

# Master Purchase Order

<b>DO NOT INVOICE TO THIS ADDRESS</b>		Workday™ Supplier Contract No. SC-00006890	
<b>City &amp; County of Denver</b>		Date: May 13, 2022	Revision No.
Purchasing Division		Payment Terms: Net 30	Resolution (as applicable):
201 West Colfax Avenue, Dept. 304		Freight Terms: FOB DESTINATION	
Denver, CO 80202		Ship Via: Best Way	
United States		Analyst: Leann Rush	
Phone: 720-913-8100 Fax: 720-913-8101		Phone/Email: (303)342-2298 / leann.rush@flydenver.com	

Workday Supplier ID: DENVR0000018009 Phone: 720-448-9912 Fax: Info@summitlaboratories.com Email: Matt@summitlaboratories.com

Summit Laboratories Incorporated 3955 Forest Street Denver, CO 80207-112  Attn: Matt Oberhofer	Ship To: Denver International Airport 27000 East 86 <sup>th</sup> Avenue Denver, CO 80249  Bill To: As Specified By Agency
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Colorado Secretary of State ID: 19871726016

- 1. Goods/Services:**  
Summit Laboratories Incorporated, a Colorado Company, (“Vendor”) shall provide the goods, and any services related thereto, identified and described on attached **Exhibit A**, to the City and County of Denver, a Colorado municipal corporation (the “City”), all in accordance with the terms and conditions of this Master Purchase Order.
- 2. Ordering:**  
The City shall purchase one or more of the goods/services by issuing a written purchase order(s) or similar appropriate written document (“Order”), each of which will be deemed incorporated into this Master Purchase Order for purposes of such Order only.
- 3. Pricing:**  
The pricing/rates for the goods/services is contained on **Exhibit A** and shall be held firm for the term of this Master Purchase Order. All prices quoted shall be firm and fixed for the specified contract period. Price adjustments may be considered at the beginning of each renewal term with a justified maximum increase of 3%.
- 4. Term/Renewal:**  
The term of this Master Purchase Order shall be from May 13, 2022, to and including May 12, 2024. The City and the vendor may mutually agree to renew and continue this Master Purchase Order for additional periods at the same pricing structure, terms and conditions. However, no renewal shall surpass May 12, 2027.
- 5. Non-Exclusive:**  
This Master Purchase Order is non-exclusive. City does not guarantee any minimum purchase other than as provided herein.
- 6. Inspection and Acceptance:**  
Vendor shall perform any services in accordance with the standard of care exercised by highly competent vendors who perform like or similar services. City may inspect all goods/services prior to acceptance. Payment does not constitute acceptance. Vendor shall bear the cost of any inspection/testing that reveal goods/services that are defective or do not meet specifications. City's failure to accept or reject goods/services shall not relieve Vendor from its responsibility for such goods/services that are defective or do not meet specifications nor impose liability on City for such goods/services. If any part of the goods/services are not acceptable to City, City may, in addition to any other rights it may have at law or in equity: (1) make a warranty claim; (2) repair and/or replace the goods or substitute other services at Vendor's expense; or reject and return the goods at Vendor's cost and/or reject the services at Vendor's expense for full credit. Any rejected goods/services are not to be replaced without written authorization from City, and any such replacement shall be on the same terms and conditions contained in this Purchase Order.
- 7. Shipping, Taxes and Other Credits and Charges:**  
All pricing is F.O.B. destination unless otherwise specified. Shipments must be marked with Vendor’s name, the Master Purchase Order number, and contain a delivery or packing slip. Vendor shall not impose any charges for boxing, crating, parcel post, insurance, handling, freight, express or other similar charges or fees. Vendor shall notify City in writing of any price decreases immediately, and City shall receive the benefit thereof on all unshipped items. Vendor shall comply with any additional delivery terms specified herein. Vendor shall be responsible for the cleanup and reporting of any contamination (environmental or otherwise) or spillage resulting from the delivery and/or unloading of goods within twenty-four (24) hours of the contamination or spillage or sooner if required by law. Vendor shall procure all permits

and licenses; pay all charges, taxes and fees; and give all notices necessary and incidental to the fulfillment of this Master Purchase Order and all cost thereof have been included in the prices contained herein. City shall not be liable for the payment of taxes, late charges or penalties of any nature, except as required by D.R.M.C. § 20-107, et seq. The price of all goods/services shall reflect all applicable tax exemptions. City's Federal Registration No. is 84-6000580 and its State Registration No. is 98-02890. Vendor shall pay all sales and use taxes levied by City on any tangible personal property built into the goods/services. Vendor shall obtain a Certificate of Exemption from the State of Colorado Department of Revenue prior to the purchase of any materials to be built into the goods/services and provide a copy of the Certificate to City prior to final payment.

**8. Risk of Loss:**

Vendor shall bear the risk of loss, injury or destruction of goods prior to delivery to City. Loss, injury or destruction shall not release Vendor from any obligation hereunder.

**9. Invoice:**

Each invoice shall include: (i) the Purchase Order number; (ii) individual itemization of the goods/services; (iii) per unit price, extended and totaled; (iv) quantity ordered, back ordered and shipped; (v) an invoice number and date; (vi) ordering department's name and "ship to" address; and (vii) agreed upon payment terms set forth herein.

**10. Payment:**

Payment shall be subject to City's Prompt Payment Ordinance D.R.M.C. § 20-107, et-seq., after City accepts the goods/services. Any other provision of this Agreement notwithstanding, in no event shall the City be liable for aggregate payments under this Master Purchase Order in excess of nine hundred thousand dollars (\$900,000.00). The Vendor acknowledges that any goods/services provided beyond those specifically described in **Exhibit A** are performed at Vendor's risk and without authorization from the City. City's payment obligations hereunder, whether direct or contingent, shall extend only to funds appropriated by the Denver City Council for the purpose of this Master Purchase Order, encumbered by the City after receipt of Vendor's invoice and paid into the Treasury of City. Vendor acknowledges that: (i) City does not by this Master Purchase Order, irrevocably pledge present cash reserves for payments in future fiscal years; and (ii) this Master Purchase Order is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of City. City may setoff against any payments due to Vendor any claims and/or credits it may have against Vendor under this Master Purchase Order.

