March 27, 2017

Question & Answer 1

Bid R634413

Water Treatment Program

**Page 9  section 4.3.1**

States Corrosion rates will be held to a spec, but your spec is only 2 metals in the cooling towers and 2 metals in the chilled loops,  But later in the document you state you only need corrosion coupon measurement for 2 stations for , mild steel and copper. But section 4.3.1 states mild steel , galvanized, in open systems and copper and stainless in all other systems.   Please clarify . ( I defer to a water analysis specialist)

Homeyer Response

1. ChemTreat Question #1 – corrosion rates
   1. If you meet the specs for Copper and mild steel, you typically meet the specs for galvanized and stainless.   In an effort to make the amount of testing reasonable we will accept mild steel and copper results.   In special case the client may request to substitute galvanized or stainless, but no more than two will need to be run at a time.

**Page 17  section 9.6**

This section again has the same statement regarding 4 different metallurgy’s . ( I defer to a water analysis specialist)

Homeyer Response

1. (P17 section 9.6) Same answer as item 1 above.

**Page 10  section 4.3.10 item 4 –**

States 3 sets of coupons test are to be conducted on tower systems?  Does this mean 3 sets per year approx. every 120 days  or 3  total sets of 2 metals for a total of 6 coupons  per each test cycle? (I need to defer to water analysis specialist)

Homeyer Response

1. (P10 section 4.3.10) We desire 4, 90-day tests with copper and mild steel on each tower system.  If we do not receive at least 3 you have not met the minimum deliverables.  We understand that “occasionally” a coupon gets lost.  It is also hard to run and report 4, 90-days tests in a calendar year. This give you a little leeway, but the intent is to run tests continually.

**Page 12 section 5.3**

States corrosion coupons are to be conducted quarterly on towers and evaporation condensers,  And corrosion racks must  house 2 coupons for mild steel and copper.   But the above statement regarding 3 sets of coupons conflicts with that standard. (I need to defer to water analysis specialist)

Homeyer Response

1. (P12 Section 5.3) Not really.  A set is a copper and a mild steel (for most systems).  Run continuously and exchange every 90 days.

**Page 10  section 4.3.4**

RE: Statement that “Vendor is responsible  for Maintenance and repair of all vendor supplied equipment  for the life of the agreement”.  Original term is for 1 year, but potential award can be additional 6 years. (Page 34 18.0 rolls costs up to 7 years, the assumption is that the life of the agreement would be 7 years)

Please define this section -  Does this statement pertain to the new automated cooling tower feed and monitoring controller systems specified in the contract ? (Yes) Will the successful vendor have to provide Replacement probes and support the equipment  for the entire duration of the agreement ( 7 years) for FREE, or will there be provision for capturing replacement costs for consumable items. (Page 34 18.0 I would expect that replacement costs and consumables would be rolled in to item 5 for the additional 6 years)

Also there are annual service fees for the Wireless router / cell service outlined in the control package,  Do we need to build in cost for that annual service? (Yes)

Also - Will the vendor have to maintain and repair equipment that the university purchases and installs as permanent equipment in support of the contract,  Examples being  new chemical feed pumps and Filter feeders and corrosion coupon racks – outlined in section 8.1  & 8.2  on page 15 (University supplied equipment will be replaced and maintained by the University at the direction of the vender) (8.2 states that filter feeders are provided by the U of A, vender will supply equipment quotes for purchasing) (Page 6 2.1.9.8 the vender shall design and maintain corrosion coupon racks, the assumption is that the racks will be provided by the vender and in accordance with 2.1.9.7 not having a rack would be considered a deficiency.

