

**DEPARTMENTAL INPUT  
CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION**

New     OTR     Sole Source     Bid Waiver     Emergency    Previous Contract/Project No. **FB-00074**  
 Contract **FB-00074**  
 Re-Bid     Other    LIVING WAGE APPLIES:     YES     NO

Requisition No./Project No.: **FB-01639**    TERM OF CONTRACT: **Five (5) Years**

Requisition /Project Title: **Chillers and Water Treatment Services**

Description: **The purpose of this solicitation is to establish a full service contract for A/C chiller systems and auxiliary HVAC equipment. This is a comprehensive program to include inspection, testing, preventive maintenance, emergency repair, and routine repair services for the County.**

Issuing Department: **ISD**    Contact Person: **Ruben Mejia**    Phone: **305-375-1291**

Estimate Cost: **\$9,500,000**

	GENERAL	FEDERAL	OTHER
	<u>X</u>	<u>X</u>	<u>X Proprietary Funds; Internal Service Capital; Operating</u>

Funding Source:

**ANALYSIS**

Commodity Codes: **906-44**    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_

Contract/Project History of previous purchases three (3) years  
Check here  if this is a new contract/purchase with no previous history.

**EXISTING**                      **2<sup>ND</sup> YEAR**                      **3<sup>RD</sup> YEAR**

Contractor: \_\_\_\_\_

Small Business Enterprise: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Comments: \_\_\_\_\_

Continued on another page (s):     Yes     No

**RECOMMENDATIONS**

	Set-aside	Sub-contractor goal	Bid preference	Selection factor
<b>SBE</b>	_____			

Basis of recommendation: \_\_\_\_\_

Signed: Ruben Mejia

Date sent to SBD: 06/15/2020

Date returned to DPM: \_\_\_\_\_

## **SECTION 2 - SPECIAL TERMS AND CONDITIONS**

### **2.1 PURPOSE**

The purpose of this solicitation is to establish a full service contract to provide all necessary labor, transportation, material, and equipment to furnish a comprehensive program to include the inspection, testing, preventive maintenance, Emergency repair, and routine repair services for Miami-Dade County (County) air conditioning and water treatment equipment. This solicitation will ensure that all air conditioning and water treatment equipment covered under this solicitation are operational at all times, and are maintained to Original Equipment Manufacturer (OEM) standards, and in compliance with all applicable Federal, State, and Local laws, and regulations.

### **2.2 DEFINITIONS**

**Awarded Bidder(s)** – Shall refer to a business entity/individual responding that is awarded a Contract pursuant to this solicitation.

**County Observed Holidays** - The holidays currently observed by Miami-Dade County are: New Year's Day, Martin Luther King, Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas.

**Emergency** - An unexpected situation or occurrence that develops due to system failure, power loss, acts of nature or any life threatening situation for building occupants or as declared at the sole discretion of the County.

**Facility** - Shall refer to a place, building, room, or piece of equipment which was created to serve a specific purpose.

**HVAC** - Shall refer to heating, ventilation, and air conditioning. The mechanical systems that provide thermal comfort and air quality in an indoor space are often grouped together because they are generally interconnected. HVAC systems includes central air conditioners, heat pumps, furnaces, boilers, rooftop units, chillers, and packaged systems.

**Municipality** – Shall refer to a local area with its own government, or the government of such an area.

**Original Equipment Manufacturer (OEM)** - Shall refer to a manufacturer that produces goods for other companies to sell under their own name.

**Pass-Thru basis** – Bidders shall charge the County the same cost as charged by their supplier. A copy of the product/material receipt shall be submitted with the Bidder's invoice for payment. No payment shall be authorized without such receipt.

**Submittal** - Shall refer to the forms submitted in response to this solicitation.

### **2.3 TERM OF CONTRACT**

This contract shall commence on the first calendar day of the month succeeding approval of the contract by the Board of County Commissioners, or designee, unless otherwise stipulated in the Blanket Purchase Order issued by the Internal Services Department, Strategic Procurement Division. The contract shall expire on the last day of the five (5) year term.

**2.4 METHOD OF AWARD**

Award of this contract will be made to the lowest priced responsive, responsible Bidder by group in the aggregate who meets the minimum requirements listed in Section 2.5. In order to be considered for award, Bidders must submit an offer for all items listed within each sub-group. Items that will be provided to the County at no cost must show a zero (0) in the price line. If a Bidder fails to submit an offer for all items within a group, its overall offer may be rejected for that group.

If the Awarded Bidder(s) fails to perform in accordance with the terms and conditions of the contract, they may be deemed in default of the contract. If the Bidder(s) defaults, the County shall have the right to negotiate with the next lowest priced responsive, responsible Bidder(s) or issue a separate solicitation.

**2.5 MINIMUM QUALIFICATIONS**

- A. Bidder(s) shall have at minimum one (1) employee licensed as one of the following: State of Florida Mechanical Contractor, Class "A" Air Conditioning Contractor, Miami Dade County General Mechanical Contractor, Miami Dade County Master Air Conditioning Unlimited Contractor, or Miami Dade County Master Refrigeration & Air Condition Contractor. Copy of the license shall be provided with the Bidder's Submittal.
- B. Bidder(s) shall have at minimum one (1) employee certified as a technician to perform the work specified in Section 3 of this solicitation. Copies of Certificates of Competency as a Journeyman in the General Mechanical Category issued by Miami-Dade County or any Florida Municipality for each technician shall be provided with the bid Submittal.
- C. Bidder(s) technicians shall have successfully completed the EPA Universal Refrigerant Transition and Recovery Certification Program and shall be so certified. Copies of all technicians EPA universal certifications shall be provided with the bid Submittal.
- D. Bidder shall submit a copy of the current Stratospheric Ozone Protection (APCF) permit to purchase refrigerants issued by Miami Dade County Regulatory and Economic Resources Department.
- E. Bidder(s) or Bidder's subcontractor shall submit the name(s) of technician(s) who will be performing and evaluating the Eddy Current Testing. The technician(s) performing Eddy Current Tests shall be ASNT NDT Level II Certified. The technician(s) evaluating Eddy Current Tests shall be ASNT NDT Level III Certified. Copies of the certificates shall be provided with the bid Submittal.
- F. Bidder(s) or Bidder's subcontractor performing oil analysis test and evaluation of oil samples must have at minimum three (3) years of experience performing oil analysis services. As evidence, the Bidder or Bidder's subcontractor is required to provide at least three (3) reference letters from their clients to include the dates of service, and brief description of work performed. Reference letters are to be submitted on client's letterhead and must demonstrate that the vendor is regularly engaged in the business of providing oil analysis for services that have occurred within the past three (3) years. The County, at its sole discretion, may choose to request additional information to assess the Bidder's experience. G. Bidder(s) or Bidder's subcontractor performing water treatment services to County equipment must have at minimum three (3) years of experience performing water treatment services. As evidence, the Bidder or Bidder's subcontractor is required to provide at least three (3) reference letters from their clients to include the dates of service, and brief description of work performed. Reference letters are to be submitted on client's letterhead and must demonstrate that the vendor is regularly engaged in the business of providing water

treatment services that have occurred within the past three (3) years. The County, at its sole discretion, may choose to request additional information to assess the Bidder's experience.

- H. Bidder(s) or Bidder's subcontractor performing water treatment services to County equipment shall have at minimum one (1) licensed Professional Engineer (direct hire or subcontracted). The County will accept a copy of the Professional Engineer License issued by the State of Florida Board of Professional Engineers and a copy of the license shall be provided with the Submittal.
- I. Bidder(s) shall assign a competent company representative who is cognizant of industry standards and is authorized to discuss matters pertaining to air conditioning chiller maintenance and repair services in order to provide the County with support and information. The company representative shall be able to communicate with the County and shall have full authority to act on behalf of the Bidder on all matters related to operations. Bidders are required to provide their designated company representative's name, phone number, and e-mail address.

Bidders shall submit the specified information listed above with their bid Submittal form as proof of compliance with the requirements of this solicitation. However, the County may, at its sole discretion and in its best interest, allow Bidders to complete, supplement, or supply the required information during the evaluation period. Failure to provide proof of compliance to the minimum qualification requirements, as specified by the County, may result in the Bidder bid being deemed non-responsive.

In addition to the terms and conditions stated in section 1.15. - Licenses, Permits and Fees, the Awarded Bidder(s) and Bidder's subcontractors must maintain all licenses, certificates and qualifications during the contract period. Should the Awarded Bidder(s) replace personnel during the contract period, the new personnel must meet the same qualifications and credentials as those identified in this solicitation.

