

**GENERAL CONDITIONS FOR
CUSTOM REACTIVATION AND/OR VIRGIN REPLACEMENT OF GRANULAR
ACTIVATED CARBON (GAC) MEDIA AT SHELBY COUNTY SOUTH WATER
TREATMENT PLANT
AUGUST 2024**

I. CONTRACT TERMS

The period of this contract will be for **one (1) year** from the date the bid is awarded. This contract may be renewed for up to **three (3) years** from the initial award date upon the agreement of both parties. The bid price will remain firm during the period of the contract. A W-9 and E-verify will be required before the bid is awarded. We request that you submit a completed W-9 and E-verify documentation with your bid packet. If you do not include the W-9 and E-Verify with your bid and your bid is to be awarded, Shelby County Water Services will contact you by the email provided in your bid packet and request the completed W-9 and E-Verify be submitted within 3 business days.

Steps to provide your E-Verify

- a. If you **do not have any physical employees in the State of Alabama**, you may submit a signed statement on letterhead in place of the E-Verify.
- b. If your company hasn't already, enroll in E-Verify at e-verify.gov
- c. If you are newly enrolling, you will have an opportunity at the end to print an MOU (Memorandum of Understanding) or check to see if your company printed and saved their MOU when they established the account. If you don't have the MOU, follow step d.
- d. You can Log into your E-verify account. Go to Company. Select Edit Company Profile. This will show your information. Print this page as proof of enrollment.

All quoted prices shall include shipping/delivery, testing, and any other charges related to this process.

II. SCOPE OF WORK

A. It is the intent of this solicitation to establish a service/supply contract for Granular Activated Carbon (GAC) as follows:

Option A - Custom Reactivation of GAC:

- a. Furnish all labor, materials, equipment, and supervision for the removal and transport of spent granular activated carbon (GAC) from the filters to a custom reactivation facility with the option of the reactivated GAC to receive pH stabilization at the manufacturer's facility before delivery to the customer's site.
- b. Reactivation of the spent GAC to the parameters specified herein.
- c. Supply of sufficient makeup virgin GAC as required to ensure the reactivated GAC meets the minimum specified parameters.
- d. Furnish all labor, materials, equipment, and supervision for the transport and installation of reactivated GAC back into the filters.
- e. **Additive Alternate:** To minimize the pH rise and duration, provide pH stabilization at the manufacturer's facility before delivery to the customer's site. The pH-stabilized GAC will be delivered utilizing food-grade pneumatic trailers.

Option B – Disposal of Spent Carbon Due to Poor Quality

- a. Furnish all labor, materials, equipment, and supervision for the removal, transport, and disposal of spent GAC from the filters.

B. Whenever a brand name is mentioned in the bid request, the naming of the item is intended to establish the type, function, performance, and quality required.

III. **SITE INSPECTION**

Each BIDDER is strongly encouraged to visit the site and inform him/herself of all existing conditions. BIDDERS must call and schedule any site visit with Shelby County Water Services' personnel. Contact Phillip Crunk, P.E. at (205) 670-6540.

Site Location:

**SHELBY COUNTY SOUTH WATER TREATMENT PLANT
7935 HIGHWAY 61
WILSONVILLE, AL 35186**

IV. **DELIVERY**

Where indicated on the Bid Sheet, the bidder shall provide the specific number of calendar days required to begin a specific part of the project or deliver the specified material ordered to the job site (lead time). Time is of the essence, and Shelby County Water Services may consider the lead times provided by each bidder in determining the award of the project. Material lead times may be utilized to award the project to another bidder, other than the lowest bidder, if it is determined to be in the Shelby County Water Services best interest.

All quoted prices shall include delivery charges (including, but not limited to, shipping charges and surcharges). Deliveries and work shall be made at the following address:

**Shelby County South Water Treatment Plant
7935 Highway 61
Wilsonville, AL 35186**

V. **BILLING**

Invoice payments shall be based solely on the work completed and the vendor's stated bid price. **All prices shall include shipping/delivery, testing, and any other charges related to this process.** Shelby County Water Services requires a Purchase Order for all orders. Shelby County Water Services is tax-exempt.

