

**SECTION 2**  
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**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 of, inspections, testing, preventive maintenance, emergency repair, routine repair, and water treatment services for air conditioning chiller and related HVAC equipment.

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

A pre-bid conference will be held on            <            <            at Stephen P. Clark Center in Conference Room       . It is recommended that a representative(s) of the firm attend this conference as the "cone of silence" will be lifted during the course of the conference, and special conditions and specifications included within this solicitation will be discussed.

Bidders are requested to bring this solicitation document to the conference, as additional copies may not be available.

**2.3 TERM OF CONTRACT: FIVE YEARS**

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 Notice of Award Letter which is distributed by the County's internal Services Department, Procurement Management Division; and contingent upon the completion and submittal of all required bid documents. The contract shall remain in effect for five (5) years, and shall expire on the last day of the last month of the contract term.

**2.4 METHOD OF AWARD**

Award of this contract will be made to the lowest responsive, responsible bidder **per group**. To be considered for award, the bidder shall offer prices for all items and years listed in each group. The County will then select the bidder whose offer represents the lowest grand total per group, and who meet the minimum requirements listed below. If a bidder fails to submit an offer for all items within the group, its offer for that specific group may be rejected. Bidders shall provide the **total annual cost**, inclusive of all necessary labor, transportation, material and equipment to furnish a comprehensive program of, inspections, testing, preventive maintenance (PM), emergency repair, routine repair, boiler and water treatment services necessary to keep the equipment in operating condition within OEM specifications throughout the life of this contract.

Failure of any bidder to perform in accordance with the terms and conditions of the contract may result in the bidder(s) being deemed in breach of contract. The County may terminate the contract for default and charge the successful bidder(s) re-procurement costs, if applicable.

**Bidder Requirements**

Bidder(s) shall submit with their bid all specified information, documents and attachments as proof of compliance to the minimum qualification requirements; however, Miami-Dade County, may at its sole discretion, allow the bidder to complete or supplement the qualification requirements information/documents during the evaluation process. The County

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may request additional evidence from the bidder(s) to ensure, to its satisfaction, that the bidder is in fact qualified to perform the required work.

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. The County shall be sole judge of the bidder's conformance to the minimum requirements and its decision shall be final.

- A. Bidder(s) must be a State of Florida Mechanical or Class "A" Air Conditioning Contractor. Copy of either license shall be provided with the bid submittal.
- B. Bidder must have certified technicians performing the work specified herein. Copies of Certificates of Competency as a Journeyman in the General Mechanical Category issued by Miami-Dade County or Broward County 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) 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. The bidder or bidder's subcontractor performing oil analysis test and evaluation of oil samples must have a demonstrated 5-year minimum of experience performing oil analysis. As evidence, the bidder or bidder's subcontractor is required to provide at least three (3) letters of reference from their clients including dates of service, and statement of work performed. Reference letters are to be submitted on client's letterhead and must clearly state the length of time services similar to those described throughout this solicitation. The references shall ascertain to the County's satisfaction that the bidder or bidder's subcontractor has sufficient expertise in performing oil analysis. The County, at its sole discretion, may choose to request additional information to assess the bidder's experience.
- G. The bidder or bidder's subcontractor performing water treatment services to County equipment must have a demonstrated 5-year minimum water treatment experience. As evidence bidder or bidder's subcontractor are required to provide at least three (3) letters of reference from their clients including dates of service, and statement of work performed. Reference letters are to be submitted on client's letterhead and must clearly state the length of time services similar to those described throughout this solicitation. The references shall ascertain to the County's satisfaction that the bidder has sufficient expertise in water treatment. The County, at its sole discretion, may choose to request additional information to assess the bidder or bidder's subcontractor's experience.

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- H. The bidder or bidder’s subcontractor performing water treatment services to County equipment must have at minimum, one staff member holding an engineering degree. As evidence bidder or bidder’s subcontractor must submit a copy of their diploma or official transcripts indicating the degree received.
- I. The bidder(s) shall maintain offices, shop facilities, and personnel located in Miami-Dade, or Broward and shall provide a copy of their local business tax certificate as proof of office location.

