 Work Hours for After Hours or Overtime (OT) are 5:01 P.M. to 6:59 A.M. Monday through Friday, weekends and holidays. Overtime shall be approved by the JEA Representative.

4.6 Response Time

4.6.1 Contractor shall provide a monitored 24 hours a day, 7 days a week telephone number, in the event the Company's primary contact is not available for any reason.

4.6.2 The Contractor agrees to a maximum of a thirty (30) minute call back.

4.6.3 The Contractor shall have a technician on-site within two (2) hours for an Emergency Service Call and within eight (8) hours for a Standard Service Call.

4.7 Standard Service Call

4.7.1 All service requests performed during Straight Time Work Hours will be defined as a "Standard Service Call" and shall be invoiced at the Straight Time Hourly Rates indicated in the Respondent Rates Workbook. Upon notice of a Standard Service Call, the Contractor shall be on-site within 8 hours of the request. The service request by JEA will typically be made by phone call, by email, or both phone call and email.

4.7.2 In some instances, a service request may be mutually scheduled between the JEA Representative and the Contractor. In the event, the Contractor is not able to fulfill the scheduled appointment time, the Contractor shall notify the JEA Representative as soon as they are aware of the change.

4.7.3 Upon arrival at the plant site, the Contractor shall check-in with the JEA Representative who will provide a description and location of the problem, to the extent possible. Upon troubleshooting the problem, the Contractor will either place the system back into normal operation or provide the JEA Representative with a detailed explanation of the problem and verbal estimate to complete to the repair. Upon check-out from the plant site, the Contractor shall provide a Service Report to the JEA Representative. The Contractor shall follow up the verbal estimate with a written estimate to the JEA Representative within 24 hours.

4.8 Emergency Service Call

4.8.1 All service requests performed during Overtime Hours shall be considered an "Emergency Service Call" and shall be invoiced at the Overtime Hourly Rates indicated in the Respondent Rates Workbook. The Contractor shall demonstrate that they have capable personnel and established procedures in place to respond to an Emergency Service Call 24 hours per day, 7 days per week, inclusive of all holidays.

4.8.1.1 JEA may request and Contractor shall provide within 48 hours a local roster of personnel, emergency contact list (on-call list) and communication plan, with an hourly work schedule.

4.8.2 When emergency repair services are requested, the JEA employee making the request must be able to obtain voice contact with a person capable of assuring that the request has been received and that an appropriate response will be initiated. The Contractor shall provide a telephone response to the JEA employee making the request within 30 minutes. **Contractor personnel must be on-site ready to perform required services within two (2) hours, after the 30 minute call back of the initial request**. JEA retains the right to assess the Contractor for any damages caused by the Contractor's failure to respond within the specified time limitations. Company may be excused for not meeting a Response Time if the delay was due to Force Majeure evenest as defined in the Contract Documents.

Conditions such as employee illness, vehicle problems or similar situations are not acceptable reasons for an untimely response.

4.8.3 If the Contractor receives a request for an Emergency Services Call due to an issue that could have reasonably been detected during the periodic inspections, but was not reported by the Contractor, the Contractor is required to bear the full cost to resolve the emergency repair services.

4.9 Service Reports: Service Reports shall be submitted to the JEA Representative upon completion of a maintenance service call.

4.9.1 Upon check-out, the Contractor shall submit a legible Service Report describing, at a minimum, the work performed, parts replaced, hours worked, date worked, time-in, time-out, and Technician's name. Upon approval by the JEA Representative will sign and date the acceptance of the Service Report.

4.9.2 The Service Report shall serve as part of the backup documentation for payment invoicing and shall be submitted with the invoice.

4.9.3 If the Service Report uncovers a problem that has the potential to be a major problem, or if it may be the cause for plant shutdown repairs, this problem must be immediately brought directly to the attention of the JEA Representative so that a plan of action can be formulated for the timeliest repair to the equipment or system.

4.10 Inspection Reports: Inspection Reports shall be submitted to the JEA Representative after the completion of each inspection.