## 2.6 **PRICES**

The prices proposed by the Bidder shall remain **fixed and firm** for the term of the contract, including the hourly rates and mark-up percentage provided in Section 4.

Bidder(s) shall provide the total annual cost per group; inclusive of all necessary labor, transportation, material, and equipment to furnish a comprehensive program of inspections, testing, preventive maintenance, Emergency repair, and routine repair for all of the air conditioning and water treatment equipment; including but not limited to: cooling towers, HVAC systems, chillers, structural components, chilled water pumps and associated piping located at each awarded group.

Monthly invoices shall include water treatment reports, and any service calls performed as specified on Section 4. The County reserves the right to negotiate lower pricing based on market conditions or other factors that influence price.

## 2.7 **METHOD OF PAYMENT**

In addition to the terms and conditions stated in section 1.2.H – Prompt Payment Terms, and 1.35 Invoices. The County will pay the Awarded Bidder(s) total annual price listed in Section 4 in 12 equal monthly installments.

Services to Auxiliary Equipment as defined in Section 2.18 may be obtained from the Awarded Bidder(s) servicing that Facility, and will be paid at the hourly rate(s) provided in Section 4 when performed Monday through Friday between the hours of 8:00 a.m. to 5:00 p.m., including County Observed Holidays; and at time and a half (1- ½) when performed at any other time, including County Observed Holidays. The hourly rate(s) shall be deemed to provide full compensation to the Bidder for labor, equipment use, and travel time. The cost of parts and materials shall not exceed a 10% mark-up from the Bidder's actual cost. If requested, damaged or worn parts shall be submitted for inspection to the County.

No invoices shall be approved for payment unless the County has received all required reports listed in section 3.9 – Records Management.

**2.8 PRE-BID CONFERENCE (HIGHLY RECOMMENDED)**

It is highly recommended that Bidder(s) attend the scheduled pre-bid conference to discuss this solicitation with County personnel that will be made available.

The pre-bid conference will be held, [REDACTED] 2020 starting at 10:00 am (local time) at the Stephen P. Clark Government Center, Conference Room A located at 111 NW 1st Street, Suite 1300, Miami, FL 33128.

Bidder(s) shall arrive promptly as the meeting will start on time. Bidder(s) are requested to bring a copy of the solicitation to the pre-bid conference, as additional copies will not be available. This meeting is exempt from the 'cone of silence', allowing for any questions to be addressed with representatives from Miami-Dade County. This is a public meeting and multiple members of individual community councils may be present.

The County is not responsible for any costs incurred by potential Bidder(s) to attend the pre-bid conference.

**2.9 EXAMINATION OF COUNTY FACILITIES AND COUNTY EQUIPMENT (RECOMMENDED)**

Site visits will be conducted upon Bidder(s) request. If desired, Bidder(s) shall specify the particular site(s) the Bidder(s) wish to visit. All requests shall be sent via email to [ruben.mejia@miamidade.gov](mailto:ruben.mejia@miamidade.gov) with a copy to [clerk.board@miamidade.gov](mailto:clerk.board@miamidade.gov) no later than [REDACTED], 2020 at 3:00 pm (local time). Any request received after this date and time may not be considered.

If a site visit is scheduled, it is highly recommended that all potential Bidder(s) attend site visit(s) to review the sites' current conditions. Bidder(s) are advised to carefully examine the requirements and specifications in this solicitation, and to become thoroughly aware regarding any and all conditions and requirements that may in any manner affect the work to be performed under the contract. No additional allowances will be made because of lack of knowledge of these conditions.

This meeting is exempt from the 'cone of silence', allowing for any questions to be addressed with representatives from Miami-Dade County. This is a public meeting and multiple members of individual community councils may be present.

**2.10 INDEMNIFICATION AND INSURANCE**

Bidder(s) shall furnish to the Internal Services Department / Strategic Procurement Division, 111 NW 1st Street, Suite 1300, Miami, Florida 33128-1989, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

- A. Worker's Compensation Insurance for all employees of the Contractor as required by Florida Statute 440.
- B. Commercial General Liability Insurance in an amount not less than \$1,000,000 per occurrence, and \$2,000,000 in the aggregate. Miami-Dade County must be shown as an additional insured with respect to this coverage.
- C. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage.

D. Pollution Liability insurance, in an amount not less than \$1,000,000 covering third party claims, remediation expenses, and legal defense expenses arising from on-site and off-site loss, or expense or claim related to the release or threatened release of Hazardous Materials that result in contamination or degradation of the environment and surrounding ecosystems, and/or cause injury to humans and their economic interest.

All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida, with the following qualifications:

The company must be rated no less than “A-” as to management, and no less than “Class VII” as to financial strength, by Best’s Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.

or

The company must hold a valid Florida Certificate of Authority as shown in the latest “List of All Insurance Companies Authorized or Approved to Do Business in Florida” issued by the State of Florida Department of Financial Services.

**NOTE: CERTIFICATE HOLDER MUST READ:**

**MIAMI-DADE COUNTY  
111 NW 1<sup>st</sup> STREET  
SUITE 2340  
MIAMI, FL 33128**

**2.11 PERFORMANCE GUARANTEES**

In order to assure that Miami-Dade County receives the quality and response necessary to insure the safety of the County patrons and employees and to achieve optimal maintenance of equipment, the County may impose administrative charges in the amount listed below. These administrative charges are deducted against the monthly invoices from the Awarded Bidder(s). When the outstanding invoices are insufficient, the County may invoice the Awarded Bidder(s) for failure to perform in accordance with the contract.

The deduction may be based upon the following schedule:

<b><u>Incident Type</u></b>	<b><u>Administrative Charges</u></b>
Failure to respond to a repair service call after normal working hours within: <ul style="list-style-type: none"> <li>• A minimum of two (2) hours during the regular work week (Monday thru Friday)</li> <li>• A minimum of four (4) hours on weekends (Saturday &amp; Sunday) and Holidays.</li> </ul>	10% of the monthly charge, per occurrence
Failure to complete a repair within twenty-four (24) hours from the time a call is received.	5% of the monthly charge, per occurrence
Shut down due to lack of parts	100% per diem

Repeated failures to comply with the Contract requirements may result in the Awarded Bidder(s) being placed in default of the contract for failure to perform whether deductions have been taken or not.

**2.12 BUSINESS HOURS OF OPERATION**

Services shall be performed Monday thru Friday, between normal Facility hours; except when such work is necessary and prior permission to do such work is secured from the County Department representative. All repairs must be completed within twenty-four (24) hours from the time a call or notification is received. All travel time expenses shall be borne by the Bidder and will not be reimbursed by the County.

The Awarded Bidder(s) will coordinate directly with the County Project Manager(s) in scheduling all jobs, repairs, preventive maintenance, materials deliveries and other actions.

**2.13 ADDITIONAL SERVICES**

During the term of this contract, the County may require additional services. In those instances, the County may at its discretion, issue a request for pricing to the Awarded Bidder(s). If the pricing is determined to be fair and reasonable, the services may be added to the contract. If the County determines that the prices submitted by the Award Bidder are neither fair nor reasonable, the County reserves the right to negotiate pricing or purchase services through a separate solicitation.

**2.14 ADDITION/ DELETION OF EQUIPMENT AND FACILITIES****A. Additional Equipment and/ or Facilities**

Although this contract identifies specific equipment and facilities to be serviced, it is hereby agreed and understood that the County may at its option add new equipment and/or facilities to the contract. Should the County determine that additional equipment and/or facilities need to be added, a quote shall be obtained from the Awarded Bidder of the applicable group. The County may obtain price quotes from other Bidders or through a separate solicitation in the event that fair and reasonable pricing is not obtained from the Awarded Bidder, or for other reasons at the County's discretion.

**B. Facility Modification**

Although this contract identifies specific facilities to be serviced, it is hereby agreed and understood that the County may replace any equipment requiring service under this contract as needed or facilities may be modified. Should the equipment be replaced or a site modified, a request for pricing may be obtained for the modification from the Awarded Bidder. If the County determines that the price submitted by the Awarded Bidder is not competitive the County reserves the right to negotiate with the Awarded Bidder or acquire the services through a separate solicitation or Group.

**C. Deletion**

Facilities or equipment may be deleted when such services are no longer required during the contract period upon written notice to the Awarded Bidder(s). If equipment is deleted, the County may request for reduction in pricing in consideration of the deleted equipment for that subject Facility.

Any changes shall be added to this contract by a formal modification.