All invoices shall be billed to:

**Shelby County Water Services
10927 US Highway 280
Sterrett, AL 35147**

ap-water-landfill@shelbyal.com – Preferred method of delivery

VI. **BID QUALIFICATIONS**

All BIDDERS must submit the requested product information listed in the bid specifications with their bid. Information to be submitted must show that the product proposed meets all the specifications listed in the bid specifications and list **ALL EXCEPTIONS** to the specifications in a separate document.

VII. METHOD OF AWARD

The bid will be awarded to the lowest responsible and responsive bidder that meets specifications. It is not the policy of the Shelby County Commission to purchase on the basis of low bid only. Quality, conformity with specifications, purpose for which required, terms of delivery, and past service and experience are among the factors that may be considered in determining the responsive bidder. Time is of the essence, and Shelby County Water Services may consider the lead times provided by each bidder in determining the award of the project. Material lead times may be utilized to award the project to another bidder, other than the lowest bidder if it is determined to be in Shelby County Water Services' best interest.

The Shelby County Commission reserves the right to award separate contracts for each item, each product, or any combination of products if in the best interest of the Shelby County Commission. Upon awarding of this contract and bid the Shelby County Commission receives the sole right to end said contract at their sole discretion.

**QUOTATION SHEET:
 Custom Reactivation or Virgin Replacement of GAC Media
 at Shelby County Water Treatment Plant
 August 2024**

All prices shall include shipping/delivery, testing, and any other charges related to this process.

Company Name: _____

OPTION A: REACTIVATION OF GAC WITH OR WITHOUT ALTERNATE pH STABILIZATION*

Lump Sum for Removal, Transportation, Reactivation, and Installation of GAC Media per filter at the South Water Treatment Plant including up to 15% makeup.	CMR 820 or equal: \$ _____ Per Filter
	CMR 400 or equal: \$ _____ Per Filter
Unit Price (per pound) for Additional Virgin Material above the included 15% makeup.	FILTRASORB 820 or equal: \$ _____ Per Pound
	FILTRASORB 400 or equal: \$ _____ Per Pound
ADDITIVE ALTERNATE Lump Sum for pH adjustment of media at Bidder's facility.	FILTRASORB 820 / CMR 820 or equal: \$ _____ Per Filter
	FILTRASORB 400 / CMR 400 or equal: \$ _____ Per Filter
SWING LOAD: Lump Sum for Removal, Transportation, Reactivation, Storage, and Installation of 100% Virgin GAC Media per filter at the South Water Treatment Plant	FILTRASORB 820 or equal: \$ _____ Per Filter
	FILTRASORB 400 or equal: \$ _____ Per Filter

OPTION B: DISPOSAL OF SPENT CARBON DUE TO POOR QUALITY*

Lump Sum for Removal, Transportation, and Disposal per filter at the South Water Treatment Plant	SPENT CARBON \$ _____ Per Filter
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*Whenever a brand name is mentioned in the bid request, the naming of the item is intended to establish the type, function, performance and quality required.

LEAD TIME

If the time required to deliver and commence installation of the specified material exceeds 45 days from the notice to proceed, please specify the time here. _____ days.

CONTRACT PERIOD

The period of this contract will be for **one (1) year** from the date the bid is awarded. This contract may be renewed for up to **three (3) years** from the initial award date upon the agreement of both parties. The bid price will remain firm during the period of the contract. This contract will be based on purchasing an estimated range of three to six filters in any combination of Option A and/or Option B (with or without Additive Alternate). The frequency of the changeouts will be based on water usage and bed volume calculations.