The successful bidder(s) must maintain all licenses, certificates and qualifications during the contract period. Should the successful bidder(s) replace personnel during the contract period, the new personnel must meet the same qualifications and credentials as those identified in this section.

**2.5 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. The County reserves the right to negotiate lower pricing based on market research information or other factors that influence price.

**2.6 METHOD OF PAYMENT**

In addition to the terms and conditions stated in section 1.2.H – Prompt Payment Terms. The County will pay the successful bidder’s annual price listed in section 4 in 12 equal monthly installments.

**2.7 EXAMINATION OF COUNTY FACILITES AND COUNTY EQUIPMENT (RECOMMENDED)**

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. It shall be the responsibility of the bidder(s) to examine the equipment and facility prior to submittal of their bid.

Failure or omission of the bidder(s) to review any instructions or documents, or any part of the specifications, or to visit the facility and become acquainted with the nature and location of the work, the general and local conditions and all matters which may in any way affect performance shall not relieve the bidder(s) of any obligation to perform as specified herein.

Note: an X indicates the type of service each group will require.

Group	Department	Location	Services		
			Chiller Maintenance	Related Equipment *Cooling towers	Water Treatment
1	Transit	William Lehman Facility	X		X

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		6601 NW 72 Ave. 33166		
2	Transit	Central Administration Bldg. 3300 NW 32 Ave. 33142	X	X
3	Police	Police Dept. Bldg. 9105 NW 25 St. 33172	X	X
4	Corrections & Rehabilitation	Women Detention Center 1401 NW 7 Ave. 33136	X	X
5	Corrections & Rehabilitation	Tuner Guilford Knight Detention 7000 NW 41 St. 33166	X	X
6	Corrections & Rehabilitation	Pre-trial Detention Center 1321 NW 13 St. 33125	X	X
7	Parks & Recreation	Miami Metro Zoo 12400 SW 152 St. 33177	X	X
8	Parks & Recreation	Country Club of Miami 6801 Miami Gardens Dr. 33015	X	X
9	Parks & Recreation	Deering Estates 16701 SW 72 Ave. 33157	X	X
10	Parks & Recreation	Crandon Tennis Center 7300 Crandon Blvd. 33149	X	X
11	Seaport	Terminal B & C 1740 N. Cruise Blvd. 33132	X	X
12	Seaport	Terminal F & G	X	X
13	Seaport	1080 RCCL Bldg. 1080 Caribbean Way. 33132	X	X
14	Seaport	1050 RCCL Bldg. 1050 Caribbean Way. 33132	X	X
15	Seaport	Terminal D 1265 N. Cruise Blvd. 33132	X	X
16	Seaport	Terminal E 1435 N. Cruise Blvd. 33132	X	X
17	Seaport	1001 & 1015 Bldgs.	X	X
18	Seaport	Terminal H	X	X
19	Seaport	1007 Bldg.	X	X
20	Seaport	Terminal J	X	X
21	Public Housing	Robert King High Towers 1407 NW 7 <sup>th</sup> St. 33125	X	X
22	Public Housing	Harry Cain Towers 490 NE 2 <sup>nd</sup> Ave. 33132	X	X
23	Cultural Affairs	Dade County Auditorium 2901 W Flagler St. 33135		X
24	Internal Services	Graham Building 1350 NW 12 Ave. 33136	X	
25	Internal Services	Joseph Caleb Center 5400 NW 22 Ave. 33142	X	X
26	Internal	Central Support Facility	X	X

