City of Concord, New Hampshire

PURCHASING DIVISION

COMBINED OPERATIONS & MAINTENANCE FACILITY
311 NORTH STATE STREET
CONCORD, NH 03301
(603) 225-8530 FAX: (603) 230-3656
www.concordnh.gov

May 21, 2010

ADDENDUM NUMBER ONE
RFP20-10
REGENERATION OF GRANULAR ACTIVATED CARBON FOR TASTE AND ODOR CONTROL-WATER TREATMENT PLANT

TO ALL FIRMS OF RECORD: This addendum forms a part of and modifies the proposal and contract documents and technical specifications for the project named above. The following additions, changes and clarifications are made to the original proposal documents:

1. **Page 13226-17, Proposal Preparation, Scope of Work.** Change this sentence to read: "Provide a statement that the Contractor fully understands the scope of work requested. Please refer to Revised Attachment B-Regeneration of Granular Activated Carbon Filter Media (Filtersorb 820 or equivalent)."

2. **Pages 13226-22 & 13226-23, Proposal Sheet.** Please remove the Proposal sheet and replace with the attached Revised Proposal Sheet.

3. **Pages 13226-36 – 13226-39, Attachment B.** Please remove Attachment B and Replace with the attached Revised Attachment B.

4. **Proposal Due Date/Time.** The due date and time for submission of proposals shall be changed from May 28, 2010 not later than 2:00 pm to **June 18, 2010 not later than 2:00 pm.**

PLEASE BE ADVISED THAT THE PROPOSER MUST ACKNOWLEDGE RECEIPT OF ADDENDUM ONE ON THE PROPOSAL SHEET SIGNATURE PAGE.

CITY OF CONCORD, NEW HAMPSHIRE

DOUGLAS B. ROSS
PURCHASING MANAGER

REVISED PROPOSAL SHEET
RFP20-10
REGENERATION OF GRANULAR ACTIVATED CARBON FOR TASTE AND ODOR CONTROL
WATER TREATMENT PLANT

THE UNDERSIGNED HEREBY OFFERS TO PROVIDE, DELIVER AND INSTALL GRANULAR ACTIVATED CARBON **(Filtersorb 820 or equivalent)** FOR TASTE AND ODOR CONTROL IN ONE (1) FILTER UNIT AT THE CITY OF CONCORD WATER TREATMENT PLANT AS DETAILED BY THE TERMS, CONDITIONS AND SPECIFICATIONS CONTAINED IN RFP20-10 FOR THE FOLLOWING NOT-TO-EXCEED PRICE:

Part A: Per the Revised Scope of Work in Attachment B.

Unit Price: The unit price includes product cost, delivery cost, regeneration of existing media (including all costs to bring the carbon amount back up to 728 cubic feet), installation of regenerated GAC, removal and return of GAC and sample analysis where applicable. Unit price shall include all applicable fees, costs and tax (if any) relating to the project:

Price per cubic foot (1 filter units with dimensions of 19 ft x 23 ft x 20" GAC depth)

_____ DOLLARS
(WRITTEN)

$_____
(FIGURES)

Extended Price: Total Lump Sum price of Bid (1 filter units with dimensions of 19 ft x 23 ft x 20" GAC depth)

_____ DOLLARS
(WRITTEN)

$_____
(FIGURES)

Part B (For future reference as part of contract extension in subsequent years if City enters into a Contract extension with the successful Contractor):

Unit Price: The unit price includes product cost, delivery cost, regeneration of existing media (including all costs to bring the carbon amount back up to 728 cubic feet), installation of regenerated GAC, removal and return of GAC and sample analysis where applicable. Unit price shall include all applicable fees, costs and tax (if any) relating to the project:

Price Per Cubic Foot _____ DOLLARS
(WRITTEN)

$_____
(FIGURES)

THE UNDERSIGNED ACKNOWLEDGES:

1. THAT HE/SHE IS AN AUTHORIZED AGENT OF THE VENDOR SUBMITTING THIS PROPOSAL
2. THE RECEIPT OF THE FOLLOWING ADDENDA_____
3. THE FIRM SUBMITTING THIS PROPOSAL HAS NEVER DEFAULTED ON ANY MUNICIPAL, COUNTY, STATE, FEDERAL OR PRIVATE CONTRACT
4. **THE ABILITY TO MEET THE CITY'S TIME REQUIREMENTS (180 CALENDAR DAYS FROM THE DATE OF THE CITY'S NOTICE TO PROCEED) FOR THIS PROJECT.**

COMPANY: _____

SIGNED BY: _____

PRINTED OR TYPED NAME: _____

ADDRESS: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

TOLL FREE NUMBER: _____ E-MAIL: _____

CELL PHONE NUMBER: _____ PAGER: _____

PRIMARY POINT OF CONTACT: _____

PROMPT PAYMENT TERMS AND CONDITIONS: _____

PLEASE FILL OUT, SIGN AND RETURN TO:

The City of Concord
Douglas B. Ross, Purchasing Manager
Combined Operations & Maintenance Facility
311 North State Street
Concord, NH 03301
603-225-8530
603-230-3656 (Fax)
dross@concordnh.gov

Due Date/Time: JUNE 18, 2010 NOT LATER THAN 2:00 PM

REVISED ATTACHMENT B
SECTION 13226

REGENERATION OF GRANULATED ACTIVATED CARBON FILTER MEDIA (Filtersorb 820 or equivalent).