**11. Amendments/Changes:**

Only the Executive Director of General Services or his/her delegate is authorized to change or amend this Master Purchase Order by a formal written change order. Any change or amendment that would cause the aggregate payable under this Master Purchase Order to exceed the amount appropriated and encumbered for this Master Purchase Order is expressly prohibited and of no effect. Vendor shall verify that the amount appropriated and encumbered is sufficient to cover any increase in cost due to changes or amendments. Goods/services provided without such verification are provided at Vendor's risk. The Vendor has no authority to bind City on any contractual matters.

**12. Warranty:**

Vendor warrants and guarantees to City that all goods furnished under this Purchase Order are free from defects in workmanship and materials, are merchantable, and fit for the purposes for which they are to be used. For any goods furnished under this Master Purchase Order which become defective within twelve (12) months (unless otherwise specified) after date of receipt by City, Vendor shall either, at City's election and to City's satisfaction, remedy any and all defects or replace the defective goods at no expense to City within seven (7) days of receipt of the defective goods or accept the defective goods for full credit and payment of any return shipping charges. Vendor shall be fully responsible for any and all warranty work, regardless of third-party warranty coverage. Vendor shall furnish additional or replacement parts at the same prices, conditions and specifications delineated herein.

**13. Indemnification/Limitation of Liability:**

Vendor shall indemnify and hold harmless City (including but not limited to its employees, elected and appointed officials, agents and representatives) against any and all losses (including without limitation, loss of use and costs of cover), liability, damage, claims, demands, actions and/or proceedings and all costs and expenses connected therewith (including without limitation attorneys' fees) that arise out of or relate to any claim of infringement of patent, trademark, copyright, trade secret or other intellectual property right related to this Purchase Order or that are caused by or the result of any act or omission of Vendor, its agents, suppliers, employees, or representatives. Vendor's obligation shall not apply to any liability or damages which result solely from the negligence of City. City shall not be liable for any consequential, incidental, indirect, special, reliance, or punitive damages or for any lost profits or revenues, regardless of the legal theory under which such liability is asserted. In no event shall City's aggregate liability exceed the agreed upon cost for those goods/services that have been accepted by City under this Purchase Order up to the total Master Purchase Order Amount.

Notwithstanding anything contained in this Purchase Order to the contrary, City in no way limits or waives the rights, immunities and protections provided by C.R.S. § 24-10-101, et seq.

**14. Termination:**

City may terminate this Master Purchase Order, in whole or in part, at any time and for any reason immediately upon written notice to Vendor. In the event of such a termination, City's sole liability shall be limited to payment of the amount due for the goods/services accepted by City. Vendor acknowledges the risks inherent in this termination for convenience and expressly accepts them. Termination by City shall not constitute a waiver of any claims City may have against Vendor.

**15. Interference:**

Vendor shall notify the Director of Purchasing immediately of any condition that may interfere with the performance of Vendor's obligations under this Master Purchase Order and confirm such notification in writing within twenty-four (24) hours. City's failure to respond to any such notice shall in no way act as a waiver of any rights or remedies City may possess.

**16. Venue, Choice of Law and Disputes:**

Venue for all legal actions shall lie in the District Court in and for City and County of Denver, State of Colorado, and shall be governed by the laws of the State of Colorado as well as the Charter and Revised Municipal Code, rules, regulations, Executive Orders, and fiscal rules of City. All disputes shall be resolved by administrative hearing, pursuant to the procedure established by D.R.M.C. § 56-106. Director of Purchasing shall render the final determination.

**17. Assignment/No Third-Party Beneficiary:**

Vendor shall not assign or subcontract any of its rights or obligations under this Master Purchase Order without the written consent of City. In the event City permits an assignment or subcontract, Vendor shall continue to be liable under this Master Purchase Order and any permitted assignee or subcontractor shall be bound by the terms and conditions contained herein. This Master Purchase Order is intended solely for the benefit of City and Vendor with no third-party beneficiaries

**18. Notice:**

Notices shall be made by Vendor to the Director of Purchasing and by City to Vendor at the addresses provided herein, in writing sent registered, return receipt requested.

**19. Compliance With Laws:**

Vendor shall observe and comply with all federal, state, county, city and other laws, codes, ordinances, rules, regulations and executive orders related to its performance under this Master Purchase Order. City may immediately terminate this Master Purchase Order, in whole or in part, if Vendor or an employee is convicted, plead nolo contendere, or admits culpability to a criminal offense of bribery, kickbacks, collusive bidding, bid-rigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature.

**20. Insurance:**

Vendor agrees to secure, at or before the time of execution of this Master Purchase Order, the following insurance covering all operations, goods or services provided pursuant to this Master Purchase Order. Vendor shall keep the required insurance coverage in force at all times during the term of the Master Purchase Order, including any extension thereof, and during any warranty period. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-VIII" or better. Each policy shall require notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Master Purchase Order. Such notice shall reference the Master Purchase Order listed on the signature page of this Master Purchase Order. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Vendor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's Master Purchase Order. Vendor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Master Purchase Order are the minimum requirements, and these requirements do not lessen or limit the liability of the Vendor. The Vendor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Master Purchase Order.

Vendor may not commence services or work relating to this Master Purchase Order prior to placement of coverages required under this Master Purchase Order. The City requests that the City's contract number be referenced on the

certificate of insurance. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Master Purchase Order shall not act as a waiver of Vendor's breach of this Master Purchase Order or of any of the City's rights or remedies under this Master Purchase Order. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements. For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), Vendor and sub-contractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured. For all coverages required under this Master Purchase Order, Vendor's insurer shall waive subrogation rights against the City. Vendor shall confirm and document that all subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Master Purchase Order) procure and maintain coverage as approved by the Vendor and appropriate to their respective primary business risks considering the nature and scope of services provided. Vendor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Vendor shall maintain a Commercial General Liability insurance policy with minimum limits of \$1,000,000 for each bodily injury and property damage occurrence, \$2,000,000 products and completed operations aggregate (if applicable), and \$2,000,000 policy aggregate. Vendor shall maintain Automobile Liability with minimum limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Master Purchase Order.

**21. Severability:**

If any provision of this Master Purchase Order, except for the provisions requiring appropriation and encumbering of funds and limiting the total amount payable by City, is held to be invalid, illegal or unenforceable by a court of competent jurisdiction, the validity of the remaining portions or provisions shall not be affected if the intent of City and Vendor can be fulfilled.