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	Services	200 NW 1 <sup>st</sup> St. 33128			
27	Internal Services	North District Chiller Plant 1110 NE 1 <sup>st</sup> Ave. 33132	X		X
28	Internal Services	Medical Examiner's Bldg. 1 Bob Hope Road. 33136	X		X
29	Internal Services	North Dade Justice Bldg. 15555 Biscayne Blvd. 33160	X		X
30	Internal Services	Metro Justice Bldg. 1351 NW 12 St. 33125	X		X
31	Internal Services	South Dade Government Bldg. 10740 SW 288 St. 33033	X		
32	Internal Services	John D. Campbell Center 18710 SW 288 St. 33030	X		X
33	Internal Services	South Dade Regional Library 10750 SW 211 St. 33189	X		X
34	Internal Services	Record Center 9312 NW 12 St. 33172	X		X
35	Internal Services	Metro-Dade Annex Building 864 NW 23 <sup>rd</sup> St. 33142	X		X
36	Internal Services	Hialeah Court House 11 East 6 St. 33010	X		
37	Internal Services	Data Center 5680 SW 87 Ave. 33173	X		X
38	Internal Services	<ol style="list-style-type: none"> <li>1. <b>Coral Gables Library</b> 343 Segovia St.</li> <li>2. <b>DC Jail</b> 1350 NW 7<sup>th</sup> St.</li> <li>3. <b>MD Fire Rescue HQ</b> 9300 NW 41<sup>st</sup> St.</li> <li>4. <b>MDTA Bus Yard</b> 32 Ave NW 30 St.</li> <li>5. <b>MDTA Rapid Transit</b> 72 Ave &amp; 67 St.</li> <li>6. <b>Metro West – N &amp; S</b> 13841 NW 41 St.</li> <li>7. <b>Miami Beach Library</b> 2100 Collins Ave</li> <li>8. <b>Miami Lakes Library</b> 6699 Windmill</li> <li>9. <b>S. Miami Library</b> 6000 Sunset Dr.</li> <li>10. <b>W.D. Regional Library</b> 9445 Coral Way</li> <li>11. <b>Naranja Library</b> 14850 SW 280 St.</li> <li>12. <b>Kendall Lakes Library</b> 15205 SW 88<sup>th</sup> St.</li> <li>13. <b>International Mall Library</b> 10315 NW 12<sup>th</sup> St.</li> <li>14. <b>Coral Reef Library</b></li> </ol>			X X X X X X X X X X X X X X

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	9211 Coral Reef Dr.			
	<b>15. Golden Glades Library</b> 100 NE 166 <sup>th</sup> St.			X
	<b>16. North East Library</b> 2930 Aventura Blvd.			X
	<b>17. Arcola Lakes Library</b> 8240 NW 7 <sup>th</sup> Ave.			X
	<b>18. Stephen P. Clark Center</b> 111 NW 1 <sup>st</sup> St.			X
	<b>19. 140 West Flagler St.</b>			X
	<b>20. Court House Center</b> 175 NW 1 <sup>st</sup> Ave			X
	<b>21. Cultural Center</b> 101 West Flagler St.			X
	<b>22. Hickman Building</b> 275 NW 3 <sup>rd</sup> St.			X
	<b>23. OTV 1</b>			X
	<b>24. OTV 2</b>			X

**2.8 INDEMNIFICATION AND INSURANCE**

The Contractor shall furnish to the Internal Services Department / Procurement Management Services, 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 on a comprehensive basis in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage. **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.

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 A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.

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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**

**2.9 NO PRE-EXISTING WARRANTY**

The majority of the equipment covered under this contract is not covered under any type of warranty. The successful bidder is solely responsible for all covered equipment from the date of award. The bidder shall be fully responsible for all of the equipment "as is".

**2.10 WARRANTY REQUIREMENTS**

I. Warranty coverage for parts and services:

In addition to all other warranties that may be supplied for good purchased from the OEM, the successful bidder(s) shall warrant its services against faulty labor for a minimum period of one (1) full year after the date of acceptance of the labor, materials and or equipment by the County. This warranty requirement shall remain in force for the full one (1) year period; regardless of whether the successful bidder is under contract with the County at the time of defect. Any payment by the County for the goods and services does not constitute a waiver of these warranty provisions.

All repair and/or replacement parts supplied by the successful bidder(s) shall be warranted for a minimum period of one (1) full year after the parts have been installed in County equipment.

**2.11 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. 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.

**2.12 PARTS**

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 agreement shall be new or factory rebuilt, Original Equipment Manufacturer (OEM), free from defects, guaranteed suitable for the their particular designed purpose. Non-OEM parts shall not be used, unless the successful bidder has prior approval from the County Project manager.