4.10.1 The Contractor shall indicate on the first page of the report, the frequency period (i.e., Quarterly, Semi-Annual, Annual, etc.) the date of the inspection, the Inspector's Name, the building # or location, the generating unit #, system name, etc. Sample inspection reports can be furnished by JEA upon request.

4.10.2 A verbal account of the inspection shall be provided to the JEA Representative at check-out for the day(s) prior to submission of the final written Inspection Report. The turnaround time for the Inspection Report shall not exceed one (1) week from completion of the inspection. The Inspection Report shall be submitted electronically to the JEA Representative.

4.10.3 If a problem is found that has the potential to be a major problem, or if it may be the cause for plant shutdown repairs, this problem must be immediately brought directly to the attention of the JEA Representative so that a plan of action can be formulated for the timeliest repair to the equipment or system.

4.11 Inspection & Testing Schedule: The Contractor and JEA shall work together to develop an inspection & testing schedule that will accommodate the required inspections and testing that will be performed at each plant site. In general, schedules will be based on previous inspection periods for each plant site, but are subject to change at any time based on SOCC dispatch needs, unit outage availability, etc. It is understood that the Contractor will need to exercise flexibility in this scheduling. JEA will, to the extent possible, try to notify the Contractor of changes to the schedule at least 48 hours in advance.

4.12 Inspection of Backup Batteries: The Contractor shall inspect all batteries installed in fire alarm and fire suppression panels semi-annually and annually as per NFPA 72 and shall perform all battery testing criteria as indicated in the testing table provided in NFPA 72.

4.12.1 The cost for testing and inspection of batteries shall be included in the semi-annual and annual fire alarm inspection/testing rates as indicated in the Respondent Rates Workbook.

4.12.2 Compensation for replacement batteries shall be reimbursed utilizing the hourly labor rates, actual battery cost, and material markups indicated in the Respondent Rates Workbook.

4.12.3 All removed batteries shall be disposed of by the Contractor in the proper manner at an appropriate off-site recovery location.

4.12.4 All new batteries shall be labeled with the date when the battery was installed.

4.12.5 All semi-annual and annual battery testing results shall be included in the subsequent fire alarm panel inspection reports.

4.13 On-Hand Parts Inventory

4.13.1 Contractor shall maintain an inventory of commonly utilized spare parts to ensure a "return to service" for defective equipment within 72 hours. Examples of commonly used spare parts would be pull stations, smoke detectors, heat detectors, horn strobes, tamper switches, batteries, pressure gauges, sprinkler heads, etc. At JEA's discretion, JEA may have the Contractor purchase certain long lead spare parts, so that they may be on-hand when needed. JEA will store these parts at their facilities and will reimburse the Contractor for the parts per the established rate structure in the Respondent Rates Workbook.

4.13.2 Parts supplied by the Contractor shall be invoiced on a cost plus markup basis, as indicated in the Respondent Rates Workbook.

4.13.3 For parts not in stock, the Contractor shall endeavor to find the least cost option that meets or exceeds the specifications of the original part. Original Equipment Manufacturer (OEM) replacement parts are not mandatory, however, parts shall meet the minimum requirements of JEA's insurance carrier FM Global.

4.14 Additional Project Requirements: The Contractor may from time to time be asked to provide a Lump Sum cost proposal for the expansion, upgrade, or replacement of existing fire alarm and fire protection systems.

4.14.1 Examples of fire system expansion or upgrades could be the replacement of a fire pump, fire pump controller, fire alarm panel, or other large, complex, or costly item not routinely included as a maintenance item. Upon request, the Contractor shall provide a Lump Sum cost proposal in writing to the JEA Representative for approval.

4.14.2 Solicitation of a Lump Sum cost proposal from the Contractor shall not preclude the JEA Representative from seeking alternate cost proposals from other sources.

4.14.3 Upon receipt of a Lump Sum cost proposal, the JEA Representative may request the Contractor's Lump Sum cost proposal be broken down into a Schedule of Values to include, but not be limited to, Labor, Material, and Equipment costs. The Contractor shall comply with this request.

4.15 Training: From time to time, JEA may request the Contractor to provide basic fire protection training for its employees.

