

## 2026 APPENDIX A TECHNICAL SPECIFICATIONS

### NGS Boiler Refractory Repair Services

#### 1. SCOPE OF SERVICES

The Scope of Services includes, but is not limited to, furnishing all supervision, labor, materials, tools, equipment, consumables, and subcontractors necessary for refractory demolition, installation, and dryout which includes:

- 1.1 Brick mason work and anchor installation
- 1.2 Ramming
- 1.3 Pour casting
- 1.4 Dry gunning
- 1.5 Spray applications
- 1.6 Materials & equipment receiving, unloading, hauling, staging, and storage at designated locations
- 1.7 Qualifications Testing (both material and applicator) and the performance of other associated operations for all material, structures, equipment, and accessories described herein

#### 2. CODES, STANDARDS, AND REGULATIONS

2.1 Contractor shall perform all refractory repair work in accordance with established federal standards and regulations, local codes and regulations, and the current issues of the following codes and regulations.

- 2.1.1 American National Standards Institute (ANSI)
- 2.1.2 American Petroleum Institute (API)
- 2.1.3 American Society of Mechanical Engineers (ASME)
- 2.1.4 American Society for Testing and Materials (ASTM)
- 2.1.5 American Welding Society (AWS)
- 2.1.6 Occupational Safety and Health Administration (OSHA)
- 2.1.7 Applicable Industry Standards

In case of a conflict between the above codes and regulations, Contractor will perform all work in accordance with the more stringent code or regulation.

#### 3. GENERAL REQUIREMENTS

- 3.1 Contractor shall provide labor, materials, equipment, and subcontracts on an “as needed” basis for all aspects of refractory repair services.
- 3.2 All aspects of refractory repair services shall be accomplished utilizing standard industry procedures and practices. Workmanship will be performed in accordance with all applicable Federal and State regulations and per the conditions set forth within these guidelines.
- 3.3 The Contractor shall be qualified to perform all aspects of refractory work, including, but not limited to, the work scope listed herein. Brick mason work and anchor installation to be performed by journeymen bricklayers.

- 3.4 All work shall meet or exceed American Petroleum Institute (API) 936 Standards. The minimum requirements of quality assurance shall include material sampling and testing protocols set forth in API 936, applicator qualification testing protocols set forth in API 936, and all referenced codes and industry standards as requested by JEA.
- 3.5 Contractor shall comply with all Federal, State, and Local industrial safety rules, regulations, codes, and standards. Contractor shall also abide by all JEA Safety and Security Policies and Procedures, as a minimum requirement.
- 3.6 Contractor shall employ certified Journeymen capable of performing the kind of work assigned. All workers employed by the Contractor shall have thorough knowledge of their craft and have experience in an industrial environment. Any worker employed by the Contractor who exhibits inadequate experience or inability in their field shall be discharged at the discretion of the JEA Representative. Contractor shall maintain documentation verifying employees' skills in the form of resumes, certifications, training, etc. which will document an employee's ability in their field(s). Documentation will be made available to the JEA Representative upon request. See Paragraph 10.3 for additional information concerning the minimum requirements for each Labor Classification.
- 3.7 Contractor shall not initiate 'out of scope' services without obtaining prior authorization from the JEA Representative. For example, if during the Work a potential problem or issue is identified by the Contractor, the JEA Representative shall be notified immediately of the problem/issue and may then initiate an authorization to the Contractor for 'out of scope' services.
- 3.8 Estimates for all refractory repair services shall be submitted in writing to the JEA Representative and must, at a minimum, include the estimated labor hours, materials, and equipment costs associated with the Work. Unless otherwise directed, the cost proposal shall include all items necessary to perform a turnkey job.
- 3.9 The Contractor is advised that other projects may be in progress at the various plant sites during this agreement period. Coordination and cooperation with other Contractors, JEA personnel and others working in the plant area will be required to ensure the work will be completed safely and on schedule.
- 3.10 All materials and workmanship supplied by the Contractor shall be first quality in every respect in accordance with the best modern practice. Whenever there is a reasonable doubt about what is permissible and when the quality of any work is not stated, the interpretation which requires the best quality work is to be followed. All final decisions will be the responsibility of the JEA Representative.
- 3.11 Contractor shall be responsible for all labor and material costs associated with the replacement of any existing plant equipment, etc. components that may be damaged by the Contractor during the Work.
- 3.12 JEA will supply 110V and 220V power and may supply 80 PSI plant service air for the Contractor's use, when and where available.
- 3.13 JEA, upon request, will provide general arrangement drawings for the Contractor to use for the purpose of this contract.

#### **4. SPECIAL REQUIREMENTS**

- 4.1 Engineering & Technical Support: Contractor shall provide engineering, material specialist, and refractory chemist support as required for material selection, dryout schedule preparation, installation method recommendations, troubleshooting, and Redi-Shape design/coordination. This support shall be available during planning, installation, and post-

installation phases.

- 4.2 Precast and Off-Site Fabricated Refractory Components: Contractor shall receive, handle, and prepare expansion joint components (including stripper cooler toggles and Intrex return expansion joint pieces) for refractory placement. Contractor shall cast refractory into these components off-site, perform controlled dryout/pre-cure at 500–600°F minimum, and return components to JEA, ready for assembly and install.
- 4.3 During the execution of the work, contractor shall always have on site at least one (1) API 936 Certified Refractory Person (Supervisor, Foreman, or Journeyman) for quality assurance and quality control. The API 936 Certified Refractory Person will be responsible for ensuring the installation, inspection, testing, and repair of refractory linings is performed per API 936 Standards.
- 4.4 Contractor shall furnish the JEA Representative with material compliance data sheet for all refractory products prior to installation of said products. Products must be approved by the JEA Representative prior to installation. Upon request by the JEA Representative, the contractor shall provide information concerning their material storage warehouse size and location.
- 4.5 Contractor will be responsible for removing and installing hardware that is necessary to install refractory or fire brick.
- 4.6 Contractor shall provide Certified ASME Code welders when working on pressure components or utilize an approved subcontractor to provide this service under all such applicable requirements.
- 4.7 Contractor's scope shall be directed by the JEA Representative so that all refractory repair services are coordinated with other contractors performing work so that impacts to plant operations or construction progress is minimized.
- 4.8 Contractor shall, if needed, visit the site of the Work, and become thoroughly informed of all conditions and factors which would affect the execution and completion of such Work. It is understood and agreed that all conditions and factors pertaining to the work sites have been properly investigated and considered in the preparation of the Contractor's quotation.
- 4.9 JEA may request, at any time, the Contractor to provide an electronic copy of the Contractor's corporate Quality Control Manual for review and verification.
- 4.10 Contractor shall provide a Primary Contact to be assigned to the contract that will be accessible twenty-four (24) hours per day, seven (7) days per week, inclusive of Holidays. This person shall act as the primary interface between JEA and the Contractor. Should there be a change in employment for the Primary Contact (i.e., promotion, resignation, termination, etc.) the Contractor shall notify the JEA Representative within twenty-four (24) hours of the event.
- 4.11 Contractor shall provide a Secondary Contact in the event the Primary Contact is not available for any reason.
- 4.12 Contractor shall provide around the clock on-site / off-site communication capabilities.
- 4.13 Contractor will not be required to provide an onsite office, but space can be provided for an office trailer. JEA will not be responsible for costs associated with contractor's onsite office space.
- 4.14 Contractor shall provide all sanitary facilities for their employees. Furthermore, Contractor shall be responsible and assume all liability for the cost of disposal of all waste products (such as general trash and sanitary waste) that are generated by the Contractor, unless prior arrangements are made with the JEA Project Representative.