**22. Survival:**

All terms and conditions of this Master Purchase Order which by their nature must survive termination/expiration shall so survive. Without limiting the foregoing, Vendor's insurance, warranty and indemnity obligations shall survive for the relevant warranty or statutes of limitation period plus the time necessary to fully resolve any claims, matters or actions begun within that period.

**23. No Construction Against Drafting Party:**

No provision of this Master Purchase Order shall be construed against the drafter.

**24. Status of Vendor/Ownership of Work Product:**

Vendor is an independent contractor retained on a contractual basis to perform services for a limited period of time as described in Section 9.1.1E(x) of the Charter of City. Vendor and its employees are not employees or officers of City under Chapter 18 of the D.R.M.C. for any purpose whatsoever. All goods, deliverables, hardware, plans, drawings, reports, submittals and all other documents or things furnished to City by Vendor shall become and are the property of City, without restriction. Ownership rights shall include, but not be limited to the right to copy, publish, display, transfer, prepare derivative works, or otherwise use materials. Software licenses terms may be incorporated herein by an End User License Agreement signed by the Director of Purchasing. Any 'click-wrap' electronic acceptance or other terms and conditions not agreed to in writing by the Director of Purchasing are of no force and effect.

**25. Examination of Records and Audits:**

Any authorized agent of the City, including the City Auditor or his or her representative, has the right to access, and the right to examine, copy and retain copies, at City's election in paper or electronic form, any pertinent books, documents, papers and records related to Vendor's performance pursuant to this Master Purchase Order, provision of any goods or services to the City, and any other transactions related to this Master Purchase Order. Vendor shall cooperate with City representatives and City representatives shall be granted access to the foregoing documents and information during reasonable business hours and until the latter of three (3) years after the final payment under the Master Purchase Order or expiration of the applicable statute of limitations. When conducting an audit of this Master Purchase Order, the City Auditor shall be subject to government auditing standards issued by the United States Government Accountability Office by the Comptroller General of the United States, including with respect to disclosure of information acquired during the course of an audit. No examination of records and audits pursuant to this paragraph shall require Vendor to make disclosures in violation of state or federal privacy laws. Vendor shall at all times comply with D.R.M.C. 20-276.

**26. Remedies/Waiver:**

No remedy specified herein shall limit any other rights and remedies of City at law or in equity. No waiver of any breach shall be construed as a waiver of any other breach.

**27. No Discrimination in Employment:**

In connection with the performance of work under the Master Purchase Order, the Contractor may not refuse to hire, discharge, promote, demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, ethnicity, citizenship, immigration status, gender, age, sexual orientation, gender identity, gender expression, marital status, source of income, military status, protective hairstyle, or disability. The Contractor shall insert the foregoing provision in all subcontracts.

**28. Use, Possession or Sale of Alcohol or Drugs:**

Vendor shall cooperate and comply with the provisions of Executive Order 94. Violation may result in City terminating this Master Purchase Order or barring Vendor from City facilities or from participating in City operations.

**29. Conflict of Interest:**

No employee of City shall have any personal or beneficial interest in the goods/services described in this Master Purchase Order; and Vendor shall not hire or contract for services any employee or officer of City which would be in violation of City's Code of Ethics, D.R.M.C. §2-51, et seq. or the Charter §§ 1.2.8, 1.2.9, and 1.2.12.

**30. Advertising and Public Disclosure:**

The Vendor shall not include any reference to the Master Purchase Order or to services performed or goods purchased pursuant to the Master Purchase Order in any of the Vendor's advertising or public relations materials without first obtaining the written approval of the Director of Purchasing.

**31. No Employment of a Worker without Authorization to Perform work under the Master Purchase Order**

- a. This Master Purchase Order is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").
- b. The Contractor certifies that:
  - i. At the time of its execution of this Master Purchase Order, it does not knowingly employ or contract with a worker without authorization who will perform work under this Master Purchase Order, nor will it knowingly employ or contract with a worker without authorization to perform work under this Master Purchase Order in the future..
  - ii. It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., and confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Master Purchase Order.
  - iii. It will not enter into a contract with a subconsultant or subcontractor that fails to certify to the Contractor that it shall not knowingly employ or contract with a worker without authorization to perform work under this Master Purchase Order.
  - iv. It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under this Master Purchase Order, and it is required to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.
  - v. If it obtains actual knowledge that a subconsultant or subcontractor performing work under this Master Purchase Order knowingly employs or contracts with a worker without authorization, it will notify such subconsultant or subcontractor and the City within three (3) days. The Contractor shall also terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or

subcontractor does not stop employing or contracting with the worker without authorization, unless during the three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with a worker without authorization.

- vi. It will comply with a reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3.
- c. The Contractor is liable for any violations as provided in the Certification Ordinance. If the Contractor violates any provision of this section or the Certification Ordinance, the City may terminate this Master Purchase Order for a breach of the Master Purchase Order. If this Master Purchase Order is so terminated, the Contractor shall be liable for actual and consequential damages to the City. Any termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying the Contractor from submitting bids or proposals for future contracts with the City.

**32. Intellectual Property:**

Any research, reports, studies, data, photographs, negatives or other documents, drawings or materials (collectively “materials”) delivered by Vendor in performance of its obligations under this Master Purchase Order shall be the exclusive property of City. Ownership rights shall include, but not be limited to the right to copy, publish, display, transfer, prepare derivative works, or otherwise use materials. Software license terms may be incorporated herein by an End User License Agreement signed by the Director of Purchasing. Any ‘click-wrap’ agreement, terms of use, electronic acceptance or other terms and conditions not agreed to in writing by the Director of Purchasing are of no force and effect.


Purchase pursuant to 3.26(e)-This Master Purchase Order is contingent on Council approval and is void without such action.

This Master Purchase Order is acknowledged and agreed to by:

**City & County of Denver, Purchasing Division**

**Vendor Name:** Summit Laboratories

(Company Name)

By:   
(Authorized Signature)

Print Name: Douglas Gordon

Title: Vice President

Date: 5/16/2022

By: 

Print Name: Leann Rush

Title: Associate Procurement Analyst

Date: May 17, 2022

Procurement Manager: Matthew Henry

## EXHIBIT "A"

Supplier: Summit Laboratories Incorporated  
 Solicitation/ Award Title: HVAC Water Treatment and Monitoring  
 Solicitation No. /Internal File Reference Location: IFB No. 10896A

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**It is recommended that you use your Supplier Contract No. SC-00006890, in all future correspondence and/or other communications.**

Description of the goods, and services related thereto, being purchased and pricing:

HVAC WATER TREATMENT MATERIALS AND MONITORING of two (2) closed loop (Hot/Chilled water) systems, one (1) open loop (Cooling Tower) system.