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The successful bidder at their own expense shall obtain parts in the most expeditious manner available, which includes overnight air shipping and special fast track ordering.

**2.13 REPAIRS DUE TO FORCE MAJEURE**

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. Force majeure include: an act of nature, war, hurricane, riot, sovereign conduct, or verifiable vandalism.

When a repair is required under these circumstances, the County shall pay the successful bidder 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 successful bidder shall charge the County the same invoice prices he or she is charged by his or her supplier. A copy of the successful bidder's invoice from the supplier for parts shall be submitted with the successful bidder's invoice for payment. In cases where the successful bidder 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.

**2.14 CONTACT PERSON**

For any additional information regarding the terms and conditions of this solicitation and resultant contract, Contact: Yuly Chauz-Ramirez, at (305) 375-4263 or via e-mail at [ychaux@miamidadegov](mailto:ychaux@miamidadegov)

**2.15 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 successful bidder shall thoroughly clean up all areas where work has been involved as mutually agreed with the affected Department Project Manager.

**2.16 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 OSHA, 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 born solely by the responsible successful bidder. Barricades shall be provided by the successful bidder when work is performed in areas traversed by persons, or when deemed necessary by the County Department Project Manager.

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 successful bidder(s) during the term of this contract. The successful bidder(s) shall be held



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responsible for repairing or replacing property to the satisfaction of the County should it be damaged by reason of the bidder's operation on the property.

C. Personnel Identification:

All personnel employed by the successful bidder(s), including any subcontractor and subcontractor's employees when applicable, 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. Compliance with Local, State and Federal Standards and Regulations:

All products to be provided under this contract shall be in accordance with all governmental standards, regulations and codes to include, but not be limited to, those issued by the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety Hazards (NIOSH), and the National Fire Protection Association (NFPA).

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.

F. Disposal of Wastewater and Hazard Waste:

Wastes may be generated at various County facilities after draining or flushing out a chiller system onsite. Any such wastes 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 if a discharge approval is not granted, the bidder must arrange for offsite disposal at a permitted wastewater disposal facility.

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 local, State, and Federal laws.

**2.17 ADDITION/ DELETION OF EQUIPMENT, FACILITIES AND SERVICES**

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 after successful installation and start-up, and/or facilities to the contract. Should the County determine that additional equipment need to be added to a facility, a quote shall be obtained from the bidder servicing that facility. If an additional facility needs to be added to the contract, price quotes will be obtained from all the successful bidders.

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*B. Facility Modification*

Should a facility increase or decrease in size or equipment, price quotes shall be obtained for the modification from the bidder servicing that facility. If the price submitted by the Bidder for the modification is not competitive, the County shall obtain price quotes from all the successful Bidders for the entire facility including the modified portion.

*C. Deletion*

Facilities or equipment may be deleted when such services are no longer required during the contract period; upon written notice to the Bidder.

*D. Increase/Decrease Service*

The County may increase or decrease the number of services that are listed in Section 4, Bid Submittal Form. If the number of services is reduced to less than the amount stated in Section 4, the County will negotiate with the Bidder and if the negotiated price is competitive the County will adjust prices for the next payment. If the County determines that the negotiated price is not competitive, price quotes will be obtained from all the successful Bidders. If the County determines that the negotiated prices are not competitive, the County reserves the right of acquiring the services through a separate solicitation.

Any changes shall be added to this contract by formal modification of the award sheet.

**2.18 SUB-CONTRACTING**

The successful bidder shall be the primary service provider. Successful 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. The company name, contact person and a copy of their license/certificate shall be submitted to the Internal Services Department, Procurement Management Division for approval. The sub-contractors are the responsibility of the successful 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.

Successful 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.

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 successful bidder adjustment of bid prices. The successful bidder shall inform the County prior to scheduling any subcontractor's visit to any County facility.

Failure by the successful bidder 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.

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

**2.19 MIAMI-DADE COUNTY LIVING WAGE OR RESPONSIBLE WAGES**

To be determined by SBD.