**QUOTATION SHEET:
Custom Reactivation or Virgin Replacement of GAC Media
at Shelby County Water Treatment Plant
August 2024**

THE UNDERSIGNED OFFERS THESE PRICES, TERMS, AND DELIVERY AS PER BID SPECIFICATIONS:

NAME OF COMPANY: _____

CONTACT: (Please Print): _____

SIGNATURE: _____

COMPANY ADDRESS: _____

PHONE: _____

E-MAIL: _____

BIDS SUBMITTED ARE FIRM AND NO CLAIMS FOR ERRORS WILL BE MADE AFTER BIDS ARE OPENED AND SUBSEQUENT THEREOF.

DON'T FORGET to enclose the following with your bid.

- Documents showing the product meets requirements as outlined within the bid specifications
- Completed W-9
- E-Verify documentation

Sworn to and subscribed before me this
the _____ day of _____,
_____, Notary Public

My Commission Expires: _____

BID SPECIFICATIONS FOR

GAC Media Replacement

August 2024

BIDDER QUALIFICATIONS

- A. Bids will only be accepted from domestic (United States) manufacturers of bituminous coal-based reagglomerated carbon who own and operate facilities used for virgin and reactivated carbon production.
- B. BIDDERS shall have a minimum of 15 years of experience manufacturing virgin and reactivated GAC and shall submit proof via a Manufacturer's Certificate and/or an Affidavit of Compliance.
- C. The bidder shall certify that it is the owner and operator of a minimum of two (2) NSF certified reactivation facilities exclusively dedicated to the receiving and production of potable reactivated GAC and shall submit proof via the reactivation facility's NSF Certificate and/or an Affidavit of Compliance. This requirement demonstrates the manufacturer's commitment to sustainable GAC use.
- D. BIDDER will be required to provide evidence of a Certificate of Insurance, which provides Workman's Compensation for contractor's employees for the duration of the contract, and a minimum of \$2,000,000 (Two Million Dollars) in General Liability insurance naming Shelby County as an additional insured. The general liability insurance includes but is not limited to claims that may arise from the supplier's products, shipment, installation, removal, and reactivation/disposal of the spent carbon. The above-noted insurance must be with an A or A+ company. Evidence of all insurance coverage must be submitted with the bid. Evidence of Workman's Compensation and general liability insurance shall be received within 20 calendar days after the bid is awarded.
- E. Field Service personnel supervising the exchange must be directly employed by the bidder.
- F. BIDDER'S virgin and reactivation manufacturing processes shall be NSF 61 certified.
- G. Valid Section 84 Business License must be obtained and submitted within 20 calendar days after the bid is awarded.
- H. Failure to comply with any of the above conditions may be considered non-responsive and the bid may be rejected.

PRODUCTS

REACTIVATED GAC

A. Materials

1. Materials shall comply with the requirements of the Safe Drinking Water Act, other federal requirements, and the Alabama Department of Environmental Management.
2. The reactivated GAC shall comply with NSF 61.
3. The reactivated GAC shall comply with AWWA B605 – Latest Edition

4. Effective procedures will be in place and utilized to ensure segregation of any spent and reactivated carbon intended to be returned as a custom reactivated product.
- B. Reactivated GAC, including virgin make-up GAC blended as required, shall meet the following specifications:

Calgon CMR 820 or Equal

Product Specification: CMR820	Value	Test Method
Iodine Number (mg/g), min.	a) 800 if spent is >550 b) +250 if spent is <550 a&b include 15% make-up	TM-4, ASTM D4607
Moisture, weight %, max.	8% or as agreed to between supplier and purchaser	TM-1, ASTM D2867
Uniformity Coefficient, max.	1.5	TM-47, ASTM D2862
Abrasion No., min.	70	TM-9, AWWA B604
Screen Size (US Sieve), weight %		
* Larger than No. 8, max.	5.0	TM-8, ASTM D2862
* Smaller than No. 20, max.	4.0	TM-8, ASTM D2862
Apparent Density, g/cc, min	0.20	TM-7, ASTM D2854