**2.15 OBSOLESCENCE OF EQUIPMENT AND REPLACEMENT PARTS**

It is hereby understood that some of the equipment associated with the air conditioning and water treatment may be obsolete and has surpassed its intended life expectancy. If repairs cannot be made due to parts not being available, the Awarded Bidder(s) shall obtain written notification from the manufacturer stating that the part(s) have been discontinued and there are no available substitutes.

All replacement parts shall be subject to the approval of the County. The County may, at its sole discretion, specify the parts and materials to be used to perform any work or service rendered under this contract.

All parts and materials provided under this contract shall be new or factory rebuilt, Original Equipment Manufacturer (OEM), free from defects, and guaranteed suitable for their particular designed purpose. Non-OEM parts shall not be used, unless the Awarded Bidder has prior written approval from the County.

Awarded Bidder(s), at their own expense, shall obtain parts in the most expeditious manner available, which includes overnight air shipping and special fast track ordering. Awarded Bidder(s) shall maintain a spare parts inventory of the most common components to ensure a rapid turnaround in repair of the system.

When replacement parts are no longer available to repair equipment and the equipment needs to be replaced, a quote shall be obtained from the Awarded Bidder. If the pricing is determined to be fair and reasonable, the equipment may be purchased. If the County determines that the price submitted by the Awarded Bidder is not competitive the County reserves the right to negotiate with the Awarded Bidder or acquire the services through all other Awarded Bidders or through a separate solicitation, or for other reasons at the County discretion.

**2.16 NO PRE-EXISTING WARRANTY**

The majority of the equipment covered under this contract is not covered under any type of warranty. The Awarded Bidder(s) is solely responsible for all covered equipment from the date of award. The Awarded Bidder(s) shall be fully responsible for all of the equipment "as is".

**2.17 WARRANTY REQUIREMENTS**

In addition to all other warranties that may be supplied for goods purchased from the OEM, Awarded Bidder(s) shall warrant its product and/or service against faulty labor and/or defective material for a minimum period of one (1) full year after the date of acceptance of the labor, materials and/or equipment by the County or the date of expiration of this contract; whichever occurs last. This warranty requirement shall remain in force for the full one (1) year period; regardless of whether the Awarded Bidder is under contract with the County at the time of defect. All repair and/or replacement parts supplied by the Awarded Bidder shall be warranted for a minimum period of one (1) full year after the parts have been installed in County equipment or from the expiration date of this contract; whichever occurs last. Any payment by the County for the goods or services received from the Awarded Bidder(s) does not constitute a waiver of these warranty provisions.

**2.18 AUXILIARY EQUIPMENT**

Bidder(s) shall provide twenty-four (24) hours, 7 days a week services to Auxiliary Equipment located at each awarded Facility. Auxiliary Equipment under this contract is considered to be any equipment not listed in Section 4 of this bid, but that is part of all of the air-conditioning and water treatment equipment including but not limited to HVAC systems, structural components, chilled water pumps, associated piping and any other related equipment or component required for optimal functioning at the awarded located Facility.

If an excess is reported in a Bidder's estimate, the Bidder may be ineligible for award of that specific order. The Bidder shall supply proof of purchase invoice for all purchased parts and materials. The actual charge to the County from the Awarded Bidder(s) for a specific project shall not exceed ten percent (10%) of the Bidder's initial estimate without the expressed prior approval from the County. If the County determines that the price submitted by the Bidder is not competitive, the County reserves the right of acquiring the services through a separate solicitation.



Emergency service response time shall be within two (2) hours after notification by the County.

**2.19 OMISSIONS FROM THE SPECIFICATIONS**

The apparent silence regarding any details omission from the specification of a detailed description concerning any point shall not negate or infringe on the prime objective of this contract, which is to have all equipment at the specified facilities in operating condition, in accordance with OEM specifications throughout the life of this contract. Only the best industrial prices are to prevail, and only materials and professional workmanship of the highest quality are to be used. All interpretation of these specifications shall be made upon the basis of this understanding.

**2.20 DEFICIENCIES IN WORK TO BE CORRECTED BY THE BIDDER**

Work shall be continually subject to oversight and approval by the County. In the event workmanship is found incomplete, unsafe, otherwise unsatisfactory in the judgment of a designated County representative, the Awarded Bidder(s) shall, upon notice, immediately correct any such discrepancies or deficiencies. The Awarded Bidder(s) shall adhere to OEM's suggested maintenance procedures to ensure the equipment is working in full OEM compliance.

Awarded Bidder(s) shall promptly correct all apparent and latent deficiencies and/or defects in work, and/or any work that fails to conform to the contract documents regardless of project completion status. All corrections shall be made within twenty-four (24) hours from the point when such rejected defects, deficiencies, and/or non-conformances are reported to the Bidder by the County. The Awarded Bidder shall bear all cost of correcting such rejected work. If the Awarded Bidder fails to correct the work within the period specified, the County may, at its discretion, notify the Awarded Bidder, in writing, that the Awarded Bidder is subject to contractual default provisions if the corrections are not completed to the satisfaction of the County within twenty-four (24) hours from receipt of notice. If the Awarded Bidder fails to correct the work within the period specified in the notice, the County shall place the Awarded Bidder in default, obtain the services of another Bidder to correct deficiencies, and charge the incumbent Bidder for these costs; either through a deduction from the final payment owed to the Awarded Bidder or through invoicing. If the Awarded Bidder fails to honor this invoice or credit memo, the County may terminate the contract for default.

**2.21 REPAIRS DUE TO FORCE MAJEURE AND VANDALISM**

Although this is a full service contract for A/C Chillers and Related Equipment, it is hereby agreed and understood that the County may require additional repairs due to force majeure and acts of vandalism. Force majeure and acts of vandalism include: an act of nature, war, hurricane, floods, earthquakes, riot, sovereign conduct, strikes, lockouts, fires, or conduct of third parties.

When a repair is required under these circumstances, the County shall pay the Awarded Bidder(s) the hourly rate(s) provided in Section 4. The hourly rate(s) quoted shall be deemed to provide full compensation to the Bidder for labor, equipment use, and travel time. The cost of parts and materials shall be paid on a "Pass-Thru" basis. The Awarded Bidder(s) shall charge the County the same invoice prices that the Bidder is charged by their supplier. A copy of the Awarded Bidder(s)'s invoice from the supplier for parts shall be submitted with the Awarded Bidder(s)'s invoice for payment. In cases where the Awarded Bidder(s) manufactures its own parts, the Bidder will charge the County a price no higher than he or she charges his or her most favored customer. The County reserves the right to request verification.

**2.22 CLEAN-UP**

All unusable materials and debris shall be removed from the premises at the end of each workday, and disposed of in an appropriate manner. Upon final completion, the Awarded Bidder(s) shall thoroughly clean up all work areas utilized during service, which will be mutually agreed upon with the County Project Manager/Building Manager.

**2.23 COMPLIANCE AND REGULATIONS****A. Accident Prevention and Barricades:**

Precautions shall be exercised at all times for the protection of persons and property. All Bidders performing services under this contract shall conform to all relevant Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), State and County regulations during the course of such effort. Any fines levied by the above mentioned authorities for failure to comply with these requirements shall be borne solely by the responsible Awarded Bidder(s). Barricades shall be provided by the Awarded Bidder(s) when work is performed in areas traversed by persons, or when deemed necessary by the County.

The Awarded Bidder(s) agrees to perform all work in a manner that meets all accepted standards for safe practice, and to safely maintain and operate all the equipment used in the performance of this contract. Awarded Bidder(s) employees shall wear a safety vest or bright orange tee shirts at all times while performing the service. The County, reserves the right to issue immediate restrain or cease and desist to the Awarded Bidder(s), when unsafe or harmful acts are observed or reported while performing under the contract. Hazardous conditions shall be immediately reported to the County.

**B. Protection of Property:**

All existing structures, utilities, services, roads, trees, shrubbery, etc. shall be protected against damage or interrupted services at all times by the Awarded Bidder(s) during the term of this contract. The Awarded Bidder(s) shall be held responsible for repairing or replacing property to the satisfaction of the County should it be damaged by reason of the Awarded Bidder(s) operation on the property. Failure to comply with any of these requirements may result in immediate suspension of work.

**C. Personnel Identification:**

All personnel employed by the Awarded Bidder(s), including any subcontractor and subcontractor's employees, shall display at all times an identification badge which shall include the employee's name, the employer's name and either a physical description or a photograph of the employee.

**D. Standards:**

All goods and services provided under this contract shall be in accordance with current governmental standards to including but not be limited to OSHA, National Institute of Occupational Safety Hazards (NIOSH), EPA, and National Fire Protection Association (NFPA).