**A.1 TERM**

The term of this Agreement shall run from date of award to and including May 12, 2024. It is also a specific provision of this proposal that the City and the vendor may mutually agree to renew and continue the contract or agreement consummated under this proposal for additional periods of one year at the same prices (unless otherwise indicated), terms and conditions. However, no more than three (3) yearly extensions shall be made to the original agreement.

**A.2 ESTIMATED QUANTITIES:**

Quantities listed are the City and County of Denver's best estimate and do not obligate the Analyst to order or accept more than City and County of Denver's actual requirements during the period of this contract, as determined by actual needs and availability of appropriated funds. It is expressly understood and agreed that the resulting contract is to supply the City with its complete actual requirement of the materials specified in this IFB for the contract period.

**A.3 F.O.B. POINT:**

All prices quoted must be quoted at a firm price F.O.B. Denver, Colorado, delivered to. **F.O.B. Denver, Colorado, delivered to Denver International Airport**, 27000 East 86th Avenue, Denver, CO 80249.

**A.4 AIRPORT SECURITY:**

It is a material requirement of this Contract that the Vendor shall comply with all rules, regulations, written policies and authorized directives from the City and/or the Transportation Security Administration with respect to Airport security. The Vendor shall conduct all of its activities at the Airport in compliance with the Airport security program, which is administered by the Security Section of the Airport Operations Division, Department of Aviation. Violation by the Vendor or any of its employees, subcontractors, and vendors of any rule, regulation, or authorized directive from the City or the Transportation Security Administration with respect to Airport Security shall be grounds for immediate termination by the City of this Contract for cause.

The Vendor shall promptly upon notice of award of this Contract, meet with the Airport's Assistant Security Manager to establish badging and vehicle permit requirements for Vendor's operations under this Contract. The Vendor shall obtain the proper access authorizations for all of its employees, subcontractors, and vendors who will enter the Airport to perform work or make deliveries and shall be responsible for each such person's compliance with all Airport rules and regulations, including without limitation those pertaining to security. Any person who violates such rules may be subject to revocation of his/her access authorization. The failure of the Vendor or any subcontractor to complete any required services hereunder shall not be excused on account of the revocation for good cause of access authorization of any person. The security status of the Airport is subject to change without notice. If the security status of the Airport changes at any time during the term of this Contract, the Vendor shall take immediate steps to comply with security modifications which occur as a result of the changed status. The Vendor may at any time obtain current information from the Airport Security Office regarding the Airport's security status in relation to the Vendor's operations at the Airport. The Vendor shall return to the City at the expiration or termination of this Contract, or upon demand by the City, all access keys or access badges issued to it for any area of the Airport, whether or not restricted.



If the Vendor fails to do so, the Consultant shall be liable to reimburse the City for all the City's costs for work required to prevent compromise of the Airport security system. The City may withhold funds in the amount of such costs from any amounts due and payable to the Vendor under this Contract.

**LAWS, REGULATIONS, TAXES AND PERMITS**

The Vendor shall procure all permits and licenses, pay all charges, taxes and fees and give all notices necessary and incidental to the due and lawful prosecution of the work. All costs thereof shall be deemed to be included in the prices proposed for the work.

The Vendor, at all times, shall observe and comply with all federal, state, county, city and other laws, codes, ordinances, rules and regulations in any manner affecting the conduct of the work.

Without limiting the foregoing, the Vendor shall establish appropriate procedures and controls so that services under this Contract will not be performed by using any alien who is not legally eligible for such employment under United States Immigration laws. Failure to comply with this condition satisfactorily may cause the City to terminate this Contract.

**A.7 EMERGENCY PURCHASES:**

The City and County of Denver reserves the right to purchase from other sources those items which are required on an emergency basis and cannot be supplied immediately from stock by the vendor.

**A.8 PALLET CHARGE:**

All pallets supplied shall be non-returnable, no deposit.

**A.9 LABORATORY TESTING:**

In the event materials shipped to the City as outlined herein indicate substandard specifications in a qualitative or quantitative manner, the City reserves the right to have a laboratory test made. If material is found to be deficient, the vendor shall be required to pay all costs of testing. If found to meet specifications, the City shall pay all costs.

**A.10 VENDOR PERFORMANCE MANAGEMENT:**

The Purchasing Department may administer a vendor performance management program as part this agreement. The purpose of this program is to create a method for documenting and advising the Purchasing Department of exceptional performance or any problems related to purchased goods and/or related services.

**FOR GOODS AND RELATED SERVICES (if applicable)**

- Total dollar value of purchases per City Agency
- Total number of transactions per City Agency
- Percentage of items shipped from local stock
- Percentage of items backordered
- Average delivery time for stock material
- Average delivery time for backorders

Supplier may also be required to provide additional specific reporting/data as required.

**SECTION B: SCOPE OF WORK AND TECHNICAL REQUIREMENTS:****B.1 SCOPE OF WORK/ REQUIREMENTS**

## CENTRAL PLANT WATER TREATMENT SPEC SCOPE OF WORK

**Specific Conditions**

## I. Physical Parameters

## A. Recirculating Cooling Tower System

- a. Target pH = 8.5 – 9.2
- b. Maintain LSI between (+2.5) to (+3) based on skin temperatures of 120 degrees Fahrenheit
- c. Free Chlorine .0.8 – 1.2 ppm
- d. Conductivity maximum of 2100 umhos
- e. Denver Water Department Makeup
- f. System Capacity = approximately 360,000 gallons
- g. Estimated system blow down is 8.2 million gallons
- h. Corrosion and scale control to provide a minimum of the following in the recirculating condenser water at all times:
  - 9-12 ppm PBTC phosphonate 6-9 ppm tolytriazazole
  - 5-8 ppm acrylic terpolymer
  - 4-7 ppm poly maleic anhydride 7-12 ppm Sodium polyacrylate
  - Must NOT contain other phosphonates (HEDP, HPA, and AMP)
  - Product must be able to control scaling at an LSI of +3.0
- i. Microbiological Control – NaOCl (sodium hypochlorite) solution- Vendor furnished, plus **VENDOR SUPPLIED MICROBIOLOGICAL ENHANCER.**
- j. Target Microbiological Control Parameters
  - i. aerobic bacteria < 100,000 colony forming organisms
  - ii. anaerobic bacteria = zero colony forming organisms
- k. Target Corrosion Rates
  - i. Steel < 1.5 mpy, no pitting or intergranular corrosion
  - ii. Copper < 0.1 mpy
- l. Target Scale Control
  - i. Scale and deposits will be completely controlled – zero deposition