- 4.15 JEA will provide scaffolding, as needed, through a separate service contract. Advanced prior approval will be required through the JEA Representative.
- 4.16 Contractor's employees shall have the Contractors' name and employee name on their hard hat.
- 4.17 Contractor shall verify existing conditions and dimensions prior to starting work. Any discrepancies must be brought to the attention of the JEA Representative.
- 4.18 Contractor shall supply qualified confined space entry attendants (hole watch personnel) as required by OSHA 29 CFR 1910.146 for Confined Space Entry. The expected roles and responsibilities of the confined space entry attendant include, but are not limited to, the following:
  - a) knowledge of the hazards that may be faced during the entry as well as the effects of those hazards,
  - b) monitor conditions inside and outside of the space, and
  - c) call for evacuation of the space in the event of an emergency detection of a prohibited condition.

At a minimum, confined space entry attendants shall be First Aid and CPR Certified, have documented proof of Confined Space Training, and documented OSHA 10 training, or approved equal, plus JEA Construction Site Specific Training. JEA reserves the right to remove confined space entry attendants deemed by JEA to not possess the necessary safety qualifications and experience.

- 4.19 If any service performed under this specification is deemed unacceptable by JEA or any regulatory agency to which JEA is subject, for reasons which are reasonably under the control of the Contractor, all fines and/or penalties assessed against the JEA by any regulatory agency which are due to actions/inactions fully attributable to the Contractor shall be paid in full by the Contractor.
- 4.20 Good communications foster good relationships and benefit all parties. The Contractor may be required to attend and actively participate in pre-construction meetings as well as weekly or daily status meetings. The Contractor shall provide a knowledgeable person who can speak and understand English for in-person or virtual meetings. Labor or service charges related to meeting attendance will be permitted upon prior approval by the JEA Representative.

## **5. CONTRACTOR SAFETY**

- 5.1 **IT IS EXTREMELY IMPORTANT THAT THE CONTRACTOR AND JEA WORK TOGETHER TO ADDRESS ANY SAFETY CONCERNS SUCH THAT POTENTIAL ACCIDENTS ARE AVOIDED.**
- 5.2 The Contractor is responsible for meeting all Contractor Safety requirements outlined on JEA's website ([https://www.jea.com/About/Procurement/Contractor\\_Safety/](https://www.jea.com/About/Procurement/Contractor_Safety/)).
- 5.3 JEA Site Specific Training (SST) is required for all Contractor employees working at each electric plant location. The JEA Safety Department or JEA Representatives will provide a PowerPoint Training module for the site location. These manuals are also located on JEA's website ([https://www.jea.com/About/Procurement/Contractor\\_Safety/Safety\\_Orientation\\_Training](https://www.jea.com/About/Procurement/Contractor_Safety/Safety_Orientation_Training)). Contractor is responsible for ensuring ALL personnel have received the appropriate safety training, as required by JEA Contractor Safety Program, and shall submit a roster of the employees who received the training.
- 5.4 Contractors are required to provide and always wear Personal Protective Equipment (**PPE**) while on all JEA electric plant sites. **PPE** shall include, but not be limited to, safety glasses, hard hats,

hearing protection, safety-toed boots, all types of work gloves, etc. **The cost of all PPE shall be included in the Hourly Labor Rates.**

- 5.5 Hearing protection is required while working in electric plant power block areas and when operating machinery or equipment (including saws).
- 5.6 Contractor employees are not permitted to wear ripped jeans, shorts, tennis shoes, sleeveless shirts, or shirts with offensive logos or messages.
- 5.7 Contractor shall always maintain a safe work environment. Contractor shall keep their work areas free of trip hazards/overhead hazards daily and shall maintain excellent housekeeping through the completion date of each task.
- 5.8 Contractor shall utilize barricades in accordance with the JEA barricade procedure or other processes necessary to keep the job site clean and isolated from JEA employees or other workers.
- 5.9 JEA utilizes numerous chemicals, industrial gases, and fuel types in the electric production process. During work, the Contractor may encounter or come near these hazardous elements. The Contractor and JEA Representative shall work closely to identify these hazards prior to entering a work area using Safety Task Assignment, Job Hazard Analysis, or similar template. Should the Contractor detect a gas leak or chemical spill in the work area, the JEA Representative shall be notified immediately, and all Contractor employees relocated to a safe distance upwind of the leak or spill.
- 5.10 Contractor shall abide by the JEA Hot Work Permit Program, Lock Out/Tag Out Procedure, and the Confined Space Entry Procedure.
- 5.11 Contractor shall abide by the JEA Contractor's Safe Work Practices Manual.

## **6. ENVIRONMENTAL**

- 6.1 JEA is under strict environmental standards with respect to all construction activities, including purchasing, delivery, erection, and operation / maintenance of equipment.
- 6.2 Violations of standards may result in fines against and/or imprisonment of the guilty parties. The Contractor's work shall comply with all applicable environmental standards. The Contractor is liable for breeches of permit conditions instigated by its personnel.
- 6.3 JEA shall assist the Contractor in environmental compliance by providing information upon request and monitoring the work. Environmental standards are contained in permits, permit application materials, Conditions of Certification, stipulations, and compliance documents. Copies of these documents are available for inspection at the JEA Environmental Compliance office. The Contractor shall cooperate fully with JEA in ensuring compliance, including participating in meetings, implementing the JEA Contract Administrator's instructions, and performing other actions as requested.
- 6.4 Contractor shall be responsible for the control and disposal of any hazardous materials. Contractor shall supply JEA with Safety Data Sheets (SDS) for all hazardous materials that are utilized during the execution of the work.
- 6.5 Asbestos or other toxic materials are prohibited and are not to be brought on any JEA site. Should the Contractor encounter materials within the plant sites that are suspected to contain asbestos, the Contractor shall immediately notify the JEA Representative for appropriate action.