Bidder(s) shall ensure that employees providing maintenance and repair services under this contract have sufficient knowledge and understanding of applicable federal standards.

**E. Legal Requirement for Pollution Control:**

It is the intent of these specifications to comply with the Miami-Dade County Pollution Control Ordinance as stated in Chapter 24 of the Miami-Dade Code. This ordinance is made a part of these specifications by reference and may be obtained, if necessary, by the Bidder through the Department of Regulatory and Economic Resources, 701 NW 1 Court, Miami, Florida 33130, Telephone (305) 372-6789, email address [derm@miamidade.gov](mailto:derm@miamidade.gov).

F. Disposal of Wastewater and Hazard Waste:

Waste may be generated at various County facilities after draining or flushing out a chiller system onsite. Any such waste must be discharged to sanitary sewers only if the waste meets sewer standards and only with the approval of the County Facility's manager. If sewers are not available, if the waste does not meet standards, or a discharge approval is not granted; the Awarded Bidder(s) must arrange for offsite disposal at a permitted wastewater disposal Facility.

Waste oil, empty refrigerants containers, empty oil containers, water treatment chemical containers not currently in use, all used parts, and other materials shall be disposed of immediately after the completion of each service visit. In the event that hazardous waste is generated as defined by U.S Environmental Protection Agency, or the Florida Department of Environmental Protection, it must be disposed in conformance with all applicable local, State, and Federal laws. A copy of the completed final manifest for any related hazardous materials shall be sent to the County at the completion of any disposal transaction or upon request.

**2.24 SUB-CONTRACTING**

The Awarded Bidder(s) shall be the primary service provider. Awarded Bidder(s) will be permitted to sub-contract portions of the work to competent sub-contractors, for water treatment services, Eddy Current Testing, Oil Analysis, electrical work, pipe welding, insulation, crane services and for other trades except HVAC.

Any work or service to be performed by a subcontractor must have the prior approval of the County. The County reserves the right to approve, disapprove or dismiss any sub-contractors. Rejection of any subcontractor shall not entitle the Awarded Bidder(s) adjustment of bid prices. The Awarded Bidder(s) shall inform the County prior to scheduling any subcontractor's visit to any County Facility and provide their company name, contact person and a copy of their license/certificate in order to make a determination.

Failure by the Awarded Bidder(s) to have a subcontractor approved by Miami Dade County will not relieve the Bidder of the responsibility to meet, comply with, and fulfill all of the terms and conditions of this contract.

The sub-contractors are the responsibility of the Awarded Bidder(s) and not the County. All sub-contractors performing work for the County shall be duly licensed prior to commencement of any work during the contract period.

Awarded Bidder(s) shall be fully responsible to the County for acts and omissions of the sub-contractors and persons employed by them, as they are for acts and omissions of persons directly employed by them.

Nothing contained in this bid solicitation shall be construed to create any contractual relationship between any sub-contractor and the County.

**2.25 BIDDER BACKGROUND CHECK AND SECURITY REQUIREMENTS - Requirements for Miami Dade Corrections and Rehabilitation Department (Group A)**

The Awarded Bidder(s) and respective subcontractor(s) must provide a legible copy of the “Application for Contractor Pass” Corrections and Rehabilitations Form R6-25-12, and a copy of a current Florida Driver License, or Florida Identification Card, for all employees assigned to work in support of this contract. Upon submission of each of the required documents, the Awarded Bidder(s) will be notified approximately 4 to 8 weeks following submission on whether their employee(s) have passed the background check. The background check will be paid by the County and will be at no additional cost to the Awarded Bidder(s).

Employees that pass will report to Dr. Martin Luther King (MLK) Plaza, Corrections and Rehabilitations Department Headquarters, Program Services, 2525 NW 62 Street, Suite 1166A, Miami, Fl. 33147 for a required photo and completion of mandatory training video prior to entrance into any Correctional Facility. Employees shall wear a company shirt with company logo and ID during all working hours.

All tools transported to the work area must be in a tool box or enclosed during transport. No hanging tools from the waist or other areas will be permitted unless previously approved. Contractor shall have a pre-typed inventory check list of all the tools that will be brought into the work site on a company letterhead for the correctional officer inventorying all tools entering and exiting the Facility. The inventory check list will be turned in daily to the control booth upon arrival and tool check will be performed. Strict tool control will be required due to the Correctional setting which will require full adherence to tool control standards.

Failure of the Awarded Bidder(s) to complete the necessary background checks successfully for his or her staff and other security requirements may lead to the cancellation of this contract.

**2.26 CRIMINAL JUSTICE INFORMATION SYSTEMS SECURITY REQUIREMENTS - Requirements for Miami Dade Police Department (Group F)**

Any contract awarded to a private Bidder wherein a software application/program that accesses, processes, and stores criminal justice information (CJI) or Personally Identifiable Information (PII), or the selected private contractor/vendor requires physical or logical access to the MDPD’s network which contains CJI or PII, must comply with all security policy requirements outlined in the Florida Department of Law Enforcement’s (FDLE) Criminal Justice Information Systems (CJIS) Security Policy. Additionally, the Awarded Bidder, and any of its employees or subcontractors, that requires logical access to the MDPD’s network must review the attached Federal Bureau of Investigation’s (FBI) CJIS Security Addendum (Annex A), and sign the FBI’s CJIS Security Addendum Certification (Annex B) upon completion of a state and national fingerprint-based record check, criminal background check, proof of citizenship or authorization to be employed in the United States, biennially. Further, support personnel, contractors, and custodial workers with access to physically secure locations or controlled areas shall be subject to a state and national fingerprint-based record check unless these individuals are escorted by authorized personnel at all times.

**2.27 MIAMI-DADE COUNTY LIVING WAGES**

If the total contract value, per year, exceeds \$100,000 the provisions of Section 2-8.9 (Living Wages) of the Code of Miami-Dade County (Code) as amended by Ordinance [Governing Legislation], will apply. A copy of this Code Section may be obtained online at [www.miamidade.gov](http://www.miamidade.gov). A copy of the Administrative Order may be obtained online at <http://www.miamidade.gov/aopdfdoc/aopdf/pdffiles/AO3-30.pdf>.

**2.28 EXEMPTIONS FOR FEDERALLY FUNDED ENTITIES – (Group G)**

The contract to be awarded under this solicitation will be accessed by federally-funded departments. As federally-funded agencies, certain clauses within this Solicitation do not apply to this contract:

- Section 1 Paragraph 1.11; Local Preferences: Section 2-8.5 of the Miami-Dade County Code, which provides that preference shall be given to local businesses.
- Section 1 Paragraph 1.36; County User Access Program (UAP) - The fee in the amount of two percent (2%).
- Section 1 Paragraph 1.44; Small Business Enterprises (SBE) Measure.
- Section 1 Paragraph 1.45; Local Certified serviced-Disable Veteran's Business Enterprise Preference.
- Section 1 Paragraph 1.28 (Office of the Inspector General).
- Section 1 Paragraph 1.47; First Source Hiring Referral Program ("FSHRP").
- Prompt Payment Terms - Payment terms under Sections 2-8.1.1.1.1 or 2-8.1.1.1.2, respectively, that are a SBE contract set-aside, bid preference or contain a subcontractor goal.

### **SECTION 3 – TECHNICAL SPECIFICATIONS**

#### **3.1 PURPOSE**

The purpose of this solicitation is to establish a full service contract for air conditioning chiller systems and auxiliary HVAC equipment. The Awarded Bidder(s) shall provide all necessary labor, transportation, material, and equipment to furnish a comprehensive program to include the inspection, testing, preventive maintenance, Emergency repair, and routine repair services for the County to ensure that the equipment listed on this solicitation is operational at all times.

The Awarded Bidder(s) shall regularly and proactively inspect the A/C chillers, cooling towers, pumps, chiller air compressor stations and pneumatic refrigerant monitors in accordance with factory prescribed and pre-approved maintenance checklists. As conditions warrant, adjust, lubricate, clean, repair or replace such parts and mechanisms necessary to render a complete maintenance service and shall keep the Air Conditioning Chillers, and cooling towers listed in Section 4 functioning properly in a safe and optimal operating condition.

The frequency listed for services throughout this solicitation are the minimum; the Awarded Bidder(s) shall increase the frequency as necessary to ensure that the equipment is serviced adequately and is fully operational at all times.