**2.20 EXEMPTIONS FOR FEDERALLY FUNDED ENTITIES**

The contract to be awarded under this solicitation will be accessed by federally-funded departments. As a federally-funded agency, certain clauses within this Solicitation do not apply: Section 1 Paragraph 1.10 (Local Preference), Section 1 Paragraph 1.27 (Office of the Inspector General), Section 1 Paragraph 1.43 (Small Business Contract Measures), Section 1 Paragraph 1.35 (County User Access Program – UAP), and Section 1 Paragraph 1.44 (Disable Veteran’s Business Preference).

**2.21 AUXILIARY EQUIPMENT**

Bidder(s) shall provide twenty-four (24) hours, 7 days a week services to the 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 the cooling tower HVAC, structural components, chilled water pumps and associated piping located at the awarded facility. Services to auxiliary equipment shall be obtained from the bidder 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 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.

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 copy for all purchased parts and materials. The actual charge to the County from a successful 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.

**2.22 EXCLUDED SERVICES**

Maintenance and repair of controls which are part of the Building Management System. However, the successful bidder(s) should inspect the controls as specified in section 3.5.2.A.1 and if any deficiencies are identified, the bidder shall immediately notify the County Project Manager.

**SECTION 3**  
**TECHNICAL SPECIFICATIONS**

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**3.1 PURPOSE**

The purpose of this solicitation is to establish a full service contract for air conditioning chiller systems and related HVAC equipment.

**A. Scope of Work:**

The successful bidder shall regularly and systematically inspect the A/C chillers, towers, pumps, chiller air compressor stations and pneumatic refrigerant monitors in accordance with factory prescribed and pre-approved maintenance checklists and, as conditions warrant, adjust, lubricate, clean, repair or replace such parts and mechanisms necessary to render complete maintenance services and keep the A.C Chillers, and cooling towers listed in section 4 functioning properly in a safe operating condition.

**3.2 QUALITY ASSURANCE**

**A. Chillers - Initial Inspection:**

The successful 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 successful bidder is also the previous bidder servicing the equipment on the previous contract, all deficiencies shall be repaired at the successful bidder's expense. If the successful bidder 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 in the previous contract, the County shall pay the successful bidder 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 successful bidder shall charge the County the same invoice prices he or she is charged by his or her supplier. A copy of the successful bidder's invoice from the supplier for parts shall be submitted with the successful bidder's invoice for payment. In cases where the successful bidder 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.

**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 of a County Project manager.

Where an emergency is deemed to exist by the County, the successful bidder 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 successful bidder in accordance with OEM specifications

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and the terms of this contract.

Routine Services will be scheduled so as to minimize any loss of air conditioning. The successful bidder shall make every effort to schedule the work, in order to avoid disruption of the facility operations.

D. Multiple Locations:

The successful bidder(s) shall have the capability to simultaneously perform all work described herein at multiple site locations throughout Miami-Dade County of 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 successful 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 and resultant contract. When possible, longer lead times will be given.

F. System Failure:

In the event of a system failure that cannot be resolved is reported by the County, the successful bidder(s) shall bear all reasonable 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) capacity of the unit(s) that failed
- 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 successful bidder 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 successful 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 successful bidder shall make every effort to expedite the service 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. Successful bidder servicing the **Central Support facility (Group 26) and the North District Chiller Plant (27)** shall provide this service within one hour of notification.

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G. Bidder Accessibility and Communications:

Bidder shall be accessible by a local or toll free number in Miami-Dade County, 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 successful bidder 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 shall document the condition of the system and all performed services. These documents shall be provided with any submitted invoice. The successful bidder 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.

Miami Dade 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 bidder(s) place 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 a County project manager will be submitted to the bidder for correction, be it due to faulty parts or inefficient labor. Should the defects and/or deficiencies not be corrected within the period specified in the notice, the bidder shall be liable for any cost incurred by the County to insure correction. This cost may be deducted against the monthly invoices from the successful bidder. 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.