Calgon CMR 400 or Equal

Product Specification: CMR 400	Value	Test Method
Iodine Number (mg/g), min. ¹	a) 800 (if spent was >550) b) +250 (if spent was <550), with a minimum final blended value of at least 500	TM-4, ASTM D4607
Moisture, weight %, max. ²	8	TM-1, ASTM D2867
Uniformity Coefficient, max.	2.1	TM-47, ASTM D2862
Abrasion No., min.	70	TM-9, AWWA B604
Screen Size (US Sieve), weight %		
* Larger than No. 12, max.	5	TM-8, ASTM D2862
* Smaller than No. 40, max.	4	TM-8, ASTM D2862
Apparent Density, g/cc, min	0.20	TM-7, ASTM D2854

1. Iodine Number is based on the final blend of custom reactivated GAC and make-up virgin GAC.
2. As the moisture content of reactivated GAC may increase during bulk shipment because of ambient conditions that may be beyond the control of the supplier, a moisture content exceeding 8% is permitted.

VIRGIN GAC

- A. The BIDDER shall supply a virgin GAC, which shall either be used to make up losses of spent GAC via the reactivation process or as an alternate supply to the custom reactivated GAC. The virgin GAC shall meet the following specifications:
 1. The GAC shall be mined and manufactured in the United States of America. The GAC shall be manufactured by a producer certified for ISO 9001:2000 quality standards and at the specific plant or site holding such certification. A copy of the valid certificate must be submitted with the bid. It is understood that ANSI/NSF assures the GAC against toxicological hazards only. ISO 9001:2000 Certification assures the GAC of consistent conformance to stated product quality and standards listed in the specifications.

2. The GAC shall comply with AWWA B604-Latest Edition.
3. The GAC shall comply with NSF 61.
4. The GAC shall conform to Food Chemical Codex when tested under the conditions of the test outlined in the Food Chemical Codex, Latest Edition.
5. The GAC must be a 100% agglomerated bituminous coal-based product with petroleum and coal-based pitch binders sized to a granular form prior to baking and activation.
The following materials shall not be accepted if submitted in lieu of the required product, nor may any amount of these materials be blended into a mix with the required agglomerated, bituminous coal-based product:
 - a. Broken pellets, regardless of base material
 - b. Direct activated GAC, regardless of base material
 - c. Lignite-based GAC
 - d. Peat-based GAC
 - e. Wood-based GAC
 - f. Coconut-based GAC
 - g. Sub-bituminous based GAC
 - h. Anthracite-based GAC
6. The GAC shall be capable of removing turbidity, color, taste, odors, and other organic contamination from water previously pretreated by conventional water treatment processes.
7. Data showing the successful application of the GAC in municipal water plants, including turbidity and organic contamination, shall be submitted with the bid.
8. BIDDER shall indicate the source of coal, carbon manufacturing location, the agglomeration/thermal process, and capacity of the manufacturing facility. Shelby County Water Services reserves the right to inspect the GAC manufacturing and thermal processing facility.
9. Quantity of virgin GAC required as make-up in order to compensate for reactivated material lost in transport and reactivation, as well as that needed to bring the final reactivated product up to acceptable quality, shall be determined by Shelby County Water Services and the BIDDER, and based upon the BIDDER'S experience reactivating similar carbons, and, if necessary, by sample testing.
10. A Certificate of Analysis shall be submitted to Shelby County Water Services certifying that the virgin GAC added as make-up or used as an alternative to the custom reactivation is in full compliance with these specifications.

