

June 1ST, 2023

Sameena Gill, Civil Engineer 111 City of Bakersfield Water Resources Department 1000 Buena Vista Road Bakersfield, CA 93311

Dear Sameena Gill,

I would like to express my gratitude for giving Carbon Supply Inc. (CSI) the opportunity to submit our Bid Proposal for the supply of granular activated carbon (GAC) media and services for the City of Bakersfield Water Resources Department's domestic water system. We understand the importance of this project and are fully committed to providing excellent service.

CSI is well-positioned to meet the City's requirements and deliver successful results for this critical potable water project. Our team consists of experienced professionals who specialize in system design and offer high-quality media that optimizes hydraulic performance, media usage, and overall operating costs.

As part of our comprehensive approach to services, CSI provides on-site media exchange services, transportation of spent media, off-site reactivation or disposal, technical support, and a wide range of certified activated carbons, ion exchange resins, and other media tailored to meet your specific treatment needs.

In accordance with Section X of the RFQ&P, our proposal includes the following:

- GAC Media Cut Sheet
- Media Certifications and Compliance Signed Statement
- Pressure Drop and Expansion Curves (Item X.D) See Attachment A
- Signed Statement confirming that CSI meets all GAC specification requirements
- Scope of Work

CSI brings a proven track record of experience, high-quality treatment systems, filtration media, and services. We are excited about the prospect of collaborating with the City of Bakersfield on this project. Please feel free to reach out to us with any questions or if you require additional information.

Thank you once again for considering CSI as a potential partner for this important initiative. We are eager to work with you and contribute to the success of the City's water resources department.

Sincerely,

Miguel Gonzalez Vice President Carbon Supply Inc.



Proposal

Scope Of Work:

- Removal of spent activated carbon media by slurry transfer from vessels to tanker.
- Opening of manway hatches, deploy vessel wash-down procedures.
- Removal & non-hazardous disposal of spent carbon media.
- Disinfecting procedures for vessels
- Procuring & warehousing of "NSF 61/Prop 65" compliant virgin coconut shell activated carbon
- Food grade wash on slurry tankers
- Installation of virgin activated carbon media by slurry transfer from tanker to vessels
- Initial soak and backwash of virgin GAC
- Furnish equipment, labor, materials, tools, and GAC transportation services.
- Non-Hazardous Waste Disposal

Carbon Type: 12x30 Virgin Coconut Shell NSF61 Grade Activated Carbon

Volume: 714 cubic ft. of GAC per vessel

Description	Unit Price	
Price Per Single Vessel Change Out – 1 Vessels (714 cu ft. total):	\$47,493.30	
Sales Tax 8.25%	\$4,328.00	
Total	\$51,821.30	

Description	Unit Price	
Price Per Dual Vessel Change Out – 2 Vessels (1,428 cu ft. total):	\$86,506.35	
Sales Tax 8.25%	\$7,136.25	
Total	\$93,642.60	

^{*}Note: Pricing includes services, NSF 61 gaskets, disinfection chemicals, & system backwash services. Sales tax is based on GAC media, gaskets, and disinfection chemicals.



June 1ST, 2023

Subject: Signed statement that Proposer understands the GAC requirements and that Proposer's GAC meets the GAC requirements as specified in Section IV – GAC Specifications

Dear City of Bakersfield,

I am writing on behalf of Carbon Supply Inc. (CSI) to confirm our understanding of the GAC requirements as specified in Section IV - GAC Specifications of the RFQ&P. We have thoroughly reviewed the provided RFQ&P and acknowledge and comply with the GAC requirements outlined therein.

CSI assures you that the GAC offered for this service contract bid fully meets the specified GAC requirements. For detailed information on CSI's scope and the media provided, please refer to the Scope of Work and attachments accompanying this proposal.

If you have any further inquiries or require additional information regarding our insurance coverage, please do not hesitate to contact us at 562-806-0300.