## **7. SECURITY**

- 7.1 Contractor shall supply a list of names of the personnel they will be using for all refractory repair services to the JEA Representative one (1) week prior to start of a task so that they can secure their access into the plant. **Government Issued Photo IDs are required for all personnel that will be working on JEA property.**
- 7.2 Only authorized Contractor personnel shall have drive-on plant access. Contractor shall be responsible for transporting their personnel from the JEA designated parking area to their work area.
- 7.3 A JEA issued security badge shall be always visible while on JEA property.
- 7.4 Background checks and mandatory training may be required for entry to NERC regulated spaces.
- 7.5 Parking on JEA property shall be approved through the JEA Representative. Parking for Company vehicles and Company personnel vehicles is limited to four (4) vehicles within the NGS facility. All Company vehicles driven onto plant sites must be properly identified with Company placards and emergency contact information placed on the dashboard when vehicle is parked or left unattended. Additional parking for personnel is available off-site in the designated Contractor parking area. Additional information can be found in the Contractor Safety Management Process document on [jea.com \(https://www.jea.com/About/Procurement/Contractor\\_Safety/CSMPSafetyPre-QualOrientGuide\\_pdf/\)](https://www.jea.com/About/Procurement/Contractor_Safety/CSMPSafetyPre-QualOrientGuide_pdf/)

## **8. MOBILIZATION / DEMOBILIZATION**

- 8.1 Mob/Demob is a one-time, flat rate all-inclusive charge (round trip, portal-to-portal) that may apply to equipment and/or personnel that are not normally housed near the Work site. The Mob/Demob charge may include transportation costs and/or set-up/take-down costs. It is expected that the Contractor shall have most personnel and equipment housed within a short drive to the JEA work sites and that there will be little or no set-up/take-down charges for most equipment. Mob/Demob charges may vary depending upon the scope of services required for each refractory repair task. Mob/Demob shall be compensated under the following conditions:
  - 8.1.1 The Contractor and the JEA Representative shall discuss the scope of services required for the refractory repair services to arrive at a budgetary cost estimate, i.e., Not-to-Exceed (NTE) amount. The Contractor shall indicate in their NTE amount whether the scope of work necessitates Mob/Demob charges. If Mob/Demob charges are applicable, the Contractor shall provide an estimated cost for the Mob/Demob charges. The Contractor and JEA Representative shall utilize negotiations that are open and honest to arrive at a fair and reasonable Mob/Demob cost.
  - 8.1.2 The Contractor will be allowed to deliver and stage equipment and supplies on JEA property in an area designated by the JEA Representative.
  - 8.1.3 Mobilization shall include all activities and associated costs for transportation of Contractor's personnel, equipment and supplies to the work site; establishment of temporary buildings, facilities, or infrastructure, and other general facilities necessary for the Contractor to execute JEA directed tasks.
  - 8.1.4 Demobilization shall include all activities and associated costs for transportation of personnel, equipment, and supplies not required or included in the contract from the work site; including the disassembly, removal, and site cleanup of temporary buildings, facilities or infrastructure assembled on the work site for the specific task.

- 8.1.5 Payment for Mobilization shall be made once mobilization activities have ceased and an invoice has been submitted. Payment for Demobilization shall be made once demobilization activities have been completed to the satisfaction of the JEA Representative.

## 8.2 **EMERGENCY MOBILIZATION**

The Contractor must have ready access to labor, materials, and equipment (owned, leased, or rented) such that the Contractor will be ready to perform work within **TWO (2) HOURS NOTICE** under an Emergency Mobilization.

- 8.2.1 Upon issuance of a JEA Emergency Purchase Order, the Contractor shall be required to mobilize on-site **within TWO HOURS (2) hours** of emergency notification.
- 8.2.2 During an Emergency Mobilization, the Contractor's labor costs will be reimbursed at the Hourly Overtime Rates indicated in the Respondent Rates Workbook.
- 8.2.3 An Emergency Mobilization shall be invoiced at the Overtime Hourly Rates indicated in the Respondent Rates Workbook. The minimum billable hours for an Emergency Service Call shall be four (4) hours. 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. Once an 8-hour rest period has been reached, time shall be billed at the rates and provisions as established by section 9.
- 8.2.4 JEA shall make every effort to notify the Contractor as soon as possible of the required scope of work.
- 8.2.5 The Contractor shall provide the necessary resources to meet JEA's project work schedule.
- 8.2.6 Signature on the Response Form and executed Contract acknowledges the Contractor's acceptance that they will comply with the Emergency Mobilization time allowance of two (2) hours.

## 9. **WORK HOURS**

- 9.1 Straight Time (ST) hours are performed from eight (8) to twelve (12) hours per day (the "Normal Workday"), not to exceed forty (40) hours per week (the "Work Week"). A Normal Workday may take place during the day, afternoon, or night shift.
- 9.2 Overtime (OT) hours are performed outside of a Normal Workday or Work Week, including weekends and holidays. Overtime shall be approved in advance by the JEA Representative and shall be paid after an employee has worked forty (40) hours for the Work Week or worked more than the Normal Workday.
- 9.3 **Contractor shall not be permitted to perform overtime work without prior written approval from the JEA Representative.**

## 10. **TIME & MATERIAL (T&M) COST METHOD**

### 10.1 **Pricing and Payment**

- 10.1.1 JEA will pay the Contractor for T&M work in the manner set forth below and the compensation provided shall constitute full payment for the work.
- 10.1.2 Pricing of all T&M work shall be based on the Labor, Materials, Equipment (owned, leased, or rented), and Subcontract unit prices and markups submitted in the Respondent Rates Workbook.
- 10.1.3 The Contractor and the JEA Representative shall compare records of the work performed on a T&M basis at the end of each day. These records containing time sheets, material receipts, etc. shall be prepared the next day by the Contractor and signed by the Contractor Representative. A copy of these records shall be submitted to JEA the same day, but no later than the next day, for approval and signed by the JEA Representative. A complete copy of these records for the work shall be submitted with the invoice.
- 10.1.4 If the total estimated cost of a task Purchase Order is anticipated to surpass the agreed upon not-to-exceed price, the Contractor shall immediately notify the JEA Representative to discuss the additional cost exposure. Upon agreement of the cost changes, JEA will issue a change order to the task Purchase Order.

