



OFFICIAL NOTICE & AGENDA
REGULAR MEETING

MEETING: Wausau Water Works Commission
DATE/TIME: Tuesday, June 2, 2026 at 11:30 AM
LOCATION: Wausau City Hall — Council Chambers
407 Grant Street, Wausau WI, 54403

MEMBERS:
Mayor Doug Diny (P) Deb Hadley
Micheal Martens Aaron Van Krey
Peter Gelhar

- 1 Recognition of Jim Force's Years of Service on the Wausau Water Works Commission.**
- 2 Consideration of the minutes of the preceding meeting(s).**
May 5, 2026 Regular Wausau Water Works Commission Minutes.
- 3 Director's Reports.**
 - a. Update on Cherry St Lift Station Delays and Construction Oversight Costs.
 - b. Cherry St. Lift Station Project and Headworks Screening Project Updates.
- 4 Discussion and Possible Action.**
 - a. Selecting a Proposal for Drinking Water Treatment Facility PFAS Treatment — Granular Activated Carbon Reactivation.
 - b. Approving a Mandatory Lead Service Line Replacement Ordinance.
 - c. Approving the Wastewater 2025 Compliance Maintenance Annual Report (CMAR) and Resolution.
 - d. Approving the scope of services for the completion of the design and construction of the 32nd and Airport Lift Stations from Clark Dietz.
- 5 Adjournment.**

**Next meeting is scheduled for July 7, 2026 at 11:30 A.M.*

Mayor Doug Diny, President

**NOTICE POSTED AT CITY HALL (407 GRANT STREET) AND
TRANSMITTED TO THE OFFICIALLY DESIGNATED NEWSPAPER**

DATE: 05/27/2026

TIME: 2:55 PM

POSTED BY: Wausau Water Works



This meeting can be viewed on
YouTube and Channel 981 on Cable TV

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the City of Wausau will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs or activities. If you need assistance or reasonable accommodations in participating in this meeting or event due to a disability as defined under the ADA, please call the ADA Coordinator at (715) 261-6622 or ADAServices@wausauwi.gov to discuss your accessibility needs. We ask your request be provided a minimum of 72 hours before the scheduled event or meeting. If a request is made less than 72 hours before the event the City of Wausau will make a good faith effort to accommodate your request.



City of Wausau
(715) 261-6500 | clerk@wausauwi.gov
wausauwi.gov





OFFICIAL MINUTES REGULAR MEETING

MEETING: Wausau Water Works Commission
DATE/TIME: Tuesday, May 5, 2026 at 11:00 AM
LOCATION: Wausau City Hall — Council Chambers
407 Grant Street, Wausau WI, 54403

MEMBERS:
Mayor Doug Diny (P) Peter Gelhar
Michael Martens Deb Hadley
Jim Force

Members Present: Doug Diny, Deb Hadley, Peter Gelhar, Michael Martens
Members Not Present:
Members Excused: Jim Force
Present 4, Not Present 0, Excused 1

Noting the presence of a quorum, the Chairperson called the meeting to order at 11:00 AM.

1 Consideration of the minutes of the preceding meeting(s).

April 8, 2026 Regular Wausau Water Works Commission Minutes

Motion to Approve minutes of April 8, 2026 by Hadley. Seconded by Gelhar. Motion carried 4-0.

2 Director's Reports.

Report Placed on file.

a. Update on Lead Service Line Replacements.

Lindman reviewed current funding, recent progress, and upcoming decisions for LSL replacements. Principal forgiveness has been strong but is expected to decline, increasing private-side costs that must be covered by general obligation debt. Participation may drop once homeowners begin paying a share. Reintroducing the Lead Service Line Replacement Ordinance will be a key decision for the Waterworks Commission and City Council, as it would allow more options for required replacements. The city will apply for 2027 funding at the end of June, with updates to follow. A Committee of the Whole meeting is planned to brief the Council. Funding qualifications change each year, and staff will run scenarios for 2027–28. Construction costs are rising, with current replacements averaging \$9,200 and other cities seeing \$9,000–\$13,000 in construction-only bids.

b. Wastewater Project Updates- Headworks Screening Project, Cherry Street Lift Station and Lift Station Assessment w/ Clark Dietz.

Brooks summarized the memo included in the packet. Hadley questioned the additional costs for the Cherry Street project. Lindman reported a letter was sent requesting a meeting with Integrity to address liquidated damages, and noted that retainage remains on the project and will be resolved before final completion.

3 Discussion and Possible Action.

a. Approving the 2027 through 2031 Capital Improvement Projects (CIP) Budget for the Drinking Water and Wastewater Utility.

Staff reported progress on implementing the new Gravity software for tracking capital projects, noting that reporting is improving but still in development. The memo outlined the complexity of project funding—mixing grants, principal forgiveness, loans, and borrowing—and provided a breakdown for current and future years. Lead service line work continues to skew long-term borrowing projections, but excluding that, both water and wastewater utilities remain consistent with past borrowing levels. Staff are coordinating with Finance and Ehlers to compile full debt-service information for the upcoming operating budget cycle. The Commission had no further questions. Motion by Gelhar, seconded by Hadley, to approve the 2027–2031 Capital

Improvement Projects budget and forward it to Council passed unanimously. Motion carried 4-0.

- b. Approving the Sole Source Renewal Agreement for HydroCorp Non-Residential Cross Connection Control (CCC) Program.

Staff reported that HydroCorp has provided non-residential cross-connection inspections since 2016, operating under two-year renewals. Following HydroCorp's acquisition and changes to contract terms, the Assistant City Attorney reviewed the updated agreement and requested revisions to protect the city; most terms are now agreed upon, with minor wording changes pending. The proposed contract is a four-year agreement with annual payments of \$52,451.98 with a roughly 4% annual increase thereafter, and staff advised that few alternative vendors are capable of performing the required volume of work. A motion by Hadley, seconded by Gelhar, to approve the sole-source renewal agreement with HydroCorp subject to attorney review passed unanimously. Motion carried 4-0.

- c. Approving the Sole Source Request for MCEP9 and K144L-NA Polymers used to thicken solids in the Belt Filter Presses and Gravity Belt Thickeners.

Staff explained that the polymer used for gravity belt thickeners and sludge presses remains at last year's pricing. Midwest Chemical continues to be the preferred vendor due to strong technical support and system familiarity. While alternative vendors exist, switching products would require significant retuning of equipment and could disrupt operations, however, staff will explore pricing and comparable products to keep the market competitive. A motion by Gelhar, seconded by Martens, to approve the sole-source purchase with direction to review additional vendor options passed unanimously. Motion carried 4-0.

4 Discussion.

- a. Regarding the Wastewater - Final WPDES Permit Issued with a permit term of five years.

Staff reported that following receipt of Class A biosolids approval, the final draft discharge permit was issued with minimal changes. Key updates include a shift from Fecal Coliform to E. coli testing (already being performed), new PFAS monitoring requirements for effluent (bimonthly) and biosolids (annual), and elimination of the mercury variance due to successful local reduction efforts. The five-year permit is effective May 1, 2026–March 31, 2031. Discussion also noted that upon the completion of two years of PFAS testing, it will allow future consideration of Marathon County leachate if needed, and staff confirmed the facility is officially approved for Class A biosolids. The Commission acknowledged staff's work, particularly Brook's efforts, in securing the long-delayed approval.

5 Adjournment.

Diny inquired whether the 11:00 AM meeting time was suitable for all commissioners. It was agreed that scheduling future meetings at 11:30 AM would be more effective. The next meeting is scheduled for June 2, 2026, at 11:30 AM. Motion to adjourn by Martens. Second by Gelhar. Motion carried 4-0, meeting adjourned at 11:33 AM.

The recording of this meeting may be viewed on
YouTube [@CityofWausauMeetings](#)



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wausauwi.gov





Department of Public Works & Utilities

Eric Lindman, P.E.
Director of Public Works and Utilities

TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: June 2, 2026

SUBJECT: Update on Costs – Cherry St Lift Station

The Cherry St Lift Station project was delayed in most part due to contractor completing work. The initial costs for the project were estimated to cost the utility an additional \$25,300. Through discussions with the contractor and engineering firm this amount was reduced by \$13,557.95. Remaining additional costs for the completion of the project were \$11,742.05. The cost reductions were in part due to less engineering costs and oversight needed and the contractor not requesting change orders they would have been due based on the contract.

These discussions were acceptable to staff, the project will meet its final completion date, and the project meets all specifications and is functioning well. Warranty on the project remains in effect.



Wausau Water Works
Ben Brooks, Wastewater Superintendent

DATE: June 2, 2026
TO: Wausau Water Works Commission
SUBJECT: Cherry St. Lift Station Project and Headworks Screening Project Updates.

PURPOSE

Cherry St. Lift Station Project and Headworks Screening Project Updates

BACKGROUND

Cherry St. Lift Station Project Update:

- Integrity mobilized on site: 09/08/2025
- Substantial Completion Date: 01/31/2026 (new lift station operating with demo work completed)
- Final Completion Date: 05/15/2026 (all work complete, with grass actively growing)
- Final punch list items remain. Once completed, the project will be closed out.

Headworks Screening Project Update:

- Ahern & Subcontractors Mobilized: 06/16/2025
- Substantial Completion Date: 10/15/2026
- Final Completion Date: 11/15/2026
- Painting continues with the final punch list currently being developed.

RECOMMENDATION

Bid Tab

<u>Company Name</u>	<u>Price changing out 1 initially</u>	<u>Price changing out 2 initially</u>	<u>Lead Time</u>	
Carbon Activated Corporation	\$481,530.00	\$534,660.00	18 Days	
Calgon Carbon Corporation	\$580,650.00	\$552,748.00	56 Days	* Prices do not include Disinfection of the vessels, add \$31,668.00 *Will not perform Bac-t testing
Norit Americas, Inc.	No Bid	\$728,364.00	45 Days	*Will not perform Bac-t testing

RFP Evaluation: Granular Activated Carbon Segregated Reactivation

Vendor Name Carbon Activated Corp- Review Average Score

Select Alternate: 1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time
 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time

Category	Sub-Category	Maximum Points	Evaluator Score	Comments
Compliance & Responsiveness	Complete submission & signed forms	3	3	
	Proposal valid >= 60 days	5	5	
	Required NSF-61 certification for reactivation facility	12	12	
	Subtotal	20	20	
Virgin GAC Product Quality & Performance	Virgin GAC meets Schedule 1 specifications	10	9.5	
	Product data completeness (RFP-2, 3.01.C.)	5	5	
	Subtotal	15	14.5	
Technical Approach & Methodology (GAC Reactivation, page 43 32 54.2-2,	Removal, transport, reactivation, reinstallation process	10	10	
	Segregation & chain of custody	5	5	
	Startup, backwash, downtime control	5	4.5	
	Subtotal	20	19.5	
Experience & Qualifications	Years of municipal GAC experience	5	5	
	PFAS segregated reactivation experience	5	5	
	Reference quality (RFP-2, 3.01.D)	5	5	
	Subtotal	15	15	
Schedule & Delivery (GAC Reactivation page 43 32 54.2-3, 1.07)	Lead time from award to first delivery of GAC	5	5	
	Vessel changeout & downtime compliance	5	5	
	Delivery & sanitation procedures	5	3	
	Subtotal	15	13	
Cost & Value	Total price competitiveness	15	15	
	Subtotal	15	15	
Total		100	97	

RFP Evaluation: Granular Activated Carbon Segregated Reactivation

Vendor Name Calgon Carbon Corp- Average Score

Select Alternate: 1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time
 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time

Category	Sub-Category	Maximum Points	Evaluator Score	Comments
Compliance & Responsiveness	Complete submission & signed forms	3	3	
	Proposal valid >= 60 days	5	5	
	Required NSF-61 certification for reactivation facility	12	12	
	Subtotal	20	20	
Virgin GAC Product Quality & Performance	Virgin GAC meets Schedule 1 specifications	10	10	
	Product data completeness (RFP-2, 3.01.C.)	5	5	
	Subtotal	15	15	
Technical Approach & Methodology (GAC Reactivation, page 43 32 54.2-2,	Removal, transport, reactivation, reinstallation process	10	7.5	
	Segregation & chain of custody	5	2.5	
	Startup, backwash, downtime control	5	2.5	
	Subtotal	20	12.5	
Experience & Qualifications	Years of municipal GAC experience	5	5	
	PFAS segregated reactivation experience	5	5	
	Reference quality (RFP-2, 3.01.D)	5	5	
	Subtotal	15	15	
Schedule & Delivery (GAC Reactivation page 43 32 54.2-3, 1.07)	Lead time from award to first delivery of GAC	5	1	
	Vessel changeout & downtime compliance	5	2.5	
	Delivery & sanitation procedures	5	0	
	Subtotal	15	3.5	
Cost & Value	Total price competitiveness	15	8	
	Subtotal	15	8	
Total		100	74	

RFP Evaluation: Granular Activated Carbon Segregated Reactivation

Vendor Name Norit- Average Score

Select Alternate: 1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time
 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time

Category	Sub-Category	Maximum Points	Evaluator Score	Comments
Compliance & Responsiveness	Complete submission & signed forms	3	3	
	Proposal valid >= 60 days	5	5	
	Required NSF-61 certification for reactivation facility	12	12	
	Subtotal	20	20	
Virgin GAC Product Quality & Performance	Virgin GAC meets Schedule 1 specifications	10	7	
	Product data completeness (RFP-2, 3.01.C.)	5	5	
	Subtotal	15	12	
Technical Approach & Methodology (GAC Reactivation, page 43 32 54.2-2,	Removal, transport, reactivation, reinstallation process	10	5	
	Segregation & chain of custody	5	3.5	
	Startup, backwash, downtime control	5	1	
	Subtotal	20	9.5	
Experience & Qualifications	Years of municipal GAC experience	5	5	
	PFAS segregated reactivation experience	5	5	
	Reference quality (RFP-2, 3.01.D)	5	5	
	Subtotal	15	15	
Schedule & Delivery (GAC Reactivation page 43 32 54.2-3, 1.07)	Lead time from award to first delivery of GAC	5	3	
	Vessel changeout & downtime compliance	5	2.5	
	Delivery & sanitation procedures	5	1	
	Subtotal	15	6.5	
Cost & Value	Total price competitiveness	15	4	
	Subtotal	15	4	
Total		100	67	

REQUEST FOR PROPOSALS (RFP)

FOR

GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION

OWNER:

City of Wausau
Wausau Water Works
1801 Burek Ave
Wausau, WI 54401

ENGINEER:

Donohue & Associates, Inc.
3311 Weeden Creek Rd
Sheboygan, WI 53081

ISSUED:

April 14, 2026

REQUEST FOR PROPOSALS

PART 1 – GENERAL

1.01 SUMMARY

- A. The City of Wausau is seeking proposals for segregated reactivation of granular activated carbon (GAC) in pressure vessels at the City of Wausau Drinking Water Treatment Facility (DWTF) that are used to remove per- and polyfluoroalkyl substances (PFAS). The DWTF is located at 1801 Burek Avenue, Wausau, Wisconsin, 54401. Existing GAC shall be removed from vessels, reactivated in a segregated manner and reinstalled in vessels.
- B. The GAC Supplier (Proposer) shall provide a signed proposal meeting the requirements herein.
- C. Proposals will be reviewed by the City and Donohue & Associates (Engineer). The City will issue a Purchase Order to the selected Proposer.
- D. This RFP includes the following items:
 - 1. Request for Proposals (3 pages)
 - 2. Proposer Information and Cost Form (2 pages)
 - 3. Specifications:
 - a. Section RFP1 – 43 32 54.2 Granular Activated Reactivation (8 pages)
 - 4. Reference Documents (provided for reference only)
 - a. Attachment A: Conformed to Contract Drawings of PFAS Treatment Building (9 pages)
 - 1) 002-C-001: Site Development Project Overview
 - 2) 120-M-101: PFAS Treatment Building Plan
 - 3) 120-M-102: PFAS Treatment Building Plan
 - 4) 120-M-301: PFAS Treatment Building Sections
 - 5) 120-M-302: PFAS Treatment Building Section
 - 6) 120-M-303: PFAS Treatment Building Section
 - 7) 120-M-401: PFAS Treatment Building Isometrics
 - 8) 120-M-402: PFAS Treatment Building Isometric
 - 9) 120-M-403: PFAS Treatment Building Isometric
 - b. Attachment B: Aqueous Vets Operation & Maintenance Manual (76 pages)
 - c. Attachment C: GAC Product Data (12 pages)
 - d. Send email to swojtkiewicz@donohue-associates.com and a link to view Reference Documents will be provided.

1.02 PROPOSAL SUBMISSION

- A. All proposals must be submitted to City of Wausau on or before 4:00 p.m., CST, Monday May 4th 2026.
- B. Direct questions to

Scott Boers, Water Operations Superintendent
Wausau Water Works
Scott.Boers@wausauwi.gov
- C. Written questions will be accepted until 4:00 p.m., CST, April 24, 2026, at which time no more questions will be answered. Replies will be made by Addenda. Verbal answers are not binding on any party.

PART 2 – PRODUCTS

- A. Products shall be provided as specified in Section 43 32 54.2 in this RFP.

PART 3 – EXECUTION

3.01 PROPOSAL REQUIREMENTS

- A. All proposals shall be valid for no less than 60 calendar days. Once a purchase order is issued, price shall remain valid through delivery.
- B. All Proposers must submit their sealed proposal to the City of Wausau Engineering Department, located at Wausau City Hall, 407 Grant St. Wausau WI, 54403.
- C. Information to be included in the proposal includes:
 - 1. Proposer Information and Cost Form
 - 2. Proposed virgin GAC
 - a. Specifications and product technical information for the proposed virgin GAC. Technical information shall include, at minimum:
 - b. Standard product datasheets, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;
 - 5) Backwashed and drained density;
 - 6) Iodine number;
 - 7) Abrasion number;
 - 8) Moisture as packed (percent);
 - 9) Water soluble ash (percent);
 - 10) Total ash.
 - c. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
 - d. Soaking, backwashing and startup instructions. Start-up instructions shall specify downflow rinse volume and flow rate requirements after initial backwash for the proposed media product(s) or indicate that no such requirements are applicable to the proposed product(s).
 - e. Manufacturing location(s) and ship from location.
 - 3. Carbon Exchange Process
 - b. NSF-61 certification.
 - c. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
 - d. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
 - e. List of site features and Owner activities required to support carbon delivery.
 - f. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.

- g. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.

D. Reference list:

- a. Proposer must provide five (5) references for which the proposer has provided segregated GAC reactivation for PFAS treatment that included supply of virgin GAC. Required information is as follows:

- 1) Account Name
- 2) City/State
- 3) Contact Name
- 4) Email
- 5) Phone Number
- 6) Type and Quantity of virgin GAC Supplied

- D. While not required, Proposers are encouraged to include additional information in their proposals that illustrates benefits of the proposed products and the proposers service capabilities and technical capabilities.

- E. If portions of Proposal are considered confidential by Proposer, these items shall be clearly identified in Proposal and submittal information.

3.02 WITHDRAWAL OF PROPOSALS

- A. Proposals may be withdrawn up to the time of the proposal opening by written request to the City of Wausau. See 1.02.B. for contact information.

3.03 RIGHT TO ACCEPT OR REJECT

- A. The City reserves the right to select one, more than one, or none of the proposals submitted.
- B. If the required forms are not fully completed this can be used as a basis for rejection of the proposal.
- C. The City and/or Donohue reserves the right to contact any Proposer for clarification of information submitted, to contact current and past customers of the Proposer and to use other sources of obtaining information regarding the Proposer. In addition, the City reserves the right to negotiate any point in the proposal with the Proposer.
- D. The City reserves the right to determine the selection process. Price alone will not be the sole determining factor in the selection process.

3.04 PAYMENT TERMS

- A. Payment shall be net 30 days from return of treatment vessel to service.

3.05 TAXES

- A. Proposal shall include no costs for sales tax.

END OF SECTION

**REQUEST FOR PROPOSAL
CITY OF WAUSAU
DRINKING WATER TREATMENT FACILITY PFAS TREATMENT
GRANULAR ACTIVATED CARBON REACTIVATION**

PROPOSER INFORMATION AND COST FORM

Company Name _____

Address _____

The following is the proposed price the above-named company will agree to as the cost to furnish and install initial fill of granular activated carbon as specified in Section 43 32 54.2 of this RFP. Proposed pricing is based on the backwashed and drained density.

Alternate1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 1,400 cf, 1 vessel)		X 1,400 cf =	
Reactivated Carbon (based on 7,000 cf, 5 vessels)		X 7,000 cf =	
		Total Price	
Lead Time (days) from Receipt of Purchase Order to Delivery			

Alternate 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 2,800 cf, 2 vessels)		X 2,800 cf =	
Reactivated Carbon (based on 5,600 cf, 4 vessels)		X 5,600 cf =	
		Total Price	
Lead Time (days) from Receipt of Purchase Order to Delivery			

Authorized Signature: _____

Printed Name: _____

Date: _____

Proposal Contact Name: _____

Address: _____

Telephone Number: _____

Email: _____

SECTION 43 32 54.2
GRANULAR ACTIVATED CARBON (GAC) REACTIVATION

PART 1 – GENERAL

1.01 SUMMARY

- A. Furnish all materials, equipment, labor and supervision for the custom segregated reactivation including removal, transport, reactivation, supply of makeup granular activated carbon (GAC), and reinstallation into the PFAS Treatment System vessels.

1.02 DEFINITIONS

- A. GAC: Granular Activated Carbon
- B. PFAS: Per- and Polyfluoroalkyl Substances

1.03 REFERENCES

- A. ANSI: American National Standards Institute
- B. ASTM: American Society of Testing Materials
- C. AWWA: American Water Works Association
- D. FCC: Food Chemical Codex
- E. NSF: National Sanitation Foundation / NSF International

1.04 SYSTEM DESCRIPTION

- A. Existing system consists of six pairs of vessels operated in lead-lag configuration.
- B. Drawing 120-M-102 in Attachment A shows general vessel layout.
- C. Treatment system information, including manufacturer operation and maintenance instructions, is provided in Attachment B.
- D. Each Vessel:
 - 1. Diameter: 144 inches
 - 2. Side shell height: 168 inches
 - 3. Overall height (approximate): 24 feet 5 inches
 - 4. Working pressure: 125 psi @ 150° F
 - 5. Manway:
 - a. Flanged at side shell: 24 inches
 - b. Elliptical type at head: 14 by 18 inches
 - 6. Vessel Volume:
 - a. 2,000 ft³
 - b. 15,000 gallons
 - 7. Maximum Flow Rate (GAC): 1,100 gpm
 - 8. Design Criteria: ASME
 - 9. Underdrains:
 - a. External ring header: 8-inch Sch. 40 Carbon Steel
 - b. Septa Screens:

- 1) 8 per vessel
- 2) 316L Stainless Steel V-Wire Screens 4 ½ inch diameter by 12" effluent

E. Piping:

1. Process Piping: 10" Sch 40 Carbon Steel
2. Media Transfer Piping: 4" Sch 40 Lined Carbon Steel

F. Valves:

1. Process: 10" Butterfly, DI Body, CI Disc w/ 316SS trim, Kinetrol Pneumatic Actuator
2. Media Transfer: 4" Flanged 316 Stainless Steel Full Port Ball Valve

G. Media:

1. Filtrasorb 400-01 supplied by Calgon Carbon Corporation.
2. 1,400 cubic feet per vessel currently installed.
3. Media has not been reactivated.
4. See Attachment C for product data.

1.05 SUBMITTALS

A. General:

1. Submit Product Data in sufficient detail to confirm compliance with the requirements of this Section. Submit Product Data and Shop Drawings in one complete submittal package. Partial submittals are unacceptable.

B. Shop Drawings and Product Data:

1. Carbon Exchange Process
 - a. NSF-61 certification.
 - b. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
 - c. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
 - d. List of site features and Owner activities required to support carbon delivery.
 - e. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.
 - f. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.
2. Make-up GAC
 - a. Standard product datasheets showing specifications and typical properties, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;

- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
 - c. NSF-61 certification.
 - d. GAC shall be produced in the U.S.A.
 - e. Description of the GAC supply chain, including the source of coal, carbon manufacturing location, a description of the activation process, where the carbon will be shipped from, how much of the applicable carbon type is typically stockpiled and at what location, and a description of the Supplier's delivery truck fleet.
2. Upon delivery, submit weight tickets, delivery truck wash-out certificates, and approximately a one (1) pound sample of the lot of GAC.

B. Test Results:

1. Virgin GAC

- a. Supplier's Certificate of Analysis for virgin GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the Manufacturer's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Do not ship virgin GAC to site until test results are approved.

2. Reactivated GAC

- a. Supplier's Certificate of Analysis for reactivated GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the

Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the GAC Supplier's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Total ash.

b. Do not ship reactivated GAC to site until test results are approved.

3. Coliform Test (Safe Water Test)

a. Provide testing by WDNR certified laboratory.

C. Operation and Maintenance (O&M) Data:

1. Operating instructions and maintenance data for materials and products for inclusion in O&M Manual.

1.06 QUALITY ASSURANCE

- A. Comply with AWWA Standard B605-18 – Reactivation of Granular Activated Carbon and NSF/ANSI 61, Drinking Water System Components—Health Effects.
- B. GAC Supplier's reactivation facility shall be NSF/ANSI 61 certified.
- C. The GAC Supplier shall furnish product(s) with a minimum of five (5) years of history of use in municipal drinking water facilities in North America with at least five (5) installations, and supplier shall have a minimum of five (5) years of experience performing carbon exchanges.
- D. GAC loading operations shall be under the direct supervision of the GAC Supplier having a minimum of 5 years of experience in performing carbon exchanges.

1.07 DELIVERY AND SCHEDULING

- A. Delivery shall be during normal facility operating hours, 7 am to 3 pm, Monday through Friday.
- B. Carbon shall be delivered in quantities sufficient to fill an entire vessel within one day. Splitting the fill of an individual vessel over more than one day shall not be acceptable.
- C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period.
- D. No vessel shall be out of service for more than 4 calendar days.
- E. The Carbon Supplier shall deliver the GAC in trailers used solely for the transport of GAC used in potable water facilities. Trailers shall be thoroughly cleaned and dried prior to filling with Owner's GAC and shall be lined or constructed with materials suitable for transporting GAC that

will be in contact with potable water. If requested by Owner or Engineer, supplier shall submit an affidavit stating that only Owner's GAC was loaded into the trailers after initial food grade washout.

- F. A trailer washout validation certificate shall be provided at carbon delivery.
- G. All trailer openings, hoses, and fittings shall be disinfected and sealed by numbered security seals upon arrival to the job site. Hoses and fittings shall be dedicated to potable water projects.

PART 2 – PRODUCTS

2.02 GENERAL

A. The GAC Supplier shall provide custom segregated reactivation of GAC whereby Owner's spent GAC is reactivated with no intermingling with spent GAC from another source. Owner shall receive back the original GAC in a reactivated condition. GAC Supplier may propose reactivation by supplying one or two vessels of virgin carbon based on the two alternates listed below. **In no case shall more than one vessel be out of service at any time.**

1. Alternate 1

- a. Spent GAC shall be removed from the first vessel and virgin GAC installed in the vessel.
- b. Spent GAC shall be removed from the second through sixth vessels and reactivated GAC installed in the vessels.
- c. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

2. Alternate 2

- a. Spent GAC shall be removed from the first two vessel and virgin GAC installed in the two vessels.
- b. Spent GAC shall be removed from the third and fourth vessels and reactivated GAC installed in the vessels.
- c. Spent GAC shall be removed from the fifth and sixth vessels and reactivated GAC installed in the vessels.
- d. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

B. The GAC Supplier shall provide pricing based on following volume that remains following in-place backwashing and draining, per AWWA B604:

- a. 1,400 cubic feet per vessel, 6 vessels
- b. The number of vessels filled and total quantity of GAC supplied shall be in accordance with the purchase order issued by the City.

2.03 REACTIVATION FACILITY

- A. Meet requirements of AWWA B605 including having NSF 61 certification
- B. Provide to Owner certification of custom segregated reactivation.
- C. Provide to Owner chain of custody for each lot of GAC reactivated.

2.04 MAKEUP GAC

A. General

1. The GAC used to makeup required volume shall be virgin material manufactured from an approved coal base.
2. Broken pellets, lignite-, peat-, wood-, coconut-, and anthracite-based GAC shall not be accepted.
3. The base bid GAC shall be acid washed or otherwise pretreated by the manufacturer to reduce potential leaching of inorganic contaminants, including arsenic, during start-up.

B. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 1 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 1 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number	mg/g	950
Maximum Moisture by Weight	%	3
Effective Size	mm	0.55-0.75
Maximum Uniformity Coefficient	-	1.9
Minimum Abrasion Number (AWWA)	-	75
Apparent Density	g/cc	0.49-0.57
Backwashed and Drained Density	g/cc	0.42-0.48
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5
Maximum Clean Bed Headloss at 55 deg F and Superficial Velocity of 9 gpm/ft ²	in H ₂ O / ft of bed	10
Maximum Superficial Velocity Required for 30% Bed Expansion During Backwash at 55 deg F	gpm/ft ²	10

C. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

2.05 REACTIVATED GAC

A. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 2 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 2 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number		
Spent Activated Carbon (SAC) > 500 mg/g	mg/g	850
Spent Activated Carbon (SAC) < 500 mg/g	mg/g	+250 mg/g from SAC
Maximum Moisture by Weight	%	3
Apparent Density	g/cc	0.44-0.57
Backwashed and Drained Density	g/cc	0.38-0.49
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5

B. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

PART 3 – EXECUTION

3.01 COORDINATION

A. Prior to scheduling Work on site:

1. Provide Shop Drawings and Product Data for Owner and Engineer review and approval.
2. Schedule virtual coordination meeting with Owner and Engineer to review exchange process and site requirements.

3.02 GAC REMOVAL

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. Prior to removal, isolate vessel from treatment mode, complete a backwash and lower the water level just below the top of the carbon bed and take freeboard measurements.
- D. Transfer media using vessel pressurization method of AWWA B605.

- E. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.

3.03 GAC REACTIVATION

- A. Transport GAC to reactivation facility.
- B. Segregate Owner's GAC from any other materials and maintain chain of custody of GAC.
- C. Reactivate GAC.
- D. Transport back to Owner's facility.

3.04 INSTALLATION

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.
- D. GAC shall be transferred as a water slurry only with carbon pre-wet in the trailer, using air pressure on the trailer as the motive force. Use of a pump or eductor to transfer the carbon from the trailer into the adsorber vessels is prohibited. Bag loading or dry loading of the GAC into the adsorber vessels is prohibited. The GAC shall be loaded into the trailers before the trailers are driven to the site.
- E. The GAC Supplier shall be responsible for cleanup of all GAC and slurry spills that may occur during the GAC transfer operation.
- F. Following reinstallation of GAC, obtain safe water samples. Two negative coliform samples, a minimum of 24 hours apart are required.
- G. If safe water samples cannot be obtained, GAC Supplier shall disinfect vessel and resample. Disinfection shall be commenced within 2 days of receipt of unsafe water sample and completed within 5 days of receipt of unsafe water sample. Vessel shall be resampled and returned to service within 7 days of receipt of unsafe water sample.

END OF SECTION

**ADDENDUM NO. 1
TO THE
REQUEST FOR PROPOSALS
FOR
GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION
CITY OF WAUSAU, WISCONSIN**

DATE: April 27, 2026

TO ALL PROPOSERS ON THE ABOVE PROJECT:

All Proposers shall carefully read this Addendum and give it consideration in the preparation of their Proposal.

The following are revisions to the Request for Proposals:

1. Page RFP1-43 32 54.2-4, delete subparagraph 1.07.C. and replace with the following:

“C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period for Alternate 1 and no more than two vessel changeouts shall occur per two weeks period for Alternate 2. No more than one vessel may be out of service at a time.”

2. Page RFP1-43 32 54.2-6, modify values for Apparent Density as follows:

Parameter	Units	Media Design Value
Apparent Density	g/cc	0.49 – 0.70

3. Page RFP1-43 32 54.2-8, delete subparagraph 3.04.F. and replace with the following:

“F. Procedure for disinfection of vessels and safe water testing shall be:

1. After removal of existing GAC from vessel, disinfect vessel per AWWA 653.
2. Collect sample for coliform testing by a WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.
3. Install virgin or reactivated GAC and fill vessel with water.
4. Collect a second sample for coliform testing by WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.

Any revisions to Request for Proposal made by this Addendum shall be considered as the same revision to any and all related areas of the Request for Proposal not specifically called out in this Addendum.

The Proposer shall acknowledge receipt of this Addendum via email to Scott.Boers@wausauwi.gov.

ISSUED BY:

CITY OF WAUSAU
WAUSAU WATER WORKS

1801 BUREK AVE.
WAUSAU, WI 54401

**ADDENDUM NO. 2
TO THE
REQUEST FOR PROPOSALS
FOR
GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION
CITY OF WAUSAU, WISCONSIN**

DATE: May 1, 2026

TO ALL PROPOSERS ON THE ABOVE PROJECT:

All Proposers shall carefully read this Addendum and give it consideration in the preparation of their Proposal.