## B. Closed Loop Hot Water System

- a. System Temperature/Pressure = 70 psig and 230 degrees Fahrenheit
- b. Target pH = 9.0-10.0
- c. Target oxygen level = - 0.5ppm = Reduction residual COD (Chemical Oxygen Demand) = 0.5 ppm O<sub>2</sub> minimum
- d. Un softened ambient temperature and oxygen content Denver Water Department Makeup
- e. System Capacity 734,100 gallons  
Estimated annual makeup is 215,000 gallons per year
- f. Target Corrosion Rates
  - i. *Steel < 0.1 mpy, no pitting and no intergranular corrosion.*
  - ii. *Copper < 0.1 mpy*

- g. Target Scale Control
  - i. Scale and deposits will be completely controlled – zero deposition
- C. Closed Loop Chilled Water System
  - a. System Temperature/Pressure = 80 psig and 40 degrees Fahrenheit
  - b. Target pH = 9 - 10
  - c. Ambient temperature and oxygen content Denver Water Department Makeup
  - d. System Capacity 836,000 gallons
  - e. Estimated annual makeup is 20,000 gallons per year
  - f. Target Corrosion Rates
    - i. Steel < 0.1 mpy, no pitting and no intergranular corrosion
    - ii. Copper < 0.1 mpy
  - g. Target Microbiological Control Parameters
    - i. aerobic bacteria < 100,000 colony forming organisms
    - ii. anaerobic bacteria = zero colony forming organisms
  - h. Target Scale Control
    - i. Scale and deposits will be completely controlled – zero deposition
- D. All process effluents –
  - a. All process effluents flow to DEN sanitary collection. Local POTW regulations require that DEN process effluents cannot exceed the following discharge limits. The vendor supplied chemical treatments cannot cause process effluents to exceed these limitations. In addition, **NO MOLYBDATE BASED TREATMENT CHEMICALS OR NITRATE PRODUCTS ARE ALLOWED.**
    - b. Arsenic 0.33 ppm
    - c. Cadmium 3.4 ppm
    - d. Chromium 3.6 ppm
    - e. Copper 6.1 ppm
    - f. Lead 2.2 ppm
    - g. Mercury 0.13 ppm
    - h. Molybdenum 0.43 ppm
    - i. Nickel 5.6 ppm
    - j. Selenium 0.66 ppm
    - k. Silver 2.9 ppm
    - l. Tetrachloroethene 1.5 ppm
    - m. Zinc 15.6 ppm

## II. Operating Requirements

### A. Recirculating Cooling Water System

- a. Recirculating Cooling System Conductance will be automatically controlled using a DEN supplied and installed automated blowdown control system based on recirculating water conductance.
- b. Corrosion control inhibitors and polymer will be feed automatically with on-site DEN provided controller. (Controller monitors conductivity of makeup and cooling tower water.)
- c. Cooling tower scale inhibitor shall be a one drum product that supplies **ALL** components in the tower water **PER I.A.1**
  - i. Must NOT contain other phosphonates such as

- (HEDP, HPA, AMP, etc.)
    - ii. The Product must be capable of controlling scale up to an LSI of +3.0 with a skin temperature of 120 deg F.
  - d. Vendor supplied liquid non-foaming microbiological control agent will be shotfed to the system. Vendor will determine the appropriate feed method for approval by the DEN HVAC Central Plant Supervisor.
  - e. Vendor to supplied slave and corrosion inhibitor product that contains PTSA Tracer Dye for ease of monitoring and control with existing test equipment and controls.
- B. Closed Loop Hot Water System
  - a. High Pressure Hot Water System water treatment will be controlled by vendorsupplied handheld meter or DR890 supplied by DEN.
  - b. Corrosion protection program will be based on a pH range of 9.0 to 10.0 and a silicate-based corrosion inhibitor.
- C. Closed Chilled Water System
  - a. Closed Cooling Water System water treatment will be controlled by vendersupplied handheld meter or DR890 supplied by DEN.
  - b. Corrosion protection program will be based on the use of silicate based one drum liquid product with a minimum of 35 ppm silicate.
  - c. Vender supplied biocide utilized for microbiological control. The biological control will be based on bromous ion residuals as necessary to control bacterial levels.
  - d. Vendor supplied microbiological control agent can be shot fed if needed to the system. Vendor will determine the appropriate feed method for approval by the DEN HVAC Central Plant Supervisor.

### III. Vendor Service Requirements

#### **Regular Chemical Control Inspection Visits**

- A. Monthly at a minimum (12 visits per year)
  - a. All constituent analysis will be accomplished, all equipment will be inspected and, if needed, recalibrated, all key parameter data will be taken and recommendations to assure program success will be offered to the Central Plant supervision. Each month a calibration check of the conductivity meter will be performed, and the following test will be run and indicated on the service report.  
Cooling Tower Water: Conductivity, Calcium, M-Alkalinity, p-H, Ortho PO4, Phosphonate, Iron, LSI, and Total biological growth.  
Make up water: Conductivity and Calcium  
Hot and Chilled water closed loops: Conductivity, p-h, Inhibitor levels, and Total biological growth (Chilled water).  
Addition test should be run if necessary, to ensure performance of scale, corrosion, and slime control.
  - b. Service personnel shall have minimum four years college level education in a chemistry related field (chemistry, chemical engineering, and biological sciences) and sufficient education, knowledge, and experience to evaluate chemical process conditions associated with the chemical treatment applications. See B.2 for further requirements.
  - c. Additional vendor orientation and training will be accomplished by Vendor personnel as needed to assure program success. Training should include basic water treatment