## 10.2 Invoicing

- 10.2.1 On a monthly basis, or mutually agreed to time frame, the Contractor shall submit a preliminary invoice to the JEA Representative for approval. The preliminary invoice shall contain, at a minimum, the following backup documentation:
  - 10.2.1.1 JEA Purchase Order number.
  - 10.2.1.2 Invoice number.
  - 10.2.1.3 Task Title.
  - 10.2.1.4 Invoice billing period.
  - 10.2.1.5 JEA Representative.
  - 10.2.1.6 Scope of Work or Task Order description, including, if applicable, # of units installed, i.e., square feet, linear feet, cubic feet, pounds, gallons, etc.
  - 10.2.1.7 Invoice summary for each task order to include line-item expenses for labor, materials, equipment (owned, leased, or rented), travel, and subcontracts with totals for each.
  - 10.2.1.8 Daily timesheet and equipment usage sheets signed off by the JEA Representative that indicates the number of labor hours worked each day.
  - 10.2.1.9 Per Diem & Travel expense will be permitted under this contract as per JEA Contractor Travel Policy. All Per Diem & Travel requests shall be compliant with the JEA Contractor Travel Policy. Per Diem shall be verified by valid government issued identification.
  - 10.2.1.10 Receipts for Material purchases.
  - 10.2.1.11 Receipts for Equipment Rentals including fuel costs.
  - 10.2.1.12 Receipts for Subcontract costs.
  - 10.2.1.13 Other backup documentation as deemed necessary to verify accuracy of billing.

- 10.2.2 Any markups for equipment or third-party services not covered under this contract must be submitted and approved by the JEA Contract Administrator prior to the start of Work.
- 10.2.3 Upon approval of the preliminary invoice by the JEA Representative, a final invoice shall be submitted per the JEA Purchase Order instructions.
- 10.2.4 Final invoicing shall be submitted within sixty (60) days of project task completion.

### 10.3 Labor Classifications

#### 10.3.1 Key Personnel Minimum Requirements

- 10.3.1.1 **Superintendent** – 10 years or more work experience in industrial plant refractory maintenance services. Responsible for organizing and supervising all on-site job activities. Ensures that crews and crew leaders are working efficiently towards timely job completion. Performs quality control duties, monitors supplies and equipment inventories, and maintains recordkeeping. Provides professional and courteous customer service, human resource management, training, leadership, effective communication skills, etc. At least 5 years of experience managing direct reports, including training and certifications that are compliant with applicable industry standards.
- 10.3.1.2 **Foreman** – 6 years or more work experience in industrial plant refractory maintenance services. Must be able to schedule and supervise the work of at least five (5) journeyman workers. Foreman will perform work when not scheduling or supervising the work of others. Provides training and technical assistance for co-workers, courteous customer service, safety & training, leadership, etc. The Foreman will report to the Superintendent and may be responsible for communicating with JEA daily to schedule work. Possesses training and certifications that are compliant with applicable industry standards.
- 10.3.1.3 **Journeyman** – 4 years or more work experience in industrial plant refractory maintenance services. Journeymen are responsible for all aspects of refractory repair work including brick mason work, pour casting, pneumatic gunning, and spray applications. Utilizes tools and equipment in a safe and efficient manner to minimize risk of injury, property damage, or loss of life. Journeyman shall possess training and certifications that are compliant with applicable industry standards.
- 10.3.1.4 **Journeyman Helper** – 2 or more years work experience in industrial plant refractory maintenance services. Helper duties vary from crew to crew and are only limited by individual competencies gained through work experience and training. Utilizes tools and equipment in a safe and efficient manner to minimize risk of injury, property damage, or loss of life.

### 10.4 Hourly Labor Rates

- 10.4.1 All aspects of refractory repair services 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 employee arrives at the jobsite.
- 10.4.2 Hourly Labor Rates shall be all-inclusive such that each job classification shall include wages, taxes, benefits, workers compensation, general & administrative costs, profit and

overhead, mileage to and from the JEA plant sites (unless Per Diem is applicable), and any other salary burdens for the worker's employment.

- 10.4.3 Hourly Labor Rates shall be quoted inclusive of ALL Personal Protective Equipment (PPE). See Paragraph 5.4 of this specification for additional details.
- 10.4.4 Hourly Labor Rates shall be quoted inclusive of ALL applicable training, certifications, and approvals required to operate vehicles and/or equipment and to safely perform the Work at the specified job sites in an environmentally responsible manner.
- 10.4.5 Hourly Labor Rates shall remain fixed for the first three (3) years of the contract. Thereafter, the Contractor may request a Consumer Price Index (CPI) adjustment annually, on the Contract anniversary date, as per the Contract Terms & Conditions.
- 10.4.6 Contractor shall complete all work as defined in this specification during Straight Time work hours, unless otherwise directed by the JEA Representative.
- 10.4.7 Contractor will be paid at the "Hourly Labor Rate" indicated in the Respondent Rates Workbook for all classifications of labor that are engaged in the Work.
- 10.4.8 The Overtime Hourly Rate shall not exceed 1.5 times the Straight Time Hourly Rate for work performed after normal work hours, including weekends and holidays. **Double Time (2X) rates for Labor may be permitted only with written approval by the JEA Representative.**
- 10.4.9 Contractor's employees shall be assigned a single job classification and shall be invoiced at that Labor Rate. In no instance shall an employee be invoiced at a higher paying job classification unless a promotion has taken place. In this instance, the JEA Contract Administrator and JEA Representative shall be informed of the change within 48 hours.
- 10.4.10 Inclusion of any Labor Classifications not covered by Fixed Rates under this contract must be approved in writing by the JEA Contract Administrator prior to the start of Work.

## 10.5 Materials Mark Up

- 10.5.1 For materials purchased by the Contractor and used in the execution of the Work, which will become a permanent fixture at the Plant (not consumables), the Contractor shall be paid the actual cost of such materials, including sales taxes, if required, and freight and delivery charges as shown by original receipted bills. A mark-up amount shall be added to these costs, but shall not be added to applicable sales tax, expedite charges, delivery, or freight charges. The markup amount shall equal the "Materials Mark Up" as stated in the Respondent Rates Workbook. The Mark Up amounts for each shall not exceed 10%.
- 10.5.2 The calculation for "Materials Mark Up" shall be expressed as follows:  
Example: Cost of Material = \$2,000.00  
"Materials Mark Up" = 5%  
Total Material Cost plus Mark Up = \$2,000.00 x 1.05 = \$2,100.00
- 10.5.3 JEA reserves the right to select and approve, or to reject the materials to be used and the sources of supply of any materials furnished by the Contractor.
- 10.5.4 JEA will pay a markup only on refractory used except for refractory that is purchased for jobs that are cancelled by JEA.

## 10.6 Returned or Unused Materials

- 10.6.1 To the extent that items can be resold by the Company, the Company agrees to take back for full credit or monetary refund to JEA all excess items

purchased pursuant to this Contract or items that may be added to this Contract in the future. Prior to stocking materials on site, the JEA Northside Generating Station Contract Administrator shall approve the purchase and stocking levels of materials maintained at NGS.