The following are revisions to the Request for Proposals:

1. Page RFP3, add the following:

3.06 WAGE RATES

- A. The Contractor and Subcontractors shall pay wages not less than the prevailing hourly wage rate for each classification of employee engaged on the Work as determined by the United States Department of Labor.
- B. The Contract shall be subject to Section 66.0903 of the Wisconsin Statutes pertaining to municipal wage scales and Federal Davis-Bacon wage rates.
- C. The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of Work that may be performed by any employee in any particular period of time.
- D. The Contractor shall post a copy of the wage determination in a prominent place at the site of the Work where the employees can easily see it.
- E. Contractor shall use the latest Davis Bacon Wage Determination that is effective on the bid date for determining the prevailing rate(s) of hourly wage applicable to this Contract. The wage rate schedule(s) cannot be altered during the time the Contract is in force. The wage schedule attached is the one effective on the date of advertisement and may be updated prior to the bid date. The wage rate schedule can be found online at <https://www.sam.gov>. The wage rate schedule effective on the date of bid opening shall become part of the Contract Documents

2. See attached Wage Determination.

Any revisions to Request for Proposal made by this Addendum shall be considered as the same revision to any and all related areas of the Request for Proposal not specifically called out in this Addendum.

The Proposer shall acknowledge receipt of this Addendum via email to Scott.Boers@wausauwi.gov.

ISSUED BY:

CITY OF WAUSAU
WAUSAU WATER WORKS
1801 BUREK AVE.
WAUSAU, WI 54401

**REQUEST FOR PROPOSAL
CITY OF WAUSAU
DRINKING WATER TREATMENT FACILITY PFAS TREATMENT
GRANULAR ACTIVATED CARBON REACTIVATION**

PROPOSER INFORMATION AND COST FORM

Company Name Carbon Activated Corporation
 Address 2250 S. Central Avenue
Compton, CA 90220

The following is the proposed price the above-named company will agree to as the cost to furnish and install initial fill of granular activated carbon as specified in Section 43 32 54.2 of this RFP. Proposed pricing is based on the backwashed and drained density.

Alternate1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 1,400 cf, 1 vessel)	\$88.95	X 1,400 cf =	\$124,530
Reactivated Carbon (based on 7,000 cf, 5 vessels)	\$51	X 7,000 cf =	\$357,000
		Total Price	\$481,530
Lead Time (days) from Receipt of Purchase Order to Delivery	18 Days		

Alternate 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 2,800 cf, 2 vessels)	\$88.95	X 2,800 cf =	\$249,060
Reactivated Carbon (based on 5,600 cf, 4 vessels)	\$51	X 5,600 cf =	\$285,600
		Total Price	\$534,660
Lead Time (days) from Receipt of Purchase Order to Delivery	18 Days		

Authorized Signature:  _____

Printed Name: Anne Nash _____

Date: 5/1/2026 _____

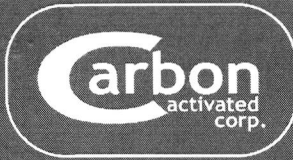
Proposal Contact Name: Shami Fernando _____

Address: 1525 75th Street _____

Houston, TX 77011 _____

Telephone Number: 281-846-6702 _____

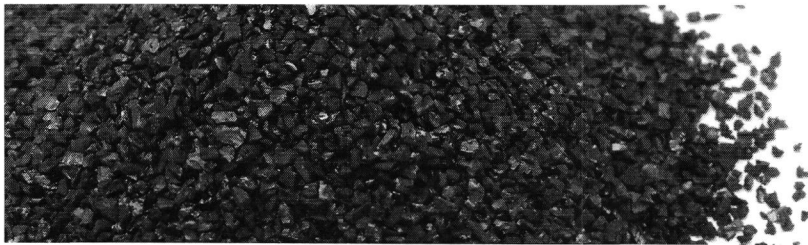
Email: shamindrie@activatedcarbon.com _____



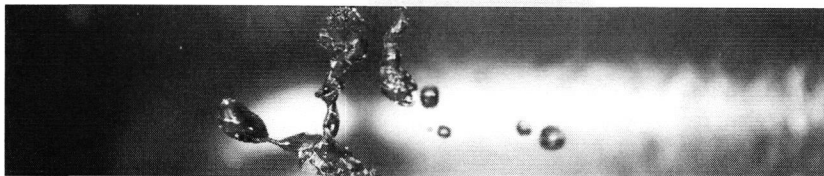
ACOL-L 60 (12x40)

LIQUID PHASE ACID WASHED BITUMINOUS COAL BASE ACTIVATED CARBON

ACOL-L60 activated carbon is made from a selected grade of bituminous coal that has been acid washed in order to create a low ash content and to provide a dust-free material. This granular activated carbon is mainly used for the purification of potable water, beverage manufacturing, treating water for kidney dialysis and hemo-dialysis, industrial waste water treatment, ground water treatment, decolorizing, deodorizing and de-oiling for the food industry. ACOL-L60 carbon meets AWWA Standards for treatment of potable drinking water and is compatible with all municipal water treatment use.

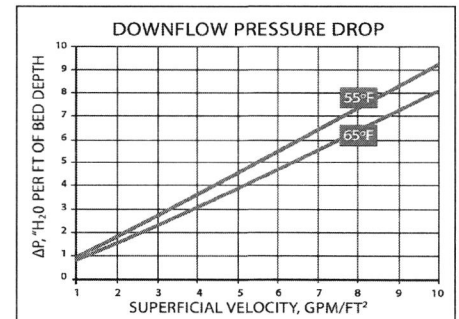
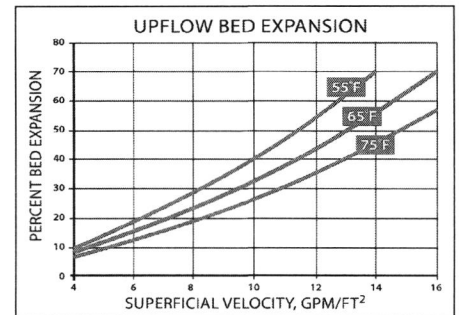


SPECIFICATIONS	ACOL-L60	ASTM METHOD
CTC No. min.	60	ASTM D3467
Total Surface Area	1000 – 1100 m ² /g	BET Method
Iodine Number, min.	1000 – 1050 mg/g	ASTM D4607
Apparent Density	0.55 – 0.58 g/cc	ASTM D2854
Bulk Density,	34 – 36lb/ft ³	
Abrasion No., min.	80	AWWA B 604
Hardness, min.	90	ASTM D3802
Ash, max.	8 %	ASTM D2866
Water Soluble Ash, max.	0.5 %	
Moisture as packed, max.	2 %	ASTM D2867
Water Extractable Phosphate, max.	1 %	
U.S. Standard Sieve Size	12x40	ASTM D2862
Retained on No. 12, max.	5 %	
Passing through No. 40, max.	4 %	
Effective Size	0.55 – 0.75	ASTM D2862
Uniformity Co-Efficient, max.	< 1.9	ASTM D2862



APPLICATIONS

Used for beverage manufacture, dialysis, potable water, and a broad variety of food grade applications



STANDARD PACKAGING

- 55 lb or 27.5 lb polylined polypropylene bags
- 200 lb fiber drums
- 1100 lb supersacks

This information is offered solely for your consideration and verification. It has been gathered from reference materials and/or test procedures and is believed to be true and accurate. None of this information shall be constituting a warranty or representation, expressed or implied, for which we assume legal responsibility or that the information or goods described is fit for any particular use either alone or in combination with other goods or processes.





Carbon Activated Corporation
2250 S. Central Avenue, Compton, CA 90220 | T 310.885.4555 | F 310.763.5126
info@activatedcarbon.com | www.activatedcarbon.com

May 1, 2026

City of Wausau
Wausau Water Works
1801 Burek Ave
Wausau, WI 54401

**REQUEST FOR PROPOSALS (RFP) FOR GRANULAR ACTIVATED CARBON SEGREGATED
REACTIVATION**



Firm Introduction and Organization

Carbon Activated Corporation is an ISO 9001:2015 certified for Manufacture and Distribution of Activated Carbon, and the Provision of Related Services for Water/Air Purification and Precious Metal Recovery. We are a California Corporation that was founded in 1993, and certified California SBE.

Carbon Activated Corporation has grown to become one of the largest privately-owned activated carbon companies in North America serving customers worldwide. In our 32 years in business providing GAC services, we have been providing GAC installation service for the past 28 years with an exemplary track record providing customers with full changeout services.

We are one of the global forerunners in providing an extensive range of activated carbon which carries NSF-61 certification and manufacturing to AWWA standards. Throughout the years, CAC has shown tremendous growth by specializing in options such as technical design & consultation, rental and sale of adsorption filtration systems and turnkey change out services. CAC has multiple laboratories with advanced research, development and testing capabilities which are staffed by specialists in the field. This gives us a competitive edge and the unique capability to provide professional and exhaustive advice to our clients - wherever they are.

Our corporate headquarters based in Los Angeles holds the largest activated carbon warehouse facility on the West Coast. We supply and service our North and South American clients from our facilities based in Texas, New York, Florida, Arizona and Canada. We have over 15 years of expertise in manufacturing carbon and have manufacturing plants based in Sri Lanka, China and West Virginia USA. Carbon Activated Europe, based in the UK, serves European, Middle Eastern and African clients. Carbon Activated Corp Australia, based in Melbourne serves Australia-Pacific region.

We pride ourselves on our high quality and great value products and services. Our large warehouse facilities allow us to keep most grades in stock for immediate shipping. Our extensive network of manufacturing plants and suppliers allows us to get you the desired product in a short time. We are dedicated to finding the most efficient and cost-effective solution for our clients.

At our reactivation facilities, adsorbed organics are destroyed during the thermal process and the activated carbon's adsorptive capacity is restored up to 95% of the original levels. Virgin carbon is added to make up for any minor loss during the process and the rejuvenated carbon is returned to the plant and reinstalled. We have three reactivation plants, in California, New York and West Virginia, that meet stringent environmental standards. All our regeneration facilities are NSF 61 Certified for reactivating carbon for drinking water purposes.



Facility Details:

Head Office: Carbon Activated Corp.

2250 South Central Ave.
Compton, CA 90220

Re-Activation and Manufacturing Plant

Carbon Activated Corp.
319 Activated Carbon Dr,
Mount Hope, WV 25880

Service Center and Warehouse:

Carbon Activated Corp.
1525 75th Street,
Houston, TX 77011

Contacts for project:

- Project/Sales Manager: Shami Fernando
Office- 281-846-6702, Cell - 716-348-4306, E-mail shamindrie@activatedcarbon.com
- Service Manager: Febryan Aldi
Cell (626) 410-3595 email: febryan@activatedcarbon.com
- Administrative Assistant: Isabella Stack
Office- 281-846-6702, E-mail isabelle@activatedcarbon.com



Experience and Qualifications and References

Febryan Aldi Service Manager has over 13 years of experience in Activated Carbon, Filter media replacement, and reactivation. His experience is in Industrial/Municipal applications, Reactivation/Disposal, Removal/Installation methods, AWWA requirements, and has made contributions for improvement of the Service Department. Febryan Aldi Cell (626) 410-3595 email: febryan@activatedcarbon.com

All the Technicians that will be used for Media Replacement carry 40-hour HAZ WOPER/Confine Space, Certification, and has extensive knowledge in AWWA C653 Disinfection procedures, and Replacement. Most of our technicians have over 10 years of experience in performing all the tasks needed for the project.

Nilu Perera Reactivation Plant Manager has over 10 years of experience in running the 3 A.Q.M.D. Permitted and NSF 61 Certified Reactivation Plants used for custom reactivation and return projects. He also is responsible for tracking spent media water treatment wells and issuing Reactivation certificates after the media has been reactivated.

All the personnel for the project will be from our Houston, TX Branch.



References

1. Account Name: City of Martinsburg, WV
City/State: Martinsburg, WV
Contact Name: Frank Russell/Jay Mckinley
Email: Jmckinley@cityofmartinsburg.org
Phone Number: 443-541-1316
Type and Quantity of virgin GAC Supplied: Remove, Replace, and Dispose of 12x40 Coal Based Acid Washed Activated Carbon. Total 3080 cuft of media for 3 years
2. Account Name: San Jacinto River Authority
City/State: Conroe, TX
Contact Name: Ron McCullough
Email: rmccullough@sjra.net
Phone Number: (936) 828-3856,
Type and Quantity of virgin GAC Supplied: Activated Carbon Replacement and Regeneration of 422,000lbs of 8x20 Coal Base GAC (8 Contactors)
3. Account Name: City of Turlock, CA
City/State: Turlock, CA
Contact Name: Juan Tejada
Email: tejada@turlock.ca.us
Phone Number: 209-668-5590 ext. 4457
Type and Quantity of virgin GAC Supplied: Slurry tanker changeout of (2) 20,000 lb. 12x40 coco GAC contactors including spent GAC reactivation and disinfection of the vessels
4. Account Name: Cape Fear Public Utility Authority
City/State: Wilmington, NC
Contact Name: Kevin Denson
Email:
Phone Number: 910-332-6590
Type and Quantity of virgin GAC Supplied: Replacement and Regeneration of 345,000lbs of 12x40 coal
5. Account Name: Primo Brands
City/State: Multiple Locations
Contact Name: Hal Weaver
Email: Hal.weaver@primobrands.com
Phone Number: 386-688-0323
Type and Quantity of virgin GAC Supplied: Removal and disposal of spent media, vessel inspection, and installation of new 12x40 GAC media, over 55,000lbs across different facilities



METHODOLOGY AND TECHNICAL APPROACH

Filter Media Replacement Procedure

Prior to servicing, the filter should be isolated from influent and effluent lines and any electrical connections should be locked and tagged off. It is recommended that the filter is backwashed once.

Media Removal – Slurry Method

Before the removal process takes place, a meeting will occur between our lead technician and your construction manager or operator to discuss removal process, lockout/tag-out, loading procedures, confined space, and any other issues either party may have concerning the site or procedures. During all process of removal or loading only **Carbon Activated Corp.** employees will be used. The below procedures will be done while on site:

1. In this method spent activated carbon will be removed from the spent into CAC slurry tanker.
2. CAC personnel will connect the adsorber discharge line to the tanker's loading line.
3. The adsorber will then be pressurized by connecting the air source to the carbon fill line.
4. Extra cautious is necessary while pressurizing the adsorber, the initial pressure required for slurry transfer is between 15-20 PSIG.
5. Once it is pressurized to 15 PSIG, we will open the slurry out valve, and spent carbon should begin flowing quickly out of the carbon vessel.
6. When the transfer is complete, the hose will begin blowing air only. We will then rinse the vessel a few times by using either influent line, fire hydrant, or any other high pressured water source available.
7. Once most of the spent media is transferred, CAC will release the pressure and open the manway to inspect the vessel.
8. If entry is needed, a trained confined space attendee using our 4-gas detector will first take a reading of the air inside of the filter system then if the air quality is safe for entry a trained confined space entrant will then ascend to either finish the removal procedures or repair the underdrain.



9. The lead technician will keep in close contact with both the confined space entrant and attendee along with other personnel in the area.

Media Loading – Slurry method

Before the installation of the new media process takes place, if any problems with either the underdrain, test ports, or anything else that was noted during the removal process exist, CAC lead technician will discuss it with the operator on site before continuing with the loading process.

In this method, dry activated carbon will be delivered to the site in a slurry truck.

- Using appropriately sized hose, CAC will connect all hoses needed to the carbon loading line on the adsorber to the discharge line on the tanker. Be sure all the lines are secured, and cam-locks are engaged.
- Fill adsorber with about 1-2 feet of water cushion for the underdrains.
- Completely wetted the virgin carbon with potable water and connect high pressured water source to the slurry truck.
- Connect air source to the slurry tanker and pressurized to 10-15 PSIG.
- Once tanker is pressurized, double check all connection and make sure the adsorber's vent is opened to avoid pressure build up while loading the media.
- Open the slurry out valve from the slurry tank. Due to high pressured slurry, it is necessary to secure the end of the carbon delivery hose. Fresh carbon should begin flowing quickly into the filter.
- While filling, it might be necessary to open the adsorber's drain valve to allow excess water to escape the system to avoid over filling.
- When the transfer is complete, the hose will begin blowing air only. We will then rinse the tanker a few times to make sure tanker is all emptied out.
- Disconnect all the hoses, and media loading is complete.



Backwash

It is recommended to soak the carbon for up to 24 hours. Backwash should be performed at a reduced rate of (<5 gmp/sq ft) to remove the carbon fines. It is necessary to check periodically to make sure no granular medium is present in the wash troughs while performing the backwash. If granular medium is present, reduce the rate of the backwash. Once the fines are removed and granular medium is visible, backwash then should be increased to provide 30 percent expansion for approximately 15 minutes. A minimum of 2 backwashes are needed to ensure that the particles are completely stratified.

Best Regards,

*Febryan Aldi
Service Manager*



REACTIVATION AND QC PROCEDURE

Introduction:

This operating procedure specifies the safe and effective thermal reactivation of non-hazardous spent granular activated carbon using the facility's high-temperature reactivation furnace, while minimizing environmental impact and maintaining product quality.

Carbon Activated Corporation holds the AQMD (South Coast Air Quality Management Department) permit to operate the regeneration furnace and is NSF certified.

Key terms:

Spent Carbon: Activated carbon that has reached its adsorption capacity.

Reactivation: Thermal process that removes adsorbed contaminants and restores adsorption capacity.

Procedure:

Receipt and Pre-Processing

- Confirm non-hazardous status via manifest and supporting documentation.
- Check labeling and packaging against facility acceptance criteria.
- Weigh and log the incoming shipment, assigning a unique batch ID for traceability.
- Store the received material in the designated containment area until further processing.
- Assign and log batch ID, origin, and weight.
- If carbon is wet, dewater to reduce the water content.

Reactivation Process

- Load carbon into rotary kiln/ multiple hearth furnace.



- Maintain furnace at 800–900 °C under controlled oxygen environment.
- Monitor:
 - Temperature and residence time
 - Stack emissions (SO₂, CO, NO_x, VOCs, particulates)
 - Furnace pressure and feeding rate
- Off-gas must be routed through thermal oxidizer and scrubber.

Cooling and Handling

- Cool reactivated carbon and load the product in to the super sacks.
- Screen product to remove fines. Collect usable fractions.

Quality Procedure:

We have the original user and his test reports/analysis of the spent carbon prior to regeneration process. Once the regeneration has been carried out, we test the following parameters:

D2854-09	Standard Test Method for Density of Activated Carbon
D2862-10	Standard Test Method for Particle Size Distribution of Activated Carbon
D2866-11	Standard Test Method for Total Ash Content of Activated Carbon
D2867-09	Standard Test Method for Moisture in Activated Carbon
D3802-10	Standard Test Method for Ball-Pan Hardness of Activated Carbon
D5742-95 (2010)	Standard Test Method for Determination of Butane Activity of Activated Carbon
D4607-94 (2011)	Standard Test Method for Determination of Iodine Number of Activated Carbon
ICP-MS	Heavy metals

While we’re performing the change out, we take samples for analysis if we don’t possess previous analysis or carbon profiles from the customer (or site). As a



result, we test the above-mentioned samples for heavy metals and all other required test standards.

As a practice, we send spent carbon for our own laboratory for testing; also, if it's the first time that we perform the change out, we send a spent sample to an independent laboratory for testing as required by the California law. Once we've received the analysis, we examine and confirm if the carbon is hazardous or non-hazardous using EPA parameters. In addition, the customer has to sign and provide us the paper work confirming the nature of the carbon (hazardous or non-hazardous).

Hazardous Carbon Disposal Process:

When the spent carbon lot has been confirmed as hazardous, we take following steps towards disposing it:

1. Assign a hazardous carbon disposal company.
2. Carbon Activated Corp. provides analysis, carbon profile, and required paper work that includes customer's signature to the disposal company.
3. If the disposal company agreed to accept the spent carbon lot, then they pick-up from the assigned location.
4. Disposal of the batch by the disposal company.



City of Wausau, WI
Wausau Water Works
1801 Burek Ave
Wausau, WI 54401

May 4, 2026

Re: RFP-Granular Activated Carbon Segregated Reactivation

Dear Proposal Evaluation Team:

Thank you for allowing Calgon Carbon Corporation (CCC) to participate in your distributed RFP in respect to Granular Activated Carbon and Reactivated GAC Supply for the City of Wausau, WI. Calgon Carbon's experience in PFAS treatment spans over 20 years, leading credence to CCC being considered the most capable manufacturer and service provider in the industry.

As the leader in experience specific to PFAS treatment, we are looking forward to the opportunity of our re-agglomerated bituminous coal based Filtrasorb® 400 01 to be once again utilized in the treatment process. As your experience has demonstrated, the Filtrasorb 400 01 GAC is very effective as a preventative in respect to potential leachable inorganics. The bed volume reductions upon initial fill/backwash sequence witnessed drastically lowered the projected ~35 bed volumes to single digits. We do have in our portfolio acid rinsed products that are admittedly not as effective. Our preference is to quote Filtrasorb 400 0, as it best aligns with your treatment performance and startup objectives.

Calgon Carbon Corporation would like to take the following exceptions per the specification language:

- Per Addendum 1-3F-#2&4 (replacing subparagraph 3.04F): CCC takes exception to collection and testing of the coliform samples. CCC has included the testing costs (2 sample tests per vessel), but samples will need to be taken by the appropriate plant personal. The testing should be conducted for the best interest of the plant by impartial data collectors. This removes the cloud of doubt as to who is collecting the samples and to avoid any potential for mishandling or misreporting since ultimately collecting and submitting for the City of Wausau.



- Addendum 1-3F-#1.: Disinfection of the vessel is added into CCC's pricing proposal, with the provision to utilize bleach disinfection material provided by the utility. The pricing for disinfection per vessel is \$4,167 in addition to the attached proposal on a per vessel basis.
- Should Calgon Carbon Corporation be required to provide the disinfection chemicals, an additional \$1,111 will be added to the base cost of \$4,167, for a total of \$5,278 per vessel.

Calgon Carbon Corporation appreciates the opportunity to participate and potentially service your facility with ongoing virgin and custom reactivation services. We applaud your efforts and acknowledgment of not only cost savings measures by utilizing the reactivated material.

Sincerely,

Dan Iorio

Sr. Technical Sales Representative-Midwest US

Calgon Carbon Corporation-Drinking Water Solutions

(618) 612-3112

Dan.iorio@Kuraray.com



REQUEST FOR PROPOSALS (RFP)

FOR

GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION

OWNER:

City of Wausau
Wausau Water Works
1801 Burek Ave
Wausau, WI 54401

ENGINEER:

Donohue & Associates, Inc.
3311 Weeden Creek Rd
Sheboygan, WI 53081

ISSUED:

April 14, 2026

REQUEST FOR PROPOSALS

PART 1 – GENERAL

1.01 SUMMARY

- A. The City of Wausau is seeking proposals for segregated reactivation of granular activated carbon (GAC) in pressure vessels at the City of Wausau Drinking Water Treatment Facility (DWTF) that are used to remove per- and polyfluoroalkyl substances (PFAS). The DWTF is located at 1801 Burek Avenue, Wausau, Wisconsin, 54401. Existing GAC shall be removed from vessels, reactivated in a segregated manner and reinstalled in vessels.
- B. The GAC Supplier (Proposer) shall provide a signed proposal meeting the requirements herein.
- C. Proposals will be reviewed by the City and Donohue & Associates (Engineer). The City will issue a Purchase Order to the selected Proposer.
- D. This RFP includes the following items:
 - 1. Request for Proposals (3 pages)
 - 2. Proposer Information and Cost Form (2 pages)
 - 3. Specifications:
 - a. Section RFP1 – 43 32 54.2 Granular Activated Reactivation (8 pages)
 - 4. Reference Documents (provided for reference only)
 - a. Attachment A: Conformed to Contract Drawings of PFAS Treatment Building (9 pages)
 - 1) 002-C-001: Site Development Project Overview
 - 2) 120-M-101: PFAS Treatment Building Plan
 - 3) 120-M-102: PFAS Treatment Building Plan
 - 4) 120-M-301: PFAS Treatment Building Sections
 - 5) 120-M-302: PFAS Treatment Building Section
 - 6) 120-M-303: PFAS Treatment Building Section
 - 7) 120-M-401: PFAS Treatment Building Isometrics
 - 8) 120-M-402: PFAS Treatment Building Isometric
 - 9) 120-M-403: PFAS Treatment Building Isometric
 - b. Attachment B: Aqueous Vets Operation & Maintenance Manual (76 pages)
 - c. Attachment C: GAC Product Data (12 pages)
 - d. Send email to swojtkiewicz@donohue-associates.com and a link to view Reference Documents will be provided.

1.02 PROPOSAL SUBMISSION

- A. All proposals must be submitted to City of Wausau on or before 4:00 p.m., CST, Monday May 4th 2026.
- B. Direct questions to

Scott Boers, Water Operations Superintendent
Wausau Water Works
Scott.Boers@wausauwi.gov
- C. Written questions will be accepted until 4:00 p.m., CST, April 24, 2026, at which time no more questions will be answered. Replies will be made by Addenda. Verbal answers are not binding on any party.

PART 2 – PRODUCTS

- A. Products shall be provided as specified in Section 43 32 54.2 in this RFP.

PART 3 – EXECUTION

3.01 PROPOSAL REQUIREMENTS

- A. All proposals shall be valid for no less than 60 calendar days. Once a purchase order is issued, price shall remain valid through delivery.
- B. All Proposers must submit their sealed proposal to the City of Wausau Engineering Department, located at Wausau City Hall, 407 Grant St. Wausau WI, 54403.
- C. Information to be included in the proposal includes:
 - 1. Proposer Information and Cost Form
 - 2. Proposed virgin GAC
 - a. Specifications and product technical information for the proposed virgin GAC. Technical information shall include, at minimum:
 - b. Standard product datasheets, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;
 - 5) Backwashed and drained density;
 - 6) Iodine number;
 - 7) Abrasion number;
 - 8) Moisture as packed (percent);
 - 9) Water soluble ash (percent);
 - 10) Total ash.
 - c. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
 - d. Soaking, backwashing and startup instructions. Start-up instructions shall specify downflow rinse volume and flow rate requirements after initial backwash for the proposed media product(s) or indicate that no such requirements are applicable to the proposed product(s).
 - e. Manufacturing location(s) and ship from location.
 - 3. Carbon Exchange Process
 - b. NSF-61 certification.
 - c. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
 - d. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
 - e. List of site features and Owner activities required to support carbon delivery.
 - f. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.

- g. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.

D. Reference list:

- a. Proposer must provide five (5) references for which the proposer has provided segregated GAC reactivation for PFAS treatment that included supply of virgin GAC. Required information is as follows:

- 1) Account Name
- 2) City/State
- 3) Contact Name
- 4) Email
- 5) Phone Number
- 6) Type and Quantity of virgin GAC Supplied

- D. While not required, Proposers are encouraged to include additional information in their proposals that illustrates benefits of the proposed products and the proposers service capabilities and technical capabilities.

- E. If portions of Proposal are considered confidential by Proposer, these items shall be clearly identified in Proposal and submittal information.

3.02 WITHDRAWAL OF PROPOSALS

- A. Proposals may be withdrawn up to the time of the proposal opening by written request to the City of Wausau. See 1.02.B. for contact information.

3.03 RIGHT TO ACCEPT OR REJECT

- A. The City reserves the right to select one, more than one, or none of the proposals submitted.
- B. If the required forms are not fully completed this can be used as a basis for rejection of the proposal.
- C. The City and/or Donohue reserves the right to contact any Proposer for clarification of information submitted, to contact current and past customers of the Proposer and to use other sources of obtaining information regarding the Proposer. In addition, the City reserves the right to negotiate any point in the proposal with the Proposer.
- D. The City reserves the right to determine the selection process. Price alone will not be the sole determining factor in the selection process.

3.04 PAYMENT TERMS

- A. Payment shall be net 30 days from return of treatment vessel to service.

3.05 TAXES

- A. Proposal shall include no costs for sales tax.

END OF SECTION

**REQUEST FOR PROPOSAL
CITY OF WAUSAU
DRINKING WATER TREATMENT FACILITY PFAS TREATMENT
GRANULAR ACTIVATED CARBON REACTIVATION**

PROPOSER INFORMATION AND COST FORM

Company Name Calgon Carbon Corporation

Address 3000 GSK Drive, Moon Township, PA 15108

The following is the proposed price the above-named company will agree to as the cost to furnish and install initial fill of granular activated carbon as specified in Section 43 32 54.2 of this RFP. Proposed pricing is based on the backwashed and drained density.

Alternate1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 1,400 cf, 1 vessel)	\$103.15 / cf	X 1,400 cf =	\$144,410
Reactivated Carbon (based on 7,000 cf, 5 vessels)	\$62.32 / cf	X 7,000 cf =	\$436,240
		Total Price	\$580,650*
Lead Time (days) from Receipt of Purchase Order to Delivery	56 Days		

Alternate 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 2,800 cf, 2 vessels)	\$93.03 / cf	X 2,800 cf =	\$260,484
Reactivated Carbon (based on 5,600 cf, 4 vessels)	\$52.19 / cf	X 5,600 cf =	\$292,264
		Total Price	\$552,748*
Lead Time (days) from Receipt of Purchase Order to Delivery	56 Days		

* - Disinfection for pricing not included. Please see cover letter for details

Authorized Signature:  _____

Printed Name: Jeremy J. Jones - DWS Project Manager

Date: 04/28/2025

Proposal Contact Name: Jeremy J. Jones - DWS Project Manager

Address: 3000 GSK Drive, Moon Township, PA 15108

Telephone Number: 412-787-6700

Email: drinkingwater.ccc@kuraray.com

SECTION 43 32 54.2
GRANULAR ACTIVATED CARBON (GAC) REACTIVATION

PART 1 – GENERAL

1.01 SUMMARY

- A. Furnish all materials, equipment, labor and supervision for the custom segregated reactivation including removal, transport, reactivation, supply of makeup granular activated carbon (GAC), and reinstallation into the PFAS Treatment System vessels.

1.02 DEFINITIONS

- A. GAC: Granular Activated Carbon
- B. PFAS: Per- and Polyfluoroalkyl Substances

1.03 REFERENCES

- A. ANSI: American National Standards Institute
- B. ASTM: American Society of Testing Materials
- C. AWWA: American Water Works Association
- D. FCC: Food Chemical Codex
- E. NSF: National Sanitation Foundation / NSF International

1.04 SYSTEM DESCRIPTION

- A. Existing system consists of six pairs of vessels operated in lead-lag configuration.
- B. Drawing 120-M-102 in Attachment A shows general vessel layout.
- C. Treatment system information, including manufacturer operation and maintenance instructions, is provided in Attachment B.
- D. Each Vessel:
 - 1. Diameter: 144 inches
 - 2. Side shell height: 168 inches
 - 3. Overall height (approximate): 24 feet 5 inches
 - 4. Working pressure: 125 psi @ 150° F
 - 5. Manway:
 - a. Flanged at side shell: 24 inches
 - b. Elliptical type at head: 14 by 18 inches
 - 6. Vessel Volume:
 - a. 2,000 ft³
 - b. 15,000 gallons
 - 7. Maximum Flow Rate (GAC): 1,100 gpm
 - 8. Design Criteria: ASME
 - 9. Underdrains:
 - a. External ring header: 8-inch Sch. 40 Carbon Steel
 - b. Septa Screens:

- 1) 8 per vessel
- 2) 316L Stainless Steel V-Wire Screens 4 ½ inch diameter by 12" effluent

E. Piping:

1. Process Piping: 10" Sch 40 Carbon Steel
2. Media Transfer Piping: 4" Sch 40 Lined Carbon Steel

F. Valves:

1. Process: 10" Butterfly, DI Body, CI Disc w/ 316SS trim, Kinetrol Pneumatic Actuator
2. Media Transfer: 4" Flanged 316 Stainless Steel Full Port Ball Valve

G. Media:

1. Filtrasorb 400-01 supplied by Calgon Carbon Corporation.
2. 1,400 cubic feet per vessel currently installed.
3. Media has not been reactivated.
4. See Attachment C for product data.

1.05 SUBMITTALS

A. General:

1. Submit Product Data in sufficient detail to confirm compliance with the requirements of this Section. Submit Product Data and Shop Drawings in one complete submittal package. Partial submittals are unacceptable.

B. Shop Drawings and Product Data:

1. Carbon Exchange Process

- a. NSF-61 certification.
- b. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
- c. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
- d. List of site features and Owner activities required to support carbon delivery.
- e. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.
- f. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.

2. Make-up GAC

- a. Standard product datasheets showing specifications and typical properties, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;

- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
- c. NSF-61 certification.
- d. GAC shall be produced in the U.S.A.
- e. Description of the GAC supply chain, including the source of coal, carbon manufacturing location, a description of the activation process, where the carbon will be shipped from, how much of the applicable carbon type is typically stockpiled and at what location, and a description of the Supplier's delivery truck fleet.