#### **3.2 QUALITY ASSURANCE**

##### **A. Chillers - Initial Inspection:**

The Awarded Bidder(s) within the first sixty (60) days of the contract shall report back to the department all deficiencies found after the initial inspection. If the Awarded Bidder(s) is also the previous Bidder servicing the equipment on the previous contract, all deficiencies shall be repaired at the Awarded Bidder(s)'s expense. If the Awarded Bidder(s) is not the previous Bidder servicing the equipment on the previous contract, the County will contact the previous Bidder to bring the equipment to OEM standards. If the Facility and/or equipment were not included on the previous contract, the County shall pay the Awarded Bidder(s) the hourly rate(s) provided in Section 4, the hourly rate(s) quoted shall be deemed to provide full compensation to the Bidder for labor, equipment use, and travel time. The cost of parts and materials shall be paid on a cost "Pass-thru" basis. The Awarded Bidder(s) shall charge the County the same invoice prices he or she is charged by his or her supplier. A copy of the Awarded Bidder(s)'s invoice from the supplier for parts shall be submitted with the Awarded Bidder(s)'s invoice for payment. In cases where the Awarded Bidder(s) manufactures its own parts, the Bidder will charge the County a price no higher than he or she charges his or her most favored customer. The County reserves the right to request verification.

If the Awarded Bidder(s) fails to complete and provide the initial inspection to the County within the first sixty (60) days of the contract, the County shall not honor any subsequent claims that the system had any defects prior to the contract start date.

##### **B. Emergency Response:**

An Emergency is an unexpected situation or occurrence that develops due to system failure, power loss, acts of nature or any life threatening situation for building occupancy, or as declared at the sole discretion by the County.

Where an Emergency is deemed to exist by the County, the Awarded Bidder(s) shall be required to respond upon a verbal or written notification. This response must result in the arrival of technicians at the

affected Facility within two (2) hours of notification, 24 hours a day, 7 days a week, 365 days a year, all year.

C. Routine Service:

Routine Services such as, preventive maintenance inspections and water treatment services will be initiated by the Awarded Bidder(s) in accordance with OEM specifications and the terms of this contract.

Routine Services will be scheduled in a manner that minimizes any loss of air conditioning. The Awarded Bidder(s) shall make every effort to schedule work, in a way and during times that avoids disruption of the Facility operations.

D. Multiple Locations:

The Awarded Bidder(s) shall have the capability to simultaneously perform all work described herein at multiple site locations throughout Miami-Dade County on a timely basis.

E. Notification Prior To Commencement of Work:

The County will give a minimum lead time of two (2) calendar days to the Awarded Bidder(s) prior to the desired starting date for any specific assignment different from the routine services; provided however, that such notification shall be superseded by any emergency work that may be required in accordance with provision included elsewhere in this solicitation. When possible, longer lead times will be given.

F. System Failure:

In the event of a system failure that cannot be resolved, the Awarded Bidder(s) shall bear all costs necessary to provide temporary cooling at any time the referenced equipment has been determined to be out of service, pending repairs, or loss of redundancy which prevents optimum cooling.

Temporary cooling systems shall include but not be limited to the following:

- Identical chiller(s) unit(s) with at minimum identical capacity of the failed unit(s)
- Adequate temporary power (via generator, batteries, etc.) for the chiller(s), transportation or material handling equipment.
- Permits or fees associated with the installation and County use of these systems.

The Awarded Bidder(s) is required to immediately inform the County and follow up with a written notice within 24 hours. The written notification shall state the reason the equipment is not in service, when repairs will be completed and the system back in full operation.

It shall be considered the Awarded Bidder(s) responsibility to have made prior arrangements for the appropriate temporary cooling systems to be available in the event they are required during the contract term. The Awarded Bidder(s) shall make every effort to expedite services and minimize the disruption (the cooling effectiveness) to the location being serviced and shall employ every ordinary and extraordinary effort to minimize loss of air conditioning effect including renting, connecting and bringing online temporary equipment (chiller and/or cooling towers) within (4) hours of notification by Miami Dade County determining there will be a delay in providing service restoration of the cooling system.

**Awarded Bidder(s) servicing the Central Support Facility (Group C, Site 2) and the North District Chiller Plant (Group C, Site 3) shall provide this service within one hour of notification.**

G. Bidder Accessibility and Communications:

Bidder(s) shall be accessible during regular business hours. Service for emergencies shall be available twenty-four (24) hours a day, seven (7) days per week. An e-mail address also needs to be provided to all County Project managers.

The Awarded Bidder(s) shall make every effort to communicate with the authorized County representative via e-mail, as often as needed, to keep the County fully updated on the status of any ongoing repairs, maintenance or service.

H. System Condition:

Any time services are provided, the Bidder(s) shall document the condition of the system and all performed services. These documents shall be provided with any submitted invoice. The Awarded Bidder(s) shall ensure that the equipment is left in an operable condition.

I. Inspection of Work / Bidder Performance

The importance of the equipment covered by this solicitation requires they be maintained in satisfactory and safe operating condition in accordance with their original specifications and capable of providing their maximum output and performance at all times.

The County reserves the right to inspect the Bidder's work as it deems necessary to ascertain that the terms and conditions are fulfilled. Should it be found that the standards herein specified are not being satisfactorily maintained, the County may request in writing that the Awarded Bidder(s) maintains the chillers and/or associated equipment in condition to meet OEM standard. All materials, workmanship, and equipment or parts provided shall be subject to the inspection and approval of the County's Project Manager or designee.

All defects and/or deficiencies noted by the County will be submitted to the Bidder for correction, such as faulty parts or inefficient labor. Should the defects and/or deficiencies not be corrected within the period specified in the notice, the Awarded Bidder(s) shall be liable for any cost incurred by the County to insure correction. This cost may be deducted against the monthly invoices from the Awarded Bidder(s). Corrective actions may include, but not necessarily be limited to, additional inspections, repairs, and meetings.

Bidder(s) failure to comply with such demand will constitute a non-performance under which the County may, at its discretion, place the Bidder on a probation period, or possibly contractual default, and re-procure the services specified. The County may further charge the Bidder(s) any differences in cost between the Bidder's price and the re-awarded price.

### **3.3 GENERAL WORKING CONDITIONS**

- A. Awarded Bidder(s) must recommend and provide to the County and effective refrigerant leak detection program designed around the chillers in the solicitation.
- B. Awarded Bidder(s) must provide the County user departments with a copy of its policy and program of Chlorofluorocarbon (CFC) and waste oil handling. Awarded Bidder(s) shall also comply with all ISO14001-2004 policies and regulations from the Regulatory and Economic Resources Department.



- C. Awarded Bidder(s) service personnel shall report its arrivals and departures from the County buildings to the County Project managers or their designees and must log in and out the times of arrival and departure, as well as provide a reason for their presence at any County Facility.
- D. Awarded Bidder(s) personnel shall perform all work covered in this contract including examination, cleaning, adjustment, lubrication, repairs and replacements, during regular working hours. Shut-downs of approximately fifteen (15) minutes to one (1) hour maximum in duration are permitted during the performance of non-emergency inspections and repairs, and routine maintenance, except as otherwise noted. The Department's Project Manager, or designee, shall be notified in advance before any shut-down is initiated.
- E. Scheduled shut-downs for major work and repairs shall be coordinated with the Departments' Project Manager(s), or their designees, as standard procedure. Work longer than an hour in duration may be performed between the hours of 5:00 p.m. and 8:00 a.m. on weekdays, or on weekends, or on County Observed Holidays, as authorized in writing by the Department's Project Manager(s), or their designees.
- F. Scheduled shift work beyond normal working hours may be required for maintenance of certain critical equipment. The Awarded Bidder(s) must coordinate these shut downs with the Department Project Manager(s) or their designees.

### 3.4 **CONTRACT PRE-COMMENCEMENT PROCEDURE**

Awarded Bidder(s) shall deliver to the user departments fifteen (15) days prior to the commencement of the contract, the following documents:

- A. A sample maintenance check list.
- B. A schedule of maintenance for each type of equipment and Facility awarded.

Awarded Bidder(s) shall be required to attend a pre-maintenance meeting to accomplish the following. The meeting date will be announced by the user departments.

- A. Introducing the Awarded Bidder(s) supervisor(s), contact person(s), and the maintenance personnel who will be assigned to the contract.
- B. Reviewing the documents listed in items A and B above.
- C. Scheduling the start of the service contract.

### 3.5 **REFRIGERANTS**

Awarded Bidder(s) shall be responsible, at no additional cost to the County to repair any and all refrigerant leaks to OEM standard except when there are catastrophic conditions not caused by the Bidder.