#### 10.7 Equipment Operating Costs

- 10.7.1 For equipment owned or leased and listed in the Respondent Rates Workbook under “Equipment Operating Costs”, the Contractor shall submit unit pricing (Daily Rate) for each Equipment Type.
- 10.7.2 All equipment operating rates (vehicles are not included) shall be quoted inclusive of all operations and maintenance costs, except fuel. Fuel charges will be permitted as a separate billable cost and shall require fuel receipts which clearly document the equipment for which they were used. JEA does not pay for fuel for vehicles.
- 10.7.3 The Daily Rate will be extended to a Weekly Rate by multiplying by 5. The Weekly Rate will be extended to a Monthly Rate by multiplying by 4. The Daily Rate will be divided by eight (8) to determine an Hourly Rate.
- 10.7.4 For equipment not listed but owned or leased by the successful bidder(s), JEA will obtain an equipment rate sheet at the commencement of the contract. The Contractor shall submit a Daily, Weekly, and Monthly Rate for each piece of equipment and these rates shall remain fixed during the five (5) year term of the contract including one-year renewal options, if exercised by JEA.
- 10.7.5 JEA will NOT consider any equipment other than what is listed in the Bid Workbook.

#### 10.8 Equipment Rental Mark Up

- 10.8.1 When large rental equipment (forklift, manlift, scissor lift, cranes, generator, 300 CFM air compressors or larger, rivet buster, jackhammers, and Pneumatic tear-out hammer) is utilized in executing the Work, 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%. JEA will NOT pay for rental fees on any small ancillary equipment (air hoses, gas saws, hammer drills, saw blades, ropes, harness, etc. used to perform the work).
- 10.8.2 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
- 10.8.3 Fuel charges for equipment rentals will be permitted as a billable cost and shall require fuel receipts which clearly document the equipment for which they were used.
- 10.8.4 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.

#### 10.9 Subcontract Mark Up

- 10.9.1 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%.

10.9.2 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

10.9.3 In no instance shall the value of the Subcontractor’s work exceed more than 15% of the contractor’s work unless prior approval is obtained from the JEA Representative.

10.9.4 JEA reserves the right to select and approve, or to reject Subcontractors to be utilized by the Contractor. Subcontractors must meet all the same requirements of the prime Contractor as stated in the Technical Specification.

#### **10.10 Small Tools, Safety, & Consumable Supplies**

10.10.1 Contractor shall include all costs associated with tools and consumables in the overhead percentage. JEA will NOT pay for itemized worker consumable or small tools, safety suppliers or any materials / consumables that do not become part of the Work (i.e., material installation that occurs on the Site).

#### **10.11 Home Office Overhead Percentage**

10.11.1 For all T&M tasks, the Respondent shall indicate in the Respondent Rates Workbook, their home office overhead compensation to be calculated as a percentage of the actual cost of work. This percentage shall include all absorbed and unabsorbed home office expenses associated with the Work. The percentage should contain all small tools, consumables, support facilities, field office trailers, field office administrative functions, utilities, safety equipment, other equipment not specifically called out in the Bid Workbook, personnel salaries and functions carried out by the firms’ home office. It shall include functions such as Safety (including on-site Safety Representatives), Quality Assurance / Quality Control (including on-site Quality Inspectors), Accounting, Payroll, Procurement, etc.

10.11.2 Administrative costs will not be permitted as a separate billable cost. These costs must be included in the Home Office Overhead Percentage.

- For example, 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 Home Office Overhead Percentage.

### **11. PER DIEM AND TRAVEL**

11.1 All Travel reimbursement shall be in accordance with the current JEA Contractor Travel Policy. A copy of the current policy is provided in Appendix D.

11.2 Contractor employees who qualify for per diem and travel shall be required to provide proof of residency by submitting a copy of their valid Driver’s License.

### **12. QUALITY ASSURANCE TESTING REQUIREMENTS**

12.1 Contractor shall comply with all recommended refractory sampling and testing methods described in the API (American Petroleum Institute) 936 Standards at the request of JEA. The minimum requirements of quality assurance shall include applicator qualification testing protocols set forth in API 936, material sampling and testing protocols set forth in API 936 as well as all referenced codes and industry standards.

- 12.2 A JEA Representative must be present for all sample testing to be considered valid. JEA reserves the right to request additional testing above the referenced standards or request any other testing deemed necessary.

### **13. GENERAL DESCRIPTION OF STEAM UNITS**

- 13.1 Northside Generating Station has three (3) electric steam generating units.
- 13.1.1 Units 1 & 2 are Foster Wheeler designed 310 MW Circulating Fluidized Bed (CFB) boilers firing coal and petroleum coke.
  - 13.1.2 Unit 3 is a Riley Stoker design, 537 MW oil and gas-fired boiler. Side elevations of each steam unit are included in Appendix C – NGS Boiler Drawings.
- 13.2 In addition to Northside Generating Station, this contract may be utilized at JEA's other power plant facilities, as needed.

### **14. SPECIFIC SITE WORK LOCATIONS**

Areas of refractory work may include, but are not limited to, the following areas:

#### **14.1 BOILER**

- 14.1.1 Ash Hoppers
- 14.1.2 Burners
- 14.1.3 Combustion Zone
- 14.1.4 Hot Gas Path
- 14.1.5 Headers
- 14.1.6 Wing walls
- 14.1.7 Doors
- 14.1.8 Duct Burners & Ducts
- 14.1.9 Division Walls
- 14.1.10 Furnace roof & outlets

#### **14.2 STRIPPER COOLERS**

- 14.2.1 Transfer chutes & piping
- 14.2.2 Interior walls and floors
- 14.2.3 Doors

#### **14.3 INTREX & DOWNLEGS**

- 14.3.1 Doors
- 14.3.2 Interior walls and floors

#### **14.4 CYCLONE**

- 14.4.1 Cyclone inlet duct
- 14.4.2 Doors
- 14.4.3 Cyclone walls
- 14.4.4 Cyclone outlet hood
- 14.4.5 Cyclone inlet expansion joint

#### **14.5 GAS PATH**

- 14.5.1 HRA inlet duct
- 14.5.2 HRA headers
- 14.5.3 Headers

14.6 MATERIAL HANDLING

- 14.6.1 Limestone Dryers

**15. BIDDING ADDITIONAL WORK**

- 15.1 JEA may request Lump Sum quotes from the Company(s) for any defined fixed scope repair service, which may be discovered during outage inspections. This approach is NOT to be used for emergency call out or T&M Repair Services. Additionally, JEA reserves the right to Bid out defined scope repair services.
- 15.2 Lump Sum Bids - JEA shall provide to the Company(s) in writing a request for defined scope of work and provide the Company an opportunity to Bid the work. JEA may request additional quotes for the work non-exclusive of this contract. JEA may elect to use a non-contract Bid, should a significant savings result.