We are grateful for the opportunity to be considered as your trusted partner for GAC changeouts. CSI is excited about the possibility of collaborating with the City of Bakersfield and we eagerly anticipate the opportunity to work together.

Sincerely,

Miguel Gonzalez

Vice President

Carbon Supply Inc.





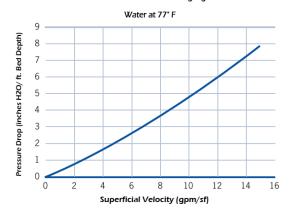
12x30-C AW

CSI MuniGuard[™]12x30-C AW is a high-quality grade of acid washed activated carbon designed for the removal of organic contaminants from various types of water sources, such as potable, industrial, or process water. The material is manufactured under stringently controlled conditions by the activation of coconut shell products to produce a high density, high surface area durable product that is capable of withstanding repeated cycles of use and reactivation. This carbon is especially effective for adsorbing trace organic compounds such as vinyl chloride, methylene chloride, MTBE and THM's/disinfection by-products. This carbon meets the extractable metals requirements of NSF/American National Standards Institute Standard 61, CA Prop 65 regulation, and AWWA/ASTM standards.

Features:

- Coconut Shell Based Adsorbent
- · Easy Backwashing
- High Hardness For Long Life Expectancy
- Moisture Less Than 5%
- Highly Developed Pore Structure
- High Adsorption Capacity And Efficiency

Typical Pressure Drop (MuniGuard 12x30-C AW) Based on a backwashed and segregated bed



Specifications	Value	Method
lodine Number	1100 mg/g min.	ASTM-D-4607
Apparent Density	0.46- 0.52 g/cc	ASTM-D-2854
Abrasion No.	85% min.	AWWA B604
Moisture (as packed)	5 % max.	ASTM-D-2867
Uniform Coefficient	2.0 max.	
Ash	3 % max.	ASTM-D-2896
Water Soluble ASH	2% max.	ASTM-D-5029
Hardness	98% min	ASTM-D-3802
Larger than 12 mesh [%]	5% max.	ASTM-D-2862
Smaller than 30 mesh [%]	4% max.	ASTM-D-2862

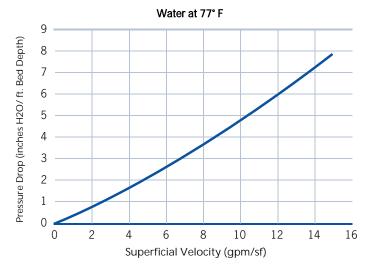
12X30-CW GAC is available in:

- 55 lbs. bag, 20 bags per pallet for a net pallet weight of 1,100 lbs.
- Woven polypropylene bulk bag, 1,000 lbs. (454 kg) net weight

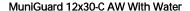
For product inquires please contact us at:
Phone: (562) 806-0300 Email: info@carbonsupplyinc.com

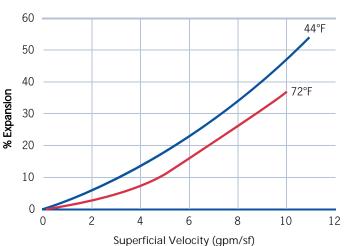


Typical Pressure Drop (MuniGuard 12x30-C AW) Based on a backwashed and segregated bed



Typical Bed Expansion During Backwash





Notes:

Typically, coconut activated carbon in the 12x30 mesh size range is utilized in down-flow packed-bed operations, which can employ both pressure and gravity systems. When designing a carbon system, several factors come into play, including the user's operating conditions, desired treatment objectives, and the chemical properties of the compounds being adsorbed. The down-flow rate or superficial velocity in these systems generally ranges from 1 gallon per minute per square foot (gpm/ft²) to 10 gpm/ft², depending on the specific application. Contact times can vary from 7.5 minutes to hours, allowing for effective interaction between the liquid and the carbon bed. The design of the carbon system may differ depending on the type of liquid being treated, the contaminants targeted for removal, and the specific treatment objectives sought. Overall, the design considerations for a carbon system encompass optimizing down-flow rates, selecting appropriate contact times, and sizing the carbon bed according to the user's operating conditions, treatment goals, and the characteristics of the compounds to be adsorbed.