2. Upon delivery, submit weight tickets, delivery truck wash-out certificates, and approximately a one (1) pound sample of the lot of GAC.

B. Test Results:

1. Virgin GAC

- a. Supplier's Certificate of Analysis for virgin GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the Manufacturer's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Do not ship virgin GAC to site until test results are approved.

2. Reactivated GAC

- a. Supplier's Certificate of Analysis for reactivated GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the

Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the GAC Supplier's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Total ash.

b. Do not ship reactivated GAC to site until test results are approved.

3. Coliform Test (Safe Water Test)

a. Provide testing by WDNR certified laboratory.

C. Operation and Maintenance (O&M) Data:

1. Operating instructions and maintenance data for materials and products for inclusion in O&M Manual.

1.06 QUALITY ASSURANCE

- A. Comply with AWWA Standard B605-18 – Reactivation of Granular Activated Carbon and NSF/ANSI 61, Drinking Water System Components—Health Effects.
- B. GAC Supplier's reactivation facility shall be NSF/ANSI 61 certified.
- C. The GAC Supplier shall furnish product(s) with a minimum of five (5) years of history of use in municipal drinking water facilities in North America with at least five (5) installations, and supplier shall have a minimum of five (5) years of experience performing carbon exchanges.
- D. GAC loading operations shall be under the direct supervision of the GAC Supplier having a minimum of 5 years of experience in performing carbon exchanges.

1.07 DELIVERY AND SCHEDULING

- A. Delivery shall be during normal facility operating hours, 7 am to 3 pm, Monday through Friday.
- B. Carbon shall be delivered in quantities sufficient to fill an entire vessel within one day. Splitting the fill of an individual vessel over more than one day shall not be acceptable.
- C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period.
- D. No vessel shall be out of service for more than 4 calendar days.
- E. The Carbon Supplier shall deliver the GAC in trailers used solely for the transport of GAC used in potable water facilities. Trailers shall be thoroughly cleaned and dried prior to filling with Owner's GAC and shall be lined or constructed with materials suitable for transporting GAC that

will be in contact with potable water. If requested by Owner or Engineer, supplier shall submit an affidavit stating that only Owner's GAC was loaded into the trailers after initial food grade washout.

- F. A trailer washout validation certificate shall be provided at carbon delivery.
- G. All trailer openings, hoses, and fittings shall be disinfected and sealed by numbered security seals upon arrival to the job site. Hoses and fittings shall be dedicated to potable water projects.

PART 2 – PRODUCTS

2.02 GENERAL

A. The GAC Supplier shall provide custom segregated reactivation of GAC whereby Owner's spent GAC is reactivated with no intermingling with spent GAC from another source. Owner shall receive back the original GAC in a reactivated condition. GAC Supplier may propose reactivation by supplying one or two vessels of virgin carbon based on the two alternates listed below. **In no case shall more than one vessel be out of service at any time.**

1. Alternate 1

- a. Spent GAC shall be removed from the first vessel and virgin GAC installed in the vessel.
- b. Spent GAC shall be removed from the second through sixth vessels and reactivated GAC installed in the vessels.
- c. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

2. Alternate 2

- a. Spent GAC shall be removed from the first two vessel and virgin GAC installed in the two vessels.
- b. Spent GAC shall be removed from the third and fourth vessels and reactivated GAC installed in the vessels.
- c. Spent GAC shall be removed from the fifth and sixth vessels and reactivated GAC installed in the vessels.
- d. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

B. The GAC Supplier shall provide pricing based on following volume that remains following in-place backwashing and draining, per AWWA B604:

- a. 1,400 cubic feet per vessel, 6 vessels
- b. The number of vessels filled and total quantity of GAC supplied shall be in accordance with the purchase order issued by the City.

2.03 REACTIVATION FACILITY

- A. Meet requirements of AWWA B605 including having NSF 61 certification
- B. Provide to Owner certification of custom segregated reactivation.
- C. Provide to Owner chain of custody for each lot of GAC reactivated.

2.04 MAKEUP GAC

A. General

1. The GAC used to makeup required volume shall be virgin material manufactured from an approved coal base.
2. Broken pellets, lignite-, peat-, wood-, coconut-, and anthracite-based GAC shall not be accepted.
3. The base bid GAC shall be acid washed or otherwise pretreated by the manufacturer to reduce potential leaching of inorganic contaminants, including arsenic, during start-up.

B. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 1 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 1 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number	mg/g	950
Maximum Moisture by Weight	%	3
Effective Size	mm	0.55-0.75
Maximum Uniformity Coefficient	-	1.9
Minimum Abrasion Number (AWWA)	-	75
Apparent Density	g/cc	0.49-0.57
Backwashed and Drained Density	g/cc	0.42-0.48
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5
Maximum Clean Bed Headloss at 55 deg F and Superficial Velocity of 9 gpm/ft ²	in H ₂ O / ft of bed	10
Maximum Superficial Velocity Required for 30% Bed Expansion During Backwash at 55 deg F	gpm/ft ²	10

C. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

2.05 REACTIVATED GAC

A. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 2 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 2 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number		
Spent Activated Carbon (SAC) > 500 mg/g	mg/g	850
Spent Activated Carbon (SAC) < 500 mg/g	mg/g	+250 mg/g from SAC
Maximum Moisture by Weight	%	3
Apparent Density	g/cc	0.44-0.57
Backwashed and Drained Density	g/cc	0.38-0.49
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5

B. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

PART 3 – EXECUTION

3.01 COORDINATION

A. Prior to scheduling Work on site:

1. Provide Shop Drawings and Product Data for Owner and Engineer review and approval.
2. Schedule virtual coordination meeting with Owner and Engineer to review exchange process and site requirements.

3.02 GAC REMOVAL

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. Prior to removal, isolate vessel from treatment mode, complete a backwash and lower the water level just below the top of the carbon bed and take freeboard measurements.
- D. Transfer media using vessel pressurization method of AWWA B605.

- E. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.

3.03 GAC REACTIVATION

- A. Transport GAC to reactivation facility.
- B. Segregate Owner's GAC from any other materials and maintain chain of custody of GAC.
- C. Reactivate GAC.
- D. Transport back to Owner's facility.

3.04 INSTALLATION

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.
- D. GAC shall be transferred as a water slurry only with carbon pre-wet in the trailer, using air pressure on the trailer as the motive force. Use of a pump or eductor to transfer the carbon from the trailer into the adsorber vessels is prohibited. Bag loading or dry loading of the GAC into the adsorber vessels is prohibited. The GAC shall be loaded into the trailers before the trailers are driven to the site.
- E. The GAC Supplier shall be responsible for cleanup of all GAC and slurry spills that may occur during the GAC transfer operation.
- F. Following reinstallation of GAC, obtain safe water samples. Two negative coliform samples, a minimum of 24 hours apart are required.
- G. If safe water samples cannot be obtained, GAC Supplier shall disinfect vessel and resample. Disinfection shall be commenced within 2 days of receipt of unsafe water sample and completed within 5 days of receipt of unsafe water sample. Vessel shall be resampled and returned to service within 7 days of receipt of unsafe water sample.

END OF SECTION

**ADDENDUM NO. 1
TO THE
REQUEST FOR PROPOSALS
FOR
GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION
CITY OF WAUSAU, WISCONSIN**

DATE: April 27, 2026

TO ALL PROPOSERS ON THE ABOVE PROJECT:

All Proposers shall carefully read this Addendum and give it consideration in the preparation of their Proposal.

The following are revisions to the Request for Proposals:

1. Page RFP1-43 32 54.2-4, delete subparagraph 1.07.C. and replace with the following:

“C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period for Alternate 1 and no more than two vessel changeouts shall occur per two weeks period for Alternate 2. No more than one vessel may be out of service at a time.”

2. Page RFP1-43 32 54.2-6, modify values for Apparent Density as follows:

Parameter	Units	Media Design Value
Apparent Density	g/cc	0.49 – 0.70

3. Page RFP1-43 32 54.2-8, delete subparagraph 3.04.F. and replace with the following:

- “F. Procedure for disinfection of vessels and safe water testing shall be:
1. After removal of existing GAC from vessel, disinfect vessel per AWWA 653.
 2. Collect sample for coliform testing by a WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.
 3. Install virgin or reactivated GAC and fill vessel with water.
 4. Collect a second sample for coliform testing by WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.

Any revisions to Request for Proposal made by this Addendum shall be considered as the same revision to any and all related areas of the Request for Proposal not specifically called out in this Addendum.

The Proposer shall acknowledge receipt of this Addendum via email to Scott.Boers@wausauwi.gov.

ISSUED BY:

CITY OF WAUSAU
WAUSAU WATER WORKS
1801 BUREK AVE.
WAUSAU, WI 54401



Corporate Resolution

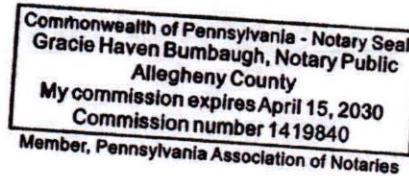
I, Jessica Underwood, Associate General Counsel, hereby certify that Jeremy J. Jones, DWS Project Manager, is authorized to execute the attached contract/bid under the bylaws and delegations of the authority of Calgon Carbon Corporation. I fully certify that this delegation is in full force and effect, and as the person named in said delegation holds the office so designated.

Calgon Carbon Corporation
3000 GSK Drive
Moon Township, PA 15108
State of Incorporation: Delaware
Date: November 27, 1967

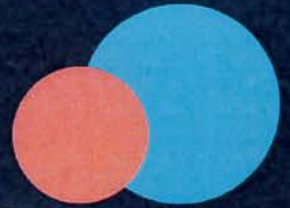
By: *Jessica Underwood*
Jessica Underwood
Associate General Counsel

Date: 4/22/2020

Attest: *Gracie Haven Bumbaugh*
Notary Public



My Commission Expires: 04/15/2030
(date)



Wausau Water Works Granular Activated Carbon Segregated Reactivation

FILTRASORB® 400 01
Granular Activated Carbon

Wausau, WI

SUBMITTED BY CALGON CARBON CORPORATION
May 5th, 2026





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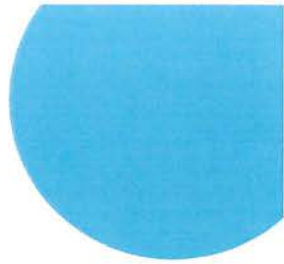
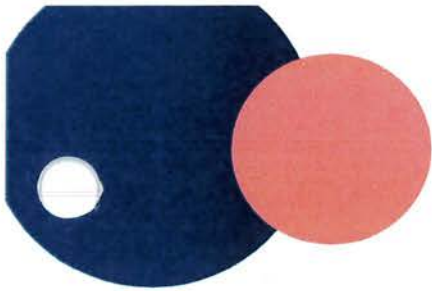
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SUBMITTAL

1

Calgon Carbon Corporation History

THE HISTORY OF CALGON CARBON



When the United States entered World War II, coconut shells were the raw material used to produce granular activated carbon (GAC), the filtering agent in military gas masks. Faced with a shortage of this crucial war material, the government asked Pittsburgh Coke and Chemical to develop a substitute from a native material. In 1942, the Company produced an activated carbon product using bituminous coal, and that was the beginning of the firm now known as Calgon Carbon Corporation.

Throughout history, Calgon Carbon has been a pioneer in creating new activated carbon products, systems and services from the infancy stages to the current global industry. The Company currently offers carbon technologies used in over 700 distinct market applications from purifying air and drinking water, to purifying foods and pharmaceuticals, to separating gas and removing mercury emissions from coal-powered electrical facilities. As a leader in the activated carbon industry, Calgon Carbon Corporation has originated cutting-edge purification systems for drinking water, wastewater, odor control, pollution abatement, and a variety of industrial and commercial manufacturing processes.

A HISTORY OF INNOVATION

1942 Pittsburgh Coke & Chemical Company, Inc. pioneers the development of coal-based granular activated carbon for use in military protection.

1955 The "Pittsburgh Pulse Bed" system is introduced – the first activated carbon system for sugar decolorization.

1960 The Activated Carbon Division of Pittsburgh Coke and Chemical pioneers the use of granular activated carbon in drinking water treatment.

1962 The Activated Carbon Division reaches a major milestone when 40,000 pounds of bituminous coal-based granular activated carbon is installed for the Virginia-American Water Co., a subsidiary of the American Water Works Service Company, setting a new benchmark for drinking water quality.

1965 Pittsburgh Activated Carbon Company (formerly Pittsburgh Coke & Chemical) is acquired by Calgon Corporation.

1967 Calgon Corporation is reorganized into six autonomous divisions, including the Pittsburgh Activated Carbon Company, responsible for its own marketing and manufacturing.

1968 Calgon Corporation acquired by Merck and Co., Inc.

1971 Calgon Carbon begins to offer reactivation services in the U.S. Offering customers both environmental and cost-saving benefits.

1978 A joint venture is formed with Mitsui Chemicals, Inc. and Mitsui & Co., Ltd.

1985 Calgon Carbon, a wholly-owned subsidiary of Merck and Co., Inc., is acquired by its management through a leveraged buyout.

1987 Calgon Carbon completes initial public offering of common stock. 1991 Calgon Carbon is listed on the New York Stock Exchange (NYSE), trading under the symbol CCC.

1993 In the U.K., Thames Water Utilities, Ltd., grants Calgon Carbon exclusive rights to market its new Sandwich Filter technology for the removal of pesticides and other organic compounds from drinking water. 1996 Calgon Carbon acquires the perox-pure business operations of Vulcan Peroxidation Systems, Inc., (Tucson, Arizona), and Solarchem Enterprises, Inc., (Toronto, Ontario, Canada). Calgon Carbon also acquires Advanced Separation Technologies Incorporated™ (Lakeland, Florida) and Charcoal Cloth (International) Ltd., a British manufacturer of activated carbon in cloth form.

1997 Singapore-based marketing subsidiary Calgon Carbon Asia is formed, serving customers in Korea, Taiwan, the People's Republic of China, Southeast Asia, Australia, New Zealand and India.

1998 Calgon Carbon launches two distinct products: Sentinel® ultraviolet (UV) disinfection system for the inactivation of Cryptosporidium and ISEP® continuous ion exchange system for perchlorate removal.

2002 Calgon Carbon Corporation expands in Asia, starting up a manufacturing plant in China and forming a joint venture with Mitsubishi Chemical Corporation of Tokyo, Japan to produce and sell activated carbon and related services throughout Japan. Additionally, Calgon Carbon is the first activated carbon manufacturer in the U.S. to install GAC treatment specifically for PFAS removal

2004 The company acquires Waterlink Specialty Products, known as Barnebey Sutcliffe in the United States, and Sutcliffe Speakman in Europe, to enhance capabilities in carbon reactivation, impregnation and on-site services.

2005 Calgon Carbon Corporation and C. Gigantic Carbon (Gigantic) form a joint-venture company to provide carbon reactivation services to the Thailand market. The new company, Calgon Carbon (Thailand) Ltd. begins operation.

2007 First contract for FLUEPAC® powdered activated carbon for treatment of mercury in flue gas streams from coal-fired electric power plant is signed and secured.

2009 The company unveils a new corporate logo, re-positioning the former logo's distinctive "ellipse" shape into a forward-moving direction to symbolize the company's anticipated long-term growth.

2010 Calgon Carbon acquires two companies: the firm Zwicky Denmark and Sweden, service providers and long-term distributors of Chemivron Carbon's activated carbon products; and purchases the outstanding stock of Hyde Marine Inc., a manufacturer of systems that utilize filters and UV technology to treat marine ballast water. Calgon Carbon's Blue Lake, California plant is the first in the U.S. to receive certification from NSF International under NSF/ANSI Standard 61: Drinking Water System Components – Health Effects for custom reactivated carbon for potable water applications.

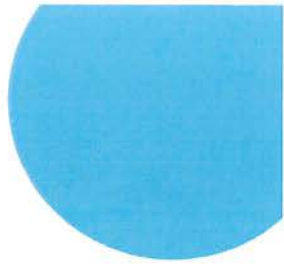
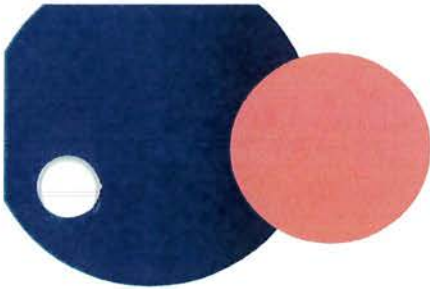
2011 The acquisition of Calgon Carbon Japan KK (CCJ), the former joint venture between Calgon Carbon Corporation and Mitsubishi Chemical Corporation is completed. Additionally, the company announces that the City Council of Phoenix, Arizona has selected Calgon Carbon to negotiate a contract to provide reactivation services for a ten-year period, and also includes the construction of a reactivation facility in Maricopa County, Arizona.

2018 Calgon Carbon is acquired by Kuraray Co., Ltd in March. Steve Schott is named CEO in September.

2020 Calgon Carbon formally announces the construction of a new activated carbon production line (G-line) at its Pearl River Plant in Mississippi, and an additional reactivation furnace in Belgium. A large equipment production expansion project launches adding capacity.

2021 A large equipment production expansion project is completed, at Neville Island, PA, to increase capacity in North America.

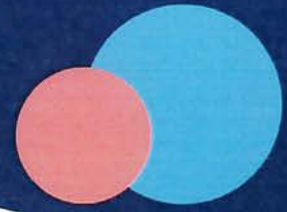
2023 Calgon Carbon celebrates the completion of our G-Line construction and hosts a ribbon cutting ceremony in October.



SUBMITTAL

2

**Granular Activated Carbon Specifications:
Affidavit of Compliance,
Specification Sheet,
And Safety Data Sheet**



AFFIDAVIT OF COMPLIANCE

By this affidavit, CALGON CARBON CORPORATION certifies that the Virgin Granular Activated Carbon designated as Filtrasorb 400-01 complies with all the applicable provisions of the AWWA standard for Granular Activated Carbon denoted as B-604-latest edition, ANSI/NSF Rule 61, and the Food Chemical Codex.

Filtrisorb 400-01 is mined and manufactured in the USA from bituminous coal and produced through a reagglomeration process. Filtrasorb 400-01 is manufactured at the Calgon Carbon Catlettsburg Plant in Catlettsburg, KY.

Calgon Carbon Corporation



Name: Amber Simonic

Title: Executive Director, Drinking Water Solutions

Commonwealth of Pennsylvania

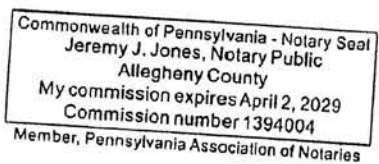
County of Allegheny

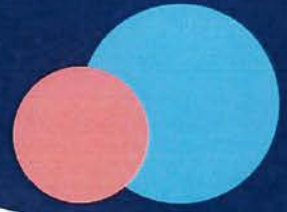
Signed (or attested) before me on May 1, 2025 by Amber Simonic.



Jeremy J. Jones, Notary Public

My Commission Expires: April 2, 2029





AFFIDAVIT OF COMPLIANCE

By this affidavit, CALGON CARBON CORPORATION certifies that the Virgin Granular Activated Carbon designated as Type CUSTOM MUNICIPAL REACT (CMR) complies with all the applicable provisions of the AWWA standard for Granular Activated Carbon denoted as B-605 –latest edition, ANSI/NSF Rule 61, and the Food Chemical Codex.

Calgon Carbon is an owner operator of (3) NSF 61/Potable water reactivation facilities in the United States.

Calgon Carbon Corporation

Name: Amber Simonic

Title: Executive Director, Drinking Water Solutions

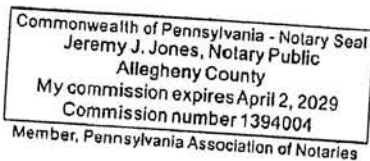
Commonwealth of Pennsylvania

County of Allegheny

Signed (or attested) before me on May 1, 2025 by Amber Simonic.

Jeremy J. Jones, Notary Public

My Commission Expires: April 2, 2029





FILTRASORB® 400 01

Granular Activated Carbon



FILTRASORB® 400 01 activated carbon can be used in a variety of liquid phase applications for the removal of dissolved organic compounds. Specifically, FILTRASORB 400 01, is designed to reduce the release of soluble inorganic impurities or natural minerals in drinking water applications upon start-up, thus less rinse water being required. This material is preconditioned using a more advanced series of steps than our standard acid washing process.

APPLICATIONS:

- Municipal Drinking Water
- Industrial Wastewater
- Environmental Water Processing
- Water Reuse
- Surface Water
- Groundwater

DESCRIPTION

FILTRASORB 400 01 is a granular activated carbon for the removal of dissolved organic compounds from drinking water and wastewater. Contaminants may include taste and odor compounds, organic color, total organic carbon (TOC), industrial organic compounds such as TCE and PCE, and PFAS.

This activated carbon is made from select grades of bituminous coal through a process known as reagglomeration to produce a high activity, durable, granular product capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation for reuse. The raw coal is mined and subsequently manufactured into GAC in the United States to ensure the highest quality and consistency in the finished product. Activation is carefully controlled to produce a significant volume of both low and high energy pores for effective adsorption of a broad range of high and low molecular weight organic contaminants.

FILTRASORB 400 01 is formulated to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon (B604) and Food Chemicals Codex. This product may also be certified to the requirements of NSF/ANSI 61 for use in municipal water treatment facilities. Only products bearing the NSF Mark are certified to the NSF/ANSI 61 - Drinking Water System Components - Health Effects standard. Certified Products will bear the NSF Mark on packaging or documentation shipped with the product.

Specifications

Iodine Number, mg/g	925 (min)
Moisture by Weight	5% (max)
Abrasion Number	75 (min)
Screen Size by Weight, US Sieve Series	
On 12 mesh	5% (max)
Through 40 mesh	4% (max)

FEATURES & BENEFITS

- Carbon is preconditioned to reduce the release of soluble inorganics and thus reduce the volume of rinse water needed during the start-up and conditioning.
- Produced in the United States from a pulverized blend of high quality, domestically mined bituminous coals resulting in a consistent, high quality product.
- Carbon granules are uniformly activated through the whole granule, not just the outside, resulting in excellent adsorption properties and consistent adsorption kinetics.
- The reagglomerated structure ensures proper wetting and minimal floating material.
- High mechanical strength relative to other raw materials, thereby reducing the generation of fines during backwashing and hydraulic transport.
- Carbon bed segregation is retained after repeated backwashing, ensuring the adsorption profile remains unchanged and therefore maximizing the bed life.
- Reagglomerated with a high abrasion resistance, which provides excellent reactivation performance.
- High density carbon resulting in a greater adsorption capacity per unit volume.

pH stabilized product offerings available upon request.

SAFETY MESSAGE

Wet, activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

1.800.4Carbon | calgoncarbon.com

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BACKWASH AND CONDITIONING

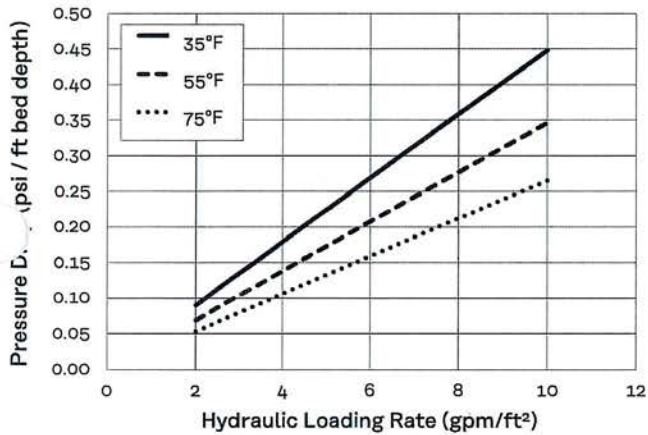
Prior to placing a recently filled granular activated carbon (GAC) vessel online, adequate media backwash and media conditioning are required. The following steps are intended to serve as guidelines to condition GAC media prior to placing the system in service. These steps may be able to be tailored to accommodate site specific constraints. For more information, please contact your Calgon Carbon sales or technical representative.

INITIAL BACKWASH

Following GAC media exchange, slowly fill the vessel with potable water in the up-flow direction until the vessel is full. Fill using flow rates that provide less than 5% bed expansion. Soak the new GAC media overnight (approx. 16 hours) to degas the media bed. Once the soaking period is complete, conduct a start-up backwash (up-flow operation) per the steps outlined below.

TYPICAL CLEAN-BED PRESSURE DROP

Based on a backwashed and segregated bed



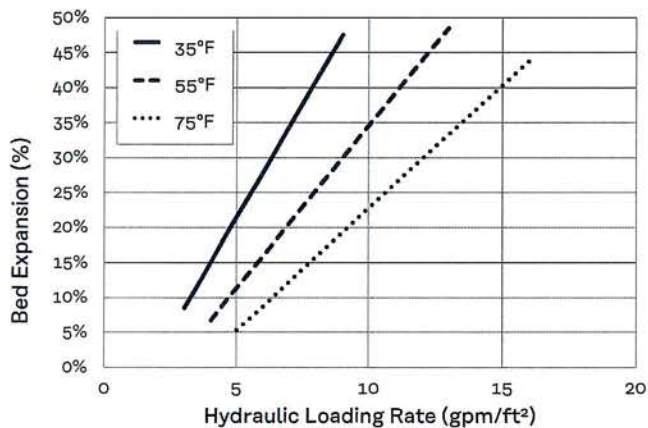
Startup Backwash

1. Flow @ 5% expansion for 2 minutes.
2. Flow @ 10% expansion for 2 minutes.
3. Flow @ 15% expansion for 2 minutes.
4. Flow @ 30% expansion for 30 minutes.
5. Flow @ 15% expansion for 2 minutes.
6. Flow @ 10% expansion for 2 minutes.
7. Flow @ 5% expansion for 2 minutes.

Refer to the bed expansion curve to determine the flowrates needed at each step. Please note, an identical backwash procedure is recommended when a media vessel is restarted after an extended shutdown or restarted after the bed has been drained.

TYPICAL BED EXPANSION DURING BACKWASH

Based on a backwashed and segregated bed



DESIGN CONSIDERATIONS

FILTRASORB 400 01 activated carbon is applied in down-flow operation and can be used in both pressure vessels and gravity filters. Design considerations for a treatment system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compound(s) being adsorbed. Reach out to your Technical Sales Representative for more information and to address your specific needs.

SAFETY MESSAGE

Wet, activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.



ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 06/03/2024 Supersedes date: 10/20/2020 Version: 5.1

SECTION 1: Identification

1.1. Identification

Trade name : ACTIVATED CARBON FILTRASORB (For full list of product trade names and codes, see Section 16.)
Product form : Substance
CAS-No. : 7440-44-0
Synonyms : Activated carbon; Steam activated carbon (For full list of product synonyms, i.e., product names and codes, see Section 16.)

1.2. Recommended use and restrictions on use

Recommended use : Adsorbent

1.3. Supplier

Calgon Carbon Corporation
P.O. Box 717
Pittsburgh, PA 15230
412-787-6700

1.4. Emergency telephone number

Emergency number : CHEMTREC (24HRS): 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Combustible dust

Not classified as a simple asphyxiant. Product does not displace oxygen in the ambient atmosphere, but slowly adsorbs oxygen from a confined space when wet. Under conditions of anticipated and recommended use, product does not pose an asphyxiation hazard.

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : May form combustible dust concentrations in air.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification: Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

2.4. Unknown acute toxicity (GHS US)

No data available

ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3 : Composition/Information on ingredients

3.1. Substance(s)

Name	Product identifier	%
Activated carbon	CAS No.: 7440-44-0	75 – 100*

*This product is manufactured from a naturally occurring raw material and may contain up to 25% impurities. It has been specifically determined that the impurity content will not have any impact on the hazard classification of this product.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes.
First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Not expected to present a significant hazard under anticipated conditions of normal use. Dust may cause irritation to the respiratory system.
Symptoms/effects after skin contact	: Dust may cause irritation.
Symptoms/effects after eye contact	: Dust may cause irritation and redness.
Symptoms/effects after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Carbon dioxide. Dry chemical. Foam. Sand.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: Dust may be combustible under specific conditions. May be ignited by heat, sparks, or flames.
Explosion hazard	: Dust may form explosive mixture in air.
Reactivity in case of fire	: No dangerous reactions known under normal conditions of use. Carbon oxides may be emitted upon combustion of material.

ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Wear NIOSH-approved self-contained breathing apparatus suitable for the surrounding fire. Use water spray or fog for cooling exposed containers. Evacuate area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

No additional information available.

6.1.2. For emergency responders

No additional information available.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Product is not soluble but can cause particulate emission if discharged into waterways. Dike all entrances to sewers and drains to avoid introducing material to waterways. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust.
Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust. Dispose of material in compliance with local, state, and federal regulations.

6.4. Reference to other sections

No additional information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid dust formation. Avoid contact with skin, eyes, and clothing. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a cool, dry, and well-ventilated place. Keep away from ignition sources.

SECTION 8 : Exposure controls/personal protection

8.1. Control parameters

Activated carbon (7440-44-0)*	
OSHA PEL (TWA) (mg/m ³)	≤ 5 (Respirable Fraction) ≤ 15 (Total Dust)

*Exposure limits are for inert or nuisance dust. No specific exposure limits have been established for this activated carbon product by OSHA or ACGIH.

ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas. Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection:

Use eye protection suitable to the environment. Avoid direct contact with eyes.

Skin and Body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection:

Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

Personal protective equipment : Gloves. Safety glasses. Protective clothing. Under insufficient ventilation conditions wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular, powder, or pelletized substance
Color	: Black
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: Not applicable
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: No data available
Auto-ignition temperature	: > 350 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: > 350 °C
Vapor pressure	: Not applicable
Relative vapor density at 20 °C	: Not applicable
Apparent density	: 0.3 - 0.75 g/cc

ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Solubility	: Insoluble
Log Pow	: Not applicable
Log Kow	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid dust formation. Heat. Ignition sources. Exposure to high concentrations of organic compounds may cause bed temperature to rise.

10.5. Incompatible materials

Alkali metals. Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

SECTION 11 : Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Activated carbon (7440-44-0)	
LD ₅₀ oral rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Silica: crystalline, quartz (14808-60-7)	
IARC group	1 – Carcinogenic to humans
The International Agency for Research on Cancer (IARC) has classified "silica dust, crystalline, in the form of quartz or cristobalite" as carcinogenic to humans (group 1). However these warnings refer to crystalline silica dusts and do not apply to solid activated carbon containing crystalline silica as a naturally occurring, bound impurity. As such, we have not classified this product as a carcinogen in accordance with the US OSHA Hazard Communication Standard (29 CFR §1910.1200) but recommend that users avoid inhalation of product in a dust form.	

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

ACTIVATED CARBON FILTRASORB

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	: Dust may cause irritation of the skin.
Symptoms/injuries after eye contact	: Dust may cause irritation and redness.
Symptoms/injuries after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available.

12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

No additional information available.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment and disposal methods	: Vacuum or shovel material into a closed container. Dispose in a safe manner in accordance with local, state, or federal regulations. Do not allow the product to be released into the environment.
Additional information	: Activated carbon is an adsorbent media; hazard classification is generally determined by the adsorbate. Consult U.S. EPA guidelines listed in 40 CFR 261.3 for more information on hazardous waste disposal.

SECTION 14: Transport information

14.1. In accordance with DOT

Not classified as hazardous for domestic land transport.

UN-No. (DOT)	: None on finished product
DOT NA No.	: None on finished product
Proper Shipping Name (DOT)	: Not regulated
Department of Transportation (DOT) Hazard Classes	: None on finished product
Hazard labels (DOT)	: None on finished product
Packing group (DOT)	: None on finished product
DOT Quantity Limitations Passenger aircraft/rail(49 CFR 173.27)	: None on finished product

ACTIVATED CARBON FILTRASORB

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14.2. Transport by sea

Not classified as hazardous for water transport. Per Special Provision 925 of the IMDG Code, steam-activated carbon products are exempt from classification as UN 1362 – CARBON ACTIVATED and is thus **not** considered a dangerous good for transportation.

IMO/IMDG

UN/NA Identification Number : None on finished product
UN-Proper Shipping Name : Not regulated
Transport Hazard Class : None on finished product

14.3. Air transport

Not classified as hazardous for air transport

ICAO/IATA

UN/NA No. : None on finished product
UN-Proper Shipping Name : Not regulated
Transport Hazard Class : None on finished product
Packing Group : None on finished product
Marine Pollutant : None on finished product

14.4. Additional information

Other information : When tested according to the United Nations Transportation of Dangerous Goods, "Manual of Tests and Criteria, Part III, Test N.4 - Test Method for Self-Heating Substances" it has been specifically determined that non-impregnated steam activated carbon products do not have self-heating properties and are therefore exempt from classification as UN 1362- CARBON ACTIVATED. (See Special Provision 925 of the IMDG and A3 of IATA.) This information is applicable to the steam activated carbon product(s) identified under Section 16 of this document.