- A. If the date of the manufacturers' refrigerant phase-out is escalated by Federal Law, the Awarded Bidder(s)'s obligation shall be adjusted to coincide with the new date. The costs of such replacement refrigerants shall be at the Awarded Bidder(s)'s cost plus no more than a 20% markup. The Miami Dade County Maintenance Supervisor will determine if the chiller will be retrofitted to the replacement refrigerant or repaired as required by the contract. If refrigerant replacement / chiller retrofitting is required the Bidder shall supply a quotation for labor and material for these services.
- B. Awarded Bidder(s) shall make available on-site for immediate use factory recommended equipment and tanks for each type of refrigerant awarded within seven (7) days after award. Tanks shall be used to properly remove and store refrigerants, while making chiller repair. Bidders shall also have equipment to recycle refrigerants used to remove impurities, dry the refrigerant and separate the oil in accordance with

the current Clean Air Act. Tanks shall be large enough to hold the full refrigerant charge of the largest chiller awarded. Used refrigerant containers are not to be substituted for a refrigerant storage tank.

- C. Awarded Bidder(s) shall have available off-site refrigerant reclamation services to remove and reclaim refrigerant. The reclamation services shall be done in accordance with the current Clean Air Act and purity standards ARI 700.
- D. Awarded Bidder(s) shall conform to all EPA regulations and report in writing per occurrence on a form provided by the County of all refrigerant added, recovered, reclaimed or disposed of or accidentally discharged.
- E. Awarded Bidder(s) shall assure that an adequate supply of refrigerant are available, at the Bidders expense, to guarantee that the water chillers are fully charged throughout the term of the contract.
- F. At the request of the County's project manager, the Awarded Bidder(s)'s recovery equipment shall be made available for inspection, either at the Bidder's office or at the County Facility where refrigerant recover will take place.

### 3.6 **SERVICE TYPES**

At minimum the Awarded Bidder(s) shall provide the following services for chillers, auxiliary HVAC equipment and various other Countywide water systems to include, but shall not be limited, to the following:

#### 3.6.1 **WATER TREATMENT SERVICES**

The Awarded Bidder(s) and/or subcontractor shall comply with all requirements in this section for boiler and chilled water treatment services. The objective is to maintain a high quality water chemical treatment service program, to maintain peak operating efficiencies and optimum corrosion, and biological growth prevention with safe application systems and the most environmentally friendly products for chillers and cooling towers.

Training sessions for all County personnel on water treatment implementation, chemical safety and handling of chemicals and control and monitoring of the program shall be held, on site, a minimum of once per year. All training shall focus on prevention, identification and response training and shall include workbooks, videos and manuals. The training program shall be capable of tracking the progress and training of up to 10 operations personnel.

The following criteria are essential to the success of the County's water treatment program.

##### A. Chemical Feed and Monitoring Equipment

1. The existing chemical feed equipment is owned by each individual County Facility. This equipment includes controllers, pumps, solenoids, pump feeders, timers, etc. If the existing equipment fails, breaks, or becomes ineffective the Awarded Bidder(s) shall replace the equipment at no additional cost. Spare equipment shall be stocked at a central warehouse for the purpose of repairing failed equipment.
2. The Awarded Bidder(s) shall inspect, test, maintain, service, calibrate, repair or replace as required, all water treatment equipment, including the solenoid bleed valve, monitoring, and pumping equipment. All chemical controllers, pumps, timers, strainer, 4 way function valves, safety flow controls, check valves, tubing, plastic drums, and corrosion coupon racks shall be maintained in good operating condition; if not repairable, they shall be replaced in kind

and with equipment authorized by the County. Any malfunctioning equipment shall be repaired or replaced.

3. The Awarded Bidder(s) shall maintain all chemical storage tanks, bulk tanks, and chemical containers located at each County Facility. All chemicals must have 110% containment basins.
4. Installation, maintenance and calibration of equipment shall be the responsibility of the Awarded Bidder(s). Installation is defined as mounting, setup and calibration only.
5. The Awarded Bidder(s) will provide all necessary chemical piping from the valve on the main condenser line headers, to the chemical feed stations, to the chemical injection points with the exception of all of the electrical piping which shall be provided by the County.
6. A complete description of installation requirements for all new chemical feed processes shall be provided to and approved by the Facility manager before the implementation of the process.

B. Equipment Inspection

All boiler and chiller equipment that is opened for service shall be inspected. A written inspection report and pictures of the internal components of the equipment shall be furnished to the County project manager. Any noted deficiencies shall be clearly outlined and corrective action shall be recommended.

C. Computerized Logs and Reference Manual

Awarded Bidder(s) or Bidder's subcontractor shall provide, at no additional cost to the County, a computerized trending and tracking program that allows the County to enter data directly into a monitoring program. The program shall be capable of having data manually added as well through direct data download. The program shall be web based so that no software is needed to be downloaded. A reference manual shall also be provided to allow County staff to look up subjects of interest.

D. Chemical Programs

All chemical programs shall be specifically formulated for the make-up water source being used, the equipment operating conditions, and system metallurgy and pre-existing conditions. Dosages of all chemicals shall be specified in the terms of pounds of product to be added to the systems, at the time of service, and expected concentrations of the active ingredients in the water.

Condenser water systems shall operate at 5-7(6) cycles of concentration.

E. Corrosion Inhibitors

1. A single liquid product containing Phosphonate /Azole/ Polymer dispersant is preferred for the open cooling tower system. The percentage of actives shall be: Phosphonates 6-10 ppm, Azoles 2-3 ppm, and Polymer dispersant 7-10 ppm. The Awarded Bidder(s) shall maintain control of the chemical makeup to enable compliance with the performance

requirements of this solicitation. An oxidizing biocide shall be used thus the minimum active azoles level shall be 2ppm.

2. Use of Nitrite, azole, borate program is preferred for closed systems. The control range shall be Nitrite 200-800 ppm, azoles 5-10 ppm, tolytriazole 5-10 ppm, Ph of 8.5 to 10.0. Products shall be capable of performing corrosion control to the specification requirements notwithstanding the operational requirement of air injection into the Ice Tank Water. The closed systems are currently treated with a nitrite borate product.

Note: North District Chiller Plant (Ice Tank) to use Silica 35ppm, and Azoles 5-10 ppm.

Note: A corrosion coupon rack will be installed at all facilities.

Corrosion rate standards

<b>Cooling Tower Systems</b>	
Mild Steel	<2.0 MPY
Copper	<0.2 MPY
<b>Closed Loop Systems</b>	
Mild Steel	<1.0 MPY
Copper	0.2 MPY or better
<b>Boiler Condensate Systems</b>	
Mild Steel	<2.0 MPY

F. Microbiological Control

1. The Bidder's program shall include a specific microbiological control program for both aerobic and anaerobic bacteria compatible with any other chemical present in the treated water systems. Use of two alternating biocides will be required.

2. For condenser water systems:

Use of 45% glutaraldehyde at minimum dosage of 75ppm or a 15% solution at a minimum dosage of 225ppm added once per week is desired. Use of 1.5% isothiazolin as a second biocide at a minimum concentration of 75ppm is desired for the open systems added alternately once per week. An alternate second biocide would be bromine added to attain a free halogen residual of 0.5 to 1.5ppm at least three times per week for a minimum of six (6) hours per addition. Chemical feed shall be concurrent with cooling tower operation. A quarterly lab test will be required.

3. Closed chilled loop:

These systems should be treated with a biocide at least once annually.

Use of 45% glutaraldehyde at 200 ppm is desired if effective and as needed. Alternate use of copper free isothiazolin, or other biocide program should be considered. Products shall be capable of performing biological control to the specification requirements. Document any water loss in excess of 10%.

Closed loop microbiobio standard:

Aerobic <10,000 CFU/mL  
Anaerobic < 1 CFU/mL  
Fungi <10 CFU/mL denitrifying – negative

Laboratory bacteria testing must be performed annually on each closed chilled loop system.

4. The selection, control on dosage of micro biocides will ultimately be based on the microbiology performance standards.

#### G. Chemical Delivery

1. The Awarded Bidder(s) shall deliver chemicals and products in a manner that is safe and acceptable to the County. The Awarded Bidder(s) shall provide all liquid products for the treated water systems directly to the point of feed in a bulk delivery method. This method is intended to eliminate handling of chemical drums by the Facility engineers. In the event that bromine tablets are used, the Awarded Bidder(s) shall be responsible for adding the tablets directly to the bromine feeder.
2. The Awarded Bidder(s)'s delivery specialist shall have full commercial driver's license with HAZMAT endorsements. Use of common carriers will be acceptable; however, the Awarded Bidder(s) shall be present to supervise the common carrier. The cost of all deliverables shall be included in the program cost.
3. A drum-less chemical feed program with suitable containment for each of the water facilities shall be provided to eliminate handling of chemicals by the Facility engineers.