**Page 10  section 4.3.4**

Statement “Vendor will be 100% responsible for delivery of materials to point of use and into the systems”

Question – Will the university accept delivery of any chemicals to any ware house or storage facility on Campus, or must every chemical be brought in via the service technician or acceptable delivery service  ? ( I defer to FAMA purchasing)

**Page 10  section 4.3.9**

Containment

Please define U of A containment standard !   Will simple spill containment be sufficient with multiple chemical stored in the same containment or will the containments for each cooling tower product and closed loop product  be separate and  have to hold 100 % , 110%  120% of the product stored in the containment? (110% containment min) (with multiple chemicals I defer to a water treatment specialist due to possible chemical reaction in the event of a multiple chemical spill)

Will you continue to allow the current practice of combined storage of different chemicals?  The spec outlines the use of dual Biocide treatment Glutaraldehyde and Liquid Bromine.   THE SDS – section 10 Stability and reactivity for glutaraldehyde says to not allow contact with strong oxidizer.  That is what liquid Bromine is, So these should not be stored in the same containment as  your current operations mode. (with multiple chemicals I defer to a water treatment specialist due to possible chemical reaction in the event of a multiple chemical spill)

Homeyer Response

1. (P10 section 4.3.9)  For unopened 5 gallon quantities not on a feed pump. I see no problem with a common containment basin.  Best practice is for individual containment for larger “online “quantities.  This is why larger companies have contained drums and contained totes now.    You might allow all 5 gal containers to be common it you wish.   The Glute is completely deactivated by the bromine and visa versa.  I do not think there is a reaction or gassing if they mix concentrated.

**Page 11   Specification section**

Statement -   Biological counts will be conducted by U of A personnel  48 hours prior to site visit by service tech.   This was revised to No U of A participation and  biological testing will be sampled by service company – Correct? (Correct! 5.2 bullet 2 sub-bullet 8 and bullet 3 sub-bullet 8 should not include “by U of A personnel)

**Page 12  section 5.5  item 4**

All controllers must have communications features to be integrated into U of A system (I don’t know the individual systems or capabilities, web based would be preferential)

Will this be hard wired not the control via Building Mgmt system. (Integration would need to be JCI Metasys capable)

Please define the level of communication requirement,  Do you need  BACnet or other form of communication? (The U of A standard is BACnet certified)

**Section 5.5**

Coupon racks- verify they must be 2 position and have rotometer for flow measurement.

What size sample rack is specified?

Define the target flow rate for corrosion monitoring.

The NACE standard is usually 5 GPM in the ¾ ; sample line or 8 GPM in 1 “ line . What will the U of A action plan be , should there not be sufficient flow  through the corrosion coupon rack on any treated - tested system?  will there be a standard to require booster pump addition to have flow? ( I defer to a water analysis specialist)

What will be the standard for systems that cycle offline for durations and corrosion coupons sit in static state ? ( I defer to a water analysis specialist)

Homeyer Response

1. (section 5.5)  ¾” or 1” will work.  If the university picks the wrong connection points or there is insufficient flow, the university will need to provide, install, and wire a pump.  Typically there are about $100.

**Section 5.8**

Statement  - -“ Winning vendor must perform system volumes of all treated systems within 180 days.” (The 180 days was a transition based assumption for the successful vender to acclimate to campus, this can be revised to a sooner date)

Recommend that statement be revised to a sooner date, so as to validate system volumes so correct Biocide does can be added to all systems. Without this data, how do you propose to add specific doses of Biocide to all  treated systems  as outlined in the RFQ as a performance standard.

**Page 15   section 8.2**

A Request for 11 filter feeders was made in the proposal.  During the inspection today there were more than 14 closed loop systems identified without filter feeders.  We will propose a total of 30 filter feeders with the assumption that most locations do not have filter feed assembles present.

Please Validate that the U of A will install these units. And not the vendor. (8.2 states that 11 may be needed, regardless of count the U of A will provide)

Details regarding corrosion coupon sample stations are missing for closed loop systems.  (I defer to a water analysis specialist)

Homeyer Response

1. Corrosion coupons can be installed at pot feeders.  Closed loop racks are typically made out of steel.  Qualified vendors should know how to design these racks.

We assume that these are to also be 2 station coupon racks with rotometer . However page 18 section 10.4  States a corrosion standard for 4 metals , this being mild steel, galvanized, copper and stainless steel.  Are we required to run 4 corrosion coupons in the closed loops, or was this an oversite?