SECTION 15: Regulatory information

15.1. US Federal regulations

ACTIVATED CARBON FILTRASORB	
All chemical substances in this product are listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") as of February 2019, or are otherwise exempt.	
SARA Section 311/312 Hazard Classes	Physical hazard - Combustible dust

Cobalt (7440-48-4)*	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

*Present below de minimis levels

15.2. International regulations

No additional information available.

15.3. US State regulations

California Proposition 65

An exposure assessment conducted in October 2023 determined the contaminants of Proposition 65 concern are below the estimated Safe Harbor Levels. A Proposition 65 warning label is not required for product(s) listed under Section 16 of this SDS.

Component	State or local regulations
Aluminum oxide (1344-28-1)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right to Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

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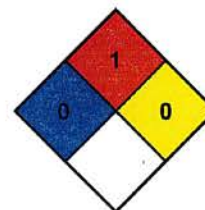
Component	State or local regulations
Calcium sulfate (7778-18-9)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right to Know List
Silica: crystalline, quartz (14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right to Know List
Titanium dioxide (13463-67-7)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right to Know List
Cobalt (7440-48-4)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Massachusetts - Right to Know List

SECTION 16: Other information

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Issue date : 06/03/2024

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
 NFPA fire hazard : 1 - Must be preheated before ignition can occur.
 NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 0
 Flammability : 1
 Physical : 0
 Personal Protection :

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. The information in this document applies to this specific material as supplied. It may not be valid if product is used in combination with other materials. It is the user's responsibility to determine the suitability and completeness of this information for their particular use. While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Calgon Carbon Corporation makes no warranty with respect to the same and disclaims all liability for reliance thereon.

ACTIVATED CARBON FILTRASORB

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List of Product Trade/Synonyms Names

(Product Codes are located in paratheses after each product name)

- F400 OSD (18801)
- FILTRASORB 100 (11940)
- FILTRASORB 100 (13131)
- FILTRASORB 100 D (15610)
- FILTRASORB 100 PH (11942)
- FILTRASORB 200 (11950)
- FILTRASORB 200 (13132)
- FILTRASORB 200 AR HWF (11948)
- FILTRASORB 200 AWD CCR 12X40 (11939)
- FILTRASORB 200 AWD CCR 12X40 PH (11929)
- FILTRASORB 200 AWD LF 12X40 (11955)
- FILTRASORB 200 AWD LF PH (11968)
- FILTRASORB 200 D (15620)
- FILTRASORB 200 E (11961)
- FILTRASORB 200 E PH (13615)
- FILTRASORB 200 GLY (11965)
- FILTRASORB 200 I (12021)
- FILTRASORB 200 M (11951)
- FILTRASORB 200 PH (11931)
- FILTRASORB 200-CD (15615)
- FILTRASORB 200-CD PH (15616)
- FILTRASORB 200D CC (15623)
- FILTRASORB 300 (11975)
- FILTRASORB 300 AR (11978)
- FILTRASORB 300 BBT (12001)
- FILTRASORB 300 CA GLY (11995)
- FILTRASORB 300 CCG (11969)
- FILTRASORB 300 [CD] I (25020)
- FILTRASORB 300 CSB (12004)
- FILTRASORB 300 CSC (12014)
- FILTRASORB 300 D (15630)
- FILTRASORB 300 D SK (19782)
- FILTRASORB 300 E (11958)
- FILTRASORB 300 E CSA (13014)
- FILTRASORB 300 E PH (11957)
- FILTRASORB 300 EN (13674)
- FILTRASORB 300 GLY 8X30 (12000)
- FILTRASORB 300 I (12023)
- FILTRASORB 300 M (11974)
- FILTRASORB 300 M PH (11971)
- FILTRASORB 300 NB (11959)
- FILTRASORB 300 PH (12010)
- FILTRASORB 300 WW LF (12007)

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- FILTRASORB 300-CD (15315)
- FILTRASORB 300-CD HA (15322)
- FILTRASORB 300-CD NB (15320)
- FILTRASORB 300-CD NB HA (15321)
- FILTRASORB 300-CD PH (15316)
- FILTRASORB 300D 80I (15625)
- FILTRASORB 300D AW (13984)
- FILTRASORB 300D AW AO (19071)
- FILTRASORB 300D AW HA (13986)
- FILTRASORB 300D CC (ASIA) (19766)
- FILTRASORB 300D CC CM (15626)
- FILTRASORB 300D CC RO (19856)
- FILTRASORB 300D LSI R (15497)
- FILTRASORB 300D CCR (19852)
- FILTRASORB 300D PLUS (19752)
- FILTRASORB 300DR I (15495)
- FILTRASORB 300DR I (BH) (19804)
- FILTRASORB 300DR I (CR) (19821)
- FILTRASORB 300DR I (LG) (19779)
- FILTRASORB 300DR I (SW) (19820)
- FILTRASORB 400 (12030)
- FILTRASORB 400 (13134)
- FILTRASORB 400 50X200 (13591)
- FILTRASORB 400 AR (12036)
- FILTRASORB 400 AR PH (13523)
- FILTRASORB 400 AR+ (13543)
- FILTRASORB 400 AR+ 12X40 (13586)
- FILTRASORB 400 AR+ I (13791)
- FILTRASORB 400 AR+ NB (13619)
- FILTRASORB 400 AR+ PH (13711)
- FILTRASORB 400 AW 12X40 (13562)
- FILTRASORB 400 AW 12X40 PH (13929)
- FILTRASORB 400 C (12040)
- FILTRASORB 400 C PH (12043)
- FILTRASORB 400 CSA (15655)
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- FILTRASORB 400 E (12038)
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- FILTRASORB 400 GLY (12055)
- FILTRASORB 400 HS (11993)
- FILTRASORB 400 HWF 80X325 (13621)
- FILTRASORB 400 I (12028)
- FILTRASORB 400 J (12051)
- FILTRASORB 400 K (13853)
- FILTRASORB 400 M (12031)

ACTIVATED CARBON FILTRASORB

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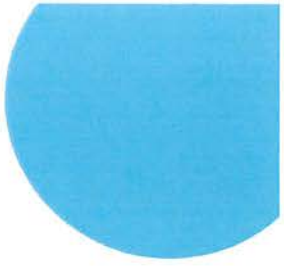
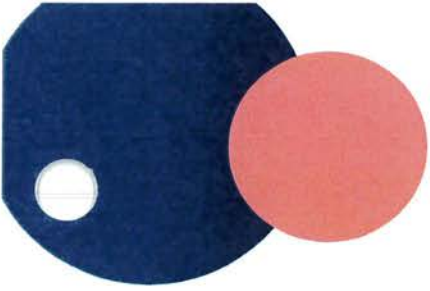
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- FILTRASORB 400 M PH (13807)
- FILTRASORB 400 M4 (11367)
- FILTRASORB 400 M6 (12002)
- FILTRASORB 400 OS (12085)
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- FILTRASORB 400D CC CM (15627)
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- FILTRASORB 400D CCR (19851)
- FILTRASORB 400D TP (15643)
- FILTRASORB 400DR I (15647)
- FILTRASORB 600 (12127)
- FILTRASORB 600 20X50 (12113)
- FILTRASORB 600 AR+ (13667)
- FILTRASORB 600 AR+ 12X40 (12124)
- FILTRASORB 600 AR+ 50X200 (13571)
- FILTRASORB 600 AR+ 80X325 (13572)
- FILTRASORB 600 AR+ PH (12228)
- FILTRASORB 600 AW 12X40 (12119)
- FILTRASORB 600 AW 12X40 PH (12155)
- FILTRASORB 600 PH (12126)
- FILTRASORB 816 (12130)
- FILTRASORB 816 AB (12139)
- FILTRASORB 816 [CD] (15324)
- FILTRASORB 816 D (15554)
- FILTRASORB 816 E (12248)
- FILTRASORB 816 E PH (12246)
- FILTRASORB 816 FINES (12062)
- FILTRASORB 816 M (12131)
- FILTRASORB 816 MU (12081)
- FILTRASORB 816 PH (13774)
- FILTRASORB 816 TRACY (11926)
- FILTRASORB 820 (12135)
- FILTRASORB 820 AR+ (13726)
- FILTRASORB 820D CCK (15570)
- FILTRASORB 820 M (12136)

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- FILTRASORB 820 PH (13557)
- FILTRASORB 830 AR+ (13764)
- FILTRASORB 830 MU (12089)
- FILTRASORB 830M (11983)
- FILTRASORB 840 D (19827)
- FILTRASORB DW 12X40 (11011)
- FILTRASORB GS (11943)
- FILTRASORB SENTRY 8X16 (13574)
- FILTRASORB SENTRY 8X20 (13576)
- FILTRASORB SENTRY 8X30 (13573)
- FILTRASORB SENTRY AR N (13594)
- FILTRASORB SENTRY N (13596)
- FILTRASORB TL 820 CW (13112)
- FILTRASORB TL830 CSA PH (15683)
- FILTRASORB TL830 E (13115)
- FILTRASORB TL830 E PH (13118)
- FILTRASORB TL830-CD (15680)
- FILTRASORB TL830-CD PH (15681)
- FILTRASORB® 400 POU+ 80X325 (13926)
- FILTRASORB® 400 POU+ 8X40 (13969)
- FILTRASORB® 816 CMBG (13835)
- FILTRASORB™ 300 CA (13913)



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ISO and NSF Certifications



NSF

The **NSF** (formerly the National Sanitation Foundation) is an international, non-profit organization that is dedicated to public health safety and the protection of the environment by developing performance standards for a broad range of products, especially for drinking water applications. NSF maintains a toxic leachate certification process for materials which come into contact with drinking water. Certain CCC products are certified to meet the NSF 42 and 61 standards. Go to NSF.org for a complete product listing for Calgon Carbon Corporation.



Certified to
NSF/ANSI 61



Standard 42



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.:
C738461

Initial certification date:
09 June, 2025

Valid:
25 June, 2025 – 08 June, 2028

This is to certify that the management system of
Calgon Carbon Corporate
3000 GSK Drive, Moon Township, PA, 15108-1381, USA
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
Manufacture, reactivation, and packaging of activated carbon products.

Place and date:
Katy, TX, 25 June, 2025

For the issuing office:
DNV - Business Assurance
1400 Ravello Drive, Katy, TX, 77449-5164, USA



Sherif Mekkawy
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.

ACCREDITED UNIT: DNV Business Assurance USA Inc., 1400 Ravello Drive, Katy, TX, 77449, USA - TEL: +1 281-396-1000. www.dnv.com



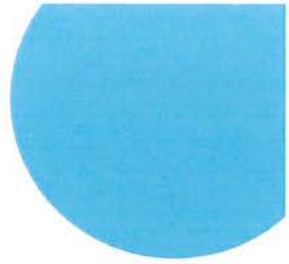
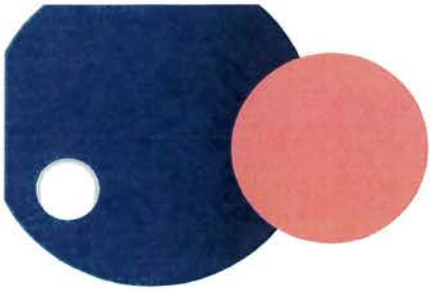
Certificate no.: C738461
Place and date: Katy, TX, 25 June, 2025

Appendix to Certificate

Calgon Carbon Corporate

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
Calgon Carbon Corporation	4301 Neville Road, Pittsburgh, PA, 15225-1620, USA	Warehouse Operations
Calgon Carbon Corporation	15024 US 23, Catlettsburg, KY, 41129-8088, USA	Manufacture, reactivation, and packaging of activated carbon products.
Calgon Carbon Corporation	835 North Cassady Avenue, Columbus, OH, 43219-2203, USA	Manufacture, reactivation, and packaging of activated carbon products.
Calgon Carbon Corporation	520 South Butterfield Trail, Gila Bend, AZ, 85337-3012, USA	Reactivation and packaging of activated carbon products.
Calgon Carbon Corporation	200 Neville Road, Pittsburgh, PA, 15225-1620, USA	Manufacture, reactivation, and packaging of activated carbon products.
Calgon Carbon Corporation	830 River Road, North Tonawanda, NY, 14120-6557, USA	Reactivation and packaging of activated carbon products.
Calgon Carbon Corporation	415 Bryant Street, North Tonawanda, NY, 14120-6557, USA	Warehouse Operations
Calgon Carbon Corporation	576 Niagara Parkway, North Tonawanda, NY, 14120-6557, USA	Warehouse Operations
Calgon Carbon Corporation	13121 Webre Road, Bay St. Louis, MS, 39520-9699, USA	Manufacture and packaging of activated carbon products.
Calgon Carbon Corporate	3000 GSK Drive, Moon Township, PA, 15108-1381, USA	Management, Quality Management, QMS Oversight, Training & Competency Management, Supplier Quality Management



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4

Customer References



FILTRASORB REFERENCES



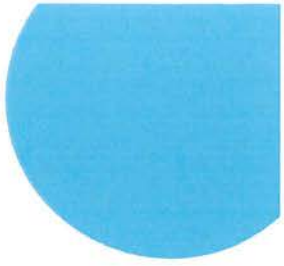
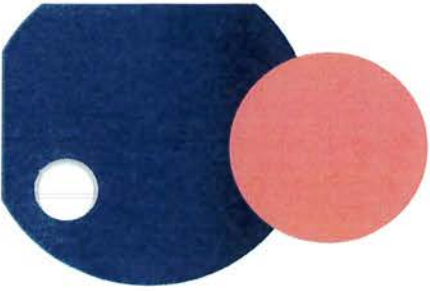
NAME	CITY	STATE	ADDRESS	CONTACT	NUMBER	LBS
Emerald Coast Utilities	Penascola	FL	9255 Strudevant St	Bobby Rogers	850-969-6626	100,000
Vaughn Water	Bakersfield	CA	10014 Glenn St	Denny Armstrong	661-330-3615	20,000
Sunnyslope	Hollister	CA	3570 Airline Highway	Jim Flice	831-637-4670	45,000
City of Fresno	Fresno	CA	2600 Fresno St	Bob Little	559-621-5355	20,000
City of Lodi	Lodi	CA	1331 South Ham Ln	Lance Roberts	209-333-6800	150,000
Lynn Water & Sewer Commission	Lynn	MA	390 Parkland Ave	Rick Dawe	781-595-5491	270,000
West View Water	Pittsburgh	PA	210 Perry Hwy	Scott McNicol	412-931-3292	1,400,000
Village of Sikes	Sikes	LA	200 Hwy 499N	Brian Owens	318-376-5176	20,000
Acton Water District	Acton	MA	693 Massachusetts Ave	Chris Allen	978-263-9107	40,000
Artesian Water Co	Newark	DE	664 Churchmans Rd	Rob Penman	302-453-6996	200,000
Haverhill Water	Haverhill	MA	131 Amesbury Rd	John D'Aoust	978-374-2385	350,000
Town of Billerica	Billerica	MA	365 Boston Rd	Jerry Garabedin	978-671-0957	54,000

CONTACT US

Contact us to learn more about granular activated carbon, reactivation, and our commitment to safety and the environment.

1.800.4Carbon | calgoncarbon.com

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5

Carbon Exchange Procedures

CARBON EXCHANGE PROCEDURES



**These procedures are general in scope and may differ due to differences in scope for each customer and location.*

A carbon exchange consists of the removal of spent carbon from a filter and the installation of fresh carbon into the filter. The following procedures can also be used for initial carbon fills.

All spent carbon removals are completed hydraulically using the eduction method from the filter into an open dump truck.

The carbon installation can be completed from bulk truck deliveries or from 1,000-pound super sack deliveries. The eduction method can be used for installation from bulk trucks and from super sacks. A crane can be used to dump the carbon from the super sacks directly into the filter, allowing the filter to be filled when high-pressure water is not available.

The following section lists requirements for accomplishing a carbon exchange. The responsible party is noted after each item, either "customer" or Calgon Carbon "CCC". The designation of responsibility is for a typical project but can vary based on the specifications of the project.

1. PROJECT REQUIREMENTS

For removal of spent carbon or installation of fresh carbon using the eduction method the following is required:

1. Utilities

- a. A water source of at least 90 to 100 psi at 200 gpm. The supplied water source comes from the closest fire hydrant or a line, which is near a pump (i.e., a surface sweep pump). (Customer)
- b. A 2-1/2" fire hose reduced to 2" FNPT to connect to the eductor supplied by Calgon Carbon. The connection at the eductor is carbon removal and at the trailer for carbon installation. (CCC)
- c. A 3/4" garden hose at the filter for rinsing off the waders used by the labor force for carbon removal and at the trailer to insert in the hopper during carbon installation. (CCC)
- d. A drain to handle the disposal of water used in removing the spent carbon. The drain capacity should be equal to or greater than the water supplied for the carbon removal. (Customer)

CARBON EXCHANGE PROCEDURES



2. Manpower
 - a. A plant operator to open or close plant water valves. (Customer)
 - b. Two (2) or three (3) laborers depending on the extent of work required. (Customer or CCC)
 - c. Supervision of installation. (CCC)

3. Miscellaneous
 - a. For installation or removal using a bulk trailer, an area large enough to stage one (1) or two (2) trailers is required. The approximate dimensions of a trailer are 51' long x 8"5" wide x 11'6" high. (Customer)
 - b. Sufficient storage for the super sacks upon arrival. The recommended storage area is an enclosed building. If this is not available and the carbon is stored outside for an extended period of time, the super sacks should be covered with tarpaulins or plastic and kept away from areas which have inadequate drainage to prevent submersion of any carbon in free-standing water. (Customer)
 - c. The necessary equipment (crane and/or forklift) and manpower to receive and stage the carbon in super sacks prior to loading the filters. The carbon can be hydraulically or dry installed. The super sacks weigh 1,000 pounds each, have an 18" discharge chute, and are stacked two (2) high with a pallet under the bottom super sack. (Customer)
 - d. The disposal of all super sacks and pallets. (Customer)
 - e. All transfer equipment, which includes a hopper, and eductor, a suction hose with wand, a F/F coupler, carbon slurry hoses, and a trough. (CCC)
 - f. Transportation for spent carbon return and virgin carbon delivery. (CCC)
 - g. Removal/installation sign-off certificates, which require a signature from the site contact and the Calgon Carbon Supervisor. (CCC)
 - h. Backwash rate curves to correspond with the product, which is installed. (CCC)

CARBON EXCHANGE PROCEDURES



2. PRELIMINARY REQUIREMENTS

Customer should contact their Calgon Carbon Technical Sales Representative ten (10) working days prior to the date they plan to begin the exchange or installation. Subsequent to this notification, Calgon Carbon operations supervisor will work with the customer to reconfirm the start date and determine the equipment required to do the exchange.

3. SPENT REMOVAL - EDUCTION TO BULK TRAILER

- a. Prior to spent carbon removal from the filter, the customer must isolate the filter from the treatment mode, complete a backwash, and lower the water level just below the top of the carbon bed so freeboard measurements can be taken.
- b. While the filter is being backwashed, Calgon Carbon's supervisor will direct the connection of hoses, eductor and water supply.
- c. Take free board measurements, then add water to the filter to a level of 12" to 24" of water above the carbon.
- d. The driver prepares his truck to receive the spent carbon by installing a transfer hose to the front of the dump bed and a carbon retention screen on the chute and hooking up a drainage bib to the tailgate (if required) to catch all the water and direct it to a designated drain.
- e. The suction hose with a wand is used for removing spent carbon. During carbon removal the operator will be required to add water into the filter to maintain a water level.
- f. When it is determined that all the carbon has been removed, backwash the filter for a short amount of time, then take measurements of bed depth to determine if additional material should be removed.
- g. When the removal is complete, free board measurements are again taken. Water is added to the filter to a level of 12" to 24" above the sand.

CARBON EXCHANGE PROCEDURES



4. CARBON FILL - EDUCTION FROM A BULK TRAILER

- a. The virgin carbon trailer is positioned and set up with Calgon Carbon equipment to educt the carbon into the empty filter. Calgon Carbon Corporation Safe Job Procedure OP-5 (attached) will be used to transfer carbon with an aluminum hopper.
- b. After the proper carbon level has been installed, the filter should sit overnight in a flooded state and then be backwashed prior to going on line.

If the filter must go into service immediately, a backwash must be completed. The backwash should begin at a low flow rate and be increased gradually to complete the backwash. A backwash removes any entrapped air or carbon fines, and segregates the carbon bed. The rates are determined by water temperature and are found on product bulletins supplied by Calgon Carbon Corporation.

- c. Final freeboard measurements are taken after the backwash has been completed to verify that the proper amount of carbon has been installed.
- d. All measurements are recorded on Calgon Carbon's removal/installation certificates and are to be signed by the customer as well as the Calgon Carbon Supervisor upon completion of each filter.
- e. The procedure is repeated for each filter to be exchanged.
- f. After the total job is complete, all equipment must be returned to Calgon Carbon Corporation, and the work area cleaned up before leaving the site.

5. CARBON FILL - EDUCTION FROM SUPERSACKS

This method is similar to the method described in part D except as follows:

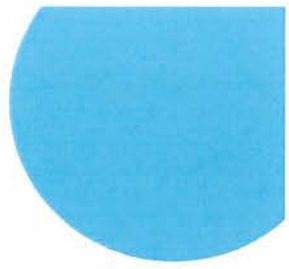
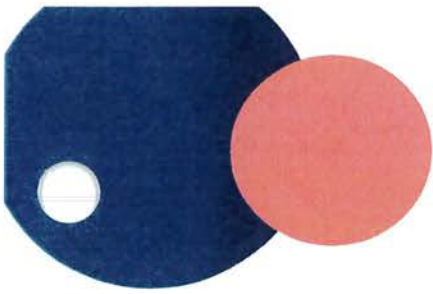
- a. Use the free-standing hopper instead of the truck mounted hopper.
- b. A crane or fork truck is necessary to bring super sacks from the storage area to the hopper.

CARBON EXCHANGE PROCEDURES



6. CARBON FILL USING CRANE AND SUPERSACKS

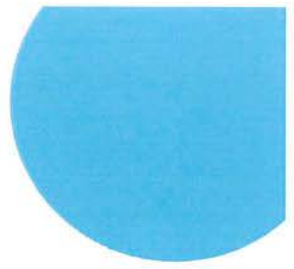
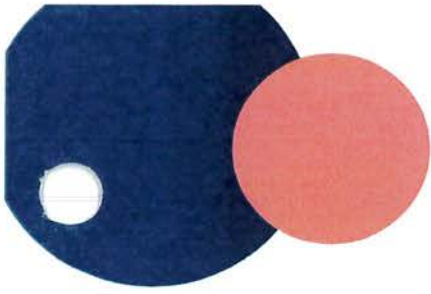
1. The carbon will be furnished in 1,000-pound super sacks. The super sacks have an 18" discharge chute, and are stacked two (2) high with a pallet under the bottom super sack.
2. Sufficient storage for the super sacks shall be provided. The recommended storage area is an enclosed building. If this is not available and the carbon is stored outside for an extended period of time, the super sacks should be covered with tarpaulins or plastic and kept away from the areas which have inadequate drainage to prevent submersion of any carbon in free-standing water.
3. Add 12" to 24" of water to the filter.
4. A crane can be used to dump the carbon from the super sacks directly into the filter. Continue to add water to keep the carbon submerged.
5. After the proper carbon level has been installed, the filter should sit overnight in a flooded state and then be backwashed prior to going on line.
6. If the filter must go into service immediately, a backwash must be completed. The backwash should begin at a low flow rate and be increased gradually to complete the backwash. A backwash removes any entrapped air or carbon fines and segregates the carbon bed. The rates are determined by water temperature and are found on product bulletins supplied by Calgon Carbon Corporation.
7. Final freeboard measurements are taken after the backwash has been completed to verify that the proper amount of carbon has been installed.
8. All measurements are recorded on Calgon Carbon's removal/installation certificates and are to be signed by the customer as well as the Calgon Carbon Supervisor upon completion of each filter.
9. This procedure is repeated for each filter to be exchanged.
10. After the total job is complete, all equipment must be returned to Calgon Carbon Corporation, and the work area cleaned up before leaving the site.



SUBMITTAL

6

Evidence of Insurance

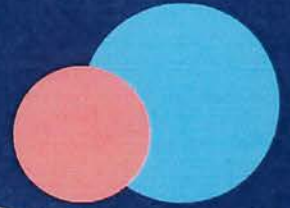


SUBMITTAL

7

Contact Information





CONTACT US:



1-800-4-CARBON (1-800-422-7266)



DRINKINGWATER.CCC@KURARAY.COM



WWW.CALGONCARBON.COM



CALGON CARBON CORPORATION
3000 GSK DRIVE
MOON TOWNSHIP, PA 15108

May 1, 2026

City of Wausau Engineering Department
Wausau City Hall
407 Grant St.
Wausau, WI 54403

RE: RFP for Granular Activated Carbon Segregated Reactivation
Due Date: May 4, 2026, at 4:00 pm

Ladies and Gentlemen:

Thank you for the opportunity to bid on the above-mentioned project. Norit Americas, Inc is pleased to offer our NORIT® GAC 400 PLUS and NORIT® CUSTOM REACT GAC for use in your potable water system.

NORIT® GAC 400 PLUS is manufactured at Norit Americas' Pryor, Oklahoma, facility from bituminous coal mined in North America and manufactured using a re-agglomeration, steam activation method. This product meets all AWWA B604 Standards, is certified under ANSI/NSF Standard 61, and complies with Food Chemicals Codex. Enclosed is a product datasheet that describes specifications and lists properties of NORIT® GAC 400 PLUS.

NORIT® CUSTOM REACT GAC is NSF-certified granular activated carbon tailored to the specific needs of your utility. Utilizing the spent GAC retrieved from the Wausau Drinking Water Treatment Facility, your spent carbon is thermally reactivated and Virgin GAC is incorporated at our Pryor, Oklahoma facility to meet your specifications.

We must request the following provisions and exceptions to the bid specifications:

1.05 SUBMITTALS, B., 3.: Norit will not collect samples for testing nor will Norit perform or submit for any testing on the vessels or effluent water.

1.07 DELIVERY AND SCHEDULING, D.: If testing is performed by the owner on the empty vessels, Norit cannot guarantee the vessels will be reinstated to service within 4 days due to circumstances outside of our control including turnaround time of testing results.

2.04 MAKEUP GAC, B., Schedule 1 - Bituminous GAC Product Characteristics: Apparent Density of NORIT® GAC 400 PLUS is 0.46 - 0.52 g/ml. The backwashed and drained density is 0.40 - 0.45 g/ml.

3.04 INSTALLATION, G.: Activated carbon is manufactured under high-temperature thermal processing conditions that effectively eliminate microbial contamination associated with the raw feedstock. Prior to service, the media does not provide a nutrient source that would be expected to support biological growth. On that basis, virgin activated carbon is generally not considered a likely origin of coliform or other bacterial detections. If microbiological failures are observed following installation, the source is typically more appropriately investigated elsewhere within the treatment or distribution system rather than attributed to the carbon media itself. Norit will not sample or test after the installation of GAC in the vessels nor will Norit be responsible for removing any GAC.

ADDENDUM NO 1, 3. F. 4. to replace 3.04. F.: Norit will not collect samples for testing nor will Norit perform or submit for any testing on the vessels or effluent water.



Where reactivation of spent GAC appears in the bid specification, the spent activated carbon (SAC) must be non-hazardous, free flowing, and free of debris. SAC that cannot be reactivated can be landfilled at an additional cost and must legally remain the property of the municipality.

If I can be of any assistance, please feel free to contact me via phone at 903.578.5141 or via email at brooke.broadus@norit.com. Please forward a copy of the bid tabulations to my attention when they are available. We look forward to an opportunity to serve your activated carbon needs.

Regards,
Norit Americas Inc.

A handwritten signature in blue ink that reads "Brooke Broadus".

Brooke Broadus
Inside Sales
brooke.broadus@norit.com
Cell: 903.578.5141

Enclosures: Product Datasheets
 References
 Safety Data Sheet

Product Bulletins
Pressure Vessel Changeout Procedure
NSF-61 Certification

REQUEST FOR PROPOSALS (RFP)

FOR

GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION

OWNER:

City of Wausau
Wausau Water Works
1801 Burek Ave
Wausau, WI 54401

ENGINEER:

Donohue & Associates, Inc.
3311 Weeden Creek Rd
Sheboygan, WI 53081

ISSUED:

April 14, 2026

REQUEST FOR PROPOSALS

PART 1 – GENERAL

1.01 SUMMARY

- A. The City of Wausau is seeking proposals for segregated reactivation of granular activated carbon (GAC) in pressure vessels at the City of Wausau Drinking Water Treatment Facility (DWTF) that are used to remove per- and polyfluoroalkyl substances (PFAS). The DWTF is located at 1801 Burek Avenue, Wausau, Wisconsin, 54401. Existing GAC shall be removed from vessels, reactivated in a segregated manner and reinstalled in vessels.
- B. The GAC Supplier (Proposer) shall provide a signed proposal meeting the requirements herein.
- C. Proposals will be reviewed by the City and Donohue & Associates (Engineer). The City will issue a Purchase Order to the selected Proposer.
- D. This RFP includes the following items:
 - 1. Request for Proposals (3 pages)
 - 2. Proposer Information and Cost Form (2 pages)
 - 3. Specifications:
 - a. Section RFP1 – 43 32 54.2 Granular Activated Reactivation (8 pages)
 - 4. Reference Documents (provided for reference only)
 - a. Attachment A: Conformed to Contract Drawings of PFAS Treatment Building (9 pages)
 - 1) 002-C-001: Site Development Project Overview
 - 2) 120-M-101: PFAS Treatment Building Plan
 - 3) 120-M-102: PFAS Treatment Building Plan
 - 4) 120-M-301: PFAS Treatment Building Sections
 - 5) 120-M-302: PFAS Treatment Building Section
 - 6) 120-M-303: PFAS Treatment Building Section
 - 7) 120-M-401: PFAS Treatment Building Isometrics
 - 8) 120-M-402: PFAS Treatment Building Isometric
 - 9) 120-M-403: PFAS Treatment Building Isometric
 - b. Attachment B: Aqueous Vets Operation & Maintenance Manual (76 pages)
 - c. Attachment C: GAC Product Data (12 pages)
 - d. Send email to swojtkiewicz@donohue-associates.com and a link to view Reference Documents will be provided.

1.02 PROPOSAL SUBMISSION

- A. All proposals must be submitted to City of Wausau on or before 4:00 p.m., CST, Monday May 4th 2026.
- B. Direct questions to

Scott Boers, Water Operations Superintendent
Wausau Water Works
Scott.Boers@wausauwi.gov
- C. Written questions will be accepted until 4:00 p.m., CST, April 24, 2026, at which time no more questions will be answered. Replies will be made by Addenda. Verbal answers are not binding on any party.

PART 2 – PRODUCTS

- A. Products shall be provided as specified in Section 43 32 54.2 in this RFP.

PART 3 – EXECUTION

3.01 PROPOSAL REQUIREMENTS

- A. All proposals shall be valid for no less than 60 calendar days. Once a purchase order is issued, price shall remain valid through delivery.
- B. All Proposers must submit their sealed proposal to the City of Wausau Engineering Department, located at Wausau City Hall, 407 Grant St. Wausau WI, 54403.
- C. Information to be included in the proposal includes:
 - 1. Proposer Information and Cost Form
 - 2. Proposed virgin GAC
 - a. Specifications and product technical information for the proposed virgin GAC. Technical information shall include, at minimum:
 - b. Standard product datasheets, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;
 - 5) Backwashed and drained density;
 - 6) Iodine number;
 - 7) Abrasion number;
 - 8) Moisture as packed (percent);
 - 9) Water soluble ash (percent);
 - 10) Total ash.
 - c. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
 - d. Soaking, backwashing and startup instructions. Start-up instructions shall specify downflow rinse volume and flow rate requirements after initial backwash for the proposed media product(s) or indicate that no such requirements are applicable to the proposed product(s).
 - e. Manufacturing location(s) and ship from location.
 - 3. Carbon Exchange Process
 - b. NSF-61 certification.
 - c. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
 - d. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
 - e. List of site features and Owner activities required to support carbon delivery.
 - f. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.

- g. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.*
**See cover letter for Norit's response to post GAC installation testing.*

D. Reference list:

- a. Proposer must provide five (5) references for which the proposer has provided segregated GAC reactivation for PFAS treatment that included supply of virgin GAC. Required information is as follows:

- 1) Account Name
- 2) City/State
- 3) Contact Name
- 4) Email
- 5) Phone Number
- 6) Type and Quantity of virgin GAC Supplied

References for virgin GAC are attached.

- D. While not required, Proposers are encouraged to include additional information in their proposals that illustrates benefits of the proposed products and the proposers service capabilities and technical capabilities.

- E. If portions of Proposal are considered confidential by Proposer, these items shall be clearly identified in Proposal and submittal information.

3.02 WITHDRAWAL OF PROPOSALS

- A. Proposals may be withdrawn up to the time of the proposal opening by written request to the City of Wausau. See 1.02.B. for contact information.