Calgon Filtrasorb 820 or Equal

Product Specification: F820	Value	Test Method
Iodine Number (mg/g), min.	900	TM-4, ASTM D4607
Moisture, weight %, max.	2.0	TM-1, ASTM D2867
Effective size, mm	1.0-1.2	TM-47, ASTM D2862
Uniformity Coefficient, max.	1.5	TM-47, ASTM D2862
Abrasion No., min.	75	TM-9, AWWA B604
Trace Capacity Number, (mg/cc), min.	9	TM-79, TM-85 (converted to TCN)
Screen Size (US Sieve), weight %		
* Larger than No. 8, max.	5.0	TM-8, ASTM D2862
* Smaller than No. 20, max.	4.0	TM-8, ASTM D2862
Apparent Density, g/cc	0.50	TM-7, ASTM D2854
Typical Property		
Ash	8%	TM-5, ASTM D2866
Water Soluble Ash	<1%	AWWA B604
Non-Wettable	<1%	AWWA B604

Calgon Filtrasorb 400 or Equal

Product Specification: FILTRASORB 400M	Value	Test Method
Iodine Number (mg/g), min.	1000	TM-4, ASTM D4607
Moisture, weight %, max.	2	TM-1, ASTM D2867
Effective size, mm	0.55-0.75	TM-47, ASTM D2862
Uniformity Coefficient, max.	1.9	TM-47, ASTM D2862
Abrasion No., min.	75	TM-9, AWWA B604
Trace Capacity Number, (mg/cc), min.	10	TM-79, TM-85 (converted to TCN)
Screen Size (US Sieve), weight %		
* Larger than No. 12, max.	5	TM-8, ASTM D2862
* Smaller than No. 40, max.	4	TM-8, ASTM D2862
Ash, weight %, max.	10	TM-5, ASTM D2866
Apparent Density, g/cc, min.	0.50	TM-7, ASTM D2854
FCC – Water Extractables, weight %, max	4	TM-43, FCC

B. Material and Manufacturer

1. Filtrasorb 400 or Filtrasorb 820 as manufactured by Calgon Carbon Corporation Or Equal as approved by Shelby County Water Services.
 - a. Certificate of Analysis for virgin material required with bid.

FILTER DATA

Filter/ Vessel Design	Dual Media Gravity Filters
Number of Filters	6
Filter Dimensions (LxWxD)	25' x 18'-6" x 90" (18" sand, 72" GAC)
Number of Cells/Filter	1
Cell Dimension (LxWxD)	25' x 18'-6" x 90" (18" sand, 72" GAC)
Backwash and Drain Volume (cu. Ft.)	3,547.4
Drain to Waste (dia.)	16" Filter to Waste, 24" Waste from Launder Trough
Total Existing GAC Volume (cu. Ft.)	2,775 cu. ft. per filter

EXECUTION

TESTING REQUIREMENTS

- A. The BIDDER shall submit all testing requirements necessary for the reactivation process as part of the bid. A schedule showing testing time requirements shall also be included.
- B. The BIDDER shall provide all necessary bottles for sample collection.
- C. The BIDDER shall include any testing requirements for receiving and reactivating the spent GAC as part of the bid. All testing prices shall be included in base bid cost for reactivation.

CARBON EXCHANGE PROCEDURES

- A. The BIDDER shall submit a detailed description of carbon exchange procedures.
- B. Prior to beginning the exchange process, the CONTRACTOR shall measure the depth of the GAC in each filter. This information will be used to determine the GAC's operational loss.

- C. The GAC exchange shall be under the direct supervision of the GAC manufacturer's employee, who must have a minimum of 5 years' experience in performing carbon exchanges. Supervision by a third party or agent is not allowed.
- D. 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.
- E. Prior to the return of the reactivated GAC, the BIDDER shall submit a certificate of analysis of the material demonstrating it meets the Performance Criteria set in this specification.
- F. All drainage shall be coordinated with plant personnel. Any additional hoses or attachments required will be the BIDDER's responsibility.
- G. The actual exchange process will be coordinated with Shelby County Water Services. The BIDDER shall limit the time in which a filter is out of service.
- H. If Shelby County Water Services selects an Additive Alternative for Option A or Option B, the GAC shall be pH stabilized at the manufacturer's facility before delivery to the customer's site to minimize the pH rise and duration. The pH-stabilized GAC will be delivered utilizing food-grade pneumatic trailers.
- I. Option B shall be for the removal, disposal, and installation of virgin carbon in accordance with AWWA B604-Latest Edition.

END OF SECTION