4.15.1 The requested training may take place at the electric plant site or at the Contractor's training facility, if such a facility exists. At a minimum, the training desired could involve a basic overview of NFPA 25 & 72 required inspections, hands-on overview of fire alarm panel function, sprinkler system function, CO2 system function, fire pump operation and maintenance, walk-down of existing systems, etc.

4.15.2 The Contractor will be compensated for training activities by either negotiating a fixed fee for the training services or by utilizing the Hourly Rates in the Respondent Rates Workbook as agreed upon by the JEA Representative.

4.16 Asset Management - Service Tracking and Reporting

4.16.1 The Contractor shall possess the capabilities to track and report all services and inspections performed. Reporting shall include date of service, unit serviced, JEA provided PWO number, location, faults found and repairs/service performed, technician performing services, and parts/materials required to perform services, etc.

4.16.2 Within six (6) months of commencement of services, the Contractor shall conduct a complete verification survey of all electric plant facility fire protection systems listed in **Exhibit A**. The Contractor shall verify the asset inventory information by verifying the manufacturer's name, model number, serial number of all fire alarm panels, the number of horns, strobes, pull stations, # of circuits, building location, and unit location, etc.

4.16.3 In the event a major property unit (i.e., fire alarm panel, fire pump, etc.) is replaced by the Contractor during the term of the Contract, the Contractor shall provide the new asset information, described above, to the JEA Representative. Likewise, JEA will provide asset information for a new property unit should a different Contractor install the new unit.

5. SPECIFIC REQUIREMENTS - ITM

5.1 Fire Alarm Systems: Contractor shall inspect, test, and maintain the fire alarm systems at each JEA electric plant location. The inspection, testing, and maintenance of fire alarm systems, their initiating devices, and notification appliances, shall comply with the requirements outlined in Chapter 14 of NFPA 72, 2016 Edition or newer.

5.1.1 Frequency of inspections for all systems and system components shall be in strict compliance with the tables provided in NFPA 72 for respective systems and apparatus.

5.1.2 Visual inspections shall be performed in accordance with the schedules in NFPA 72, Table 14.3.1 or newer.

5.1.3 Testing of fire alarm systems and other systems and equipment that are associated with fire alarm systems and accessory equipment shall be according to the requirements and frequency of NFPA 72, Table 14.4.3.2 or newer.

5.1.4 Maintenance of fire alarm equipment shall be in accordance with the NFPA 72 requirements and manufacturer's instructions. Where manufacturer's maintenance recommendations are not available or do not exist for a particular equipment item, the Contractor shall maintain the equipment based on industry standard practices.

5.1.5 All normal testing and maintenance of systems described herein shall be conducted during straight time working hours.

5.2 Water-based Fire Suppression Systems: Contractor shall inspect, test, and maintain the automatic wet pipe fire sprinkler systems and associated support components including, but not limited to, fire pumps, fire pump controllers, jockey pumps, backflow preventers, fire hydrants, post indicator valves (PIV's), underground fire main loop piping, monitoring components, discharge devices, standpipes, and hose systems, etc.

5.2.1 Frequency of inspections for all systems and system components shall be in strict compliance with the tables provided in NFPA 25, 2014 Edition or newer, for respective systems and apparatus.

5.2.2 Where NFPA 25 does not stipulate a frequency of inspection, or testing and maintenance for a particular item the manufacturer's maintenance recommendations shall be followed. In the event that

manufacturer's recommendations are not available, or do not exist for a particular equipment item, the Contractor shall maintain the equipment based on industry standard practices.

5.2.3 In the event of an accidental discharge of the water-based fire suppression system due to improper testing, programming errors or other maintenance activities, the Contractor will be responsible for all costs associated with restoring the system to normal operating status and repairing all damages associated, including, but not limited to: replacement of extinguishing agent, reprogramming, damage to building, ceiling tiles, power plant equipment and cleanup of affected site areas, etc.

5.2.4 In addition to the quarterly and annual sequence of inspections and tests, the Contractor shall perform the tests required on a 3-year and 5-year basis for the locations where these tests are required.