**3.2 GENERAL WORKING CONDITIONS**

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- A. Successful bidder(s) must recommend and provide to the County and effective refrigerant leak detection program designed around the chillers in the solicitation.
- B. Successful bidder(s) must provide the county user departments with a copy of its policy and program of Chlorofluorocarbon (CFC) and waste oil handling. Successful bidder(s) shall also comply with all ISO14001-2004 policies and regulations from the Regulatory and Economic Resources Department.
- C. Successful 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. Successful 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 observed County 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 successful bidder must coordinate these shut downs with the Department Project Manager(s) or their designees.

**3.3 CONTRACT PRE-COMMENCEMENT PROCEDURE**

Successful bidder(s) shall deliver to the using 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.

Successful 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 successful 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.

**3.4 REFRIGERANTS**

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Successful 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 successful bidder's obligation shall be adjusted to coincide with the new date. The costs of such replacement refrigerants shall be at the successful bidder'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. Successful bidder(s) must have available, within seven (7) days after award on-site for immediate use, factory recommended equipment and tanks for each type of refrigerant awarded. 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. Successful bidder(s) must 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. Successful bidder(s) shall conform to all EPA regulations and report in writing per occurrence on a form provided by the County all refrigerant added, recovered, reclaimed or disposed of or accidentally discharged.
- E. Successful bidder(s) shall assure that an adequate supply of refrigerant be available, at the bidders expense, to maintain the water chillers fully charged throughout the term of the contract.
- F. At the request of the county's project manager, the successful bidder'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.

**3.5 SERVICES**

The successful bidder shall provide the following services for chillers, related equipment and various other Countywide water systems to include, but shall not be limited, to the following:

**3.5.1 WATER TREATMENT SERVICES**

The successful 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.



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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. Train operating personnel on all aspects of safety, program operation and application of chemicals annually.

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 successful bidder 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 successful bidder shall maintain all chemical storage tanks, bulk tanks, and chemical containers located at each County facility. All chemicals must have 110% containment basins.
3. Installation, maintenance and calibration of equipment shall be the responsibility of the successful bidder. Installation is defined as mounting, setup and calibration only.
4. The successful bidder 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.
5. 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. Plant Expansion**

The capacity of certain plants could possibly increase to include additional chillers, ice storage and cooling towers. Connected load to the existing equipment may also increase. Additional capacity may be negotiated at the time services start to be applied to expanded facilities.

**C. 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.

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D. Computerized Logs and Reference Manual

Successful bidder 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.

C-E. 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.

D-F. 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 successful bidder 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, tolyltriazole 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.

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>	

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Mild Steel	<2.0 MPY
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E. Dispersants

Sufficient dispersant shall be added either as a component of the corrosion inhibitor or as a separate product to enable control of suspended matter.

F.G. 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.

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 isothiazolline, 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 microbiobio performance standards.

G.H. Chemical Delivery

1. The successful bidder shall deliver chemicals and products in a manner that is safe and acceptable to the County. The successful bidder shall provide all liquid products for the treated water systems directly to the point of feed in a

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bulk delivery method. This method is intended to eliminate handling of chemical drums by the facility engineers. In the event that bromine tables are used, the successful bidder shall be responsible for adding the tables directly to the bromine feeder.

2. The successful bidder's delivery specialist shall have full commercial driver's license with HAZMAT endorsements. Use of common carriers will be acceptable; however, the successful bidder 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.

~~4.1~~ Test Equipment

- ~~1. The successful bidder shall supply the facility with sufficient test equipment and reagents to monitor the program for the duration of the contract. Operable existing test equipment may be utilized. A minimum of one each of the following pieces of test equipment will be provided by the successful bidder to each County facility being serviced.
 
  - ~~i. Conductivity Tester (Standard Calibration Solution)~~
  - ~~ii. PH Tester (Standard Calibration Solution)~~
  - ~~iii. Biological Dip Slides (BioSan BF or equal)~~
  - ~~iv. Corrosion Inhibitor Test Kit (Hach DR 890 + UV lamp)~~
  - ~~v. Free and Total Halogen Test Kit (if bromine is used at the facility as a biocide, Hach DR 890)~~
  - ~~vi. Iron, Copper, Zinc Test Kit (Hach DR 890)~~~~

~~2.1~~ A water treatment program manual 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 along with log sheets to enter the data shall be provided and maintained up to date by the successful bidder at each County facility. The successful bidder shall be responsible for training the plant personnel in properly running tests and keeping records.