**APPENDIX B MINIMUM QUALIFICATION FORM**  
**2026 Northside Generating Station Refractory Repair Services**

The minimum qualifications shall be submitted in the format attached. The references shall be presented in the order described below. In order to be considered a qualified supplier by JEA, you must meet all the criteria listed and be able to provide all the services listed in this specification. Submit with Bid or Proposal in accordance with the requirements of the solicitation.

Company shall ensure listed references can be contacted to verify minimum qualifications compliance. If JEA cannot contact the submitted reference, JEA may request an additional point of contact from the same reference, however, will not allow the Company to change references. If the reference cannot be verified, JEA may reject the submitted Bid or Proposal.

**RESPONDENT INFORMATION**

COMPANY NAME: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP CODE: \_\_\_\_\_


TELEPHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

- The bidder shall be American Petroleum Institute (API) 936 Certified.
- The Bidder shall have successfully self-performed and completed three (3) similar continuous service contracts in the past five (5) years date ending March 31, 2026. A similar continuous service contract is defined as a refractory repair services contract for electric generating station boilers with a minimum of 250 MW operating capacity.
- Each of the similar service contracts must have been valued at \$500,000 per year with customers located in the United States.
  - The Bidder may aggregate multiple service callouts, projects, or contracts with the same Customer to achieve the \$500,000 threshold.



	<b>ORGANIZATIONAL POLICY &amp; PROCEDURE:</b>	Contractor Travel Policy		
	<b>Corporate Policy Ref:</b>	<a href="#">Travel &amp; Mileage Expense Reimbursement Policy</a>		
	<b>Version Effective Date:</b>	01/06/2025	<b>Version:</b>	8

**POLICY STATEMENT:**

JEA’s travel requirements for contractors align with the travel guidelines outlined in the Travel & Mileage Expense Reimbursement Policy and Procedures, unless different travel terms are specified in the contractor’s contract or purchase order. JEA is authorized to provide reimbursements for certain expenses incurred by a non-JEA employee upon the traveler meeting all the requirements stated in this procedure. The proper approval process must be followed for a non-JEA employee to travel and receive reimbursement for expenses incurred.

**GENERAL DESCRIPTION of PROCEDURE:** These procedures provide assistance to the non-JEA traveler in making travel arrangements and filing a travel claim for reimbursement of travel expenses occurred.

**PROCEDURE:**

**I. TRAVEL REQUESTS:** Contractors must request approval for travel on official JEA business prior to commencement of travel. A Travel Request/Reimbursement Form for Non-JEA Travelers is located on the Grid and must be completed and submitted to the traveler’s approving authority before travel begins.

**II. GENERAL TRAVEL GUIDELINES**

- A. **Constructive Point of Origin:** The application of the constructive point of origin regulation will ensure that the traveler travels the shortest reasonable distance on business. Travel is deemed to be the usual place of business or residence, or the place where travel actually began, whichever is less.
- B. **Constructive Travel Time:** Time begins when the traveler departs for his/her destination, or at the latest time the traveler could reasonably have departed to arrive at his/her destination in time to accomplish the official business, whichever is later. The same applies to the return to the point of origin.
  - 1. For Air Travel (excluding rental automobile), Constructive Travel Time begins two hours prior to the time the traveler's conveyance is scheduled to depart (flight delays considered) and concludes one hour following the time the traveler’s conveyance arrives.

<b>OPP:</b>	Contractor Travel Policy	<b>Version:</b>	8
-------------	--------------------------	-----------------	---

2. Motor vehicle (including rental automobile) Travel Time begins at the time travelers actually begin driving to their destination. Mileage to pick up rental car is reimbursed.
3. If a traveler conducts personal business during official travel, the personal business shall be considered to have been conducted at the beginning or at the end of the travel and not (co-mingled) during the official business travel.

### **C. Transportation**

1. The traveler requesting approval to travel shall choose the most economical means of transportation, considering the nature of the business, the traveler's time, cost of transportation, meals, lodging, and incidental expenses required.
2. Reimbursement shall be made only for travel performed over direct routes to the destination unless circumstances prevent the use of the route. When travel is by indirect route for the traveler's own convenience, reimbursement for expenses shall be based only on such charges as would have been incurred over the direct route.
3. If the total miles from point of origin to point to destination exceeds 400 miles one way, the mileage reimbursement for use of a private motor vehicle shall be limited to the lesser of:
  - The IRS rate per mile (current mileage rate can be found on the IRS website); or
  - The lowest airline common carrier coach/economy fare to the nearest airport plus the cost of other means of transportation from the airport to the destination.

## **III. AUTHORIZED EXPENSES**

### **A. Airplane**

1. Travel by Common Carrier will only be reimbursed at the coach/economy fare rate purchased. Once the best option is found, proceed to the airline website to book the flight. A copy of the Traveler's air itinerary showing the cost of the coach/economy fare must be submitted. The Traveler is encouraged to select the most economical published fare.
  - A round-trip coach/economy fare greater than \$1,500 must be pre-approved by the Traveler's Chief.
2. Airline baggage fees will be reimbursed for the first checked bag for a trip lasting up to three business days. Baggage fee documentation must be submitted with reimbursement claim. Travel days in excess of three business days shall be reimbursed at the rate of 1 bag for every three business days.

<b>OPP:</b>	Contractor Travel Policy	<b>Version:</b>	8
-------------	--------------------------	-----------------	---

3. A copy of the itinerary showing the cost must be submitted along with the expense statements.

**B. Automobiles**

1. If travel is by private automobile, reimbursement shall be based on the IRS authorized mileage rate in existence at the time of travel. All mileage shall be completed from the Constructive Point of Origin to the point of destination. Vicinity mileage incurred while driving on official business may also be reimbursed.
2. No other reimbursement for expenses related to the operation, maintenance and ownership of a vehicle shall be allowed when a private motor vehicle is used on public business.

**C. Car Rental**

1. Rental cars may be used only if taxis or other means of transportation are less economical or otherwise impractical.
2. JEA has contracts with AVIS, Budget and Enterprise/National for car rentals and must be used where available. For reservations:
  - AVIS
    - <https://www.carrental.com/abgPartners/sof/>
    - 800-352-7900
    - Discount Code: B113410
  - Budget
    - <https://www.carrental.com/abgPartners/sof/>
    - 800-214-6094
    - Discount Code: B113410
  - Enterprise/National
    - <https://elink.enterprise.com/en/23/08/jea.html>
    - Account Number: XZ78612
3. Every effort shall be made to coordinate travel so that travelers share a rental car and thereby eliminate multiple cars at the same location.
4. Travelers must use the intermediate or standard class (or subordinate) of vehicles unless the number of passengers or the volume of equipment makes the intermediate/standard class impractical or if health or physical need requires a larger vehicle. A business justification for upgrades noting such must be included in the travel pre-approval.