3.03 RIGHT TO ACCEPT OR REJECT

- A. The City reserves the right to select one, more than one, or none of the proposals submitted.
- B. If the required forms are not fully completed this can be used as a basis for rejection of the proposal.
- C. The City and/or Donohue reserves the right to contact any Proposer for clarification of information submitted, to contact current and past customers of the Proposer and to use other sources of obtaining information regarding the Proposer. In addition, the City reserves the right to negotiate any point in the proposal with the Proposer.
- D. The City reserves the right to determine the selection process. Price alone will not be the sole determining factor in the selection process.


3.04 PAYMENT TERMS

- A. Payment shall be net 30 days from return of treatment vessel to service.

3.05 TAXES

- A. Proposal shall include no costs for sales tax.

END OF SECTION

Authorized Signature: 
Printed Name: Brandon Hamilton for Norit Americas, Inc
Date: May 1, 2026

Proposal Contact Name: Brooke Broadus for Norit Americas, Inc
Address: 3200 University Dr.
Marshall, TX 75670
Telephone Number: 903.578.5141
Email: brooke.broadus@norit.com

**REQUEST FOR PROPOSAL
CITY OF WAUSAU
DRINKING WATER TREATMENT FACILITY PFAS TREATMENT
GRANULAR ACTIVATED CARBON REACTIVATION**

PROPOSER INFORMATION AND COST FORM

Company Name Norit Americas, Inc
 Address 3200 University Ave.
Marshall, TX 75670

The following is the proposed price the above-named company will agree to as the cost to furnish and install initial fill of granular activated carbon as specified in Section 43 32 54.2 of this RFP. Proposed pricing is based on the backwashed and drained density.

Alternate1: Install virgin GAC in one vessel and reactivate GAC from vessels one at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 1,400 cf, 1 vessel)	No Bid	X 1,400 cf =	No Bid
Reactivated Carbon (based on 7,000 cf, 5 vessels)	No Bid	X 7,000 cf =	No Bid
		Total Price	No Bid
Lead Time (days) from Receipt of Purchase Order to Delivery	-----		

Alternate 2: Install virgin GAC in two vessels and reactivate GAC from two vessels at a time.

Description	Price (\$/cubic foot)		Subtotal
Virgin Carbon (based on 2,800 cf, 2 vessels)	\$96.71/cubic foot*	X 2,800 cf =	\$270,788.00*
Reactivated Carbon (based on 5,600 cf, 4 vessels)	\$81.71/cubic foot*	X 5,600 cf =	\$457,576.00*
		Total Price	\$728,364.00*
Lead Time (days) from Receipt of Purchase Order to Delivery	45 days		

*Prices are contingent on acceptance of the provisions and exceptions noted in Norit's cover letter dated May 1, 2026.

SECTION 43 32 54.2
GRANULAR ACTIVATED CARBON (GAC) REACTIVATION

PART 1 – GENERAL

1.01 SUMMARY

- A. Furnish all materials, equipment, labor and supervision for the custom segregated reactivation including removal, transport, reactivation, supply of makeup granular activated carbon (GAC), and reinstallation into the PFAS Treatment System vessels.

1.02 DEFINITIONS

- A. GAC: Granular Activated Carbon
- B. PFAS: Per- and Polyfluoroalkyl Substances

1.03 REFERENCES

- A. ANSI: American National Standards Institute
- B. ASTM: American Society of Testing Materials
- C. AWWA: American Water Works Association
- D. FCC: Food Chemical Codex
- E. NSF: National Sanitation Foundation / NSF International

1.04 SYSTEM DESCRIPTION

- A. Existing system consists of six pairs of vessels operated in lead-lag configuration.
- B. Drawing 120-M-102 in Attachment A shows general vessel layout.
- C. Treatment system information, including manufacturer operation and maintenance instructions, is provided in Attachment B.
- D. Each Vessel:
 - 1. Diameter: 144 inches
 - 2. Side shell height: 168 inches
 - 3. Overall height (approximate): 24 feet 5 inches
 - 4. Working pressure: 125 psi @ 150° F
 - 5. Manway:
 - a. Flanged at side shell: 24 inches
 - b. Elliptical type at head: 14 by 18 inches
 - 6. Vessel Volume:
 - a. 2,000 ft³
 - b. 15,000 gallons
 - 7. Maximum Flow Rate (GAC): 1,100 gpm
 - 8. Design Criteria: ASME
 - 9. Underdrains:
 - a. External ring header: 8-inch Sch. 40 Carbon Steel
 - b. Septa Screens:

- 1) 8 per vessel
- 2) 316L Stainless Steel V-Wire Screens 4 ½ inch diameter by 12" effluent

E. Piping:

1. Process Piping: 10" Sch 40 Carbon Steel
2. Media Transfer Piping: 4" Sch 40 Lined Carbon Steel

F. Valves:

1. Process: 10" Butterfly, DI Body, CI Disc w/ 316SS trim, Kinetrol Pneumatic Actuator
2. Media Transfer: 4" Flanged 316 Stainless Steel Full Port Ball Valve

G. Media:

1. Filtrasorb 400-01 supplied by Calgon Carbon Corporation.
2. 1,400 cubic feet per vessel currently installed.
3. Media has not been reactivated.
4. See Attachment C for product data.

1.05 SUBMITTALS

A. General:

1. Submit Product Data in sufficient detail to confirm compliance with the requirements of this Section. Submit Product Data and Shop Drawings in one complete submittal package. Partial submittals are unacceptable.

B. Shop Drawings and Product Data:

1. Carbon Exchange Process

- a. NSF-61 certification.
- b. Description of the reactivation process including:
 - 1) Location of reactivation facility
 - 2) Process for segregating and assuring integrity of Owner's GAC
 - 3) Quality control and quality assurance procedures
- c. Step-by-step process for removal of spent carbon, transport, reactivation and reinstallation including rinsing or pre-treatment requirements and soaking, backwashing, and start-up instructions.
- d. List of site features and Owner activities required to support carbon delivery.
- e. Process for disinfecting or testing vessels after GAC removal and prior to reinstallation of GAC.
- f. Process for safe water testing after reinstallation of GAC and disinfection of GAC in vessel if safe water tests cannot be obtained.

2. Make-up GAC

- a. Standard product datasheets showing specifications and typical properties, including typical ranges of:
 - 1) U.S. mesh size;
 - 2) Effective size;
 - 3) Uniformity coefficient;
 - 4) Apparent density;

- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Temperature-specific media downflow pressure drop curves and backwash bed expansion curves.
- c. NSF-61 certification.
- d. GAC shall be produced in the U.S.A.
- e. Description of the GAC supply chain, including the source of coal, carbon manufacturing location, a description of the activation process, where the carbon will be shipped from, how much of the applicable carbon type is typically stockpiled and at what location, and a description of the Supplier's delivery truck fleet.

2. Upon delivery, submit weight tickets, delivery truck wash-out certificates, and approximately a one (1) pound sample of the lot of GAC.

B. Test Results:

1. Virgin GAC

- a. Supplier's Certificate of Analysis for virgin GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the Manufacturer's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Water soluble ash (percent);
- 10) Total ash.

- b. Do not ship virgin GAC to site until test results are approved.

2. Reactivated GAC

- a. Supplier's Certificate of Analysis for reactivated GAC provided. The procedure for sampling, analysis, and reporting shall be as follows: 1) The certified laboratory selected by the Supplier shall analyze the material based on the requirements of these specifications. Testing methods shall be in accordance with Section 4 (Testing Methods) of the AWWA B604, the Food Chemical Codex protocol (National Academy Press), and appropriate ASTM standards. 2) A test report shall be submitted by the

Supplier showing compliance with the specifications described herein, along with a statement certifying that the material for shipment is equal in quality to and from the same lot as the representative sample submitted. 3) Test reports on the representative samples of GAC shall contain the GAC Supplier's name, date of sampling, lot number, and the following information:

- 1) U.S. mesh size;
- 2) Effective size;
- 3) Uniformity coefficient;
- 4) Apparent density;
- 5) Backwashed and drained density;
- 6) Iodine number;
- 7) Abrasion Number;
- 8) Moisture as packed (percent);
- 9) Total ash.

b. Do not ship reactivated GAC to site until test results are approved.

3. Coliform Test (Safe Water Test)*

a. Provide testing by WDNR certified laboratory.

C. Operation and Maintenance (O&M) Data:

1. Operating instructions and maintenance data for materials and products for inclusion in O&M Manual.

1.06 QUALITY ASSURANCE

- A. Comply with AWWA Standard B605-18 – Reactivation of Granular Activated Carbon and NSF/ANSI 61, Drinking Water System Components—Health Effects.
- B. GAC Supplier's reactivation facility shall be NSF/ANSI 61 certified.
- C. The GAC Supplier shall furnish product(s) with a minimum of five (5) years of history of use in municipal drinking water facilities in North America with at least five (5) installations, and supplier shall have a minimum of five (5) years of experience performing carbon exchanges.
- D. GAC loading operations shall be under the direct supervision of the GAC Supplier having a minimum of 5 years of experience in performing carbon exchanges.

1.07 DELIVERY AND SCHEDULING

- A. Delivery shall be during normal facility operating hours, 7 am to 3 pm, Monday through Friday.
- B. Carbon shall be delivered in quantities sufficient to fill an entire vessel within one day. Splitting the fill of an individual vessel over more than one day shall not be acceptable.
- C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period.
- D. No vessel shall be out of service for more than 4 calendar days.*
- E. The Carbon Supplier shall deliver the GAC in trailers used solely for the transport of GAC used in potable water facilities. Trailers shall be thoroughly cleaned and dried prior to filling with Owner's GAC and shall be lined or constructed with materials suitable for transporting GAC that

*See provisions and exceptions in the cover letter dated 5/1/2026.

will be in contact with potable water. If requested by Owner or Engineer, supplier shall submit an affidavit stating that only Owner's GAC was loaded into the trailers after initial food grade washout.

- F. A trailer washout validation certificate shall be provided at carbon delivery.
- G. All trailer openings, hoses, and fittings shall be disinfected and sealed by numbered security seals upon arrival to the job site. Hoses and fittings shall be dedicated to potable water projects.

PART 2 – PRODUCTS

2.02 GENERAL

- A. The GAC Supplier shall provide custom segregated reactivation of GAC whereby Owner's spent GAC is reactivated with no intermingling with spent GAC from another source. Owner shall receive back the original GAC in a reactivated condition. GAC Supplier may propose reactivation by supplying one or two vessels of virgin carbon based on the two alternates listed below. **In no case shall more than one vessel be out of service at any time.**

1. Alternate 1

- a. Spent GAC shall be removed from the first vessel and virgin GAC installed in the vessel.
- b. Spent GAC shall be removed from the second through sixth vessels and reactivated GAC installed in the vessels.
- c. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

2. Alternate 2

- a. Spent GAC shall be removed from the first two vessel and virgin GAC installed in the two vessels.
- b. Spent GAC shall be removed from the third and fourth vessels and reactivated GAC installed in the vessels.
- c. Spent GAC shall be removed from the fifth and sixth vessels and reactivated GAC installed in the vessels.
- d. Remaining reactivated GAC shall be stored by GAC Supplier until next round of replacements or delivered to Owner facility in proper storage state and container.

- B. The GAC Supplier shall provide pricing based on following volume that remains following in-place backwashing and draining, per AWWA B604:
 - a. 1,400 cubic feet per vessel, 6 vessels
 - b. The number of vessels filled and total quantity of GAC supplied shall be in accordance with the purchase order issued by the City.

2.03 REACTIVATION FACILITY

- A. Meet requirements of AWWA B605 including having NSF 61 certification
- B. Provide to Owner certification of custom segregated reactivation.
- C. Provide to Owner chain of custody for each lot of GAC reactivated.

2.04 MAKEUP GAC

A. General

1. The GAC used to makeup required volume shall be virgin material manufactured from an approved coal base.
2. Broken pellets, lignite-, peat-, wood-, coconut-, and anthracite-based GAC shall not be accepted.
3. The base bid GAC shall be acid washed or otherwise pretreated by the manufacturer to reduce potential leaching of inorganic contaminants, including arsenic, during start-up.

B. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 1 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 1 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number	mg/g	950
Maximum Moisture by Weight	%	3
Effective Size	mm	0.55-0.75
Maximum Uniformity Coefficient	-	1.9
Minimum Abrasion Number (AWWA)	-	75
Apparent Density	g/cc	0.49-0.57 0.46-0.52 g/ml
Backwashed and Drained Density	g/cc	0.42-0.48 0.40-0.45 g/ml
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5
Maximum Clean Bed Headloss at 55 deg F and Superficial Velocity of 9 gpm/ft ²	in H ₂ O / ft of bed	10
Maximum Superficial Velocity Required for 30% Bed Expansion During Backwash at 55 deg F	gpm/ft ²	10

C. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

2.05 REACTIVATED GAC

A. Product Characteristics

1. The GAC shall conform to the product characteristics listed in Schedule 2 of this Section.
2. Physical characteristics of the product delivered shall be consistent with the typical physical characteristics of the Manufacturer's standard bulk product for municipal water treatment clients.
3. The GAC shall be visually free from deleterious foreign materials such as clay, dirt, plastic, etc.

Schedule 2 – Bituminous GAC Product Characteristics

Parameter	Units	Media Design Value
Base Material		Coal
Type		Bituminous
NSF 61 Certified		Yes
Acid Washed (or Equivalent Pre-Treatment)		Yes (for base bid)
Minimum Iodine Number		
Spent Activated Carbon (SAC) > 500 mg/g	mg/g	850
Spent Activated Carbon (SAC) < 500 mg/g	mg/g	+250 mg/g from SAC
Maximum Moisture by Weight	%	3
Apparent Density	g/cc	0.44-0.57
Backwashed and Drained Density	g/cc	0.38-0.49
Screen Size by Weight, US Sieve Series	-	-
Maximum Retained on 12 Mesh	%	5
Maximum Through 40 Mesh	%	5

B. Handling Characteristics

1. The GAC's physical size and density shall be such that it shall flow readily within the GAC transfer piping and must form a workable slurry.

PART 3 – EXECUTION

3.01 COORDINATION

A. Prior to scheduling Work on site:

1. Provide Shop Drawings and Product Data for Owner and Engineer review and approval.
2. Schedule virtual coordination meeting with Owner and Engineer to review exchange process and site requirements.

3.02 GAC REMOVAL

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. Prior to removal, isolate vessel from treatment mode, complete a backwash and lower the water level just below the top of the carbon bed and take freeboard measurements.
- D. Transfer media using vessel pressurization method of AWWA B605.

- E. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.

3.03 GAC REACTIVATION

- A. Transport GAC to reactivation facility.
- B. Segregate Owner's GAC from any other materials and maintain chain of custody of GAC.
- C. Reactivate GAC.
- D. Transport back to Owner's facility.

3.04 INSTALLATION

- A. Makeup or rinse water needed for the transfer shall be chloraminated, potable water provided by the Owner. The typical monochloramine residual in the potable water available for transfer is 2-3 mg/L as total chlorine. The GAC Supplier shall provide any necessary hoses, sight glasses, piping, and appurtenances for using this water.
- B. The compressed air supply required for transfer of carbon shall be provided by the Owner.
- C. All water used in the transfer process shall be discharged to the Process Water Drain Sump in Building 120 or to the Process Waste Tank sump in Building 100. No discharges will be permitted without Owner's permission.
- D. GAC shall be transferred as a water slurry only with carbon pre-wet in the trailer, using air pressure on the trailer as the motive force. Use of a pump or eductor to transfer the carbon from the trailer into the adsorber vessels is prohibited. Bag loading or dry loading of the GAC into the adsorber vessels is prohibited. The GAC shall be loaded into the trailers before the trailers are driven to the site.
- E. The GAC Supplier shall be responsible for cleanup of all GAC and slurry spills that may occur during the GAC transfer operation.
- F. ~~Following reinstallation of GAC, obtain safe water samples. Two negative coliform samples, a minimum of 24 hours apart are required.~~
[See addendum.](#)
- G. If safe water samples cannot be obtained, GAC Supplier shall disinfect vessel and resample. Disinfection shall be commenced within 2 days of receipt of unsafe water sample and completed within 5 days of receipt of unsafe water sample. Vessel shall be resampled and returned to service within 7 days of receipt of unsafe water sample.*

END OF SECTION

*See provisions and exceptions noted in the cover letter dated 5/1/2026.

**ADDENDUM NO. 1
TO THE
REQUEST FOR PROPOSALS
FOR
GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION
CITY OF WAUSAU, WISCONSIN**

DATE: April 27, 2026

TO ALL PROPOSERS ON THE ABOVE PROJECT:

All Proposers shall carefully read this Addendum and give it consideration in the preparation of their Proposal.

The following are revisions to the Request for Proposals:

1. Page RFP1-43 32 54.2-4, delete subparagraph 1.07.C. and replace with the following:

“C. Vessel changeout schedule shall be as directed by Owner but no more than one vessel changeout shall occur per two week period for Alternate 1 and no more than two vessel changeouts shall occur per two weeks period for Alternate 2. No more than one vessel may be out of service at a time.”

2. Page RFP1-43 32 54.2-6, modify values for Apparent Density as follows:

Parameter	Units	Media Design Value
Apparent Density	g/cc	0.49 – 0.70**

***See cover letter dated 5/1/2026 for exceptions to this specification.*

3. Page RFP1-43 32 54.2-8, delete subparagraph 3.04.F. and replace with the following:

“F. Procedure for disinfection of vessels and safe water testing shall be:

1. After removal of existing GAC from vessel, disinfect vessel per AWWA 653.
2. Collect sample for coliform testing by a WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.*
3. Install virgin or reactivated GAC and fill vessel with water.
4. Collect a second sample for coliform testing by WDNR-certified lab. A lab result of coliform absent/not present is considered a safe sample.*

**See cover letter dated 5/1/2026 for exceptions to this specification.*

Any revisions to Request for Proposal made by this Addendum shall be considered as the same revision to any and all related areas of the Request for Proposal not specifically called out in this Addendum.

The Proposer shall acknowledge receipt of this Addendum via email to Scott.Boers@wausauwi.gov.

ISSUED BY:

CITY OF WAUSAU
WAUSAU WATER WORKS
1801 BUREK AVE.
WAUSAU, WI 54401

**ADDENDUM NO. 2
TO THE
REQUEST FOR PROPOSALS
FOR
GRANULAR ACTIVATED CARBON SEGREGATED REACTIVATION
CITY OF WAUSAU, WISCONSIN**

DATE: May 1, 2026

TO ALL PROPOSERS ON THE ABOVE PROJECT:

All Proposers shall carefully read this Addendum and give it consideration in the preparation of their Proposal.

The following are revisions to the Request for Proposals:

1. Page RFP3, add the following:

- 3.06 WAGE RATES

- A. The Contractor and Subcontractors shall pay wages not less than the prevailing hourly wage rate for each classification of employee engaged on the Work as determined by the United States Department of Labor.
 - B. The Contract shall be subject to Section 66.0903 of the Wisconsin Statutes pertaining to municipal wage scales and Federal Davis-Bacon wage rates.
 - C. The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of Work that may be performed by any employee in any particular period of time.
 - D. The Contractor shall post a copy of the wage determination in a prominent place at the site of the Work where the employees can easily see it.
 - E. Contractor shall use the latest Davis Bacon Wage Determination that is effective on the bid date for determining the prevailing rate(s) of hourly wage applicable to this Contract. The wage rate schedule(s) cannot be altered during the time the Contract is in force. The wage schedule attached is the one effective on the date of advertisement and may be updated prior to the bid date. The wage rate schedule can be found online at <https://www.sam.gov>. The wage rate schedule effective on the date of bid opening shall become part of the Contract Documents
2. See attached Wage Determination.

Any revisions to Request for Proposal made by this Addendum shall be considered as the same revision to any and all related areas of the Request for Proposal not specifically called out in this Addendum.

The Proposer shall acknowledge receipt of this Addendum via email to Scott.Boers@wausauwi.gov.

ISSUED BY:

CITY OF WAUSAU
WAUSAU WATER WORKS
1801 BUREK AVE.
WAUSAU, WI 54401

NORIT® GAC 400 PLUS

Granular Activated Carbon

WHY NORIT

Since 1918, we have been helping our customers to make pure products, reach environmental compliance, and create catalytic performance. As one of the largest activated carbon manufacturers globally, we provide quality and stability. We offer a very diverse set of NORIT activated carbon products, many of them yielding truly unique performance benefits. Our experienced staff, including dedicated application specialists, can help you find a best fitting solution for your specific situation.



NORIT GAC 400 Plus is a high purity, acid washed granular activated carbon produced by steam activation of select grades of coal. As a result of a unique patented activation process and stringent quality control, NORIT GAC 400 Plus offers superior adsorption properties for the removal of impurities from potable water. NORIT GAC 400 Plus meets all AWWA B604 standards for potable water use and is NSF/ ANSI Standard 61 Certified.

SPECIFICATIONS

Iodine number	min. 950	-
Apparent density, vibrating feed	min. 0.46	g/ml
	max. 0.52	g/ml
Abrasion number (AWWA)	min. 75	-
Particle size > 12 mesh (1.70 mm)	max. 5	%
Particle size < 40 mesh (0.425 mm)	max. 5	%
Effective size	min. 0.55	mm
	max. 0.75	mm
Uniformity coefficient	max. 1.9	-
Moisture (as packed)	max. 3	%

GENERAL CHARACTERISTICS

Density, backwashed and drained	0.40 - 0.45	g/ml
	25.0 - 28.1	lb/ft ³

NORIT® GAC 400 PLUS

Granular Activated Carbon

NOTES

1. For important product safety, health, environmental and regulatory information, please refer to the Safety Data Sheet (SDS) which is available upon request.
2. General characteristics reflect representative values of product parameters and are not to be used as purchase specifications.
3. All analyses based on standard test methods and specifications are guaranteed values based on lot-to-lot quality control, as covered by Norit Activated Carbon's ISO 9001 certification.

PACKAGING

This product is available in:

- Woven polypropylene bulk bag, 1000 lb (454 kg) net weight

Product availabilities depend on the type of packaging.



norit.com

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NORIT® GAC 400 Plus

Acid Wash, 12x40 Mesh



BENEFITS



Domestic Manufacturing: Produced in Oklahoma from high-quality U.S.-mined bituminous coal, ensuring consistent quality and reliable supply.



Cost-Effective for Broad Applications: Lower capital cost than ion exchange and membranes.



Long-Term Service Life: One granule can be reactivated 5-6 times.



Reliable and Proven Technology: Backed by decades of usage history across industries and geographies.



High Mechanical Strength: Reduces fines generation during backwashing and hydraulic transport, improving operational longevity.



Effective for Contaminant Removal: High performance adsorption of PFAS, VOCs, TOCs, THMs, pesticides, and taste/odor compounds in water.

FEATURES



Uniform Activation: Granules are fully activated throughout, not just at the surface, resulting in excellent adsorption properties and consistent kinetic performance.



Reagglomerated Structure: Promotes thorough wetting and reduces floating particles, enhancing initial system performance.



Abrasion Resistance: Designed for durability through high abrasion resistance, enabling effective thermal reactivation.



Bed Integrity Retention: Maintains carbon bed stratification after repeated backwashing, preserving adsorption profiles and maximizing service life.



Acid Washed: Removes ash and soluble impurities, including arsenic and iron, lowering pH and enhancing performance in sensitive water systems.

SPECIFICATIONS

Iodine Number	> 950 mg/g
Abrasion Number (AWWA)	> 75
Moisture, as Packed	2% Maximum
Apparent Density, Vibrating Feed	30 lb/ft ³
Effective Size	0.65 mm
Uniformity Coefficient	1.7 Maximum

GENERAL CHARACTERISTICS

Density, Backwashed, and Drained	26 lb/ft ³
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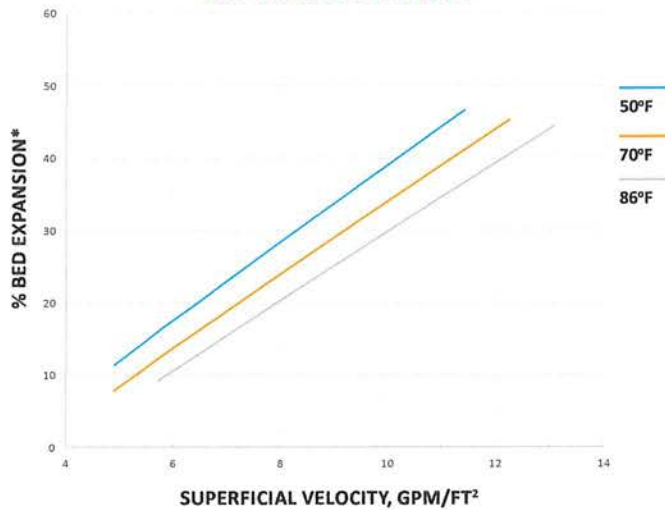
APPROVALS AND CERTIFICATIONS

- BABA Compliant
- NSF/ANSI Standard 61
- AWWA B604 Standards
- Kosher Certified/Compliant
- Halal Certified
- U.S. Food Chemicals Codex

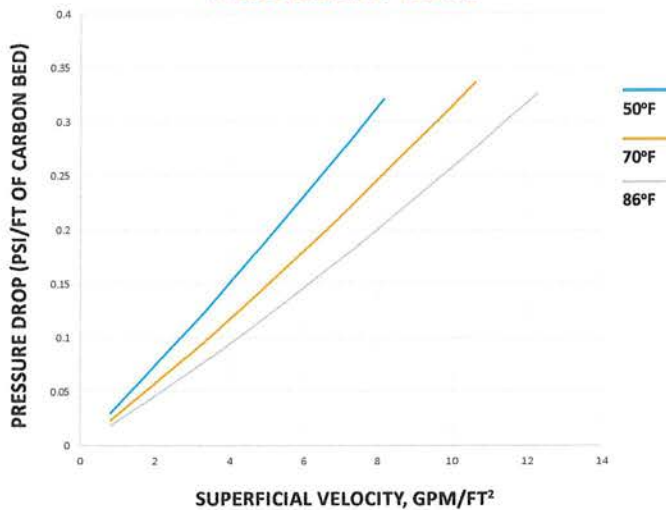


ENGINEERING DATA

BED EXPANSION CURVE



PRESSURE DROP CURVE



NEW CARBON BED CONDITIONING

- Fill the carbon vessel with water and allow the carbon to soak for 8 hours or longer.
- After soaking, begin the initial backwash using product water.
- Bed conditioning removes any fines and stratifies the carbon bed.
- Adjust the backwash flow rate until at least 30% bed expansion is reached.
- Backwash for a minimum of 20 minutes (to allow bed stratification) until the exit water runs clear (no fines).
- Normal bed conditioning takes between 30 and 60 minutes.

ABOUT NORIT

Building on our greater than 100-year history of innovation in manufacturing and product development, NORIT Activated Carbon is the world's most experienced and one of the largest producers of activated carbon.

Our products are used to remove pollutants, contaminants, and/or other impurities from water, air, food and beverages, pharmaceutical products, and other liquids and gases in an efficient and cost-effective manner.



CONNECT WITH US:

email: acsalesna@norit.com

NORIT Pryor Capabilities

Our History & Experience

For more than 100 years, NORIT has been a global leader in activated carbon innovation, manufacturing, and application expertise. Our products are trusted in municipal water treatment plants, industrial facilities, and environmental remediation projects worldwide. Backed by deep technical knowledge and a history of solving complex treatment challenges, NORIT is recognized as an industry standard for quality, performance, and reliability.

Today, NORIT is poised for continued growth, expanding our ability to serve critical markets, such as drinking water treatment, wastewater management, and advanced contaminant removal. With strong domestic production and technical support, we are positioned to meet the evolving needs of engineers and utilities for decades to come.

Pryor, Oklahoma Production

NORIT's Pryor facility is one of the largest and most advanced activated carbon production plants in North America. Strategically located to serve municipal and industrial customers across the U.S., Pryor manufactures a wide range of granular and powdered activated carbons designed for drinking water, wastewater, and vapor phase applications.

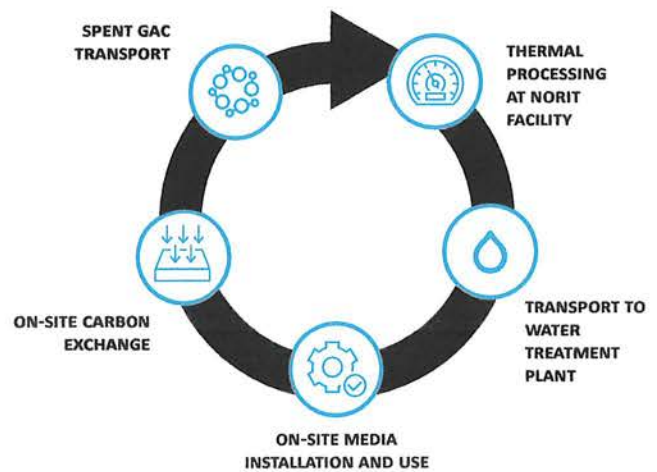
- **Production process:** U.S.-mined bituminous coal-based feedstocks are thermally activated to create a highly porous structure, delivering superior adsorption capacity.
- **Product output:** Consistent, high-quality products are optimized for taste and odor control, PFAS mitigation, and other emerging contaminants.
- **Reliability:** Domestic production ensures a secure, steady supply with shorter lead times.



Reactivation Capabilities

In addition to producing virgin activated carbon, Pryor houses an NSF-certified rotary kiln reactivation unit that allows for sustainable and cost-effective carbon management for custom municipal reactivation.

- **Process:** Spent activated carbon is thermally treated, where contaminants, including PFAS, are safely destroyed or broken down at high temperatures (1750°F).
- **Outcome:** The carbon's adsorption capacity is restored, meeting stringent environmental and quality standards.
- **Value:** Customers benefit from reduced disposal costs, minimized environmental footprint, and a circular solution for carbon use.





Granular Activated Carbon Project Descriptions and Customer References

Dallas Park Cities WTP
1811 Regal Row
Dallas, TX 75235

Contact: Hector Ortiz
Telephone: 214-652-8639
e-mail: ortiz@parkcitieswater.com

- Supply of 370,000 lbs. of NORIT® GAC 300
- Removal and disposal of spent GAC. Disposal by regeneration at Norit's facility.
- Partner with Tetrasolv Filtration for turnkey changeout service.
- Current contract in effect since 2012. Last serviced in 2025.

City of Sioux Falls
2100 N. Minnesota Ave.
Sioux Falls, SD 57104

Contact: Matt James
Telephone: 605-373-6942
e-mail: matt.james@siouxfalls.gov

- Bulk installation of 103,000 lbs. annually NORIT® GAC 300.
- Removal and disposal of spent GAC. Disposal by regeneration at Norit's facility.
- Onsite technical supervision, labor and equipment for changeout service.
- Continuous Technical Support and analysis of pre-shipment material and of "in-service" samples
- Last serviced in 2021. Service is planned for 2025.

Genesee Water and Sanitation District
2310 Bitterroot Lane
Golden, CO 80401

Contact: Bob Calley
Telephone: 303-278-9780
E-Mail: bcalley@geneseeewater.com

- Annual supply of NORIT® GAC 300.
- Bulk removal of SAC for processing at our reactivation facility.
- Onsite technical supervision, labor, and equipment for changeout service.
- Continuous Technical support and analysis of in-service samples. Last serviced in 2024.

City of Aurora, CO
Binney Water Treatment Plant
5160 s. Robertsdale Way
Aurora, CO 80016

Contact: Kevin Linder
Telephone: 720.859.4714
E-mail: klinder@auroragov.org

- Bulk supply and installation of 800,000 lbs. of NORIT® GAC 300.
- Removal and disposal of spent GAC.
- Partner with Tetrasolv Filtration for turnkey changeout service.
- Continuous Technical support and analysis of in-service samples.
- Current contract in effect since 2009. Last serviced in 2024.

City of Tulsa, OK
3600 E. Mohawk Blvd.
Tulsa, OK 74115

Contact: Dustin Davis
Telephone: 918-596-8020
e-mail: dustindavis@cityoftulsa.org

- Bulk supply and installation of 600,000 lbs. of NORIT® GAC 820 annually.
- Removal and disposal of spent GAC. Disposal by regeneration at Norit's facility.
- Onsite technical supervision, labor and equipment for changeout service.
- Continuous Technical support and analysis of in-service samples.
- Current contract in effect since 2001. Last serviced in 2025.

GAC Bulk Slurry Change-Out Procedures For Pressure Vessels

NORIT TECHNICIAN FUNCTIONS

- Job supervision and coordination.
- Labor for running and connecting hoses, operating eductor if necessary, etc.
- Provides communications and instructions to the bulk trailer operator for items such as timing for opening and closing transfer lines; communicates with the vessel operator for timing to fill and operate the vessel and communicates with other customer's site personnel.
- Troubleshooting and Technical Assistance if required.

BULK TRAILER DRIVER RESPONSIBILITIES

- Connects water hoses and transfer lines to the bulk trailer.
- Assists with running hoses from the trailer to the vessel.
- Operates trailer valves to introduce water and to begin and end the carbon transfer.
- Operates trailer air pressure system.