5.2.5 The Underground Fire Main Loop shall be tested on a 3-year basis and shall be conducted in accordance with the FM Global Property Loss Prevention Data Sheets, **Exhibit D, Section 2.3.10**.

5.2.6 All normal testing and maintenance of systems described herein shall be conducted during straight time working hours.

5.3 Dry Pipe Fire Suppression Systems: Contractor shall inspect, test, and maintain the automatic dry pipe fire suppression systems and associated support components including, but not limited to, piping, monitoring components, discharge devices, control valves, standpipes, and hose systems.

5.3.1 Frequency of inspections for all systems and system components shall be in strict compliance with the tables provided in NFPA 25, 2014 Edition or newer, for respective systems and apparatus.

5.3.2 Where NFPA 25 does not stipulate a frequency of inspection, or testing and maintenance for a particular item the manufacturer's maintenance recommendations shall be followed. In the event that manufacturer's recommendations are not available, or do not exist for a particular equipment item, the Contractor shall maintain the equipment based on industry standard practices.

5.3.3 In the event of an accidental discharge of the dry chemical system due to improper testing, programming errors or other maintenance activities, the Contractor will be responsible for all costs associated with restoring the system to normal operating status and repairing all damages associated, including, but not limited to: replacement of extinguishing agent, reprogramming, damage to building, ceiling tiles, power plant equipment, cleanup of affected site areas, etc.

5.3.4 In addition to the quarterly and annual sequence of inspections and tests, the Contractor shall perform the tests required on a 3-year and 5-year basis for the locations where these tests are required.

5.3.5 A full flow trip test shall be performed annually on all transformer deluge systems. The Contractor will be required to document the tests, either by video or digital photographs to ensure, at a minimum, proper sprinkler head coverage. The video and/or photographs shall be submitted to the JEA Representative for approval.

5.3.6 All normal testing and maintenance of systems described herein shall be conducted during straight time working hours.

5.4 Clean Agent (CO2, FM200, Halon, or FE-227) Fire Extinguishing Systems: Contractor shall inspect, test and maintain the clean agent (CO2, FM200, Halon, or FE-227) fire extinguishing systems in accordance with the requirements of Chapter 7 of NFPA 2001, 2015 Edition or newer as well as NFPA 12, 2015 Edition or newer, for respective systems and apparatus.

5.4.1 Frequency of inspections for all Clean Agent systems and system components shall be in strict compliance with the requirements of applicable NFPA codes.

5.4.2 Where NFPA does not stipulate a frequency of inspection, testing and maintenance for a particular item the manufacturer's maintenance recommendations shall be followed. In the event that manufacturer's recommendations are not available, or do not exist for a particular equipment item, the Contractor shall maintain the equipment based on industry standard practices.

5.4.3 In the event of an accidental discharge of the Clean Agent system due to improper testing, programming errors or other maintenance activities, the Contractor will be responsible for all costs associated with restoring the system to normal operating status and repairing all damages associated, including, but not limited to: replacement of extinguishing agent, reprogramming, damage to building, ceiling tiles, computer equipment, power plant equipment, cleanup of affected site areas, etc.

5.4.4 Inspection, testing, and maintenance of CO2 fire suppression systems and associated support components includes, but is not limited to, piping, monitoring components, storage tanks, pressure valves, pull stations, etc.

5.4.5 All normal testing and maintenance of systems described herein shall be conducted during straight time working hours.

5.5 Foam Systems: Contractor shall inspect, test, and maintain foam-based pipe fire suppression systems and associated support components including, but not limited to, piping, monitoring components, foam storage tanks, discharge devices, and control valves, etc.

5.5.1 Frequency of inspections for foam systems and system components shall be in strict compliance with the tables provided in NFPA 25, 2014 Edition or newer, for respective systems and apparatus.

5.5.2 Where NFPA 25 does not stipulate a frequency of inspection, or testing and maintenance for a particular item the manufacturer's maintenance recommendations shall be followed. In the event that manufacturer's recommendations are not available, or do not exist for a particular equipment item, the Contractor shall maintain the equipment based on industry standard practices.