- procedures and norms in addition to periodic chemical testing against the chemical controller.
- d. Test corrosion and scale/deposit control coupons or other test equipment will be serviced, materials replaced or replenished and tested. Coupon test results will be submitted to the Central Plant operations within 45 days and anomalies noted. DEN reserves the right to install corrosion coupons in one location on all corrosion racks.
  - e. Visit results, observations and recommendations will be recorded and arecord submitted to Central Plant management or operators per supervision prerogative. Vendor must submit reports and recommendations using e-mail attachments in Microsoft Word or Excel or pdf (Adobe).
  - f. The monthly visits will be included in the purchase pricing of water treatment chemicals.
  - g. Must provide web site support for Cooling Tower water Walchem controller support, including data logging, trending and gathering system information for water treatment analysis and history documentation. Walchem controller can be accessed via Wi-Fi.
- B. Trouble shooting Visit – On Call
- a. As needed or at Central Plant supervision request.
  - b. Purpose is to provide support to facility management efforts to operate the chemical treatment programs within control limits.
  - c. Service will provide expertise on control systems, chemical feed systems, process chemistry for the control of corrosion and scale /deposition, as well as microbiological control.
  - d. Vendor is responsible for viable operation of all treatment equipment and treatment program management. This includes automated control equipment as well as feed equipment and control equipment.
  - e. All service visits will be included in the purchase price of the water treatment chemicals.
- C. Logistics
- a. Vendor will be responsible for assuring rapid delivery of products andservice including chemicals, support equipment, and test equipment. All chemicals must be delivered and pumped into on-site storage tanks by chemical company or delivery personal.
  - b. Service response should be in less than 24 hours of the request of the Central Plant Supervisor.  
The shipping containers shall be 400 gallons or less to facilitate handling at Central plant address, 27000 E. 86th Avenue  
Forklift capacity, 4,150 lbs. Elevator capacity, 15,000 lbs.  
West dock door height 14 ft., West dock door width 12 ft., West dock height, 4 ft.
  - c. Vendor will be responsible for unloading and installing chemicals for ready to feed status. Transportation and liability for spill which occursduring these activities are the responsibility of the Vendor. Empty containers are the responsibility of the vendor for pickup and removalfrom the facility site.
  - d. Delivery of chemicals will require vendor to make timely communications to facilitate access through airport security. Typically, this would require a one-day notice to the Central Plant supervisor and DEN's Maintenance Control Center

(303-342-2800) as to the delivery date and time. This will allow DEN personnel to be made available to facilitate the delivery. Delivery coordination will be at the direction of the Central Plant Supervisor.

- e. The existing DEN facilities are the starting point for any programs. Installation of any additional equipment and/or alteration of any feed points or takeoffs required by the Vendor to implement the treatment products will be at the Vendor's labor and material expense.
- f. Delivery method VIA tote to the CUP (Central Utility Plant). Preferred method on loading/unloading at the dock level is via standard pallet jack. Once chemical is on the operating floor of the CUP a forklift is available for final placement of product as needed.

#### IV. Vendor Performance Requirements

##### A. Recirculating Cooling Tower System

NOTE: Currently DEN uses bleach for bacterial organism controls, the selected vendor(s) shall supply all required water treatment chemicals for their program, including bleach.

- a. Physical parameters and operating parameters listed above will be met. Due to Environmental, Safety and Security concerns Acid will not be used in the water treatment program at DEN.
- b. Corrosion, scale and deposition, PH Microbiological control targets will be met through the application of the vender supplied water treatment products. Expectation is for a single drum corrosion, scale and deposition control program. Any feed systems required for additional products will be supplied by the vendor for free and will become the property of DEN. The microbiological control assistance to the DEN bleach feed is expected to be a shot feed. Vendor recommendations on frequency and volume and resulting cost will be considered. The biodispersant must be a non-foaming type.
- c. System control philosophy will be described in vendor bid narrative.
- d. The program will be cost effective and represent reliable present water treatment technologies. Costs will be projected on the basis of 8.2 million gallons per year of blow down.
- e. The corrosion control program will be based on a combination of phosphonate and tolytriazole.
- f. All duties listed will be included in the purchase price of the treatment chemicals.

##### B. Closed loop Hot Water System

- a. Physical parameters and operating parameters listed above will be met.
- b. Corrosion, Scale and Deposition, pH and Microbiological control targets will be met through the application of the Vendor supplied water treatment product. Expectation is for
  - i. a program pH between 9.0 and 10.0 silicate-based corrosion inhibitor
- c. System control philosophy will be described in vendor bid narrative.
- d. The program will be cost effective and represent present water treatment technologies. Costs will be projected on the basis of 215,000 gallons added peryear to the system.

##### C. Closed Chilled Water System

- a. Physical parameters and operating parameters listed above will be met.

- b. Corrosion, Scale and Deposition, pH and Microbiological control targets will be met through the application of the Vendor supplied water treatment products. Expectation is for:
  - c. A corrosion control inhibitor combination based on silicate-based product with a minimum of 35 ppm silicate in the closed loop system.
    - i. A scale and deposition control package which will include a system residual of 10 ppm Rohm and Haas Acrumer 1000 or equivalent low molecular weight copolymer dispersant.
    - ii. A bromine chloride biocide shall be used to enhance the microbiological control as needed if microbiological growths begin to cause slime or deposition.
  - d. System control philosophy will be described in vendor bid narrative.
  - e. The program will be cost effective and represent present water treatment technologies. Costs will be projected on the basis of 20,000 gallons per year make up added to the system.
- D. Corrosion Coupon Measurements –*Each water system has a bypass corrosion coupon installation system which allows coupons to be exposed to the operating conditions.*
- a. As a condition of the bid, the successful VENDOR shall establish a corrosion monitoring program using bypass systems which will measure the corrosion control programs for each system using metallurgical specimens' representative of the key system metallurgy, including brass and steel. DEN reserves the right to use one coupon position on each bypass loop for its own corrosion monitoring program. When DEN is not utilizing the coupon positions, the VENDOR will have access to those locations.

**NOTE: CHEMICAL ANALYSIS OF PRODUCTS**

DEN reserves the right to test the Vendor's products at any time to determine the chemical composition.

## **B.2 BID ITEMS SPECIFICATIONS FOR WATER TREATMENT AND MONITORING AT DENVER INTERNATIONAL AIRPORT**

PLEASE NOTE: ANY BID SUBMITTED WITHOUT THE REQUIRED INFORMATION ASKED FOR IN THE BID DOCUMENT MAY BE CONSIDERED NON-RESPONSIVE AND REJECTED.

The bid will be evaluated on total annual cost to DEN for chemicals. Once the vendor is selected, the cost per pound for every vendor supplied component, (Product), will remain the same for the term of the agreement.