CUSTOMER TO PROVIDE AT JOBSITE

- One person to operate vessel and assist with logistical information.
- Bulk truck access within 100 ft. of vessel, parking, and draining area for excess water.
- A high-volume, high-pressure water source (80 psi / 200 gpm minimum).
- Drainage and holding area for excess water and backwash water.
- OSHA approved access to the top manway of the vessel (ladder, lift, scaffold, etc.).

BULK TRAILER CONFIGURATION AND SITE REQUIREMENTS

Norit's bulk trailers are sized to accommodate a maximum of 40,000 pounds (1,440 cu.ft.) of Granular Activated Carbon (GAC). Drivers are specifically trained in the slurry method of transferring GAC to and from pressure vessels and gravity filters.

Trailers have the following characteristics:

- Self-contained air blower on the tractor capable of producing 650-700 CFM air to the trailer.
- Trailer lining is FDA approved food grade.
- Operating pressure of trailer is 15 psig, hydro-tested at 22.5 psig.
- Design temperature of trailer is 180° F maximum.
- (4) 20" full opening manholes with hinged covers.
- Conical hoppers at 45° slope.
- Capacity varies from 1500 ft³ to 1800 ft³
- Compartment variations include:
 - Single – Maximum 40,000 lbs / 1,440 cu.ft.
 - Double – Maximum 20,000 lbs per compartment / 720 cu.ft.
 - Triple – (2) compartments max. 10,000 lbs each; (1) compartment max. 20,000 lbs

Bulk trailer dimensions vary. Below will assist with access considerations:

- Max height 13.5 ft. Recommend minimum of 14 ft. clearance
- Max width 8.5 ft.
- The tractor trailer rig length has the highest variability. Allowing for 70 ft should be sufficient. Please inform Norit of tight turns.
- Minimum clearance for piping on bottom of trailer – 12 inches. Please inform Norit of any clearance concerns such as slopes, humps, Railroad Tracks, etc.

Water pressure of 60-100 psig and a flow rate of 150-250 gpm is usually adequate to transport a slurry of GAC (1-3 pounds per gallon) at 4-7 feet per second. To minimize carbon abrasion, the maximum velocity in the transfer piping should not exceed 10 feet per second. Transfer piping or hoses should not have sharp bends or right angle turns. GAC transfer hoses provided by Norit are 4 inches in diameter and 25 feet long. Multiple 25-foot sections of hose may be connected easily using the “quick connect” fittings on the ends of the hose.

Double compartment trailers can deliver up to 20,000 pounds (720 cu.ft.) of virgin GAC in the front compartment and can load 20,000 pounds (dry weight) of Spent Activated Carbon (SAC) in the rear compartment. Thus, one double compartment trailer can be utilized to service a 720 cu.ft. carbon filter. Similarly, triple compartment trailers are configured to allow 20,000 pounds of SAC to be loaded into the center while up to 10,000 pounds of virgin GAC is contained in each the front and rear compartments.

All trailers have a 2” water connection fitting welded to the front of the bottom product line to allow for connection to a water source to wet the virgin carbon. A 4” loading pipe is welded to the trailer and runs from the rear ladder up to the top of the trailer. The end of the loading pipe is chest high at the rear of the trailer. This allows the 4” slurry hose to be connected to the trailer safely and with ease.

Trailers are equipped with Johnson screens installed in the bottom of each hopper. All Johnson screens are connected to a common 2” or 3” pipe with cam-lock fittings on each end. The ends can be capped during pressurization, or a drain hose can be connected to this pipe to route the drain water to a sump, storm drain, or other area for disposal. Distances and type of drainage must be communicated in advance to ensure sufficient drain hoses and connectors are brought to the job site. *The trailer must not be moved when full of GAC and water. The trailer should only be moved when the water has been drained.*

LOADING A BULK TRAILER WITH SPENT CARBON

SAC is transferred from the carbon filter to the empty bulk trailer using water or air as the motive force. Most GAC pressure filters have a carbon discharge pipe located at or near the bottom of the filter. GAC filters with bed support (i.e. gravel, anthracite, etc.) usually have a discharge pipe located on the side just above the support layer. Typically, this pipe is 2” or 4” in diameter with a cam-lock fitting on the end or with a blind flange. Four-inch slurry hoses are connected from the loading pipe on the trailer to the carbon discharge pipe connection of the filter.

Once the hoses are connected, air pressure from the top of the filter or water pressure from the bottom of the filter is used as a motive force. When the pressure on the filter reaches 30-40 psig, the valve on the GAC discharge line is opened and the SAC slurry is transferred into the trailer. The pressure must always be maintained during transfer. Loss of pressure may result in hose blockage. Higher pressure (>40 psi) is necessary when the distance from the carbon filter to the trailer is greater than 100’.

For vessels not equipped with a discharge pipe, a water eductor and PVC pipe can be used to remove SAC. This process is slower.

INSTALLING FRESH CARBON

GAC is transferred from bulk trailers to the receiving vessel by a water slurry transport process that minimizes carbon particle attrition. A 2" ball valve with a cam-lock fitting is connected to the water source fitting to control the water flow. To wet the carbon, the bottom product line must be capped, the trailer must be vented, and the hopper valve(s) opened, then the water valve is opened. This allows water to enter through the valve(s) at the bottom of the hopper. Once the GAC inside the trailer is covered with water, the water valve is turned off, hopper valves and trailer hatches are closed, and air from the tractors blower is used to pressurize the trailer.

A 2'-3' cushion of water must always be added to the filter prior to loading GAC. This cushions the carbon slurry as it is transferred into the filter and avoids particle attrition and damage to the filter screens. A 4" slurry hose is connected from the bottom product line of the trailer to the carbon filter. It is important to open the water valve approximately 1/4" to introduce a small stream of motive water, which help to prevent plugging. Carbon filters are filled with the GAC slurry either by routing the 4" slurry hoses through the top manway of the filter, or if equipped, connecting to a 4" carbon fill pipe.

SAFETY CONSIDERATIONS

Consult the Safety Data Sheet (SDS) for this product for Safety Considerations. SDS's are provided with product delivery and available by request to acsalesna@norit.com.

Wet activated carbon may deplete oxygen from the air. Personnel should never enter confined tanks containing activated carbon without observing confined space entry procedures.



Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
 Issue date: 9/25/2025 Revision date: 9/26/2025 Supersedes: 9/25/2025 Version: 6.1

SECTION 1 Identification

1.1. Product identifier

Product form : Substance
 Substance name : Granular steam activated carbon; S-GAC
 Product code : S-GAC

1.2. Other means of identification

No additional information available

Other means of identification:

DARCO® 12X20	NORIT® GAC 1240G	NORIT® GCNX 1840	NORIT® ROW 0.8 SUPRA
DARCO® 12X40	NORIT® GAC 1240R	NORIT® GCNY 1240	NORIT® ROW 0.8 SUPRA N
DARCO® 20X40	NORIT® GAC 1240W	NORIT® MRX-AF	NORIT® ROX 0.8
DARCO® 4X12	NORIT® GAC 1240WI	NORIT® MRXW	NORIT® ROX 0.8 T
DARCO® 4X12B	NORIT® GAC 2442	NORIT® PK 0.25-1	NORIT® ROX 0.8 TX
DARCO® 8X30 A	NORIT® GAC 300	NORIT® PK 0.25-1 M	NORIT® ROY 0.8
DARCO® BG 1	NORIT® GAC 3040 AW	NORIT® PK 0.25-1 NG	NORIT® RST 3
DARCO® BG 1-12	NORIT® GAC 400	NORIT® PK 1-3	NORIT® RST 4
DARCO® BG 1P	NORIT® GAC 400 PLUS	NORIT® PK 1-3 M	NORIT® RX 1.5 EXTRA
DARCO® BGH	NORIT® GAC -40R	NORIT® PK 2-4 M	NORIT® RX 3 EXTRA
DARCO® H2S	NORIT® GAC 40S	NORIT® PK 3-5	NORIT® RX 4 EXTRA
DARCO® H2S HF	NORIT® GAC 410 AF	NORIT® PK 3-5 M	NORIT® RXS 1
DARCO® H2S LP	NORIT® GAC 48 W	NORIT® PKDA 10x30 MRX	NORIT® SILREACT
DARCO® H2SG	NORIT® GAC 610	NORIT® R 0.8 AGRU	NORIT® SoilPure 12x20
DARCO® MRX	NORIT® GAC 612WFD	NORIT® R 0.8 EXTRA	NORIT® VAPURE™ 410
HYDRODARCO® 3000	NORIT® GAC 816W	NORIT® R 1 EXTRA	NORIT® VAPURE™ 610W
HYDRODARCO® 4000	NORIT® GAC 818AW	NORIT® R 2030	NORIT® VAPURE™ 612
HYDRODARCO® 820	NORIT® GAC 820	NORIT® R 2030 CO2	NORIT® VAPURE™ REACT
NORIT® 1240 XCT	NORIT® GAC 830	NORIT® R 2030W	NRS CARBON EA 0.5-1.5
NORIT® 1240X	NORIT® GAC 830 AF	NORIT® R 2040W	NRS CARBON EA 3-4
NORIT® 830WPLUS	NORIT® GAC 830 AFM	NORIT® R 2540W	NRS CARBON EA 3-4 UK
NORIT® 830X	NORIT® GAC 830 AFMX	NORIT® R RMA	NRS CARBON EB 3-4
NORIT® CBI 367	NORIT® GAC 830 EN	NORIT® RAX 1	NRS CARBON GA 0.5-2.5
NORIT® CBI 368	NORIT® GAC 830 PLUS	NORIT® RB 0.8 CC	NRS CARBON GEA 0.5-2.5
NORIT® CUSTOM REACT	NORIT® GAC 830 PTT	NORIT® RB 1	NRS CARBON GEB 0.5-2.5
NORIT® DRK 1	NORIT® GAC 830NR	NORIT® RB 1.5	PETRODARCO® 4X10
NORIT® G 1220 EXTRA	NORIT® GAC 830R	NORIT® RB 2	PETRODARCO® 4X10N
NORIT® G 1230 EXTRA	NORIT® GAC 830RL	NORIT® RB 2 H2	PETRODARCO® 8X30
NORIT® G 2040 EXTRA	NORIT® GAC 830RS	NORIT® RB 3	PETRODARCO® 8X30 C

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

NORIT® GAC 1020 AF	NORIT® GAC 830W	NORIT® RB 3 H2	PETRODARCO® 8X30N
NORIT® GAC 1020 EN	NORIT® GAC 830WI	NORIT® RB 30M	PETRODARCO® H2S
NORIT® GAC 1030AW	NORIT® GAC 830WK	NORIT® RB 3W	PETRODARCO® MS
NORIT® GAC 1070MP	NORIT® GAC 840R	NORIT® RB 4	REACTX ROX 0.8TX
NORIT® GAC 1240	NORIT® GCN 1020	NORIT® RB 40M	SORBONORIT® 3
NORIT® GAC 1240 A	NORIT® GCN 1240	NORIT® RB 4C	SORBONORIT® 4
NORIT® GAC 1240 AF	NORIT® GCN 1240 LC	NORIT® RB-4S	SORBONORIT® B 3
NORIT® GAC 1240 AFM	NORIT® GCN 1240 PLUS	NORIT® RB 4W	SORBONORIT® B 4
NORIT® GAC 1240 AFMX	NORIT® GCN 1840	NORIT® RBW 1	SORBONORIT® BX 3
NORIT® GAC 1240 AFX	NORIT® GCN 3070	NORIT® RBX 4C	SORBONORIT® BX 4
NORIT® GAC 1240 AW	NORIT® GCN 48	NORIT® RO 0.8 C	SORBONORIT® K 3
NORIT® GAC 1240 EN	NORIT® GCN 48 R	NORIT® RO 3515	SORBONORIT® K 4
NORIT® GAC 1240 EV	NORIT® GCN 610 G	NORIT® RO 3520	SORBONORIT® K 4S
NORIT® GAC 1240 PLUS	NORIT® GCN 612 G	NORIT® ROW 0.8	SORBONORIT® KB 3
NORIT® GAC 1240 PLUS AQ	NORIT® GCN 816 G	NORIT® ROW 0.8 CAT	SORBONORIT® KB 4
NORIT® GAC 1240 PLUS N	NORIT® GCN 830		
NORIT® GAC 1240 PLUS NR	NORIT® GCN 830 PLUS		

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Absorbents and adsorbents
Recommended use : Liquid and vapor applications (purification, decolorization, separation, catalyst and deodorization).

1.4. Supplier's details

Manufacturer

Norit Americas Inc.
3200 West University Avenue
Marshall, 75670
United States
T 1-903-923-1000
sdssupport@norit.com

1.5. Emergency phone number

Emergency number : US: CHEMTREC 1-800-424-9300 or 1-703-527-3887
Emergency service operated by an external provider

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

Granular steam activated carbon; S-GAC

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : Activated carbon (especially when wet) can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.
Workers should also take appropriate precautions when dealing with spent (used) activated carbons which may exhibit hazardous properties associated with the adsorbed materials. Avoid generation of dust. Powdered material may form an explosible dust-air mixture. If transferring product under pressure, avoid generation of dust if an ignition source is present. Activated carbons have high surface area which may cause self-heating during oxidation. See section 5.
Do not generate dust because airborne respirable crystalline silica may be generated. May cause mechanical irritation. Dust may be irritating to respiratory tract.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Name : Granular steam activated carbon; S-GAC

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Activated Carbon		CAS-No.: 7440-44-0 REACH registration No. (SDS): 01-2119488894-16	100	Not classified

Comments : This activated carbon product is made by a steam activation process.
This product, which is manufactured from a naturally occurring raw material(s), contains <1% total crystalline silica (quartz, CASRN 14808-60-7).

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, seek medical advice.
First-aid measures after inhalation : If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.
First-aid measures after skin contact : Wash skin with mild soap and water.
First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Get medical attention if symptoms occur.
First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth out with water. Never give anything by mouth to an unconscious person. Call a poison center/doctor/physician if you feel unwell.
Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

Granular steam activated carbon; S-GAC

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

4.2. Most important symptoms/effects, acute and delayed

- Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
- Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
- Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.
- Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

- Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Dry chemical, CO₂, or water spray or regular foam. Recommended use: Water fog.
- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread. DO NOT USE high pressure media which could cause formation of a potentially explosible dust-air mixture.
In the event of a fire, spreading large amounts of activated carbon is not recommended due to the risk of creating uncontrolled dust emissions.

5.2. Specific hazards arising from the chemical

- Fire hazard : No fire hazard. May form combustible dust concentrations in air. If transferring product under pressure, avoid generation of dust if an ignition source is present.
Activated carbons have high surface area which may cause self-heating during oxidation.
An adequate air gap between packages of activated carbon is recommended to reduce risk of propagation of the event. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame.
- Explosion hazard : No direct explosion hazard. Take action to prevent static discharges. All equipment used when handling the product must be grounded. The product may charge electrostatically: use earthing leads when transferring from one container to another.
- Hazardous decomposition products in case of fire : Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which reach the lower explosive limit (carbon monoxide LEL = 12.5% in air). Used activated carbon may produce additional combustion products which are based on the substance(s) adsorbed, Carbon monoxide, Carbon dioxide (CO₂).

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid dust production.
- For non-emergency personnel**
- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area.
- Measures in case of dust release : Ensure adequate ventilation, especially in confined areas.

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel.
- Environmental precautions : This product does not present any particular risk for the environment. In the event of a significant spillage : Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

- For containment : Stop leak if safe to do so.
- Methods for cleaning up : Avoid dry sweeping and use water spray or vacuum systems to prevent dust particles from entering the air. If the spilled material contains dust or can cause dust, use explosion-proof vacuum cleaners and/or cleaning systems that are suitable for combustible dust. Do not create a dust cloud by using a brush or compressed air. Pick up the material and transfer it to properly labeled containers. Used granular activated carbon may be recyclable. Dispose of new (unused) carbon (excess or spilled) at a facility authorized for non-hazardous waste. Used carbon must be disposed of in accordance with applicable legislation. Do not reuse empty bags: dispose of them at a facility authorized for non-hazardous waste. See section 13. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended.
- Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid dust formation. Do not breathe dust. Do not create a dust cloud by using a brush or compressed air. Dust may form explosive mixture in air. Wear personal protective equipment.
- Technical measures : Activated carbons have high surface area which may cause self-heating during oxidation. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts. If hot work (welding, torch cutting, etc.) is required the immediate work area must be cleared of product and dust.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosible mixture if they are released in the atmosphere in sufficient concentrations. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.
- Incompatible materials : Volatile components. Strong oxidizing agents.
- Specific end uses : No exposure scenario required.

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Granular steam activated carbon; S-GAC

USA - ACGIH - Occupational Exposure Limits

Local name	Dust, or particulates not otherwise specified
ACGIH® TLV® TWA	10 mg/m ³ Inhalable particles, recommended

Dust, or particulates not otherwise specified

USA - ACGIH - Occupational Exposure Limits

ACGIH® TLV® TWA	10 mg/m ³ inhalable particles, recommended
	3 mg/m ³ respirable particles, recommended

quartz, 1%≤conc respirable crystalline silica<10%

USA - ACGIH - Occupational Exposure Limits

Local name	Silica, crystalline, quartz
ACGIH® TLV® TWA	0.025 mg/m ³ (R - Respirable particulate matter)
Remark (ACGIH®)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2025

USA - OSHA - Occupational Exposure Limits

Local name	Quartz (Respirable) (Silica: Crystalline)
Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO ₂ +5)) for mppcf and (10 mg/m ³ / (%SiO ₂ +2)) for mg/m ³ . CAS No. source: eCFR Table Z-1.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
 Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses with side shields

Skin and body protection:

Use protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Granular steam activated carbon; S-GAC

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Device	Filter type	Condition
Dust mask	(FFP2)	

Other information:

Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular solid.
Color	: Black
Odor	: Generally odorless May produce slight sulfur smell when wet.
Odor threshold	: No data available
pH	: No data available
Melting point	: > 3500 °C Source: International Chemical Safety Cards
Freezing point	: Not applicable
Boiling point	: > 4000 °C Source: International Chemical Safety Cards
Flash point	: Not applicable
Flammability (solid, gas)	: Non flammable Non flammable.
Vapor pressure	: 1 mm Hg at 3586°C Source: National Library of Medicine
Relative vapor density at 20°C	: No data available
Relative density	: 1.8 Source: International Chemical Safety Cards
Molecular mass	: 12.011 g/mol
Solubility	: Material insoluble in water. at 20°C. (OECD 105 method). Water: 2610 mg/l
Partition coefficient n-octanol/water (Log Pow)	: 0.78 Source: Quantitative Structure Activity Relation Not applicable
Auto-ignition temperature	: 400 °C Source: International Uniform Chemical Information Database
Decomposition temperature	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: Not applicable.
Oxidizing properties	: Not applicable.
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

SADT	: Not applicable
Bulk density	: 250 – 600 kg/m ³

SECTION 10 Stability and reactivity

10.1. Reactivity

Reacts with (strong) oxidizers. An exothermic reaction may occur.

10.2. Chemical stability

Take precautionary measures against static discharge. All equipment used when handling the product must be grounded. Dust may form explosive mixture in air.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Activated carbon (especially when wet) can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.

Workers should also take appropriate precautions when dealing with spent (used) activated carbons which may exhibit hazardous properties associated with the adsorbed materials.

Avoid generation of dust. Powdered material may form an explosible dust-air mixture. If transferring product under pressure, avoid generation of dust if an ignition source is present.

Activated carbons have high surface area which may cause self-heating during oxidation. See section 5.

Do not generate dust because airborne respirable crystalline silica may be generated.

May cause mechanical irritation. Dust may be irritating to respiratory tract.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which reach the lower explosive limit (carbon monoxide LEL = 12.5% in air). Used activated carbon may produce additional combustion products which are based on the substance(s) adsorbed, Carbon monoxide, Carbon dioxide (CO₂).

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Granular steam activated carbon; S-GAC

LD50 oral rat	> 10000 mg/kg Source: International Uniform Chemical Information Database
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Activated Carbon (7440-44-0)

LD50 oral rat	> 2000 mg/kg (OECD 423 method)
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LC50 Inhalation - Rat	> 8.5 mg/l Rat, 1 hour (OECD 403 method)
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified.

Contains a component (crystalline silica) that is listed by IARC as group 1, by ACGIH as group A2, and by NTP as a known human carcinogen.

However, these warnings refer to crystalline silica dust and not to naturally occurring bound crystalline silica in solid activated carbon.

This product contains <1% respirable crystalline silica. Therefore, Norit has not classified this product as a carcinogen in accordance with the US OSHA Hazard Communication Standard (29 CFR §1910.1200).

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Granular steam activated carbon; S-GAC

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

STOT-repeated exposure : Not classified
This test was conducted on activated carbon containing negligible crystalline silica; therefore activated carbon itself is not classified for STOT-RE. Although respirable crystalline silica is classified as STOT-RE1, this product contains <1% respirable crystalline silica, therefore it is not classified for STOT-RE.

Granular steam activated carbon; S-GAC	
NOAEC, Inhalation, rat	7,29 mg/m ³ (90 days, (OECD 413 method))

Aspiration hazard : Not classified

Granular steam activated carbon; S-GAC	
Viscosity, kinematic	Not applicable

Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.

Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.

Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

Granular steam activated carbon; S-GAC	
Persistence and degradability	Not rapidly degradable

Activated Carbon (7440-44-0)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Granular steam activated carbon; S-GAC	
Partition coefficient n-octanol/water (Log Pow)	0.78 Source: Quantitative Structure Activity Relation
Partition coefficient n-octanol/water (Log Kow)	Not applicable

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Activated carbon, in its original state, is not a hazardous material or hazardous waste. Follow applicable regulations for waste disposal. Spent (used) activated carbon may be classified as a hazardous waste depending upon its use, the substance(s) adsorbed, and how it is ultimately managed. Follow applicable regulations for disposal. Recycling (reactivation) may be a viable alternative to disposal. Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

IMDG
Not regulated

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Granular steam activated carbon; S-GAC

Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian NDSL (Non-Domestic Substances List)

Activated Carbon (7440-44-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Granular steam activated carbon; S-GAC

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Activated Carbon (7440-44-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Granular steam activated carbon; S-GAC

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Regulations Japan:

- Fire Service Act:
Designated Combustible Materials (Coal and Charcoal) (Over 10,000 kg)
- Industrial Safety and Health Act:
Dust Hazard Prevention Regulations, Oxygen Deficiency Prevention Regulations, Working Environment Standards
- Food Sanitation Act:
Not Applicable
- PRTR Act:
Not Applicable

Granular steam activated carbon; S-GAC

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Activated Carbon (7440-44-0)

Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. State regulations

Granular steam activated carbon; S-GAC

U.S. - California - Proposition 65 - Other information

This product contains the following Proposition 65 chemicals:

- "Silica, crystalline (airborne particles of respirable size)". Activated carbon, which is manufactured from a naturally occurring raw material(s), contains a low level of crystalline silica. Please note that all listing qualifiers (airborne and respirable size (10 micrometers or less in diameter)) must be met for the crystalline silica in this product to be considered a Proposition 65 substance.
- Certain metals, including arsenic, cadmium, lead, mercury, or nickel, may be present at low concentrations on and/or in activated carbon and are California Proposition 65 listed substances.

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 9/26/2025

Issue date : 9/25/2025

Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor

Granular steam activated carbon; S-GAC

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Abbreviations and acronyms	
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organization for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Safety Data Sheet (SDS), USA, NORIT

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, July 23, 2025** at 12:15 a.m. Eastern Time. Please [contact NSF](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/PwsComponents/Listings.asp?Company=02160&>

NSF/ANSI/CAN 61 Drinking Water System Components - Health Effects

NOTE: Unless otherwise indicated for Materials, Certification is only for the Water Contact Material shown in the Listing. [Click here for a list of Abbreviations used in these Listings.](#) [Click here for the definitions of Water Contact Temperatures denoted in these Listings.](#) Products certified to NSF/ANSI/CAN 61 comply with the health effects criteria in NSF/ANSI/CAN 600.

Norit Americas Inc.

3200 University Avenue

P.O. Box 790

Marshall, TX 75671

United States

903-923-1000

[Visit this company's website \(http://www.norit-americas.com\)](http://www.norit-americas.com)

Facility : Pryor, OK

Process Media

**Water
Contact
Temp**

**Water
Contact
Material**

Trade Designation

Size

Granular Activated Carbon[1]

NORIT GAC 1030AW	10 x 30 mesh	CLD 23	GAC
NORIT GAC 1240 PLUS NR	12 x 40 mesh	CLD 23	GAC
Norit GAC 1020	10 x 20 mesh	CLD 23	GAC
Norit GAC 1240	12 x 40 mesh	CLD 23	GAC
Norit GAC 1240 Plus	12 x 40 mesh	CLD 23	GAC
Norit GAC 1240 Plus AQ	12 x 40 mesh	CLD 23	GAC
Norit GAC 1240 Plus N	12 x 40 mesh	CLD 23	GAC
Norit GAC 250	20 x 50 mesh	CLD 23	GAC
Norit GAC 300	8 X 30 mesh	CLD 23	GAC
Norit GAC 30S	8 x 30 mesh	CLD 23	GAC
Norit GAC 400	12 x 40 mesh	CLD 23	GAC
Norit GAC 400 Plus	12 x 40 mesh	CLD 23	GAC
Norit GAC 40S	12 x 40 mesh	CLD 23	GAC
Norit GAC 40SAB	12 x 40 mesh	CLD 23	GAC
Norit GAC 610	6 x 10 mesh	CLD 23	GAC
Norit GAC 816	8 x 16 mesh	CLD 23	GAC
Norit GAC 820	8 x 20 mesh	CLD 23	GAC
Norit GAC 820E	8 x 20 mesh	CLD 23	GAC
Norit GAC 830	8 x 30 mesh	CLD 23	GAC
Norit GAC 830 Plus	8 x 30 mesh	CLD 23	GAC

[1] The carbon source is bituminous coal.

Powdered Activated Carbon[2]

NORIT PAC 200[3]	200 mesh	CLD 23	PAC
NORIT PAC 20B[3]	200 mesh	CLD 23	PAC
NORIT PAC 20BF[3]	325 mesh	CLD 23	PAC
Norit PAC 20BX[4] [5]	-325 mesh	CLD 23	PAC

[2] Certified for a maximum use level of 100 mg/L.

[3] The carbon source is coal.

[4] Suffix may include any alpha/numeric combination representing custom blends.

[5] The carbon source is bituminous coal and/or wood.

Reactivated Granular Activated Carbon[3] [4]

NORIT® CRGACNOR	8x40 mesh	CLD 23	RGAC
NORIT® CRGACXXX	[6]	CLD 23	RGAC

[3] The carbon source is coal.

[4] Suffix may include any alpha/numeric combination representing custom blends.

[6] Certified for the following mesh sizes: 12x40, 8x30, 8x20, 8x16.

Reactivated Powder Activated Carbon[3] [4]

NORIT® CRPACXXX

-325 mesh

CLD 23

RPAC

[3] The carbon source is coal.

[4] Suffix may include any alpha/numeric combination representing custom blends.

NOTE: Certified for water treatment plant applications.

This product has not been evaluated for point of use applications.

Facility : Marshall, TX**Process Media**

Trade Designation	Size	Water Contact Temp	Water Contact Material
Granular Activated Carbon			
DARCO® 4X12[1]	[2]	CLD 23	CARBON
DARCO® 4x12[3]	4 x 12 mesh	CLD 23	GAC
DARCO® 12X20[1]	[2]	CLD 23	CARBON
DARCO® 12x20[3]	12 x 20 mesh	CLD 23	GAC
DARCO® 12X40[1]	[2]	CLD 23	CARBON
DARCO® 12x40[3]	12 x 40 mesh	CLD 23	GAC
DARCO® 20X40[1]	[2]	CLD 23	CARBON
DARCO® 20x40[3]	20 x 40 mesh	CLD 23	GAC
DARCO® S-51[1]	[2]	CLD 23	CARBON
DARCO® S-51 FF[1]	[2]	CLD 23	CARBON
DARCO® S-51 HF[1]	[2]	CLD 23	CARBON
Hydrodarco®[4] [5]	[6]	CLD 23	GAC
HYDRODARCO® AL[1]	[2]	CLD 23	CARBON
HYDRODARCO® 816[3]	8 x 16 mesh	CLD 23	GAC
HYDRODARCO® 816[1]	[2]	CLD 23	CARBON
HYDRODARCO® 820[3]	8 x 20 mesh	CLD 23	GAC
HYDRODARCO® 820[1]	[2]	CLD 23	CARBON
HYDRODARCO® 3000[3]	8 x 30 mesh	CLD 23	GAC
HYDRODARCO® 3000[1]	[2]	CLD 23	CARBON
HYDRODARCO® 4000[3]	12 x 40 mesh	CLD 23	GAC
HYDRODARCO® 4000[1]	[2]	CLD 23	CARBON
NORIT® GAC 830W[5]	8 x 30 mesh	CLD 23	GAC

- [1] The carbon source is coal, wood and/or coconut.
- [2] Certified for the following mesh sizes: 8 x 16, 8 x 20, 8 x 30, 10 x 20, 12 x 40, 20 x 40, 20 x 50, 30 x 60, 30 x 200, 80 x 325.
- [3] Carbon source is lignite coal.
- [4] Suffix may include any alpha/numeric combination representing custom blends.
- [5] The carbon source is bituminous and/or lignite coal.
- [6] Certified for the following mesh sizes: 4 x 12, 6 x 10, 8 x 16, 8 x 20, 8 x 30, 10 x 20, 12 x 20, 12 x 40, 20 x 40, 20 x 50, 80 x 325.

Powdered Activated Carbon [7]

HYDRODARCO® R-FX[3]	[10]	CLD 23	PAC
DARCO® S-51[3]	NA	CLD 23	PAC
DARCO® S-51 FF[3]	NA	CLD 23	PAC
DARCO® S-51 HF[3]	NA	CLD 23	PAC
Hydrodarco®[4] [8]	[9]	CLD 23	PAC
HYDRODARCO® AL[3]	NA	CLD 23	PAC
HYDRODARCO® B[1]	[10]	CLD 23	CARBON
HYDRODARCO® B[3]	[9]	CLD 23	PAC
HYDRODARCO® C[1]	[10]	CLD 23	CARBON
HYDRODARCO® C[3]	[9]	CLD 23	PAC
HYDRODARCO® FX[3]	[9]	CLD 23	PAC
HYDRODARCO® FX[1]	[10]	CLD 23	CARBON
HYDRODARCO® LX[11] [12]	[9]	CLD 23	PAC
HYDRODARCO® M[13]	[9]	CLD 23	PAC
HYDRODARCO® O[3]	[9]	CLD 23	PAC
HYDRODARCO® O[1]	[10]	CLD 23	CARBON
HYDRODARCO® R[3]	[9]	CLD 23	PAC
HYDRODARCO® R[1]	[10]	CLD 23	CARBON
HYDRODARCO® R-FX[1]	[10]	CLD 23	CARBON
HYDRODARCO® W[3]	[9]	CLD 23	PAC
HYDRODARCO® W[1]	[10]	CLD 23	CARBON

- [1] The carbon source is coal, wood and/or coconut.
- [3] Carbon source is lignite coal.
- [4] Suffix may include any alpha/numeric combination representing custom blends.
- [7] Certified for a maximum use level of 100 mg/L.
- [8] The carbon source is coal and/or wood.
- [9] Certified for the following mesh sizes: -100, -200, and -325.
- [10] Certified for -325 mesh.
- [11] X - Any alpha/numeric characters.
- [12] The carbon source is coal.
- [13] The carbon source is coal and wood.

NOTE: Certified for water treatment plant applications.

This product has not been evaluated for point of use applications.

Number of matching Manufacturers is 1

Number of matching Products is 70

Processing time was 0 seconds

Dept. of Public Works & Utilities



Eric Lindman, P.E.
Director of Public Works & Utilities

TO: Wausau Water Works
FROM: Eric Lindman, P.E.
Director of Public Works & Utilities
DATE: June 2, 2026
SUBJECT: LSL Mandatory Replacement Ordinance

The new Lead and Copper Rule Improvements (LCRI) from the USEPA requires all lead service lines (LSL's) to be replaced by end of 2037. Over the past 3-4 years the City has been reviewing and considering an LSL mandatory replacement ordinance, this would require all property owners with known LSL to replace their line. Without the ordinance the utility will not be able to enforce the replacement of the private side of the service line.

I have included a history of meeting memo's and meeting minutes to help provide the history of discussions that have taken place prior to this meeting. Please note I included the entire "Minutes" from each of the meetings but highlighted the relevant notes for this item you are all discussing.

I would also like to provide an update on previously discussed criteria with funding and water utility restrictions on use of water rates as established by the WI Public Service Commission (WPSC). WPSC sets water rates for utilities in the state of WI, these rates are not controlled locally. The WPSC sets strict regulations of how the water revenue from these water rates may and may not be used. In the context of the LSLR project, the water service from the water main to the property line or curb stop is owned by the utility (public side); the line from the curb stop to the water meter is owned by the property owner (private side). Water rate revenue can be used to pay for the public side of the water service line but cannot be used to pay for the private side of the water service line. This has created some unique challenges for funding since regulations require all LSL's be removed/replaced by end of 2037.

