



MANATEE COUNTY FLORIDA

November 9, 2009

TO: All Interested Bidders
SUBJECT: Invitation for Bids #09-3749CD
Water and Wastewater Chemicals

ADDENDUM #1

Bidders are hereby notified that this Addendum shall be acknowledged on page 34 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgment of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

The following are questions and/or requests that were asked/made prior to and at the informational conference held on November 5, 2009:

Question #1: We request an addendum be issued with regards to the Sodium Hypochlorite as follows:

- 1. Change the minimum excess caustic requirement for the sodium hypochlorite from .08 to .15. Reason:** Excess caustic is what provides sodium hypochlorite its stability. At .08 percent is the bare minimum to keep the hypochlorite from immediately breaking down. Most references recommend a minimum of .15% for stability.
- 2. Change the maximum iron concentration from <.5 mg/L to <.3 mg/L. Reason:** Transition Metals and in particular iron break down hypochlorite and cause it to degrade thus causing the customer to feed more. Lowering the specification will result in lower usage rates for Manatee County and can easily be achieved by any manufacturer who filters their product.
- 3. Add the following disinfection byproducts or contaminants to the "maximum contaminant concentration limits": (1) Perchlorate <25 mg/L; and (2) Bromate <25 mg/L. Reason:** Both perchlorate and bromate are known carcinogens and hypochlorite is a source of both in drinking water. The proposed limits would allow the utility to meet proposed EPA MCL's for these items assuming 12 ppm chlorine feed rate.

RESPONSE #1: Manatee County **will not** be making changes to the specifications for the Sodium Hypochlorite as requested. Degradation has not been a problem due to the high turnover of the product. Perchlorate is below the detection limits in the finished water and brominated disinfection by-products are well below the MCLs.

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Question #2: The powdered activated carbon (PAC) was tested throughout the year to get relative bid ratio numbers for the six company products listed in the bid. The fact that this testing was advertised in January for a bid in November seems to preclude additional bidders that were not privy to the testing notice. Did the notice establish a time limit for the samples, or does the evaluation period extend to the end of the bidding period? For example, my company has only been bidding municipal bids since September, though I am the exclusive US manufacturer's representative for a company that has been supplying powder to municipalities for over 40 years. Other municipalities perform this same type of testing with their bid requests, but the notice for samples appears with the bid, because we have done this for several other bids. How can we get our product tested to confirm a bid ratio in time to bid competitively? Can the process be less restrictive to allow more competition using the data generated by your testing to be able to quickly evaluate other samples?

Response #2: Vendors for the PAC performance testing were contacted beginning in early February, in order to receive samples for testing, from a list of vendors that have been tested in previous years, as well as those who had contacted the Utilities Department and requested to be added to the list when this product was going to be tested again. The vendors were contacted directly via phone, email, or fax.

It is necessary for us to begin acquiring samples and performing our testing well ahead of the bid advertisement. This is because the bid ratios provided by our lab take months to obtain and represent multiple rounds of testing as explained in the bid document. The performance testing we do on the PAC samples is extensive. Because water quality in Lake Manatee can vary significantly throughout the year, which can affect the performance of the PAC, it is important that we test possible PACs under these different conditions.

At this point, we cannot accept any additional samples for testing for this bid. Any tests that would be performed now would not be comparable to the other products tested because the tests would not be under similar water quality conditions. Also, one round of testing would not give us the information we need on how the product's performance varies with different water qualities.

Because we have high PAC usage (over 1.5 million pounds per year in 2006-2008), water quality that varies throughout the year, and the ability to perform the jar testing and odorant analysis in-house in our laboratory, we have found that this full extensive testing is the best way to evaluate PAC products for use at our plant.

Question #3: When were the lists of products for the Powder Activated Carbon tested?

Response #3: Phase 1 (3/17/09-3/18/09): Products received from the vendors underwent a "screening" process. Raw lake water was spiked with MIB and geosmin (the taste and odor causing compounds) at approximately 50 ng/L. One jar test simulating our treatment process was performed on the spiked water with each PAC at a dose of 25 mg/L. The concentrations of MIB and geosmin in the spiked raw water and the treated water for each PAC were determined. From these numbers, we calculated the percent removal for each compound for each PAC. From this screening, we chose six PACs to perform further testing.

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Response #3 (Continued): Phase 2 (March-April 2009): First round of full performance testing was performed on water quality typical of our dry season. Raw lake water was spiked at approximately 50 ng/L for MIB and geosmin. Jar tests were performed on each of the six PACs selected in phase one. For each PAC, water was treated with four different doses, ranging from 10 to 100 mg/L. A blank and duplicate of one dose were also treated. For each dose, the concentrations of MIB and geosmin were determined and compared to the concentrations in the blank to determine the percent removal and dose response curves for MIB and geosmin were created (dose of PAC in mg/L vs. % removal). From these curves the dose of PAC needed for each treatment scenario detailed in the bid document was calculated. For each scenario, a performance factor was obtained by dividing the operational dose required of a PAC by the dose of the best performing PAC. The performance factors for each scenario were averaged to obtain the performance factor for each compound for the March testing. The performance factors for MIB and geosmin were then averaged to obtain the overall performance factor for each PAC for March.

Phase 3 (September 2009): Second round of full performance testing was performed on water quality typical of our rainy season. Testing was performed exactly as described in phase two; the only difference was that the lake water quality was different. A second set of performance factors was obtained from this testing.

The final bid ratios listed in the bid document were obtained by averaging the performance factors for March and September.

This extensive testing allows us to evaluate the possible PACs on numerous levels. We can see if a product performs different for MIB vs. geosmin, or if there is a difference in performance with our varying water quality. Also, because we are performing each round of testing over a short period of time (~ 1 week), we are comparing performance of each PAC under the same water quality conditions.

Question #4: Is it acceptable to offer alternate PAC products in this bid?

Response #4: No.

Question #5: Has any product from Standard Purification or its predecessor Acticarb been tested by Manatee County?

Response #5: Two (2) products from Acticarb (Watercarb and AC1000) were tested in 2003 with poor results. Our lab personnel worked with Acticarb to try and improve the performance numbers in our application, but Acticarb stated that they could not do it cost effectively and chose not to submit a sample for the 2006 bid. No products from Standard Purification or Acticarb were tested for this 2009 bid.

Question #6: Are we able to get a sample out to the WTP for testing for the next bid?

Response #6: Yes. After the award of this IFB #09-3749CD, you may contact the Laboratory Supervisor at the Water Treatment Plant at 941-746-3020 ext 228 to be added to the list of vendors for testing.

All bidders are reminded that lobbying is prohibited and remains in effect until the final award is made. Please review Article A.22 on page seven of the bid documents to avoid violation and possible sanctions.

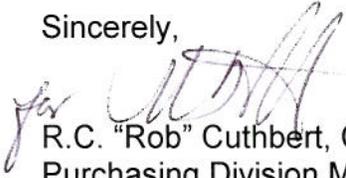
Question #7: What size are the tanks that hold the Carbon Dioxide?

Response #7: The Carbon Dioxide Tank at the Water Treatment Plant holds 26 tons.

END OF ADDENDUM #1

Bids will be received at Manatee County Purchasing, 1112 Manatee Avenue West, Bradenton, Florida 34205 until **Friday, November 20, 2009 at 3:00 PM.**

Sincerely,



R.C. "Rob" Cuthbert, C.P.M., CPPO
Purchasing Division Manager

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