<b>OPP:</b>	Contractor Travel Policy	<b>Version:</b>	8
-------------	--------------------------	-----------------	---

5. Personal accident insurance purchased by the traveler will not be reimbursed by JEA.
6. A receipt of itemized rental car charges must be obtained and submitted with the travel reimbursement claim.

#### **D. Lodging**

1. Reimbursement will be made for the cost of reasonably required overnight lodging when a traveler is required to be away from his/her place of residence on behalf of JEA business. Travelers shall select lodging that is the most economical available, consistent with the duties being performed. Traveler must use the search results from published internet travel agency such as Expedia, Travelocity, Orbitz, or similar for the specific travel parameters to compare available lodging rates for travel at the time of booking. Once the best option is found, proceed to the hotel website to book the lodging.
2. Travelers will be reimbursed for a single room rate; double occupancy rates may be obtained if two travelers share a room.
3. An extended stay facility may be obtained; however the expense must be reasonable, and every effort should be made to obtain government rates.
4. Travelers must document all lodging expenses with itemized statement and paid receipt from lodging facility. A receipt of itemized lodging expenses must be obtained and submitted with your travel reimbursement claim.
5. Personal expenses such as entertainment, in-room movies, in-room concessions (i.e., mini-bar charges) and other personal charges will not be reimbursed.

#### **E. Meals**

1. Reimbursement is authorized for meals for all travelers while in a business travel status at the following fixed subsistence / per diem rates, or, at the traveler's option, at the amount submitted, not to exceed the following fixed maximum subsistence rates, but in any case, only when travel begins before and extends beyond the times specified:
  - Breakfast - when Travel Time begins before 6:00 a.m. and extends beyond 8:00 a.m. The JEA breakfast per diem maximum is \$20.
  - Lunch - when Travel Time begins before 12:00 noon and extends beyond 2:00 p.m. The JEA lunch per diem maximum is \$25.
  - Dinner - when Travel Time begins before 6:00 p.m. and extends beyond 8:00 p.m. The JEA dinner per diem maximum is \$35.

<b>OPP:</b>	Contractor Travel Policy	<b>Version:</b>	8
-------------	--------------------------	-----------------	---

- International Travel – for travel outside of the United States, the per diem rate is doubled to \$100 per day.
2. The maximum JEA per diem rate of up to \$80 will be paid for an entire day. When Travel Time for that day begins before 6:00 a.m. and extends beyond 8:00 p.m.
  3. Per diem rates may not be claimed for meals (except those provided by common carrier transportation) made available without specific charge at a seminar, conference or training session.

**F. Incidental Transportation Expenses**

Other business travel expenses may be incurred and reimbursed. The traveler is encouraged to use good business judgement and to determine whether the expense considered would be incurred if the traveler had to spend at their own personal expense. The following other reimbursable business expenses incidental to the traveler are listed below:

1. Taxi fare
2. Ferry fares, bridge, road and tunnel tolls
3. Storage and parking fees
  - a. Valet parking may be selected when there is not a more economical means of parking or where less economical options present a safety concern. A business justification for the use of valet parking must be provided in the reimbursement claim.
  - b. One of the long-term (non-valet) airport parking options (vs. hourly parking) must be utilized for approved travel greater than 24 hours.
4. Communication expenses such as business telephone expenses and daily internet/wireless access to conduct JEA business or to inform family members or caretakers of travel delays.
5. Reasonable gratuities for services incurred at a cost (not to exceed 20% of the cost of the service or to exceed the total subsistence allowance in the case of meals).
6. Reasonable gratuities for services incurred without a cost (limited to \$10 per day); (receipts not required, but service justification must be indicated on travel reimbursement claim).

**IV. TRAVEL REIMBURSEMENT**

- A. JEA will reimburse the contractor in accordance with the payment terms and conditions as outlined in the company's contract or purchase order. All invoices must be submitted to Travel Services for auditing purposes. Once approved, the traveler's claim will be submitted to Accounts Payable for payment. A Direct Deposit form must be completed for payment. Form located on the Grid.

<b>OPP:</b>	Contractor Travel Policy	<b>Version:</b>	8
-------------	--------------------------	-----------------	---

- B. JEA will only reimburse the contractor for actual cost of travel expenses that are documented with receipts submitted with the expense statement.
- C. The traveler’s copy of the itinerary, ticket stubs, detailed paid hotel bill, rental car receipt, parking receipts, toll receipts, storage receipts, taxi receipts, telephone charges receipt, must accompany the request for reimbursement.

**V. DOCUMENTATION AND FORMS REQUIRED**

The Contractor's Travel Request/Reimbursement Form for Non-JEA Travelers shall include, but not be limited to:

- A. Name of each traveler
- B. Destination of the traveler (place of departure and destination)
- C. Dates encompassed by the travel (the time & date of departure and the time & date of return)
- D. Each day of travel will be entered in a separate column/line. Items of travel applicable to that day will be entered on the appropriate column/line. The cost of transportation (air, rental car) may be entered on day 1 of the travel.
- E. Per diem or meal allowance will be claimed as provided in Section III. E. of this document. Subsistence rates for eligible meals will be entered in the column/line of the day claimed.
- F. Traveler shall include the actual miles traveled on official business. Current IRS mileage rates will be applied.
- G. All other expenses associated with travel are to be itemized and entered on the specific day incurred on the appropriate column/line of the form.
- H. A Direct Deposit form must be completed and submitted to Accounts Payable. The Direct Deposit Form is located on Grid.

<b>APPROVED BY:</b>	<b>Joseph Orfano (Deputy CFO - PT) (01/29/2025)</b>
<b>REVIEWED NO CHANGES:</b>	
<b>ORIGINAL EFFECTIVE DATE:</b>	<b>05/26/1988</b>
<b>REVISION DATES:</b>	<b>06/25/2007, 12/11/2001, 06/18/2001, 11/29/200, 04/01/2010, 04/09/2020, 01/06/25</b>
<b>LAST REVIEW DATE:</b>	<b>05/28/2025</b>
<b>NEXT REVIEW DATE:</b>	<b>05/28/2026</b>
<b>KEYWORD(S):</b>	<b>Contractor, Travel, Expense, Receipt</b>
<b>LINKS/ATTACHMENTS:</b>	<a href="#">Travel Request-Reimbursement Form for Non-JEA Travelers</a> <a href="#">Payment Request Form</a> <a href="#">ACH Enrollment Form</a>

## APPENDIX E

### NON-EXPENDABLE TOOLS

**NON-EXPENDABLE TOOLS** – Cost less than \$1,500 and are used or worked by hand by a craftsman. These tools may be non-powered or powered by the following means: manual, electric, hydraulic, air or gas. These tools are of a very durable nature and are either not easily broken (such as a hand wrench) or are economical to repair (such as a power drill). These tools generally have a life of two or more years.