The chilled water and hot water systems may utilize an adjustable feed pump system based on a constituent analysis performed on a handheld photo analyzer. The analysis requirements shall be simplified as to allow rapid operator sampling and analysis.

Chemical Bid includes the training and operating manuals for program management, all service visits and records preparation and submittal. All items not included in contact should be priced separately at a discounted rate with unit cost for each and expected annual escalation.

### **I. Further Conditions**

#### **1. REFERENCE LISTING**

Three references shall be presented from customers with a minimum of 50 MBTU boilers and minimum 2500-ton chiller systems.

Contractors shall furnish the names, address and telephone numbers of a minimum of three firms or government organizations for which the contractor is currently furnishing or has in the last 12 months provided comparable service. See Form E.2.

#### **2. PERSONNEL REQUIREMENTS**

Contractor shall have one technician agent (the primary agent) regularly provide service to Denver International Airport and an additional back-up technician agent. Both shall have a minimum of three years full time experience in water treatment service and shall have provided at least one year's service in a large commercial or governmental operation with a minimum of 50 MBTU boilers(s) and 1,000-ton chiller systems. The primary agent shall reside and office within 1 hour of DEN and the secondary person shall reside and office within 2 hours of DEN. Resumes and references must be included in the narrative.

### **B.3 TERM**

See Master Purchase Order Section [herein](#).

### **B.4 ESTIMATED QUANTITIES:**

Quantities listed are the City and County of Denver's best estimate and do not obligate the Analyst to order or accept more than City and County of Denver's actual requirements during the period of this contract, as determined by actual needs and availability of appropriated funds. It is expressly understood and agreed that the resulting contract is to supply the City with its complete actual requirement of the materials specified in this IFB for the contract period.



**B.5 F.O.B. POINT:**

All prices quoted must be quoted at a firm price F.O.B. Denver, Colorado, delivered to 27000 E. 86th Avenue, Denver, CO 80249.

**B.6 WARRANTY GUARANTEE:**

Vendor shall be fully responsible for any and all warranty work, regardless of whether or not manufacturers of equipment, and/or its component parts, provide the actual warranty coverage. In addition, vendor shall have or establish a single, local source that will accomplish or coordinate any necessary warranty work. Vendor shall respond to requests for warranty assistance within twenty-four (24) hours.

**B.7 AIRPORT SECURITY:**

It is a material requirement of this Contract that the Vendor shall comply with all rules, regulations, written policies and authorized directives from the City and/or the Transportation Security Administration with respect to Airport security. The Vendor shall conduct all of its activities at the Airport in compliance with the Airport security program, which is administered by the Security Section of the Airport Operations Division, Department of Aviation. Violation by the Vendor or any of its employees, subcontractors, and vendors of any rule, regulation, or authorized directive from the City or the Transportation Security Administration with respect to Airport Security shall be grounds for immediate termination by the City of this Contract for cause.

The Vendor shall promptly upon notice of award of this Contract, meet with the Airport's Assistant Security Manager to establish badging and vehicle permit requirements for Vendor's operations under this Contract. The Vendor shall obtain the proper access authorizations for all of its employees, subcontractors, and vendors who will enter the Airport to perform work or make deliveries, and shall be responsible for each such person's compliance with all Airport rules and regulations, including without limitation those pertaining to security. Any person who violates such rules may be subject to revocation of his/her access authorization. The failure of the Vendor or any subcontractor to complete any required services hereunder shall not be excused on account of the revocation for good cause of access authorization of any person.

The security status of the Airport is subject to change without notice. If the security status of the Airport changes at any time during the term of this Contract, the Vendor shall take immediate steps to comply with security modifications which occur as a result of the changed status. The Vendor may at any time obtain current information from the Airport Security Office regarding the Airport's security status in relation to the Vendor's operations at the Airport.

The Vendor shall return to the City at the expiration or termination of this Contract, or upon demand by the City, all access keys or access badges issued to it for any area of the Airport, whether or not restricted. If the Vendor fails to do so, the Consultant shall be liable to reimburse the City for all the City's costs for work required to prevent compromise of the Airport security system. The City may withhold funds in the amount of such costs from any amounts due and payable to the Vendor under this Contract.

**LAWS, REGULATIONS, TAXES AND PERMITS**

The Vendor shall procure all permits and licenses, pay all charges, taxes and fees and give all notices necessary and incidental to the due and lawful prosecution of the work. All costs thereof shall be deemed to be included in the prices proposed for the work.

The Vendor, at all times, shall observe and comply with all federal, state, county, city and other laws, codes, ordinances, rules and regulations in any manner affecting the conduct of the work.

Without limiting the foregoing, the Vendor shall establish appropriate procedures and controls so that services under this Contract will not be performed by using any alien who is not legally eligible for such employment under United States Immigration laws. Failure to comply with this condition satisfactorily may cause the City to terminate this Contract.

**B.8 EMERGENCY PURCHASES:**

The City and County of Denver reserves the right to purchase from other sources those items which are required on an emergency basis and cannot be supplied immediately from stock by the vendor.

**B.9 EMERGENCY 24-HOUR SERVICES:**

Emergency twenty-four (24) hour service is to be provided by vendor at no additional cost. The name and phone number of the individual(s) to contact for emergency service shall be furnished to the City:

Matt Oberhofer - 720-448-9912

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Doug Gordon - 303-435-5092

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Chemical Spill Hotline -1-800-255-3924 reference contract # MIS0004012

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This service requires a live telephone answering service with the capability of immediately contacting operating personnel at all times. Recorded telephone answering service is not acceptable.

**B.10 PALLET CHARGE:**

All pallets supplied shall be non-returnable, no deposit.

**B.11 LABORATORY TESTING:**

In the event materials shipped to the City as outlined herein indicate substandard specifications in a qualitative or quantitative manner, the City reserves the right to have a laboratory test made. If material is found to be deficient, the vendor shall be required to pay all costs of testing. If found to meet specifications, the City shall pay all costs.

**B.12 CONTAINER DEPOSITS:**

All fifty-five (55) gallon drums shall be supplied as returnable containers. Deposit charge shall be firm for contract period and listed as a separate item on materials invoice. Freight costs for returning barrels/drums will be paid by the vendor. Delivery receipt and materials invoice must reference the number of empty containers returned at time of delivery or pick up.