5.5.3 In the event of an accidental discharge of the foam suppression system due to improper testing, programming errors or other maintenance activities, the Contractor will be responsible for all costs associated with restoring the system to normal operating status and repairing all damages associated, including, but not limited to: replacement of extinguishing agent, reprogramming, damage to building, power plant equipment, etc.

5.5.4 All normal testing and maintenance of systems described herein shall be conducted during straight time working hours.

5.5.5 See **Exhibit E** for typical foam test procedures at JEA electric plants.

6. FIXED RATES (INSPECTIONS)

6.1 Inspections – Tab 1 in the Respondent Rates Workbook

6.1.1 NFPA scheduled inspections shall be performed at a Fixed Rate for Quarterly, Semi-Annual, Annual, 3-year and 5-year inspections intervals. Compensation will be made for each inspection that is performed per the bid costs indicated in the Respondent Rates Workbook.

6.1.2 The rates of all NFPA inspections shall remain fixed during the entire contract duration. Any adjustments to the pricing, due for example, to system expansions, errors in the estimated quantities, etc., shall be negotiated with the JEA Representative before the inspections are initiated.

6.1.3 Maintenance and repairs determined to be over and above the NFPA requirements for routine inspections will be invoiced utilizing the T&M rates established in the Respondent Rates Workbook.

6.2 The following explanation of Respondent Rates Workbook (Bid) Descriptions are provided below for the items on Tab 1.

Work Description	Location	Explanation of the Item being Bid
Fire Alarm System Inspection/Testing	ALL SITES Buildings	For work scopes associated with this line, Vendors shall utilize all Appendix A specifications (fire protection system descriptions, inspection reports, fire system loop drawings, plant specific test procedures, etc.) and applicable NFPA codes in developing the pricing for the fixed inspection price at the Inspection Interval for each JEA location provided in the Respondent Rates Workbook.
	ALL SITES Clean Agent	
Fire Sprinkler System Inspection/Testing	ALL SITES Wet/Dry	For work scopes associated with this line, Vendors shall utilize all Appendix A specifications (fire protection system descriptions, inspection reports, fire system loop drawings, plant specific test procedures, etc.) and applicable NFPA codes in developing the pricing for the fixed inspection price at the Inspection Interval for each JEA location provided in the Respondent Rates Workbook.
	ALL SITES Foam	
Fire Pump Inspection/Testing	ALL SITES	For work scopes associated with this line, Vendors shall utilize all Appendix A specifications (fire protection system descriptions, inspection reports, fire system loop drawings, plant specific test procedures, etc.) and applicable NFPA codes in developing the pricing for the fixed inspection price at the Inspection Interval for each JEA location provided in the Respondent Rates Workbook.
Fire Hydrant Inspection/Testing – including PIVS (where required)	ALL SITES	
Fire Sprinkler Back Flow Inspection Testing	BBGS & GEC	
Fire Hose Cabinets & Hoses	ALL SITES	
Underground Fire Main Loop Test	ALL SITES	

7. TIME & MATERIAL (T&M) COST METHOD

7.1 Payment

7.1.1 JEA will pay the Contractor for service calls using the T&M payment method as set forth below and the compensation provided shall constitute full payment for the work.

7.1.2 Pricing of all services calls shall be based on Hourly Labor, Parts/Materials, Equipment Rentals, and Subcontractor unit prices and markups submitted in the Respondent Rates Workbook.

7.1.3 Budgetary estimates for fire protection maintenance and repairs shall be submitted in writing to the JEA Representative and must include, at a minimum, the estimated labor hours and parts/material costs associated with the Work.

7.2 Invoicing

7.2.1 Within two (2) weeks of completion of the Work, the Contractor should submit a preliminary invoice to the JEA Representative for approval. A preliminary invoice can help to alleviate potential delays in final invoice approval and payment delivery. The preliminary invoice shall contain, at a minimum, the following backup documentation:

7.2.2 JEA Purchase Order number.

7.2.3 Plant Work Order (PWO) number.

7.2.4 Invoice number.

7.2.5 Description of services rendered, including fire protection system worked on, generating unit, and location.

7.2.6 Dates of service visit and copy of ***signed Service Report***.

7.2.7 Invoice summary for each service call or scheduled inspection to include line item expenses for labor, parts/materials, and subcontracts with totals for each. The invoice summary should also include the name of the Contractor employee(s) performing the Work, job classification, hours worked, dates worked, and hourly labor rates. For an example of an invoice template, see Attachment A.