Anvil	Crimper, Band
Auger, Gasoline (Post Hole Digger)	Crimping Tool, Wire
Banding Machine, Hand Type	Cutter Glass
Bar Wrecking	Cutter, Bolt
Bar, Crow	Cutter, Cable
Bar, Decking	Cutter, Gasket
Bar, Pinch	Cutter, Tube
Bar, Pull Handle	Cutter, Tube
Base, Magnetic/Dial Test Indicator	Cutter, Weed, Gas or Hand
Bender, Cable	Cylinder, Hydraulic for Porta Powers
Bender, Conduit	Divider, Spring Type
Bender, Pipe	Dolly, Barrel
Bender, Tubing	Dolly, Beam
Binder, Load	Dolly, Caterpillar
Block, Wood	Dolly, Machine
Blocks, Metal – Snatch	Dolly, Pipe
Blower, Pneumatic Powered	Dolly, Pry
Bob, Plumb	Dolly, Warehouse
Box, Gang (Craft Storage)*	Door & Jamb, Butt Template, Kit
Box, Tool, Hand 32" (Length) Max.	Door Hanging Kit
Burner, Weed	Drill Press
Caliper	Drill, Air
Cart, Welding Bottle	Drill, Electric
Center Finder Set; Wiggler	Drill, Hammer
Chair, Bosun's	Drill, Hand
Charger, Battery	Embosser, Tape, Hand
Clamp, "C"	Etcher, Electric
Clamp, Carpenters	Extension, Socket Set
Clamp, Machinist	Fan, Exhaust to 48"
Clamp, Pipe Alignment	Float, Concrete, Hand Only
Clamp, Plate	Furnace, Propane, Melting
Cleaner, Drain – Electric	Gauge, Depth
Cleaner, Drain – Hand	Gauge, Feeler
Climber, Adjustable w/Pad & Straps	Gauge, Out of Round
Combination Sets – 6" to 18"	Gauge, Thickness
Creeper, Floor	Gauge, Wire

APPENDIX E – Contd.

**NON-EXPENDABLE TOOLS**

Grab, Pipe to 20"	Micrometer, Inside
Grinder, Air	Micrometer, Outside
Grinder, Electric	Mirror, Inspection
Grip, Wire	Miter Box, Electric or Hand
Grooving, Tool	Mortiser, Lock, Electric
Gun, Heat (115V)	Nailer, Air
Gun, Pop Rivet	Nibbler, Sheet Metal
Gun, Powder Actuated	Notcher, Pipe
Gun, Soldering	Oiler, Hand
Hacksaw, Power	Oven, Rod
Hammer, Chipping, Electric, Pneumatic	Pedestal, Grinder
Hammer, Rotary, Electric	Pin, Barrel
Handle, Pull for Socket Sets	Pin, Bull
Handle, Speed	Pin, Drift
Heater, Electric (115V)	Plane, Bench Jack
Heater, Gas	Plane, Block
Heater, Kerosene	Plane, Electric
Heater, LP	Plane, Versi
Hoist, Chain	Planer, Power Block, Electric HD
Hoist, Come-a-along	Pliers, All Types
Hoist, Puller, Wire	Pole, Pike
Hoist, Trolley, I Beam	Pot, Lead
Indicator, Dial Test	Prestolite Outfit
Iron, Soldering	Protractor
Jack, Hydraulic	Psychrometer,thickness tester, digital
Jack, Mechanical	Psychrometer,thickness tester, magnetic
Jack, Screw	Puller, Wheel Gear
Knockout, Hand	Pulley, Cable
Ladle, Lead	Pulley, Well
Level, Mahogany, 48" Brass Bound*	Pump, Barrel, Hand
Level, Precision, Hand Bench Type*	Pump, Hydraulic, Hand
Level, Rod	Pump, Test, Hand Operated, hydro
Marker, Lime, Rolling	Punch, Arch
Megger Meter	Punch, Clip
Meter, AMP, Clamp-on w/Case	Punch, Knockout
Meter, Millivolt	Punch, Sheet Metal
Meter, Moisture	Punch, Stud
Meter, Volt, OHM w/case	Push Drill
Micrometer, Depth	Ratchet & Handle for Hand Threader Sets

APPENDIX E – Contd.

**NON-EXPENDABLE TOOLS**

Ratchet, Wrench	Stand, Grinder
Reamer, Inner, Outer for Copper Tubing	Stand, Pipe
Reamer, Spiral, Pipe Only	Stand, Reel, Telescoping Screw
Reamer, Straight, Pipe Only	Stapler, Electric or Hand
Reel, Tie Wire	Straight Edge
Regulator, Acetylene	Stripper, Wire
Regulator, Argon	Support, Pipe – Roller Type
Regulator, Nitrogen	Tank, LP, 20# Only
Regulator, Oxygen	Tapewriter, Embossing (Hand Type)
Riveter, Hand	Tapper
Roller, Pipe	Telephone, Electrician's Testing
Router, Electric	Template, Hinge-Butt
Sander, Air Electric	Tester, Antifreeze
Saw, Abrasive, Electric Hand	Tester, Battery
Saw, Abrasive, Gasoline Hand	Tester, Circuit
Saw, Chain, Gasoline	Tester, Insulation
Saw, Circular, Electric	Tester, Motor Rotation
Saw, Hand	Threader, Bolt, OO-RB, 1/4"-1"
Saw, Jig	Threader, Pipe, 12R, 1/8" -2
Saw, Porta Band	Threader, Pipe, OO-R, 1/8"-1
Saw, Reciprocating	Tongs, Brick Carrier
Scaler, Needle	Tongs, Chain
Screed, Portable	Tongs, Pipe
Sharpener, Drill Bit	Tongs, Sheet Metal
Shear, Angle Iron	Tool, Flaring
Shears, Electric, Hand	Tool, Pick Up, Mag.
Shears, Trimming, Rotary	Tool, Soil Pipe Assembly
Sheaves, Cable, Tray Metal	Torch, Acetylene
Snips, Aviation, Hand	Torch, Prestolite
Snips, Metal Cut, Hand	Torch, Propane
Snips, Trim Hand	Universal, For Socket Sets
Socket for Hand Tools Only	Vacuum Cleaner, HD, Wet or Dry with Accessories
Socket Set	Vibrator, Concrete
Sprayer, Orchard	Vise, Machinist
Spreader, Flange	Vise, Pipe
Square, Combination	Welding & Cutting Outfit (Oxy/Acetylene)
Square, Framing 24"	Wrenches, Electric Impact
Square, Tri	Wrenches, Hand, All Types
Stand, Drill	Wrenches, Pneumatic Impact