**B.13 SPILLAGE:**

Vendor will be responsible for the cleanup of any contamination or spillage resulting from the delivery and unloading immediately and CUP personnel shall be notified. In case of any leaks occurring during unloading and transportation to the CUP, the Vendor will be responsible to contain the leaks.

**B.14 VENDOR PERFORMANCE MANAGEMENT:**

The Purchasing Department may administer a vendor performance management program as part this IFB and resulting contract. The purpose of this program is to create a method for documenting and advising the Purchasing Department of exceptional performance or any problems related to the purchased goods and services.

**FOR GOODS**

- Total dollar value of purchases per City Agency
- Total number of transactions per City Agency
- Percentage of items shipped from local stock
- Percentage of items backordered
- Average delivery time for stock material
- Average delivery time for backorders

Supplier may also be required to provide additional specific reporting/data as required.

**B.15 COOPERATIVE PURCHASING:**

The City and County of Denver encourages and participates in cooperative purchasing endeavors undertaken by or on behalf of other governmental jurisdictions, pursuant to Denver Revised Municipal Code Sec. 20-64.5. To the extent other governmental jurisdictions are legally able to participate in cooperative purchasing endeavors, the City and County of Denver supports such cooperative activities. Further, it is a specific requirement of this solicitation that pricing offered herein to the City and County of Denver may be offered by the vendor to any other governmental jurisdiction purchasing the same products.

Vendor(s) must contract directly with any interested governmental agency concerning the matters within this IFB.

## **SECTION C: PRICING/BID ITEMS**

### **C.1 PRICING INFORMATION:**

This section shall include a description of the proposed costs and prices. All pricing information shall be limited solely to this section of your bid. This section should address all requirements set forth in Section B as well as any other items pertinent to your bid pricing such as additional discounts for increased quantities, etc. The requirements have been developed to allow the City to uniformly evaluate prices submitted for the work. Accordingly, you should follow these instructions carefully and provide all data requested in the formats specified herein and in any referenced attachments.

Any omissions in this bid shall be identified by each Vendor and incorporated into their bid including any omissions for software, hardware, support etc. which is necessary to the success of the project and must be identified as a separate line item with pricing and included as part of this bid. The City will not increase the contract or any purchase order (either dollar amount or time) for items not included in the submitted bid documents.

The City reserves the right to purchase part or the entire bid.

### **C.2 PRICING INSTRUCTIONS:**

Pricing shall be in the format contained of this IFB. Alternative approaches for the pricing of the requested products and services may be provided, however, such alternate approaches shall be described separately and must be in addition to the format in Section C. Do not include cost or price figures anywhere except in the cost and pricing section.

### **C.3 PRICING:**

All prices quoted shall be firm and fixed for the specified contract period. Price adjustments may be considered at the beginning of each year upon renewal.

### **C.4 ANNUAL PRICING UPDATES:**

Pricing updates must be based upon documented manufacturer's price increases and must be verifiable (e.g., letter from the manufacturer(s), market indexes, and etcetera. Discount percentages quoted must remain constant.

The vendor must provide a complete template that includes both items with price changes as well as items where changes are not requested. Items with price increases must be clearly identified.

### **C.5 PROCUREMENT CARDS: PAYMENT CONDITIONS:**

Awarded contractors are asked to have the capability of accepting the City's authorized Procurement Card as a method of payment. No price changes or additional fee(s) may be assessed when accepting the Procurement Card as a form of payment. Vendors unable to comply with this requirement are asked to indicate such exception on vendor letterhead. This exception will be taken into consideration during the evaluation of the received bids.

**C.6 BID ITEMS:**

**Proposed costs will include all duties listed in Section B SCOPE OF WORK AND TECHNICAL REQUIREMENTS**

<b>Bid Item No. 1</b>					
<b>Recirculating Cooling Tower System</b>					
<b>Blowdown equals 8.2 million gallons per year</b>					
<b>System volume = 360,000 gallons</b>					
	<b>\$/pound</b>	<b>Total Formulation Concentration in Effluent, ppm, total</b>		<b>Annual Total Pounds Consumed</b>	<b>Total Annual Cost</b>
Scale/Corrosion Inhibitor No. 1 C-665G	\$2.26	140 ppm		9,563	\$21,574.13
Scale/Corrosion Inhibitor No. 2					
Non-Foaming biodispersant C-905	\$2.20	5 gals / Week / 52 Weeks	11 ppm	2,122	\$4,667.52
		treatment ppm			
Up to 500 gallons Bleach/month	\$0.40	15 ppm		16,425	\$6,570.00
Total for Bid Item No. 1:					\$32,811.65

Note: Dispersant not used past 5 years

<b>Bid Item No. 2</b>					
<b>High Pressure Hot Water System</b>					
<b>Annual Blowdown of 215,00 gallons per year</b>					
<b>System Volume 734,100 gallons</b>					
	<b>\$/pound</b>	<b>Total Formulation Concentration in Effluent, ppm, total</b>		<b>Annual Total Pounds Consumed</b>	<b>Total Annual Cost</b>
Corrosion Inhibitor Blend L-828	\$3.05	500 ppm		895	\$2,729.76
Total for Bid Item No. 2:					\$2,729.76

<b>Bid Item No. 3</b>				
<b>Closed Loop Chilled Water System</b>				
<b>Annual Blowdown of 20,000 gallons per year</b>				
<b>System Volume = 836,000 gallons</b>				
	<b>\$/pound</b>	<b>Total Formulation Concentration in Effluent, ppm, total</b>	<b>Annual Total Pounds Consumed</b>	<b>Total Annual Cost</b>
Corrosion Inhibitor Blend L-828	\$3.05	500 ppm	84	\$256.20
Total for Bid Item No. 3:				\$256.20

<b>Bid Item No. 4</b>				
<b>Additional Products</b>				
	<b>\$/pound</b>	<b>Total Formulation Concentration in Effluent, ppm, total</b>	<b>Annual Total Pounds Consumed</b>	<b>Total Annual Cost</b>
Sodium bromide, 40% K-Brom	\$1.49	0.1 ppm	600 lbs. 600	\$894.00
Bromine chloride (StaBrom 11%) F-290	\$3.50	8 ppm	300 lbs. 300	\$1,050.00
Note: Above products (Bid Item 4) not used in past 5 years				
Total for Bid Item No. 4:				\$1,944.00
<b>EVALUATION TOTAL:</b>				
Chemical Total for Bid Item No. 1, 2, 3, 4:				\$37,741.60

Total without products not in use: \$31,130.08