~~3.2~~ The successful bidder will be responsible for installation, inspection, calibration, and maintenance of all chemical feed and monitoring equipment. The successful bidder will do all the testing of equipment to evaluate the chemical levels within the system being serviced. The successful bidder shall supply all tools, equipment, and parts necessary to perform the scope of work. Any damages to equipment during performance of service or otherwise are sole responsibility of successful bidder.

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I.J. Safety

1. All mechanical and analytical reagents supplied by the successful bidder shall meet all applicable government regulations. The successful bidder shall submit an MSDS for all products in use and proposed products. The successful bidder will be responsible for providing up to date MSDS for all chemicals supplied including reagents.
2. The successful bidder shall provide service and back-up personnel in a two-hour response time to any and all County water treatment locations.

J.K. Monthly Site Visits

The bidder will be required to visit every site awarded, requiring water treatment servicing, at a minimum, once a month. 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.

K.L. Monthly Meetings

The successful bidder 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.

L.M. Chemicals

1. The successful bidder 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 successful bidder 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, prior to commencement of contract work. The turnaround time requirements for testing of water will be 24- hours, 3-days, or 7-day depending on the complexity of testing.

3.5-22.5.2 **CHILLER PREVENTIVE MAINTENANCE**

A. Preventative Maintenance:

Section 4.0, 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.

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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. 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.
4. Bidder(s) are responsible for maintaining glycol levels as indicated by OEM where applicable.

**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. Successful bidder(s) shall provide a yearly spectral-chemical oil analysis and provide a report in writing. (See section 3.6 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.

**3.5.32.5.3 CHILLER FULL ANNUAL MAINTENANCE SERVICE**

Full maintenance service shall include all preventative maintenance tasks as stated under Section 3.5.2 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

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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. 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.
- E. 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.
- F. Inspect, test, maintain, service, repair or replace as required, the refrigerant monitor systems existing in the chiller plants.
- G. Perform a major overhaul as required pending oil analysis and at the department's discretion.
- H. Perform repairs as required pending oil analysis recommendations.
- I. Vibration analysis services shall cover the following:
  - 1. 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.
  - 2. Provide all the equipment necessary for the analysis.
  - 3. Indicate instrumentation use and limits of the analysis, if any.
  - 4. Provide a graphic vibration signature in the horizontal, vertical and axial directions.
  - 5. Report the amplitude of vibration by velocity (inches/second) and frequency (cycles/minute).
  - 6. Indicate areas which exceed acceptable levels (.10 inches/second) of vibration amplitude, at discrete frequency.
  - 7. Provide recommended corrective action as required.
  - 8. Provide written report within 30 days of analysis. In the report indicate at which locations the signatures were obtained.
  - 9. Indicate re-analysis frequency based on results if more than once a year.

3.5.42.5.4 **TUBE INSPECTION**

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The following services are to be performed by the successful bidder 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 and 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 successful bidder(s). Group 26-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. Bidder(s) shall employ an independent consultant to monitor any water treatment work performed on all chillers listed in this solicitation.

~~3.5.5.5~~ **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 successful bidder'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



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internal clearances adjustments, internal cleaning refrigerant solution charge, and complete equipment leak testing, evacuation and dehydration where applicable.

A. Eddy Current Testing

Eddy current testing shall be provided on all equipment. The testing 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

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

**3-62.6 RECORDS MANAGEMENT**

A. Service Receipts

Successful 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 in the machine room and/or complete log book provided by the County, and so advise the Project Manager(s) the next working day.

B. Survey Reports

Successful 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 successful bidder's maintenance supervisor.

C. Water Treatment Services Reports

The successful bidder 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

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measured shall be compiled into a "Biological Monitoring Results" spreadsheet to include desired ranges, inventory levels, and a list of adjustments made.

The successful bidder 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 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**

Successful 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 successful 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**

Successful bidder 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**

Successful bidder(s) shall provide and maintain a system data log sheet for each facility. Once each month, the bidder 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:

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- 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

Successful 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.