Some of the challenges we are facing with funding and regulations:

1. Principal Forgiveness may fund up to 100% of the construction of the private side LSL if it is in a disadvantaged census tract that meets the WDNR definition for 100% principal forgiveness funding. If outside of these tracts the principal forgiveness amount is reduced to 75% or 50% leaving a portion of the cost to be paid by the owner or the city, not the utility.
2. Since the City Council has not adopted a mandatory LSL replacement ordinance the utility has no means to force owners to replace their LSL. Meaning this replacement from a property owner perspective is voluntary and the utility has no enforcement powers. It is the intent to bring the mandatory LSL replacement ordinance back to the city council in the coming months.

3. If the city council were to pass the mandatory LSL replacement ordinance there would be further financing options:
 - a. PSC could authorize water utility rates to pay for up to 50% of the private side LSLR.
 - b. The city could set up a 5-year or 10-year low or not interest loan for the owner to pay the cost back to the utility.
 - c. The utility would have enforcement powers to mandate replacement of the lead line to ensure compliance with regulations and place the cost of the replacement on the tax roll if it remains unpaid by the owner.
4. The principal forgiveness loans are expected to be used up by the end of 2028 and the full cost of the remaining replacements will be a local burden, either by the utility, the city or the property owner.

This ordinance last went to the City Council in July 2024. The City Council postponed the implementation of this ordinance and added some additional language to the ordinance. I wanted to bring this back to the WWW Commission to again review the history of what was discussed, look at the current funding landscape, and determine if the Commission had any further recommendations for the city Council based on current funding and current rate of replacements.



TO: Wausau Water Works Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: May 7, 2024

SUBJECT: LSL Replacement Ordinance – Language Revisions and Considerations

Attached is the latest version of the Lead Service Lateral (LSL) Replacement Ordinance. A summary of the questions posed from the Commission during the past several Water Works Commission meetings are as follows:

- Is the ordinance required by the US EPA Lead & Copper Rule (LCR)? *No, an LSL Replacement Ordinance is not required at this time by the (LCR), unless the Commission wants to use user rates to pay any loans related to private side LSL replacement. However, the ordinance would provide us additional points when requesting funding from the State/Feds/DNR for the LSL replacement project. Further, without an ordinance any loans would need to be paid back using “other” funding.*
- What is the benefit and need to having an LSL ordinance? Should the Commission want to use user rates to pay any loans related to private side LSL replacement an ordinance would need to be in place AND the PSC would need to formally approve the ordinance and use of funds. The ordinance would provide additional points through the WDNR SDW loan program for the LSL replacement project. Further, without an ordinance any loans would need to be paid back using “other” funding. In addition, the WDNR SDW program stated that if using their funding no partial replacements may be done, even if the LCR allows an exception. Each entity we are working with is establishing their own criteria.
- What is the City's/Utility's role to pay for the customer side LSL? *There is no requirement for the utility or the city to pay for the private side LSL. From past experience, if the City requires the homeowner to bear the cost of replacement, there will be fewer participants. Some funding options are laid out later in this memo.*
- Who is responsible for setting the policy on how private LSLs are to be paid? *Ultimately, the Common Council would have final approval over any policy the Commission recommends. If the Commission wants to recommend a policy be set, they would send that policy to the Finance Committee and the Finance Committee would provide a recommendation to the Common Council. The policy likely would be an ordinance. The reason both the Finance Committee and the Common Council would need to provide the final recommendation and approval is because the policy involves borrowing/loans.*

- What does funding look like in future years? *This is a difficult question to answer because grant opportunities and loan options may vary from year to year. However, 2025 funding is likely to be a similar percentage split as 2024, 63% principal forgiveness (PF) & 37% loan. Future years are more likely to be 50% PF & 50% loan because we will be working in non-LMI census tracts so the PF calculation is likely to be less. Bids were received with favorable pricing for the next 3-years, so the amount of overall loan/PF has been updated in the ordinance document. I have also included an attachment of the predictions on funding and possible debt payments for a 5-year replacement program and a 10 year replacement program. These are estimates as the amount of funding each year is unknown.*
- Will replacements be required and when? *Currently the Lead and Copper Rule Improvement (LCRI) does “require” the replacement of the public and private side LSL, and no partial replacements are allowed. The only exception is for planned infrastructure work (Street reconstruction) not solely for LSL replacement and emergency repairs of infrastructure. But because the SDW loan program does not allow partial replacement with DNR funding, this exception will not be allowed on our street reconstruction projects. The LCRI also reduces the lead action level from 15ppb to 10ppb and requires both 1st & 5th liter sampling. The LCRI establishes that a Community Water System needs to establish a 10-year replacement plan.*

Funding options for Private side LSL Replacement. **(Possible options for 13.66.080)**

1. City may use general obligation to pay back the loan portion of the funding.
2. City approves an ordinance, receives PSC approval, and uses user rates to pay 50% of the cost. Remaining 50% paid by other fund source.
3. City may set up special assessments/loans for the homeowner to pay back. There are many options to consider with this type of structure:
 - a. City sets homeowner obligation amount (percentage or fixed amount) and uses a special assessment for homeowner to pay all or portion of their replacement.
 - b. City may determine time frame to have the loan paid back or may defer the payment to a future year.
 - c. City may decide to have payment due upon sale of home, or payment to begin in 3-years with a pay back time of 5-years. There are many options to consider.
4. A provision regarding rental property may want to be considered. Rental properties are businesses and not owner-occupied properties. Thus, it may be appropriate to separate these properties out and require the landlord pay their portion of the LSL replacement.
5. All known day cares and schools to date do not have LSL’s on the public or the private side. If new day cares are formed, then this could change. So it may be a good idea to have a requirement that a property may not be a day care until the LSL is replaced.

Goals/Plans for future years of LSL Replacement.

- 2025 – 1500 LSL’s and focus on full lead line locations, both public/private still in place.
- 2026 – 1500 LSL’s and focus on full lead line locations, both public/private still in place. This should complete all public side LSL’s in the city.
- 2027 – 2000 LSLs and anticipate less PF given starting this year and will focus on remaining private side LSL’s.
- 2028 – 2000 LSL’s and complete remaining private LSL’s.

Once we complete the public side LSL’s then the only remaining private side LSL’s would be on the property owner to agree to replace. As long as there are LSL’s in the system, the utility would be required to complete bi-annual testing, reporting and maintaining all other requirements related to the LCR.



Minutes of May 7, 2024

A meeting of the Wausau Water Works Commission was called to order at 1:30 p.m. in City Hall on Tuesday, May 7, 2024. In compliance with Wisconsin Statutes, this meeting was posted and receipted for by the Wausau Daily Herald on May 3, 2024.

Members Present: President Diny, Commissioners Robinson, Force, Gehin

Others Present: Scott Boers, Eric Lindman, Ben Brooks, Anne Jacobson, Tegan Troutner, Sean Agid/CIP, Eric Jones/CIP, Chad Henke/Solar Array Task Force Chair, Paul Svetlik/ Solar Array Task Force Vice Chair, Susan Woods, Jay Coldwell

1) Approve Minutes of April 10th, 2024 Meetings.

*Robinson motioned to approve minutes as corrected. Seconded by Gehin.

Motion Carried 4-0.

2) Director's Report on Utility Operations.

Lindman highlighted the resin disposal scheduled next week costing about \$124,000. We sold around 300 rain barrels, pick up is tonight and tomorrow night. We grabbed couple extra pallets because there were customers late in ordering so we'll sell them a la carte.

Force questioned status of the Granular Activate Carbon (GAC) construction and if another resin disposal would be needed before the GAC was up and operating?

Boers replied PFAS sampling was completed April 17th- PFOA 4.3ng/L and 4.6ng/L, no other PFAS detects. We were at low numbers and don't believe we have to have another exchange for another 6 months; GAC should be up and running by October. We tested effluent (post anion treatment) going into distribution, we haven't tested the wells which are the raw water.

Gehin requested a copy of the article that Wastewater included in the packet.

Brooks replied he had some magazines and would be happy to give Gehin a copy.

Robinson requested the article be presented in in layman's term for the public as it was highly technical.

Brooks questioned if he wanted that at the next commission meeting?

Diny replied maybe at the next commission meeting.

Director's Report Placed on File.

3) Update on the Lead Service Line (LSL) Replacement Project from Community Infrastructure Partners (CIP).

Presentation by Sean Agid/CIP. View [Presentation](#) at 7 minutes, 45 seconds.

Gehin questioned how many of the 440 verified would be full replacements and difference between projected observations in the field vs in our inventory?

Agid replied they were all partial replacements. Full replacement cost \$6,000 and partial replacements are \$4,820. This seem less than CDM Smith's 2021 estimation of 8,000 private side and 4,400 public lines. We are seeing about 35% lead. It's hard to know about other tracts but there are whole blocks in Wausau we are not finding any lead at all.

Force requested a map with the tracts identified next time.

Agid replied the map is not zoomed in (refer to slide 3 page 30 of packet), gray- unverified, green- not lead or galvanized, red- lead, yellow- galvanized. We could share the maps of the 5 census tracts that were eligible and can share it via email if you'd like. The 2025 construction application is due end of June, we need to identify which areas to expand beyond the 5 census tracts and overlay that with the principal forgiveness priority areas based on Department of Natural Resources (DNR) criteria.

Gehin questioned percentage of galvanized?

Jones replied less than the lead, the 35% included the galvanized but we do have something separate I could give you because it would be easy to pull out.

Force questioned the connection inside the home with the copper to lead inside of home?

Agid replied that was the role of the third-party inspector (Clark-Dietz), they verify that everything is replaced correctly because they would need to sign off on that.

Jones reiterated we are doing copper into the home and we stop at the meter, water department connects from the meter to the internal plumbing.

Lindman replied that if we connect to something inside the home, there would be a dielectric fitting to mitigate galvanic reaction preventing corrosion by separating two different metals in the plumbing system.

Robinson questioned next year's financial impact if there were less of an impact this year as far as planning, capital improvement budget project perspective?

Agid replied overall to replace the LSL would cost less because there is less lead but what we don't know is the amount of money DNR would award Wausau. We submitted an intent to apply (ITA) for \$15 million and intention was 1500 lines at \$10,000/line. We know pricing is much better with the bid we received and are locked in for 2025. The option was to reduce that number below \$15 million or increase 1500 replacement number to 2000 or above. We don't know the percentage of principal forgiveness awarded vs loans as certain census tracts and blocks qualify for a percentage. We don't know the principal forgiveness at the State level because we don't know how many other municipalities would be applying for it. We would overlay the map based on the 6 criteria and maximize the principal forgiveness but it's up to the city to determine the amount it is asking.

Robinson questioned if it paid to reevaluate that number in this 5-year window as we are in year 2 and have 3 years left only? How do we position ourselves to maximize principal forgiveness and put ourselves in the best terms?

Agid replied the best way was to include your disadvantage communities into every application and weigh the average of how many you expect to include in the application of the disadvantage to the non-disadvantage communities. There're ways to do the calculations based on how many replacements you want to do. We know what each census tract qualifies for in terms of principal forgiveness but we don't know if that would be awarded with the new numbers, we could calculate debt service over a 5-year period. We did that calculation before the award and bids; we could revise the projected 5-year schedule. It was 55% grant 45% principal forgiveness under \$60 million that would go down and that could be revised but that principal forgiveness could go down or stay the same. We could revise that in terms of debt service and potential impacts associated with that debt service.

Diny questioned if there were enough homes in phase 1 census tract to get the 700 needed and if we didn't expend that, could it be rolled over to next year? How would that affect our application if we only used 3/4?

Agid replied there's about 700 homes we haven't been into yet that are unknown. Of the 700 if 35% are lead, you're looking at another 250, your right around that 700. If we don't spend that \$5.7 million you have 2 years so it could be used in 2025.

No Action Needed.

4) Discussion and Possible Action Approving 2025- 2029 Capital Projects.

Lindman referred to the 11x17 sheets included in the packet for the proposed 5-year capital plan and total capital borrowing each year. You requested, for understanding, the annual capability of accepting debt and annual payments is shown in the beginning of the packet. If the utility accepted LSL proposed loan amounts and what the cumulative annual debt payment would be over 10 years and 20 years. The second not only included the LSL but included proposed capital plan and cost of adding staff over the next several years along with the annual expenditures. The rate structure we are in right now is good for the Wastewater and Drinking Water Utility but adding that proposed loan payments is a heavy strain on the drinking water division. For 2024, utility rates could not be used for that loan portion, that's included, the borrowing and loan service would be on a (Tax Increment District) TID or other funding options. Would there be anything from this information packet that this commission needs specifics on, understanding or clarification on something that doesn't make sense to you, there's a lot in here.

Robinson questioned the later presentation relative to the solar array panel's impact?

Lindman replied it was included in the debt service with all the other projects. That debt service would be about \$1.7 million. Throughout the year, we are managing our conflicting priorities. We set a plan in June for our capital for the following year but we end up having projects that come to the forefront because of emergent situations or failures that we must address and then defer other projects. Our intent is to establish a capital plan moving forward and stay within those budgets that's approved/accepted by the Commission so whether we defer certain projects and equipment to fit in other projects or if bids come in high, we defer that project. We do that every year.

Diny reiterated the LSL is shown over 5 years and over 10 years. The thought process is if we could stay on this 5-year pace while the grant money is still high relative to the loan portion, we are at a 2/3 vs 1/3 and if we had to shift based on debt load to a 10 year, we could go to that but let's maximize grant money. It would make sense to target the lines on both city side and private side that would give us the most efficient use out of contractors and cost savings for the city. We are requesting action on this plan.

Lindman replied yes, the general capital plan for the drinking and wastewater. The LSL plan is evaluated annually and would come back this fall for further conversations and application to the DNR for where that potential funding might be that goes into our other items such as the LSL ordinance for user rates, there's a lot that must happen before the utility could take on that project from a financial standpoint.

Robinson questioned LSL factored into capital plan on the public side but sees zero for borrowing. You haven't factored that into the plan but you have it for the financing plan, it would be beneficial to see in both. I don't see the Solar Array in the capital plan if it's built in the finance, that leads to confusion. If we could wrap all those costs?

Lindman replied for the capital plan, it wasn't an intent to have the utility pay for the solar, we don't have approvals to pay, we would have a different path to take with the Public Service Commission (PSC) to use water rates. If that's what you want to see, we could do that but the Solar array would come out of the general obligation and other funding but if you want to see in the capital plan, we could put it in there.

Robinson replied his preference would be to include it and you could look at the funding source and footnote it or deal with it from a funding source. If we are incurring those capital associated with the operations of the utility related activities, it'd be nice to capture them. There was a discussion using American Rescue Plan Act (ARPA) funds and others to

supplement solar array. For transparency, it'd be nice to see what we're doing from a utility perspective if it relies on safe drinking water loans, revenue bonds or GO bonds, those could be footnoted or clarified.

Lindman replied he could certainly add those.

Gehin questioned the excess revenue from Ehler's report as it may be for the benefit of everybody else.

Lindman explained that the excess revenue is at the end of our operational budget and our capital projects. That is the revenue under the current rate structure that the utility would have to do capital projects. Pay down debt service on an annual basis. For 2023, drinking water shows excess of \$826,000 that's half going into 2024 because the new rates went in July 2023 and we didn't get a full half year of rates, so those are kind of the numbers we're comparing as we run into our capital debt service every year. Wastewater side is about \$1.8 million that would be steady going through 2024 as well. Moving forward, the Drinking Water and Wastewater Utility's excess revenue is going to be close \$1.6 million to \$1.8 million a year available for capital project. That shows us our rate structure is good, we want to maintain that and do anything to prevent future rate cases and rate increases.

*Gehin motioned to accept the capital project plan but add the language to demonstrate the solar panel footnoted and LSL replacement showing but not part of the debt remembering that it's a plan and not firm so it's subject to change.

Robinson stated his experience with the county included all the projects in the CIP then it's broken down to funding source but you're listing all the projects whether it was ARPA, highway fund, federal grant. For transparency in communicating to the public and council, it's important that we show those.

Lindman replied he is happy to bring it back next month with updated sheets and if the commission was ok with what we were presenting.

*Robinson seconded Gehin's motion to accept 2025-2029 Capital Projects.

Force requested if there were better ways to improve this as it was very confusing. He recalled several years ago of receiving statements from accounting showing revenue and expenditures month by month vertical bar compared to prior years and that was helpful in determining the financial health of the utility. He would appreciate simplifying with summary sheets or graphic presentation. He also questioned user rates as money in hand that could be used for projects and that we were not talking about new user rates.

Lindman replied he would work on that for next month both narrative and graphic if it's done beforehand, he would share it with Force to see if that's the right path.

Diny reiterated this is treated as our CIP process, if the funding is not there, the list shrinks or it could grow.

Motion carried 4-0.

5) Discussion and Update on a Lead Service Line (LSL) Replacement Ordinance.

Diny explained this ordinance would have a major impact on funding, so we're going to need to give this a good kick today because we owe it to the utility and citizens to understand that we need a plan moving forward, this has been languishing here and we need to move on it.

Lindman brought some of the questions highlighted from the last meeting. One piece is the funding, there were questions if there's going to be a special assessment to the homeowners, and if there was, was it a percentage or flat rate if it was paid back over 5 years, or does it defer to other options. The city and utility have different options, we could detail those out in this ordinance or keep it more general to where private sides mandated as funding is available and structure the funding outside of the ordinance so if it changes from time to time the entire ordinance doesn't. I'm not sure where the commission is on the decision to move that forward.

Robinson questioned the proposed ordinance and CIP's work process, there seems to be disconnects relative to processes and timelines. As we go through 500, 700, 1500, 2000 a year, we build in there on the customer side, some process where we notify, they have 30 days to take two bids, we take the lower bids which is not the process that we are using. How will we reconcile the difference between our current plan and the ordinance? Do we need to somehow build some opportunities to move ahead with the ordinance that is not in its current form? Is there an off ramp?

Lindman replied we could put in either or. We could leave it more general. We could leave it like how we used to where the homeowner hired their own plumber, they are on their own or how we are doing it now and contract that work through the city and administer that and work with the homeowner. CIP is taking on the risk and all the responsibilities of the homeowner in making sure all that work is being done. We set an ordinance in place, if we get in too many details, we may have to come back year to year and constantly change it, we may want to generalize that and how the project is going to be delivered keeping in mind that the lead service line ordinance has evolved over the years and we've pulled in other municipalities and how they are doing it and we are on a path that no one else is doing. We want to try to do this more general if the city moves in one direction or another that the lead service line ordinance stays in place.

Robinson questioned the right of entrance as we've had three refusals, how do we deal with those, obviously there's a provision but we're moving down a different path and hope we have a tiered approach within the ordinance. If we go with a public and customer side city sponsored plan the following sections are not applicable, if we don't then you would have that there. I don't want to open us up to a potential criticism lawsuit or private party saying they have the right to 2 contracts and was imposed on or potential conflicts, maybe legal could work on that? The ordinance gives you a 7-year period to do the connection but we are in a 5-year plan, there's some reconciliation between the two. You got 3 years additional funding and the intent to apply (ITA) opportunities but you don't know what will happen, when planning just be aware of that 3-year window. I'm comfortable with that ordinance if we have that on/off ramp.

Lindman replied if Robinson was requesting provisions for both types of installation incorporated into the ordinance. We could work on that. How detailed do you want to get on the funding, it could be very general, as funding is available, there is already some language in the ordinance. We'll keep the funding piece general because that decision will be made year to year because we won't know the amount that would be awarded from DNR after submitting the Intent to Apply (ITA).

Diny stated if you looked at what our cost is going to be in the next 5 years and stay on that same trajectory, 1/3 of the installation for a homeowner could be \$1,500 over 5 years. On a total \$6,000 replacement, that's a pretty good deal. 300 a year if it's 5 years. The residents are going to want to know if that's the route we are going or if it's going to be funded. We can't keep them in the dark and if we keep this in the plan next year that we hit more city sides, we are not allowed to do partial replacements so how do we handle that. We are going to have more city side that we're going to have to complete line replaced.

Lindman questioned if Troutner had anything else to share as they've gone over this draft multiple times.

Troutner questioned bullet point three, we need an answer on who's responsible for setting the policy on how LSLs are to be paid. We talked about the council making the final decision on the ordinance but how the commission wanted this structured. Do you want a paragraph starting off with the history of funding, types of available funding as there were multiple different options and scenarios and requested direction.

Robinson stated he didn't know what he was looking for but will know when he saw it. Requesting a process, the ordinance lays down the framework under which we'd operate from a legal perspective but making sure we could deal with CIP's plan and our proposed mandatory ordinance. For the financing, maybe we say subject to the availability of funding and expand that to include special assessments as a tool for when we must deal with this on an annual basis. We'll need to look at CIP's plan for the year and see where that fits the funding based on resources available. We run risk of being inconsistent with application because 1 year we may have safe drinking water funds and loan forgiveness and other years we may not which will impact the cost. The question behind the ordinance is if we adopt it, will we put the customer's side on the rates? The only way to do that is if we had an ordinance and that may be for a different discussion but I don't know the deadline date on the provision but to address those as we encounter them?

Troutner stated the language Robinson wanted in the statute wasn't going to cover all the basis and was concerned that what he was requesting resulted in a super vague section in the ordinance about financing because that's all up in the air. She suggested sending multiple copies of what other jurisdictions were doing to Robinson to provide guidance on what he preferred and why. The one in here was similar to what Sheboygan and other municipalities that have this ordinance in place.

Robinson questioned if there could be a provision for a financing plan to be developed on an annual basis by the council subject to implementation under the ordinance and then look at the funding source as the trigger and have the plan be a perspective planning document that would be built into the ordinance to drive it so you wouldn't have to revisit the ordinance annually but through adoption of the plan.

Troutner replied we could make that work.

Diny questioned if we would be doing something different with the ordinance depending on the funding other than speeding up or slowing down the process or do something different mandate vs nonmandated? This needs to be done by October.

Robinson replied we would still have the mandatory connection ordinance; the question is when is it applicable? If we're doing the public side replacement, you have to do the private side within 5 years. The trigger mechanism would have that two-tier track and leave the current language in because there's no certainty of funding going forward but if we go with the capital improvement plan, it could be possible there's not impact financially to the customer. We could have that track where we could proceed down that CIP vs non-CIP process. If we could have the financing plan that can drive the ordinances and then within those have the available resources and have the plan be approved by the commission and council.

Agid replied 2026 ITA is due October this year for funds next year.

Force questioned if dispute resolution was covered adequately in this document? He didn't see anything related to an obstinate customer and wanted guidance.

Troutner replied the Public Service Commission (PSC) is going to require a section regarding discontinuation of water services if we are going to use rate paying funds. This was a starting point based on information received from previous meetings and discussions and this was like a soft discontinuation as opposed to a hard discontinuation. Giving the city an alternative to get compliance which is required by the PSC. I think its adequate but if you want something different, you can give me direction on what language to say.

Diny questioned if the wording could be done by the next meeting.

Troutner replied she would get it done by the next meeting.

No Action Needed.

6) Discussion and Possible Action Approving Next Steps of a Proposed Solar Array for the Drinking Water Treatment Facility.

Henke presented. View Discussion and [Presentation](#) beginning at 1 hour, 10 minutes, 8 seconds.

Henke presented that recommendation would be to go with slide 7, page 77 of the packet of the 720 kilowatts with the installation cost of \$2.57 million stating that it uses the property for a green, ecofriendly purpose, uses the property to build resiliency into the water plant, that gives best return on our investment, leaves room for future expansion, and meets the surrounding community's concerns.

Lindman stated the next steps would be pursuing funding and working with WPS on interconnect agreements, designs, and layouts. Even with ARPA funding that would need to be obligated before end of 2024 maybe do a contract this year and do a late 2025-2026 timeframe. That would give us time to pursue Department of Energy (DOE) grants and inflation reduction act grants to help fund the project. This is more a long-term cost savings project for the utility and rate payers. We are not just looking at short term, this would help mitigate future rate increases as we move forward. We look at the payback but if this could be net neutral and over time it helps reduce our operation costs that's a win for all the users in the city.

Force reiterated the importance of demonstrating not only using the payback as a factor in determining this project but that it also demonstrated an ecologically and environmentally friendly project that puts this city on the map as supporting green energy.

*Robinson motioned to accept the recommendation of the solar array task force and direct appropriate staff to prepare the necessary presentations relative to the next steps of implementing the plan. Seconded by Gehin.

Motion carried 4-0.

7) Discussion and Possible Action Approving a Budget for Additional Staffing as Recommended.

Lindman outlined the budget item, what the impact would be as well as Ehler's information. Both the Water and Wastewater Utility have capacity to add staff and would like support from the commission on a budgetary standpoint and move this along to HR Committee for consideration and council. We are proposing adding 2 staff at Wastewater and 1 at Drinking Water facility this year.

Robinson stated this added about \$700,000 annual cost adding all recommended staff at both water and wastewater. We're playing the excess revenue for capital projects and operations. We're factoring in all costs and impacts, in 2025, when you have that add on, can we absorb that without rate increases? Is this just for the 3 positions?

Lindman replied we are not adding all the staff recommended at once, this will be evaluated annually as operations continue. One of the biggest concerns were our user rates but after what Ehler's put together, I'm comfortable with moving this forward. We looked and based this as an absolute need to add additional staff. Brooks and Boers put together what hours we have available from staff and what hours we need and we don't have enough hours to complete our required work, not taking into account emergent situations that arise. A critical priority is to begin adding staff on a slow basis and evaluating how that effects our operations and improvements with efficiencies. The final approval goes to HR and Council, there's plenty of information here to support the request and the utility could support the 3 staff.

*Robinson motioned to approve this recommendation and move it to HR adding 1 staff for Water and 2 for Wastewater staff division. Seconded by Gehin.

Gehin stated adding these 3 employees puts us at 35 employees combined from both Water and Wastewater. He recalled there were over 50 employees.

Diny stated budget would be the driver here and we don't have an appetite for raising rates. The additional staff would be helpful to the utility as we have an increase in locates.
Motion carried 4-0.

Force questioned if it was worth our time to raise this issue of locates to legislature. Maybe drafting a letter to the legislature and pointing out the cost factor?

Boers replied it would help if we get some type of relief but it would take an act of legislature to appeal that. As a utility, we are required to maintain our items and make other companies aware of where our items are at while they are working around it. We don't have to do the work but we would be responsible if there were any damages.

Lindman stated next time he saw Snyder or any other legislature, he'd speak with them in trying to figure out how to generate revenue to cover costs with locating utilities. Force stated he was thinking that a formal request from a governing body may be beneficial.

8) Discussion on Wastewater PFAS Sampling Results from March 2024.

Brooks began that with March's testing, it concluded the 6 months the commission was requesting. The proposed effluent limits were highlighted at the top of the sheet. The bio solids are also below the limits of 16ng/g. The combination of PFOA/PFAS is 6.91ug/kg.

Diny advised this will roll into the Director's Report.

Robinson questioned the requirements for sampling with the new WPDES permits?

Brooks replied 1x a month for 2 years. We are not sure if there would be a Total Maximum Daily Limit (TMDL), meaning we discharge into the river or not because there hasn't been any firm talk on that yet.

No Action Needed.

9) Discussion and Possible Action Approving the Purchase of a Truck Chassis That Will be Converted into Tanker Truck Used for Collection System Flushing Maintenance.

Brooks began their flushing truck failed. We received Boer's old tanker and would like to purchase a truck chassis that would be used as a tanker truck with accessories to make this project complete. We are looking at around \$27,000 for the truck and accessories.

*Force motioned to approve the expenditures for this truck. Seconded by Robinson who amended the motion to approve the purchase of a truck chassis not to exceed \$27,000.

Motion carried 4-0.

10) Adjourn.

Gehin motioned to adjourn. Seconded by Robinson.

Link to view meeting in its entirety: <https://tinyurl.com/wausaucitycouncil>

Gina Vang, Recording Secretary

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TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: June 25, 2024

SUBJECT: Updated Lead Service Line (LSL) Replacement Ordinance

Based on previous discussions related to the LSL ordinance there are sections of the ordinance that were simplified in order to allow the Commission/Council to determine financial and timelines for replacement of lead water service lines.

Each year the replacement of lead water service lines will be evaluated, for both a schedule of replacements and financial obligations. The ordinance, as proposed now, does not try to define either of these items but outlines the requirement and priority for replacement as well as who is responsible for which portion of the lead service line and allows the city to adopt a financing plan as needed on a year-to-year basis. Keeping the ordinance more general allows wide flexibility based on annual funding and prevents the need for continuous amendments of the ordinance.



Minutes of June 25, 2024

A meeting of the Wausau Water Works Commission was called to order at 10:00 a.m. in City Hall on Tuesday, June 25, 2024. In compliance with Wisconsin Statutes, this meeting was posted and receipted for by the Wausau Daily Herald on June 21, 2024.

Members Present: President Diny, Commissioners Robinson, Gehin, Watson

Excused Member: Force

Others Present: Scott Boers, Eric Lindman, Ben Brooks, Anne Jacobson, Tegan Troutner, MaryAnne Groat

1) Approve Minutes of June 4, 2024 Meetings.

Watson motioned to approve minutes. Seconded by Robinson.

Motion Carried 4-0.

2) Director's Report on Utility Operations.

Lindman highlighted the updates on the Lead Service Line Replacement with the current project and the funding application for 2025 and for the loan closing this year. Department of Natural Resources (DNR) wasn't ready to close on the loan earlier so we went through with CIP and started uploading our documents. We are up to the point now where we only need our financials uploaded. The quickest we could close might be in August but it may get pushed to September. Goal is to make the August City Council meeting with the financial assistance agreement for approval. Installations for the lead service line replacements began this week starting on the southeast side then will proceed to the other 2 census tracks with the plan to replace about 700 this year. Anyone have any questions?

Director's Report Placed on File.

3) Discussion and Possible Action Approving a Lead Service Line Replacement Ordinance.

Diny advised this had several iterations and the approach is to keep it as general as possible to give us flexibility moving forward not knowing all the details on grants, or timelines for funding moving forward. We are required as part of the grant application process and given points that allow us these grants to make it easier for the city to complete this task. I'd like to see us move this to council for consideration.

Gehin questioned if we could amend the draft to state meter instead of customer's meter? it was in the previous draft but didn't see it in this one. There should be verbiage explaining the lead service line to be replaced is from the curb box to the water meter and not the internal plumbing of the home, this should be made clear.

Robinson questioned if we wanted to have verbiage subject to council approval if we don't have funds on the private side and need to do special assessment, does the commission have permission to enforce special assessments? Looking at financing 13.66.080- page 6- Financing replacement, is there opportunities or special assessments?

Lindman replied, that's a special charge because it's the private side but the next paragraph says the city may establish a program to provide financial assistance to the property owners

which leaves that ability open and would need to be approved by council to set up a loan repayment or special charge. That would be a recommendation by the commission to council who would make the decision when it comes to financials just like other assessments and projects. If there's a program in place, the council will establish that program that includes the payback and terms associated with the cost.

Troutner reiterated that it would be the council who made the final decision if the city establishes a program to apply for financial assistance so it's not set in place right now because the city may or may not establish it.

Diny replied, it is the homeowner's responsibility. If you look at this year, we are looking at 2/3, 1/3, if we were charging, it would be \$1,500 over 5 years pay back, roughly \$300 year. But because we can't predict the next 3-5 years and funding availability and variables, this is the best language.

Lindman reiterated that the commission sets the priority for the projects but the council establishes the funding for it, if the commission wanted to do a project, like in our capital projects, and the council is not supportive for funding it, those projects don't happen, so ultimately the council determines the financial decisions during the budget process and any special projects.

Robinson stated he didn't see that in the ordinance.

Troutner advised while its not written in the statutes, that's how the procedures go. If you keep reading, ordinance refers to the council. Do you want subject to public funding added to the 2nd paragraph, city may establish a program to provide financial assistance?

Lindman replied, the language we chose saying the city may establish a program refers this back to the Council. The council is the decision maker for the financial portion. From legal standpoint, the city council makes the decision and changes for the special assessments. I have spoken with CIP at length and there will be the start of a broader public outreach campaign for the lead service lines to include health risks and education about the equiflow program and its association with the city. We were on tight deadlines so we focused on the first couple of census tracks but we need to reach out to the rest of the city. From year to year there will be potential complaints that some residences get their replacement for free and others may have to pay, this is in part to how the federal funding is being dispersed.

Gehin moved to approve lead service line replacement ordinance amending the customer's meter to generic water meter if that's still in this draft and a statement that this doesn't apply to internal plumbing, just the line from the curb to the water meter and not beyond that. Seconded by Watson.

Motion carried 4-0.

4) Discussion and Possible Action on the 2023 Public Service Commission (PSC) Report.

Lindman began Groat is here in case of any financial questions but over the last few years there have been items added by the PSC such as age of our water mains and inventory of service lines. The inventory continues to be a living document and will be updated as we go through the lead service line replacement projects. We have return on rate computation in the report and outline sale of water and calculated water loss. There is a lot of information in here.