7.2.8 Receipts for Parts/Material purchases.

7.2.9 Receipts for Equipment Rentals.

7.2.10 Receipts for Subcontractor costs.

7.2.11 Other backup documentation, as deemed necessary to verify accuracy of billing.

7.2.12 Upon approval by the JEA Representative, a final invoice shall be submitted per the JEA Purchase Order instructions, using the invoice template provided in Attachment A, or an approved equal.

7.2.13 Final invoicing shall be submitted within sixty (60) days of task completion.

7.3 Hourly Rates and Mark Ups - Tab 2 in the Respondent Rates Workbook

7.3.1 Labor Classifications

7.3.1.1 Fire Alarm Technician: Four (4) or more years of experience in commercial or industrial fire protection systems. Responsible for system testing, inspection and repairs. Provides professional and courteous customer service, exercise safety adequately and effective communication skills, etc.

7.3.1.2 Fire Alarm Helper: 0-4 years of work experience in commercial or industrial fire protection systems and working to achieve certification and training requirements for Technician Level.

7.3.1.3 Fire Sprinkler Technician: Four (4) or more years of work experience in commercial or industrial fire protection systems. Responsible for system testing, inspection and repairs. Provides professional and courteous customer service, exercise safety adequately and effective communication skills, etc.

7.3.1.4 Fire Sprinkler Inspector: Four (4) or more years of work experience in commercial or industrial fire protection systems. Responsible for system testing and inspection. Provides professional and courteous customer service, exercise safety adequately and effective communication skills, etc.

7.3.1.5 Fire Sprinkler Helper: 0-4 years of work experience in commercial or industrial fire protection systems and working to achieve certification and training requirements.

7.3.1.6 Electrician (Industrial): Four (4) years or more work experience as a journeyman electrician in an industrial environment peforming construction scopes of work. Must have valid journeyman's card. Provides professional and courteous customer service, exercise safety adequately and effective communication skills, etc.

7.3.1.7 Electrician (Fiber Optic): Four (4) years or more work experience as a journeyman electrician in an industrial environment and able to peform fiber optic scopes of work. Must have valid journeyman's card. Provides professional and courteous customer service, exercise safety adequately and effective communication skills, etc.

7.3.1.8 All Fire Alarm Technicians and their Supervisors must be certified by the State of Florida as a Fire Alarm System Agent (FASA).

7.3.2 Hourly Labor Rates

7.3.2.1 Maintenance and repair costs will be performed on a per-hour basis with a minimum of one (1) hour. Hourly Labor Rates shall be provided in the Respondent Rates Workbook and will begin when the Technician arrives at the job site.

7.3.2.2 Hourly Labor Rates shall be all-inclusive such that each job classification shall include wages, fringes, taxes, benefits, workers compensation, required personal protective equipment (PPE), general & administrative costs, tools and equipment, consumables, service truck & travel expenses (including fuel & maintenance), profit and overhead.

7.3.2.3 Hourly Labor Rates shall remain fixed during the first three (3) years of the contract and allowed an annual price adjustment in years four and five per the Solicitation Terms and Conditions.

7.3.2.4 Contractor shall make arrangements to allow all work as defined in this specification to be completed during Straight Time work hours.

7.3.2.5 Contractor will be paid at the "Hourly Rate" indicated in the Respondent Rates Workbook for all classifications of labor that are engaged in the Work.

7.3.2.6 Technicians shall be assigned a single job classification and shall be invoiced at that Labor Rate. In no instance shall a Technician be invoiced at a higher paying job classification, unless a promotion has taken place. In this instance, the JEA Representative shall be informed of the change within 48 hours.

7.3.2.7 Any labor classifications not covered by T&M Rates under this contract must be approved by the JEA Representative prior to the start of the work or service.