8429 Eastern Ave., Bell Gardens, CA 90201 Office: 562.806.0300 Fax: 562.806.0302 Sales, Service, And Support



June 1ST, 2023

Re: ANSI/NSF-61 Certifications and Statements of Compliance with CA Prop 65, and AWWA B604

Dear City of Bakersfield,

In Section X, Item C. of the Request for Quotation and Proposal, it is requested that the proposed Granular Activated Carbon (GAC) complies with the ANSI/NSF-61 certifications and provides statements confirming compliance with AWWA B604 and meeting the material safety requirements outlined in ANSI/NSF-61 and California Proposition 65.

CSI affirms that the proposed GAC is fully compliant with AWWA B604 and meets the material safety requirements stated in NSF 61 and CA Prop 65. The necessary certifications and statements are provided to ensure adherence to these standards.

For any further inquiries or if additional information regarding our insurance coverage is needed, please feel free to contact us at 562-806-0300. We value your consideration and appreciate the opportunity to collaborate with the City of Bakersfield as your trusted partner for GAC changeouts. We eagerly anticipate the chance to work together.

Sincerely

Miguel Gonzalez

Vice President

Carbon Supply Inc.



OFFICIAL LISTING

NSF certifies that the products appearing on this Listing conform to the requirements of NSF/ANSI/CAN 61 - Drinking Water System Components - Health Effects

This is the Official Listing recorded on July 18, 2022.

Carbon Supply Inc. 8429 Eastern Avenue Bell Gardens, CA 90201 562-806-0300

Facility: Tamilnadu, India

Process Media

Trade Designation	Size	Water Contact Temp	Water Contact Material
Granular Activated Carbon [1]			
MuniGuard™ 6x12-C	$6 \times 12 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 6x12-C AW	$6 \times 12 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 8x30-C	$8 \times 30 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 8x30-C AW	$8 \times 30 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 12x30-C	$12 \times 30 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 12x30-C AW	$12 \times 30 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 12x40-C	12×40 mesh	CLD 2	3 GAC
MuniGuard™ 12x40-C AW	12×40 mesh	CLD 2	3 GAC
MuniGuard™ 20x50-C	$20 \times 50 \text{ mesh}$	CLD 2	3 GAC
MuniGuard™ 20x50-C AW	$20 \times 50 \text{ mesh}$	CLD 2	3 GAC
Powdered Activated Carbon			
MuniGuard™ 100-W ^[2]	-100 mesh	CLD 2	3 PAC
MuniGuard™ 200-W ^[2]	-200 mesh	CLD 2	3 PAC
MuniGuard™ 325-W ^[2]	-325 mesh	CLD 2	3 PAC
MuniGuard™ PAC 100-C ^[2]	-100 mesh	CLD 2	3 PAC
MuniGuard™ PAC 200-C ^[2]	-200 mesh	CLD 2	3 PAC
MuniGuard™ PAC 325-C ^[2]	-325 mesh	CLD 2	3 PAC

^{[1] [1]} The carbon source is coconut shell.

Note: Additions shall not be made to this document without prior evaluation and acceptance by NSF.

^[2] The carbon source is wood char.

NOTE: Certified for water treatment plant applications. This product has not been evaluated for point of use applications.

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

Carbon Supply Inc.

Bell Gardens, CA

AS COMPLYING WITH NSF/ANSI/CAN 61 AND ALL APPLICABLE REQUIREMENTS.

PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE

AUTHORIZED TO BEAR THE NSF MARK.







This certificate is the property of NSF International and must be returned upon request. This certificate remains valid as long as this client has products in NSF's Official Listings for the referenced standards. For the most current and complete Listing information, please access NSF's website (www.nsf.org).

Meresa Bellish

Theresa Bellish

Senior Director Water Commercial