All deliveries shall be scheduled and pre-approved prior by each site Project Manager with a minimum of a 24 hour notification.

#### H. Test Equipment

1. A water treatment program manually outlining the control parameters, test instructions, product data sheets, Emergency protocols for chemical spills/injuries, system descriptions, feed equipment manuals and Material Safety Data Sheets (MSDS) along with log sheets to enter the data shall be provided and maintained up to date by the Awarded Bidder(s) at each County Facility. The Awarded Bidder(s) shall be responsible for training plant personnel in properly running tests and keeping records.
2. The Awarded Bidder(s) will be responsible for installation, inspection, calibration, and maintenance of all chemical feed and monitoring equipment. The Awarded Bidder(s) will do all the testing of equipment to evaluate the chemical levels within the system being serviced. The Awarded Bidder(s) shall supply all tools, equipment, and parts necessary to perform maintenance services. Any damages to equipment during performance of service or otherwise are sole responsibility of Awarded Bidder(s).

#### I. Analysis

Complete analytical services shall be provided, as needed, for analysis of unusual cooling water samples, scale, sludge, rust, other corrosive products, and microbiological studies to insure the minimizing of these problems throughout all circulating systems. The results shall be sent to the County.

J. Safety

1. All mechanical and analytical reagents supplied by the Awarded Bidder(s) shall meet all applicable government regulations. The Awarded Bidder(s) shall submit an MSDS for all products in use and proposed products. The Awarded Bidder(s) will be responsible for providing up to date MSDS for all chemicals supplied including reagents.
2. The Awarded Bidder(s) shall provide service and back-up personnel in a two-hour response time to any and all County water treatment locations; as necessary or if deemed necessary by the County; at the sole discretion of the County at no additional cost.

K. Site Visits

The Awarded Bidder(s) shall visit every site awarded, requiring water treatment servicing, in accordance with the minimum frequencies indicated on Section 4. During the site visit, documentation will need to be logged as validation of the site visit. Appointments will be set up with each individual Facility administrator for each site visit.

L. Monthly Meetings

The Awarded Bidder(s) shall maintain open communications with the County and should meet with County representatives on a monthly basis. The location of the meetings is to be determined by County staff.

M. Chemicals

1. The Awarded Bidder(s) at no additional cost to the County will supply all chemicals. The entire list of chemicals to be used for treatment shall meet Occupational Safety and Health Administration (OSHA), and Environmental Protection Agency (EPA) standards. Proper packaging of all containers used when delivering and dispensing chemicals shall be adhered to. Proper safety precautions and handling practices shall be used to dispense chemicals per OSHA rules and regulations.
2. The Awarded Bidder(s) shall have access to a lab Facility. The County may establish independent lab testing, at the Bidder's expense, when there is a concern with the system. The turnaround time requirements for testing will depend on the complexity of testing, as approved by the County.

**3.6.2 CHILLER PREVENTIVE MAINTENANCE**

A. Preventative Maintenance:

Section 4, indicates the minimum frequency in which each chiller should be inspected and preventative maintenance provided. During these inspections at minimum the following should be done on each unit listed.

1. Equipment normally operating; Log equipment noting general condition, operating data, noises, vibration, temperature and pressure. Where applicable, inspect controls and safety devices, check for proper refrigerant solution, lubricant and water levels. Confirm control and equipment responses, adjust for normal operation, and provide inspection reports,

including recommendations for corrective actions. Rotation of equipment and aforementioned tasks shall be performed where applicable.

2. Equipment **not** normally operating, where applicable inspect hold down bolts and electrical connections, perform functional checks on control and safety devices, and provide inspection report identifying any problem area including recommendations for corrective actions.
3. The Awarded Bidder(s) shall inspect the structural components of the cooling tower and chiller installation for corrosion and or structural deficiencies and shall report any identified deficiencies or defects to the authorized representative. The Awarded Bidder will be responsible for rust and corrosion on the cooling tower steel bases and chiller auxiliary equipment.
4. Operation logs of Purge Units shall indicate length of operation, as compared to chiller's running time between readings. Progressively increasing running time reports of Purge unit operations must be properly documented.
5. Bidder(s) are responsible for maintaining glycol levels as indicated by OEM where applicable. Bidder shall be responsible for the tanks, monitoring glycol ratio per section 3.6.1, and notifying the County upon any changes or recommendations. Any loss of glycol due to the Bidder's or Bidder's subcontractors actions i.e. inspections, negligence etc. shall be the responsibility of the Awarded Bidder(s).

B. Oil and Grease Services

These services shall include all inspection report services plus those preventative maintenance tasks which do not require component disassembly, but may require inspection cover or plate removal. Unless otherwise stated herein, the Oil and Grease Service includes, but is not limited to the following:

1. Awarded Bidder(s) shall provide a yearly spectral-chemical oil analysis and provide a report in writing. (See section 3.8 D - Oil Analysis Test Report).
2. Change oil as required by analysis, routine lubricating, replace oil filters, replace refrigerant filters, touch-up painting, blow-down dirt legs/strainers, cleaning of control starter contracts, cleaning electronic modules, cleaning drain pans, and leak testing of any disassembled joints.

**3.6.3 CHILLER FULL ANNUAL MAINTENANCE SERVICE**

Full maintenance service shall include all preventative maintenance tasks as stated under Section 3.6.2 providing for the repair and replacement of new OEM (Original Equipment Manufacturer) moving parts that may have failed unexpectedly and may require disassembly and removal of available inspection covers, unless otherwise stated. Full maintenance service shall include but not be limited to:

- A. Replace yearly expendable parts, perform adjustment check and calibrate controls, measure and record accessible clearances, and leak test all joints of interconnecting refrigerant piping.
- B. Motor Starters, electrical wiring up to 6" from point of connection, variable frequency drives (VFD's), motor stators, motor rotors, dip and bake motor windings. Major repairs, including but

not limited to, interconnecting refrigerant piping, any costs of expediting delivery of parts, all maintainable component repairs (and any maintainable components especially listed herein), but not limited to: all safety devices and controls that have a direct bearing on chiller operation, such as low water safety, oil safety flow switches, differential pressure switches, microprocessor – based control panels (including remote panels and controlling computer terminals) associated automatic valves affecting chiller operation and all unloading devices.

- C. Rewinding of motors shall be performed by a service center authorized by the motor OEM and the County. This service shall be expedited in a timely manner.
- D. Perform the disinfection of the cooling towers. Shut down and drain the cooling towers. Clean the top of the shroud inside of the fan section. Clean the intake louvers. Clean and flush the sump. Refill the cells. Perform the disinfection of the cooling towers again. Shut down each condenser water pump, clean each strainer on each of the condenser water pumps and place them back in service.
- E. Pressure wash the cell walls, fan stack and the area between the drift eliminators and fan stack. Replace the drift eliminators if necessary.
- F. Inspection of all chilled water and condenser water pumps. Replace yearly expendable parts, perform adjustment check and calibrate controls, measure and record accessible clearances, replace seals if necessary and leak test all joints of interconnecting piping.
- G. Inspection of gear boxes. Replace yearly expendable parts, perform adjustment check and calibrate controls, measure and record accessible clearances, replace seals if necessary and leak test all joints of interconnecting piping.
- H. Thermal insulation removed from the chiller shall be reinstalled in a manner consistent with all applicable local, state and federal guidelines and/or standards. Additional Insulation in the chiller room around pipes or pumps etc. will be on a time and material basis.
- I. Inspect, test, maintain, service, repair or replace as required, all thermometers and water pressure gauges on the condenser and chilled water pipe within the chiller plants.
- J. Inspect, test, maintain, service, repair or replace as required, the refrigerant monitor systems existing in the chiller plants.
- K. Perform a major overhaul as required pending oil analysis and at the department's discretion.
- L. Perform repairs as required pending oil analysis recommendations.
- M. Replace High Efficiency Particulate Air (HEPA) filters in accordance with the manufacturer static recommendation at Facilities where this type of filters are found.
- N. Vibration analysis services shall cover the following:
  - a. Perform vibration analysis as needed. Bidder(s) shall perform a vibration analysis with computer analysis showing velocity, acceleration and displacement on all three (3) planes.
  - b. Provide all the equipment necessary for the analysis.
  - c. Indicate instrumentation use and limits of the analysis, if any.
  - d. Provide a graphic vibration signature in the horizontal, vertical and axial directions.