7.3.3 Replacement Parts

7.3.3.1 For replacement parts purchased by the Contractor and used in the execution of the work, the Contractor shall be paid the actual cost of such parts, including sales taxes if required, and freight and delivery charges as shown by original receipted bills. A mark-up amount shall be added to the parts cost, but shall not be added to applicable sales tax, expedite charges, delivery or freight charges. The mark-up amount shall equal the "Parts Mark Up" as stated in the Respondent Rates Workbook. The "Parts Mark Up" shall not exceed 15%.

7.3.3.2 The calculation for "Parts Mark Up" shall be expressed as follows:

Example: Cost of Replacement Part = $200.00
"Parts Mark Up" = 10%
Total Parts Cost plus Mark Up = $200.00 x 1.10 = $220.00

7.3.3.3 JEA reserves the right to select and approve, or to reject the parts/materials to be used and the sources of supply of any parts/materials furnished by the Contractor. OEM replacement parts are not mandatory if approved by the JEA Representative; however, parts shall meet the minimum requirements of JEA's insurance carrier FM Global.

7.3.4 Equipment Rentals

7.3.4.1 For those instances in which equipment rental is necessary for maintenance repairs, JEA will pay the actual equipment rental cost of such equipment, including sales taxes if required, and freight and delivery charges as shown by original receipted invoices. A mark-up amount shall be added to the equipment rental cost, but shall not be added to applicable sales tax, expedite charges, delivery or freight charges. The mark-up amount shall equal the "Equipment Rental Mark Up" as stated in the Respondent Rates Workbook. The "Equipment Rental Mark Up" shall not exceed 10%.

7.3.4.2 The calculation for "Equipment Rental Mark Up" shall be expressed as follows:

Example: Cost of Equipment Rental = $1,000.00
"Equipment Rental Mark Up" = 10%
Total Equipment Rental plus Mark Up = $1,000.00 x 1.10 = $1,100.00

7.3.4.3 JEA reserves the right to select and approve, or to reject the equipment to be used and the sources of supply of any equipment furnished by the Contractor.

7.3.5 Subcontracts

7.3.5.1 The Contractor will be permitted to utilize approved Subcontracts to assist with the execution of the work. JEA will pay the actual Subcontractor's cost as shown by copies of original receipted invoices. A mark-up amount shall be added to the Subcontractor cost. The mark-up amount shall equal the "Subcontract Mark Up" as stated in the Respondent Rates Workbook. The "Subcontract Mark Up" shall not exceed 10%.

7.3.5.2 The calculation for "Subcontract Mark Up" shall be expressed as follows:

Example: Cost of Subcontract = $500.00
"Subcontract Mark Up" = 10%
Total Subcontract plus Mark Up = $500.00 x 1.10 = $550.00

7.3.5.3 In no instance shall the value of the Subcontractor's work exceed that of the Contractor, unless prior approval is permitted by the JEA Representative.

7.3.5.4 JEA reserves the right to select and approve, or to reject Subcontractors to be utilized by the Contractor.

7.4 Administrative Costs

7.4.1 Administrative costs will not be permitted as a separate billable cost. These costs must be included in the rates stated in the Respondent Rates Workbook.

7.4.2 Time spent by the Contractor developing an estimate for a job will not be permitted as a separate billable cost. These costs must be included in the rates stated on the Respondent Rates Workbook.

8. JEA ELECTRIC PLANT OUTAGES

8.1 Outage Time Frames

8.1.1 During the term of this Contract, JEA will have scheduled maintenance outages on the electric generating units. During these times, the units will be shut down for major and/or minor maintenance repairs. Outages at the electric plants typically occur during the fall and spring of each year.

8.1.2 During electric plant outages, the Contractor may be requested to perform NFPA scheduled inspections or repairs. The Contractor shall coordinate with JEA to provide ITM services during these time periods.

Reference Material

Exhibit A – Fire Protection System Descriptions (All Plants)

Exhibit B – FM Global Main Loop Drawings (All Plants)

Exhibit C – Fire Protection System Flow Diagrams (All Plants)

Exhibit D – FM Global Property Loss Prevention Data Sheets

Exhibit E – Foam Test Procedure