Does U of A what the vendors to quote corrosion coupons stations for all 30 + closed loop systems, as we observed only 3 stations in place today? (I defer to a water analysis specialist)

TME Response

8.  All loops should be provided with corrosion coupon stations.

Will U of A install these coupon racks on all closed loop systems Hot and chilled ? ( 2.1.9.8 Vender shall design  and maintain corrosion racks)

Will U of A insulate the chilled loop coupon racks so as to prevent sweating. ( 2.1.9.7 Correction of deficiencies by third party contractor)

Will U 0f A address low flow conditions in these racks if identified? (At the direction of the vender on U of A piping, 2.1.9.8 vender will maintain the coupon rack)

**Section 5.4 –**

Statement – “closed Loop filters must be replaced during each quarterly service visit”  what size micron filter is required for each system? 1,5, 10, 20, or 50 Micron? (I defer to a water analysis specialist)

Homeyer Response

1. The goal would be for all systems to ultimately get to a 5 micron filter.  The water treatment vendor is expected to use their judgment based on the condition of the system and rate at which the first filter loads up.  Increase micron size as needed to get reasonable life out of the filter and decrease in size as the system cleans up.

Who will supply the consumable filter ? U of A or service Vendor? (2.1.1.1 The contractor shall provide technicians and resources as needed to be self-sufficient and maintain the treated systems within programs goals and guidelines.)

**Page 20  section 12**

This section is to be deleted as there is no Steam boiler system in use at this time? (Page 12 Note “***Please note that there is an ongoing project designed to remove the steam boiler within one year. There is no plan for a new loop to replace it.”)***

**Page 21 Section 13.6**

States that a discussion with site personnel  prior to leaving the  U of A during each service call be conducted, and that the service report has to be emailed to all parties before leaving the U of A.

Page 5 -Section 2.1.9.3 states that emails will be posted within 24 hours after service call is provided.  Which will be the standard ? (Posted within 24 hrs after service)

**Page 16  Section 9.3.1**

states that the biocide will be fed 3 times a week to achieve a free halogen residual.  What consideration will be given to days when the condenser is offline due to cold weather ( such as we experienced today ) and the system does not feed due to no flow to the control system, which will have a flow interrupt fetcher to make sure no feed occurs when the system is offline? ( I defer to a water analysis specialist)

Homeyer Response

1. What will be the corrosion standard for idle systems?

If the flow is not continuous, corrosion rates will possibly be higher than target.  It will be up to the supplier to suggest or adjust a circulation program that will help meet the goals.   We will need some regular circulation in order to apply the biocides and activate the corrosion inhibitors to idle systems that still contain water per ASHRAE 188.   Typically, three or four days a week for 2-4 hours will suffice.  Any higher than target corrosion results will be the indication of a need to adjust the chemical program or circulation times.  The Vendor will need to write a plan for any out of target conditions.

**Page 34 ChemTreat request**

The Bid summary form has 3 entry blanks (5 entry blanks)

Price for chemicals          \_\_\_\_\_\_

Price for equipment       \_\_\_\_\_\_

Total price                           \_\_\_\_\_\_

ChemTreat respectfully  requests that you place additional line items for service costs, and possibly several other additional line items. These may include items  such as Lab test equipment cost, Lab reagents and MB testing costs, the requested filter feeder quote and corrosion coupon test stations. ( 18.0 Bid Summary Form includes services and equipment and as such should be rolled up into the line item cost)

Also the general discussion regarding the possibility of leasing cooling tower control and monitoring equipment vs a capital equipment spend was discussed. As discussed in our walk through a specific  vendor does not sell their proprietary control system, but only leases the control system.  The definition / goal  of the U of A physical plants intend to own the control equipment or lease the equipment needs to be outlined and communicated to vendors.  (In the event that proprietary control systems must be used the verbiage should be changed to leased equipment for such systems across the board, the intent is for the University to get the best value and support)

It is our current evaluation that your chemical costs will be significantly well below a standard to facilitate the man power costs to service the contract based on your desired weekly service requirement and also the extensive testing requested in the RFP.

**Page 35  Bid summary page**

The page has outline for tower water. Hot water, chilled water and steam boiler, there is no steam boiler in operation now. (Page 12 Note “***Please note that there is an ongoing project designed to remove the steam boiler within one year. There is no plan for a new loop to replace it.”)***