PART 1 GENERAL

1.01 REVISED SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to remove all existing GAC filter media and install, ready for operation, the GAC filter media in TWO filters (one filter at a time).
B. The first filter will be taken off line to remove existing GAC and the installation of new virgin GAC filter media.
C. The media that was taken out of the first filter is to be sent away and regenerated, then returned and installed in one of the other filters at a later date.
D. The media that is taken from the second filter to be disposed of properly by the vendor.
E. The new virgin GAC material and the regenerated GAC shall be placed to a depth of 20 inches. Each filter has a dimension of 19 feet by 23 feet.

1.02 SUBMITTALS

A. We will grab a sample of the regenerated media before it is installed.

B. The certified laboratory analyses shall include the following information:

1. Average specific gravity (apparent).

2. Total percentage of material passing each sieve.

3. Total percentage of material retained on each sieve.

4. A plot on probability paper, showing the cumulative percent by weight of the material passing through each sieve size opening.

5. Effective size.

6. Uniformity coefficient.

7. Iodine Number (GAC)

8. Ash (GAC)

9. Particle Density (GAC)

10. Trace Capacity Number

C. The certified laboratory analysis shall certify that the GAC shipped to the site is regenerated or virgin carbon and in full compliance with Paragraph 2.01A.

D. No GAC media shall be shipped until it is approved by the Engineer.

PART 2 PRODUCTS

2.01 MATERIALS

A. GAC media shall be **Filtrasorb 820** as manufactured by Calgon Corporation or equal as manufactured by American Norit or others. The GAC shall be manufactured in the U.S.A. The GAC shall be capable of removing turbidity, color, tastes, odors and other organic contamination from water previously pretreated by conventional water treatment processes. The GAC shall be made from selected grades of bituminous coal capable of withstanding repeated back wash procedures without significant change in physical sizes and shall be suitable for terminal reactivation and re-use. Only coal based GAC will be acceptable. Data showing successful application of the GAC in municipal water plants including turbidity and organic contamination removal shall be submitted. The GAC manufacturer shall have a minimum of 10 years experience in supplying GAC to water treatment plants.

1. The GAC shall meet the following specified properties:

Mesh Size, U.S. Sieve Series	8 by 20
Percent Passing No. 8 Sieve	85-100
Percent Passing No. 30 Sieve	0-5
Effective Size, mm	0.8 – 0.9
Uniformity Coefficient	2.4 or less
Iodine Number, Min	900
Abrasion Number (ASTM), Min	75
Moisture (maximum) as packed	

2. The GAC shall have the following typical physical properties:

Real Density, g/cu cm	2.1
Apparent Density, Backwashed and Drained, g/cu cm	0.39 - 0.48
Particle Density, Wetted in Water g/cu cm	1.3 - 1.4
Ash, Maximum Percent	8
Total Surface Area, N2BET Method sq m/g	950-1050
Pore Volume, cu cm/g	0.75-0.85
Molasses Number	210
Percent Water Soluble Ash	1.0%
Percent Water Soluble Phosphate	0.10%
Trace Capacity Number, Min	10

PART 3 EXECUTION

3.01 INSTALLATION

A. GAC shall be transported, delivered, and placed in a careful manner to exclude all dust, dirt, or deleterious material and to prevent physical damage to the particles.

B. After delivery to the site, but before placing the media, we will collect a sample of the media.

C. Contractor shall provide a field service specialist to coordinate scheduling, transportation, equipment, and field supervision during the media change out process.

D. Contractor to furnish equipment and labor for the removal, regeneration and installation of the GAC.

E. After the GAC has been placed, the bed shall be backwashed by the City in order to stratify the bed and to wash out all fines. This will require several separate backwashes at an expansion of not less than 50 percent. The Superintendent shall determine and approve when the media has been totally cleaned of fines.

F. Following this backwash, the top 1-in of GAC shall be removed and discarded, the surface leveled. The depth of media shall be measured in place after backwashing and filtering for hour. The final backwashed depth of GAC in each filter shall be 20-in above the top of the sand layer.

G. Work hours to be Monday - Friday 7 AM to 5 PM.

3.02 DISINFECTION

A. After removal of the GAC media and prior to placement of GAC media, the entire depth of the filter box and underdrain system in each filter shall be disinfected according to AWWA C653 and as modified by the following procedure:

1. Water treatment plant staff will do this step. With all other filter valves closed, the filter shall be filled with water while simultaneously adding sufficient disinfectant (sodium hypochlorite) to the incoming water to maintain a level of 50 mg/l of free chlorine. Water treatment plant employees shall provide all necessary pipe taps, temporary hypochlorite and dechlorination feed pumps, sodium hypochlorite, and dechlorinating chemicals needed to accomplish this work.

2. The water level shall be maintained approximately 6-in above the top of the filter for not less than 24 hours. If residual is less than 15 mg/l the procedure shall be repeated.

3. The City will perform bacteria testing with the Contractor present. If bacteria sample is positive, the City shall continue disinfection until bacteria sample is negative.

4. Upon completion of disinfection, the filter contents shall be backwashed by the City to waste with filtered potable water, after which the regenerated GAC media shall be installed as specified herein.

END OF SECTION