- e. Report the amplitude of vibration by velocity (inches/second) and frequency (cycles/minute).
- f. Indicate areas which exceed acceptable levels (.10 inches/second) of vibration amplitude, at discrete frequency.
- g. Provide recommended corrective action as required.
- h. Provide written report within 30 days of analysis. In the report indicate at which locations the signatures were obtained.
- i. Indicate re-analysis frequency based on results if more than once a year.

#### **3.6.4 TUBE INSPECTION**

The following services are to be performed by the Awarded Bidder(s) at least once a year, to include but not limited to:

##### **A. Tube Inspection**

Bidder(s) shall remove condenser heads, perform an internal visual examination of the water side of tubes as well as the end bells, tube sheet, and shall present a report to the County department(s) regarding any signs of internal damage.

##### **B. Tubes Brush Cleaning**

Includes tube inspection and the internal brushing of the water side of the heat exchanger tubes (cooler and condenser). Included are tubes that have factory installed brushes. Cooler shall be brushed on an as needed basis as determined by the user departments and the Awarded Bidder(s). Group C, Site 2 - Central Support Facility is exempt from this clause.

##### **C. Tube Repairs – Refrigerant Side**

Includes the repair or replacement of internal tubes, tube sheets, support sheets, distribution systems, oil components that contain or distribute refrigerant/lithium bromide within the equipment. This service covers tube failures that may result from the refrigerant/lithium bromide side of the equipment heat exchanger.

##### **D. Tube Repairs – Water Side**

Includes the repair or replacement of internal tubes, tube sheets, support sheets, eliminators and distribution system. This service covers all tube failures that may be the result of age.

#### **3.6.5 COOLING TOWERS, WATER STRAINERS, AND WATER PUMPS**

- A. Inspect, test, maintain, service, calibrate, overhaul, repair or replace as needed mechanical parts of cooling tower, cooling tower fans, fan motors, fan drives, all condenser and chiller water pumps, motors, couplings, starters, circuit breakers, makeup water float and valve assemblies and any other equipment or controls needed for proper cooling tower operation, including the cooling tower water temperature control including Variable Frequency Drives.
- B. The cooling tower shall be drained, cleaned, and flushed annually or more often as needed to insure proper operation. Condenser water strainers are to be cleaned each time the cooling tower is cleaned and additionally as required. Chilled water pump strainers are to be cleaned as needed. No high pressure equipment shall be used in cooling tower cleaning.

- C. The chemical system shall be promptly serviced after cleaning the cooling towers to balance the chemical treatment levels.
- D. Annually, perform cooling tower gear box oil change.
- E. Furnish complete water treatment services as frequently as required, but no less than once monthly, to prevent the build-up of mud and scale, eliminate corrosion in the condenser, evaporator, piping, and to control biological growth in the water cooling towers.

### **3.6.6 MULTI-YEAR PREVENTIVE MAINTENANCE SERVICES**

Multi-year preventive maintenance service includes all preventative tasks plus those multi-year maintenance tasks which may require major disassembly, overhauling and reassembly. This service shall be provided if the applicable equipment listed herein receives at least the Multi-Year Service which is in addition to the Scheduled Service and it is normally performed at intervals greater than one (1) year according to the equipment manufacturers' standards.

The intervals for the Multi-Year Preventive Maintenance tasks will be determined by the Awarded Bidder(s)'s best judgment based on the equipment's application, operation hours, age and routine inspections results. Unless otherwise stated herein, the Multi-Year Preventive Maintenance Service includes but is not limited to the following:

Major internal maintenance to repair or replace with new OEM parts and/or components whose normal wear indicates repair or replacement is needed includes: All rotating assemblies, compressor valves/plates/cylinders, bearings, shaft, all internal clearances adjustments, internal cleaning refrigerant solution charge, and complete equipment leak testing, evacuation and dehydration where applicable.

### **3.7 EDDY CURRENT TESTING**

Eddy current testing shall be provided on all equipment. The testing shall be scheduled with the County project manager, and may be coordinated at the same time chillers are down and open for their full annual maintenance service. Test shall be repeated on all equipment in three year intervals. Testing shall be done by a level II Certified Technician. The inspection report shall contain the following information:

1. Data Sheet
2. Summary of Inspection
3. Recommendations
4. Tube Sheet Layout
5. Tube Strip Graphics
6. Calibration Settings and Graphs
7. Calibration Procedures
8. Explanation of Abbreviations

Awarded Bidder(s) will be responsible for re-insulation of chiller evaporators and associated piping disturbed during the tube cleaning or eddy current services.

### **3.8 EXCLUDED SERVICES**

Maintenance and repair of controls which are part of the Building Management System. However, the Awarded Bidder(s) should inspect the controls as specified in section 3.6.2.A.1 and if any deficiencies are identified, the Bidder shall immediately notify the County.

### 3.9 RECORDS MANAGEMENT

#### A. Service Receipts

Awarded Bidder(s) shall submit (identified with their invoice number and this bid number) to the Department Project Managers or their designees, a copy of the mechanic's service receipt indicating the date, time and nature of the service performed. These services receipts shall be signed by the Departments' Project Manager(s), or their designees, at the time the work is performed. If the service person cannot get Department Project Manager's signature, the service person will leave a copy of the service receipt with Facility personnel prior to departure and/or complete log book provided by the County, and so advise the Project Manager(s) the next working day.

#### B. Survey Reports

Awarded Bidder(s) shall submit a written annual supervisor's report on the condition of all chillers to each County department. The inspection must be performed and signed by the Awarded Bidder(s)'s maintenance supervisor.

#### C. Water Treatment Services Reports

The Awarded Bidder(s) shall provide the County, at minimum, monthly reports to include PH levels, conductivity results, iron levels, copper levels, zinc levels, calcium levels, molybdenum levels, phosphonate levels, and azoles present. All other levels that are measured shall be compiled into a "Biological Monitoring Results" spreadsheet to include desired ranges, inventory levels, and a list of adjustments made.

The Awarded Bidder(s) shall provide, on a quarterly basis to the Facility manager, a review summary containing the following information:

1. A statement of progress that has been made during the quarter, with recommendations for action during the next quarter.
2. A summary of all corrosion data, including a comparison to historical data. Pitting index and pitting Mills per year (MPY) to be reported.
3. Laboratory analyses of all systems.
4. Summary of onsite testing using graphical format.
5. Accounting of chemical product shipments to date vs. annual estimate for chemical usage.
6. Provide an explanation for any variances from the proposal quantities.

#### D. Oil analysis Test Report

Report must show job name and chiller location, model and serial numbers, type of oil and date of sample test. Test result sheet must show spectral-chemical analysis in parts per million by weight content of iron, chromium, nickel, aluminum, lead, copper, tin, silver, titanium, silicon, boron, sodium, potassium, molybdenum, phosphorus, zinc, calcium, barium, magnesium, antimony and vanadium. The report must also show the physical test for water in parts per million, total acid content, chloride in parts per million, viscosity at 72 degrees F. All tests must be performed by an independent certified lab.

#### E. Log

Awarded Bidder(s) shall provide the departments' Project Managers with a written log for each department of all repairs and adjustments (including minor ones) made in addition to the preventative

maintenance work. This log shall consist of the time the complaint was registered, the nature of the complaint, the correction of the problem and the amount of time required correcting the problem. The County department(s) shall decide where the log books shall be kept. The Awarded Bidder(s) is to complete the log on each routine visit indicating the maintenance performed on all problems and the corrections made during each call-back and/or repair.

F. Refrigerant Forms

Awarded Bidder(s) shall use the approved refrigerant service forms provided by the maintenance department and shall return all completed forms whenever refrigerant services are performed.

G. Data Sheet

Awarded Bidder(s) shall provide and maintain a system data log sheet for each Facility. Once each month, the Awarded Bidder(s) shall record the following information, and a report with the results shall be sent to the project managers of each department. These reports shall include the following information:

- Discharge pressure
- Discharge temperature
- Suction pressure
- Suction temperature
- Oil pressure
- Oil temperature
- Chilled water return temperature
- Chilled water supply temperature
- Chiller Approach temperature
- Condenser water return temperature
- Condenser water supply temperature
- Condenser approach temperature
- Chiller motor amps on each leg
- Chiller motor voltage on each leg

H. Check Sheet

Awarded Bidder(s) shall maintain on the job sites and have available for inspection at all times, a written check sheet and service ticket indicating the service routine or repair that has been performed on the most recent visit and the date of the visit. Copies of check charts will be submitted to the department Project Manager(s) on the anniversary of each contract year and at the conclusion of the contract.