Groat highlighted this is the first year of workday so there were many challenges to complete the report in the order the PSC wants to see it, next year will be better. Every year PSC adds additional information they want. Revenues were \$10.1 million vs the \$7.5 million the previous year so \$2.6 million increase in revenues. Operating expenses \$1.2 million increase, chemicals were a big part of that. Net income \$2.9 million vs \$1.4 million. You could see down on the report, misc. non-operating income \$1.1 million; this is contributions from the city for the projects so its not real cash. Page F7 is the balance sheet, cash continues to be a

struggle for the water utility. Operating cash was a deficit of \$147k, compared to \$923k at end of 2022. Investment in assets about \$800k worth of meters. Debt increased as the utility took out interim financing of \$17.5 million for GAC with loan closing this Thursday. There is a rate of return in here, page F23- 4.23% vs 3.02% of last year, hopefully, a full year this year of rate will help us gain our cash position back to a positive rate. We postponed payment back to the sewer utility to help with cash. The sewer's income is based on water usage so they need to pay for meter costs as well. The PSC governs the process to allocate meter costs to the sewer utility, they are paying a depreciation rate over a 20-year period and not looking at those upfront costs.

Lindman stated in 2018, we changed over meters from Neptune to Sensus, our goal was to increase meter exchanges throughout the city, we had old meters not reading so meter readings and usage are not accurate, we are losing revenue on an annual basis. When we started ordering those meters, they became hard to get, manufacturers shut down. We had about 8,000 meters on order and those orders just carried over year to year. Last year and going into this year we started getting those meters and that is why there is such a large cash outlay instead of over 5–6-year period.

Groat referred to W-07 for tax equivalent that the water utility pays the city based on an average plant and tax rates, the calculation came out to \$1.8 million, the city defrayed and allocated \$1.5 million. In August, Ehler's will go through financial projections to look at ways we could decrease that. I have my hands in both the Utility and City's pockets, if you take from one the other pocket is lighter. All parts of government are being affected by inflation.

Gehin questioned if there was a typo on the number of employees. Page1 of Schedule F06 says 31 employees. This report should not include the sewer.

Groat replied it could include sewer utility and the front counter.

Lindman replied 21 is not accurate either. Dvorak advised she had made a correction but not sure which part she corrected.

Gehin questioned the 17% water loss. Last year was under 10%.

Lindman replied that a lot of it had to do with the meters. One was just changed out from 1968. We have a lot of meters in the 2000s that are no longer reading. This year is the first year we are shutting off water to force residents to allow us to make meter changes. When the new meters go in, we'll start getting complaints because they haven't really been paying their appropriate water bills.

Boers stated, we've been working on trying to be more accurate in our water facility. Water meters at the new plant was tested after the first year and remain accurate. We started using more metering at our process water, so if we had running water line for freezing, we are putting a meter and getting more accurate reading. Our reporting has gotten better, there are only a couple of variables left and water meters were one of them. We have a lot of meters that were put in 2012-2013 that are reaching that 10-year lifespan. Last couple of months, we've been looking at the failure rates, there's a large failure rate meters that we are going through. We couldn't get meters for a couple of years, then we had the switch of meters, then covid, so we couldn't get into the homes. 2 years ago, we ordered 8,000 meters and last year and first part this year we finally got 2,500. We are holding onto those too because we don't want to go into people's homes for the lead service lines and not replace those meters. If they are getting a new service, we are changing out their meters at that time. Couplings and elbows are getting hard to find and we have those ordered too but just haven't received them. We are suspecting more loss through the meters and residence/homeowners than the distribution lines.

Robinson questioned if we should put the rain barrels under the water conservation program.

Boers referred to Lindman as he asked the PSC and they advised not to put it in the report.

Gehin questioned what the standard was and if it were 15% water loss?

Diny stated we'll have to weigh those out for the replacements, because if we asked the homeowners to bring their meters out of a pit, then later we go in and change their water service lines they may be paying twice, we want to make this as equitable as possible for the homeowners. We need to make every effort to get our water loss under 15%.

No Action Needed.

5) Update from Regulatory Affairs Seminar and Upcoming Regulations.

Lindman stated he attended the seminar and this year they focused on lead service line replacements. There's a lot of agencies we don't hear from that speak and attend this conference. Like the Association of State Drinking Water Administrators (ASDWA), they tell the DNR what to do. Hearing about what regulations might be coming down. There's going to be no shortage of additional regulations coming down which all deals with economics. The big push right now is Cyber Security and that would be additional costs to the utility both Water and Wastewater, those are happening and will be coming in the next 12-18 months, there could be requirements. The DNR/EPA is going to continue to look at the regulations whether it's the lead and copper rule, disinfection byproducts rule, or other emerging contaminants, all the municipalities that were there were pushing back stating this continued push is inundating users with costs that we can't keep up with.

Robinson questioned the pinch points relative to cyber security because we are automated.

Lindman replied, it's the remote access. The operators on call could remote access in with a tablet, some consultants provide updates remotely to our SCADA system and programming. A Cyber Security assessment will eventually be required, then a cyber security plan. The DNR says the EPA wants to regulate cyber security directly to utilities and they are not happy with that because the DNR regulates the utilities, there's friction there with the Feds and the State. DNR says they don't want to house these documents and it's an open record, so they don't want them to be accessed. They are not sure how they are going to regulate it, that's one of the holdups. As we know more, I will provide updates.

No Action Needed.

6) Discussion and Possible Action Establishing a Day and Time for the Monthly Wausau Water Works Commission Meeting.

Diny questioned what the commissioner's thoughts on dates/times were after sharing the availability of the Council Chambers and could do like 11 to 12:30 to be more accommodating.

Gehin preferred earlier in the week. Watson preferred around lunch hour.

Consensus reached to schedule meetings in the AM starting with August 6th to move from 1:30pm to 11:00am. 1st Tuesdays 11:00AM to 12:30PM.

All present agrees, no formal Action Taken.

7) Adjourn.

Watson motioned to adjourn. Seconded by Gehin.

Link to view meeting in its entirety: <https://tinyurl.com/wausaucitycouncil>

Gina Vang, Recording Secretary

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OFFICIAL PROCEEDINGS OF THE WAUSAU COMMON COUNCIL

held on Tuesday, July 9, 2024, in Council Chambers, beginning at 6:30 p.m.,
Mayor Doug Diny presiding.

Roll Call

07/09/2024

Roll Call indicated 11 members present.

<u>District</u>	<u>Aldersperson</u>	<u>Vote</u>
1	Lukens, Carol	YES
2	Martens, Michael	YES
3	Kilian, Terry	YES
4	Neal, Tom	YES
5	Gisselman, Gary	YES
6	McElhaney, Becky	YES
7	Rasmussen, Lisa	YES
8	Watson, Sarah	YES
9	Tierney, Vicki	YES
10	Larson, Lou	YES
11	Henke, Chad	YES

Public Comment: Pre-registered citizens for matters on the agenda and other public comment

07/09/2024

1. Tom Kilian, 133 E. Thomas Street – spoke in favor of reducing the PILOT payment.
2. Orlando Alfanso, 1015 Brown Street – spoke in opposition of the Lead Hazard Reduction Capacity Building grant and the ordinance on lead service lines and in favor of reducing the PILOT payment.
3. Jon Radtke, 703 Franklin Street - spoke in opposition of the ordinance on lead service lines.
4. Sid Ehfard, 302 Bopf Street – spoke in opposition of the ordinance on lead service lines.

Consent Agenda

07/09/2024

Without objection, item 24-0714 was pulled from the agenda for consideration by the Mayor

Motion by Larson, seconded by Lukens, to adopt all the items on the Consent Agenda as follows:

24-0701 from the Common Council Approve Minutes of a previous meeting(s) (06/11/2024).

24-0703 Ordinance from the Planning Commission Rezoning 1011 N 5th St from an MRL-12, Multi-Family Residential-12 to an NMU, Neighborhood Mixed Use.

01-1024 Joint Ordinance from the Infrastructure and Facilities Committee and Plan Commission Amending annexation ordinance no. 497-01L (annexing territory from the Town of Weston to the City of Wausau - Gilbertson - Poplar Lane).

93-0918 Joint Ordinance from the Infrastructure and Facilities Committee and Plan Commission Amending annexation ordinance no. 497-93E (annexing territory from the Town of Weston to the City of Wausau – Greenwood Hills).

24-0406 Final Resolution from the Infrastructure and Facilities Committee and Plan Commission Vacating and discontinuing a portion of right-of-way south of Adams Street abutting 1010 and 1012 Everest Boulevard and 1100 Highland Park Boulevard (that portion known as N. 11th Street on plat H.B. Huntington’s Addition to the City of Wausau, Document No. 167682.)

24-0711 Ordinance from the Infrastructure and Facilities Committee Designating no parking on the north side of Norton Street beginning 135 feet east of N. 1st Avenue extending to 150 east of N. 1st Avenue.

24-0712 Ordinance from the Infrastructure and Facilities Committee Designating no parking on the west side of Stettin Drive from Stewart Avenue to S. 44th Avenue and no parking on the east side of Stettin Drive beginning at the intersection of Stewart Avenue and extending 500 feet north.

24-0715 Resolution from the Infrastructure and Facilities Committee Approving Agreement for the Management and Maintenance of a Stormwater Facility (Aspirus Wausau Hospital – 333 Pine Ridge Boulevard).

24-0716 Resolution from the Infrastructure and Facilities Committee Approving State/Municipal Agreement for Transportation Alternatives Program (TAP) Project – 72nd Avenue Trail South Extension, Sunnyvale Park to Stewart Avenue.

24-0717 Resolution from the Infrastructure and Facilities Committee and Plan Commission Accepting dedication of right-of-way, accepting permanent utility easement, and accepting temporary easement for cul-de-sacs at the west end of Old Coach Road and at the west end of Birchwood Drive.

24-0108 Resolution from the Public Health & Safety Committee Approving Various Licenses as Indicated.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0714 **07/09/2024**

Motion by Henke, seconded by Watson, to adopt the Resolution from the Infrastructure and Facilities Committee Approving Agreement for the Management and Maintenance of a Stormwater Facility (Wausau School District – 1200 West Wausau Avenue).

Lukens stated concerns with microplastics and crumbed rubber used in the artificial turf at this particular site outlined in the agreement. It was stated the city maintained a strong relationship with the school district and this concern was raised to bring attention to this item of concern.

Rasmussen stated similar environmental concerns and player impacts of artificial turf. It was stated the facility is now in place and that the agreement must be approved to ensure those facilities are maintained for stormwater capacity.

Kilian stated more decisions made by the Common Council should consider environmental impact and thanked Lukens for bringing the concerns forward.

Lukens stated a desire to find a more sustainable and player friendly alternatives for the artificial turf.

<u>District</u>	<u>Aldersperson</u>	<u>Vote</u>
1	Lukens, Carol	NO
2	Martens, Michael	YES
3	Kilian, Terry	YES
4	Neal, Tom	YES
5	Gisselman, Gary	YES
6	McElhaney, Becky	YES
7	Rasmussen, Lisa	YES
8	Watson, Sarah	YES
9	Tierney, Vicki	NO
10	Larson, Lou	YES
11	Henke, Chad	YES

Yes Votes: 9 No Votes: 2 Abstain: 0 Not Voting: 0 Result: PASSED

24-0704 **07/09/2024**

Motion by Henke, seconded by Lukens, to adopt the Resolution from the Finance Committee Authorization to Accept Lead Hazard Reduction Capacity Building grant through the Office of Lead Hazard Control and Health Homes through the U.S. Department of Housing and Urban Development.

Kilian stated the upfront amount of levy needed to support this program with an unknowing funding source and that the Economic Development Department did not have the staff capacity to support the program as well.

Martens stated the program was meant to identify lead in homes but did not provide funding for, or the ability to remediate, lead within homes.

Lukens stated opposition based on staff recommendations and statements provided by other alders.

Tierney stated opposition based on the capacity of the program to identify lead but not remediate it from homes.

<u>District</u>	<u>Aldersperson</u>	<u>Vote</u>
1	Lukens, Carol	NO
2	Martens, Michael	NO
3	Kilian, Terry	NO

4	Neal, Tom	YES
5	Gisselman, Gary	NO
6	McElhaney, Becky	NO
7	Rasmussen, Lisa	NO
8	Watson, Sarah	NO
9	Tierney, Vicki	NO
10	Larson, Lou	NO
11	Henke, Chad	NO

Yes Votes: 1 No Votes: 10 Abstain: 0 Not Voting: 0 Result: FAILED

24-0710 **07/09/2024**

Motion by Lukens, seconded by Henke, to adopt the Resolution from the Economic Development Committee Approving Sale of 1210 N. 3rd Street by the City of Wausau to DNA Taverns, LLC.

Gisselman stated the anticipated use for the lot would be for additional parking and stated the neighborhood and a nearby park should be considered in approving the sale.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

Suspend the Rules **07/09/2024**

Motion by Larson, second by Henke, to suspend Rule 6(B) Filing and 12(A) Referral of Resolutions for 24-0705, 24-0706, 24-0707, 24-0708, 24-0709, 92-0623.

Rasmussen made a parliamentary inquiry on if the rules are suspended, does that suspension mean automatic consideration of item 24-0718. It was stated if the motion to suspend the rules was passed, it would include the remainder of the agenda items for consideration.

Without objection, the Chair pulled item 24-0718 to be considered under the suspension of the rules separately and only items 24-0705, 24-0706, 24-0707, 24-0708, 24-0709, 92-0623 would be considered under the suspension of the rules at this time.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0705 **07/09/2024**

Motion by Watson, seconded by Larson, to adopt the Ordinance from the Wausau Water Works Commission Creating Chapter 13.66 Lead and galvanized water service line replacement, Section 13.66.010 Intent and purpose, Section 13.66.020 Authorization, Section 13.66.030 Rules of construction and definitions, Section 13.66.040 Survey and inspections, Section 13.66.050 Partial or full service line material replacement; public side or customer side, Section 13.66.060 Replacement priority, Section 13.66.070 Application and Scheduling, Section 13.66.080 Financing of replacement, Section 13.66.09 as amended.

Kilian stated constituents had reached out with concerns on public notice and lack of public input. It was stated the main concern with citizens is how the ordinance impacted them and if they would need to pay out of pocket for the cost of lead line replacements. Kilian stated a preference for tabling the ordinance until adequate notice can be given to the public and with more opportunity for public comment in multiple languages.

Rasmussen questioned if the scaling up of the line replacement program would come as funds are available through grants and that if grant funding was not available the cost would not be passed down to individual residents. It was stated the funding is determined upon on a year-by-year basis. Rasmussen stated concerns with not being able to leverage grant funding if there was no ordinance mandating lead line replacements on the public and private side and enforcement pieces for homeowners. It was further stated a goal to scale up the project as grant funding is made available and scale down as grant money is not accessible.

Motion by Rasmussen, seconded by Larson, to amend 24-0705 to add the clause, "Mandated lead service line replacement will only proceed as grant monies are available to fully fund the private side obligation for the full lead service line replacement and all related construction for the property owner."

McElhaney questioned if the grant funding would include driveway and landscaping work as part of the replacements. It was stated this was intended to include property restorations. *Without objection*, a friendly amendment was offered by McElhaney to specify all related construction.

Tierney stated an understanding of the amendment was to use the available grant money to ensure the private lead lines would be replaced without charging the residents. It was stated this was how this solution was presented to the public along with opportunities for public input.

Neal questioned if the amendment should make it clearer that the program would be fully funded for residents. It was questioned if there should be limits to what property restorations are covered. It was stated the disturbance to property is minimum and a limit to restoration costs would not be necessary. *Without objection*, a friendly amendment was offered by Neal to include fully funded.

Lukens stated support for the amendment and questioned if this amendment would be compatible with regulations of the Wisconsin Public Service Commission. It was stated that was only applicable if the utility funded private lead line replacement. Lukens stated this work would only cover lead lines and not the pipes inside homes.

Gisselman questioned the process of developing this ordinance without more public input and stated support for protecting citizens as much as possible while ensuring all citizens are made aware of the ordinance.

Kilian stated the amendment was a positive effort to protect the residents of the city. Kilian also stated the ordinance should not move forward until formal citizen input was provided.

McElhaney stated uncomfotableness with the ordinance without more clarification among the regulating agencies. It was stated that if grant money requires an ordinance it presents an unknown that can not be supported.

Rasmussen stated the goal is protecting residents against baring the burden of paying for lead line replacement and restoration.

Kilian stated there was a concern with this moving forward until there was public input sessions as they felt the city ordinance would leave citizens without a choice.

<u>District</u>	<u>Aldersperson</u>	<u>Vote</u>
1	Lukens, Carol	YES
2	Martens, Michael	YES
3	Kilian, Terry	YES
4	Neal, Tom	YES
5	Gisselman, Gary	YES
6	McElhaney, Becky	YES
7	Rasmussen, Lisa	YES
8	Watson, Sarah	YES
9	Tierney, Vicki	NO
10	Larson, Lou	YES
11	Henke, Chad	YES

Yes Votes: 10 No Votes: 1 Abstain: 0 Not Voting: 0 Result: PASSED

Watson questioned if a joint meeting with the Wausau Water Works Commission would be appropriate and asked to get a more layman's understanding of the ordinance and its impact ahead of future meetings out to the public.

Gisselman stated a preference of a Committee of the Whole to discuss this matter more thoroughly.

Watson requested the ordinance be sent to the regulating agencies for their input.

Lukens requested information be provided to the public on this ordinance in multiple languages.

Motion by Gisselman, seconded by Neal, to postpone consideration of the item 24-0705 to the August Common Council meeting.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0706

07/09/2024

Motion by Lukens, seconded by Rasmussen, to adopt the Resolution from the Finance Committee Approving Interlocal Agreement between the City of Wausau and Marathon County for the 2022 Byrne Justice Assistance Grant Program Award.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0707 **07/09/2024**

Motion by Lukens, seconded by Watson, to adopt the Resolution from the Finance Committee Approving Interlocal Agreement between the City of Wausau and Marathon County for the 2023 Byrne Justice Assistance Grant Program Award.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0708 **07/09/2024**

Motion by Lukens, seconded by Tierney, to adopt the Resolution from the Finance Committee Authorizing the City of Wausau to enter a 3-year (2024-2027) shared services agreement with the Wausau School District for School Resource Officers.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

24-0709 **07/09/2024**

Motion by Rasmussen, seconded by Larson, to adopt the Resolution from the Finance Committee Approving United Way impact grant funding for assisting the unhoused with security deposits.

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

92-0623 **07/09/2024**

Motion by Larson, seconded by Tierney, to adopt the Resolution from the Finance Committee Approving First Amendment to Agreement for Lease to City of Parking Lot-Third and McClellan Streets (Curly Kale LLC).

Yes Votes: 11 No Votes: 0 Abstain: 0 Not Voting: 0 Result: PASSED

Suspend the Rules **07/09/2024**

Motion to consider the motion to take up 24-0718 objected by Rasmussen.

Rasmussen stated opposition to this resolution for consideration as it was not brought forward to a standing committee for consideration. It was stated the city's financial planner is going to conduct a meeting with the Finance Committee on the PILOT payment and this resolution is premature. Rasmussen stated the Mayor can propose a budget to the Common Council without direction from the Common Council at the forefront as this resolution does. It was stated the process was not the process of the city.

Point of Order by Watson on debating the suspension of the rules. Point of Order not well taken by the Chair as this was on the objection to take up the resolution and not the vote on suspension of the rules. The Chair stated this resolution was meant to provide guidance to the Mayor and President of the Wausau Water Works Commission to move forward.

Point of Order by Neal on why the vote to suspend the rules was not taken up. Point of Order not well taken by the Chair as this was on the objection but it was recommended that the vote to suspend the rules should be taken up.

Motion by Larson, seconded by Tierney, to Suspend Rule 6(B) Filing and 12(A) Referral of Resolutions for 24-0718.

<u>District</u>	<u>Aldersperson</u>	<u>Vote</u>
1	Lukens, Carol	NO
2	Martens, Michael	NO
3	Kilian, Terry	YES
4	Neal, Tom	NO
5	Gisselman, Gary	NO
6	McElhaney, Becky	YES
7	Rasmussen, Lisa	NO

8	Watson, Sarah	YES
9	Tierney, Vicki	YES
10	Larson, Lou	YES
11	Henke, Chad	NO

Yes Votes: 5 No Votes: 6 Abstain: 0 Not Voting: 0 Result: FAILED

Public Comment & Suggestions **07/09/2024**

1. Jay Kronenwetter, 310 Sturgeon Eddy Road – spoke on the Wausau School District Citizens Task Force on Elementary School Redistricting
2. Tom Kilian, 133 E. Thomas Street – spoke on low/moderate income linguistic rates, Wyatt Street environmental testing impact on federal funding, the Hmong language meeting the safe harbor threshold for Metro Ride Title XI analysis, lack of translation services, and the Liberation and Freedom Committee.

Adjourn **07/09/2024**

Motion by Lukens, second by Henke, to adjourn the meeting. Motion carried. Meeting adjourned at 8:45 p.m.

Doug Diny, Mayor
Kaitlyn Bernarde, City Clerk

CITY OF WAUSAU, 407 Grant Street, Wausau, WI 54403

ORDINANCE OF THE WAUSAU WATER WORKS COMMISSION

Creating Chapter 13.25 Lead and galvanized water service line replacement, Section 13.25.010 Intent and purpose, Section 13.25.020 Authorization, Section 13.25.030 Rules of construction and definitions, Section 13.25.040 Survey and inspections, Section 13.25.050 Partial or full service line material replacement; public side or customer side, Section 13.25.060 Replacement priority, Section 13.25.070 Application and Scheduling, Section 13.25.080 Financing of replacement, Section 13.25.090 Exceptions, Section 13.25.100 Prohibitions, Section 13.25.110 Severability, Section 13.25.120 Penalties.

Committee Action:

Ordinance Number:

Fiscal Impact:

2024: Total Allocation- \$5,790,028 (Principle Forgiveness - \$3,641,078; Loan Amount - \$2,148,950 (this should be at a rate of 0.5%))
Potential for up to \$60,000,000 out-of-pocket in the following four years depending on availability of funding

File Number:

Date Introduced:

The Common Council of the City of Wausau do ordain as follows:

Section 1. That Chapter 13.25 Lead and galvanized water service line replacement is hereby created and made up of the following Sections outlined below.

Section 2. That Section 13.25.010 Intent and purpose is hereby created to read as follows:

13.25.010 Intent and purpose.

Lead in drinking water poses a threat to the public health. Leaching of lead from lead service lines or from galvanized lines, that are or were downstream of lead, are sources of lead in drinking water. Additionally, aged water services including lead and galvanized lines can be a source of water loss and potential contamination. The Common Council of the City of Wausau therefore finds that it is in the public interest to establish a comprehensive program for the removal and replacement of lead and galvanized service lines in use within the Wausau Water Utility distribution system, and to that end, declares the purposes of this Chapter to be as follows:

- (1) Continue to ensure that the water quality at every tap of Wausau Water Utility customers meets the water quality standards specified under the Federal Safe Drinking Water Act;
- (2) Continue to reduce the level of lead in the City's drinking water to meet EPA standards in City drinking water for the health of City residents;
- (3) Continue to meet the Wisconsin Department of Natural Resources requirements for local compliance with the EPA's Lead and Copper Rule, as revised and amended;
- (4) Continue to replace all high-risk lead water service lines and all remaining lead water service lines in use in the City; and
- (5) Limit costs by setting a service replacement schedule when federal, state, or local funding is available.

Section 3. That Section 13.25.020 Authorization is hereby created to read as follows:

13.25.020 Authorization.

This Chapter is enacted pursuant to Wis. Stats. §§ 62.11(5), 281.12(5), 66.0627(8), and 196.372, and as mandated by 42 USC 300g of the Federal Safe Drinking Water Act, as amended, enforced by the EPA and the WDNR.

Section 4. That Section 13.25.030 Rules of construction and definitions is hereby created to read as follows:

13.25.030 Rules of construction and definitions.

This section and all rules and orders promulgated under this section shall be liberally construed so that the purposes enumerated in Section 13.25.010 may be accomplished. Words and phrases shall be construed and understood according to their common and usual meaning unless the contrary is clearly indicated. Within this chapter:

Childcare facility means any state-licensed or county-certified childcare facility including, but not limited to, licensed family childcare, licensed group centers, licensed day camps, certified school-age programs and Head Start programs.

City means City of Wausau.

Confirmed water sample test means a tap water analysis, completed after a prior analysis that indicated lead levels at or above the EPA action level, and conducted in accordance with the Lead and Copper Rule, as revised and amended, with Wis. Admin. Code § N 809.547, and with instructions provided by the Wausau Water Utility.

Customer-side water service line means the water conduit pipe running from the water meter to the curb stop which is the Water Utility shut-off valve usually located behind the curb on public property.

Director means the Director of Public Works and Utilities.

Distribution system means the network of water pipes, including water mains and water service lines, owned and operated by the City of Wausau Water Utility.

EPA means the U.S. Environmental Protection Agency.

EPA action level means a measure of the effectiveness of the corrosion control treatment in water systems, as established by the Safe Drinking Water Act's Lead and Copper Rule, as revised and amended.

Federal Safe Drinking Water Act as codified as 42 USC §§ 300f - 300j-26.

High risk lead service line means a lead and/or galvanized customer-side water service line identified in Section 13.25.050 and any lead and/or galvanized customer-side water service line where a confirmed water sample test of a customer's tap water reveals a lead concentration at or above the EPA action level.

Lead and Copper Rule means the rules created by the EPA, as revised and amended, and adopted by the WDNR in response to the passage of the Safe Drinking Water Act, which provides maximum containment level goals and national primary drinking water regulations (NPDWR) for controlling lead and copper in drinking water. NPDWR regarding approved treatment techniques include corrosion control treatment, source water treatment, lead and galvanized water service line replacement and public education. The rules may be found in 56 FR 26460, 40 CFR 141.80—141.90, and Wis. Admin. Code §§ NR 809.541 through 809.55.

Lead water service line means a water service line made of lead and/or galvanized steel, and any lead pigtail, gooseneck or other fitting which is connected to such a line. The term can apply to the customer-side water service line and/or the public-side water service line.

Licensed plumber means a person, firm, corporation or other entity licensed to perform plumbing work in the City by the State of Wisconsin.

PPB means parts per billion.

Property means any possessory interest, legal or equitable, in real property, including an estate, trust, or lien, and any buildings, structures and improvements thereon.

Property owner means a person or legal entity having a possessory interest, legal or equitable, in property, which defined term includes an estate, trust, or lien.

Public-side water service line means the utility-owned portion of the water service line from the water main to the curb stop.

Service replacement schedule means the schedule adopted by the Wausau Waterworks Commission for the replacement of lead customer-side water service lines based on community resources; on availability of licensed plumbers and Water Utility resources to complete service line replacements; on physical location of properties with lead customer-side water service lines; and on availability of federal, state, or local funding.

Tenant means person or persons in actual possession of and living at a property.

Water Utility means the City of Wausau public water utility and its distribution system, also known as Wausau Water Works.

WDNR means the Wisconsin Department of Natural Resources.

Section 5. That Section 13.25.040 Survey and inspections is hereby created to read as follows:

13.25.040 Survey and inspections.

Upon notice from the Water Utility, any person who owns, manages or otherwise exercises control over a property within the Water Utility distribution system shall allow the Water Utility to inspect the customer-side water service line or have the customer-side water service line inspected by a licensed plumber or other representative as authorized by the Director to determine whether the service line is lead, copper, cast iron, galvanized steel, plastic or other material.

Section 6. That Section 13.25.050 Partial or full-service line material replacement; public-side or customer side is hereby created to read as follows:

13.25.050 Partial or full-service line material replacement; public-side or customer-side.

- (a) All of the following service line material combinations are subject to partial or full replacement with copper, and/or plastic service lines under this division as identified:

SERVICE LINE MATERIAL REPLACEMENT

Public-Side	Customer-Side	Side Requiring Replacement
Lead	Lead	Both
Lead	Galvanized	Both

Lead	Copper	Public-side only
Lead	Plastic	Public-side only
Copper	Lead	Customer-side only
Copper	Galvanized	Customer-side only
Copper	Copper	Neither
Copper	Plastic	Neither
Plastic	Lead	Customer-side only
Plastic	Galvanized	Customer-side only
Plastic	Copper	Neither
Plastic	Plastic	Neither
Galvanized	Galvanized	Both
Galvanized	Copper	Public-side only
Galvanized	Plastic	Public-side only
Galvanized	Lead	Both

No other service line material combinations have been identified which require replacement under this division.

- (b) All lead water service lines (as defined in section 13.25.030) must be replaced regardless of location. Where both the customer-side and public-side water service lines are lead, the customer-side lead water service line shall be replaced at the same time as the public-side lead water service line and in accordance with any applicable state and federal requirements, as revised and amended and per section 13.25.070. If a customer-side lead water service line is connected to a public-side water service line that is not a lead water service line, the replacement of the customer-side lead water service line shall be completed under a schedule determined by the Water Utility, in compliance with all local, state, and federal requirements, as revised and amended. As of the effective date of the ordinance from which this Chapter is derived, no lead water service line will be allowed to connect to a Water Utility line once replaced.

Section 7. That Section 13.25.060 Replacement priority is hereby created to read as follows:

13.25.060 Replacement priority.

- (a) Owners, managers or persons otherwise exercising control over properties within the Water Utility distribution system with customer-side lead water service lines shall be required to replace the customer-side lead water service lines according to the order of priority and replacement schedule, that are established by the Wausau Water Works Commission.
- (b) Notwithstanding the schedules set forth herein and any limitations on funding sources which may be made available to either the Water Utility or the customer,

all customer-side water service lines identified herein shall be replaced at a schedule in accordance with local, state, and federal law.

Section 8. That Section 13.25.070 Application and Scheduling is hereby created to read as follows:

13.25.070 Application and Scheduling.

All existing customer-side lead water service lines that connect to a public-side water service line must be replaced. The replacement schedule will be determined by the Water Utility.

Existing customer-side lead water service lines that are connected to a public-side water service line that is scheduled to be replaced or reconstructed as part of a Water Utility or City construction project shall be replaced in conjunction with the planned construction project. The Water Utility shall give written notice to the owner of their duty to replace the customer-side lead water service line. Scheduling of customer-side lead water service line replacements shall be coordinated with the Water Utility within 30 days of service of the written notice. Additional time to schedule the customer-side lead water service line replacement may be granted by the Director for good cause. Noncompliance with the Water Utility replacement schedule may result in enforcement pursuant to Section 13.25.120.

Section 9. That Section 13.25.080 Financing of replacement is hereby created to read as follows:

13.25.080 Financing of replacement.

~~Mandated lead service line replacement will only proceed as grant monies are available to fully fund the private side obligation for the full lead service line replacement and all related construction for the property owner. A property owner shall be responsible for the cost of replacing the portion of a lead water service line that is a customer-side water service line that serves their property. The Water Utility shall be responsible for the cost of replacing all lead service lines that are public-side lead water service lines.~~

~~The City may establish a program to provide financial assistance to property owners replacing customer-side lead water service lines. If the financial assistance does not cover the complete cost of replacing the customer-side water lead service line, the property owner shall be responsible for the remaining balance.~~

Section 10. That Section 13.25.090 Exceptions is hereby created to read as follows:

13.25.090 Exceptions.

- (a) The Water Utility may modify the inspection requirement set forth under 13.25.040 if the customer so requests and demonstrates a compelling need.

- (b) Upon the demonstration of a compelling need, the owner of a single-family dwelling or a business to which the public has no access to tap water and with no more than five employees, may request a change of schedule or an extension of time for compliance with Sections 13.25.050 through 13.25.070.
- (c) Guidelines for the consideration of requests under subsections (a) and (b) of this section will be established by the Wausau Water Works Commission.
- (d) Compliance deadlines will be calculated on a calendar year basis but may be deferred during the months of December through March on the basis of weather constraints.

Section 11. That Section 13.25.100 Prohibitions is hereby created to read as follows:

13.25.100 Prohibitions.

It shall be unlawful for any person to fail to comply with the applicable customer-side lead water service line replacement requirements as set forth herein or to violate any other provision of this Chapter.

Section 12. That Section 13.25.110 Severability is hereby created to read as follows:

13.25.110 Severability.

If any section or portion of this chapter is for any reason determined to be invalid or unconstitutional by the decision of a court of competent jurisdiction, that section or portion shall be deemed severable and shall not affect the validity of the remaining sections or portions of this Chapter.

Section 13. That Section 13.25.120 Penalties is hereby created to read as follows:

13.25.120 Penalties.

Any person who violates any provision of this Chapter may be subject to a forfeiture of no less than \$50.00 and no more than \$1,000.00. Each day a violation continues may be considered a separate offense.

Section 14. That Section 13.25.130 Authority to Discontinue Service is hereby created to read as follow:

//

13.25.130 Authority to Discontinue Service.

As an alternative to any other methods provided for obtaining compliance with this Chapter regarding replacement of a customer-side lead water service line, if it is determined by the Water Utility that an illegal customer-side lead water service line endangers public health, safety, or welfare, and requires immediate action, the Water Utility may discontinue water service to such property after reasonable opportunity has been given to make the appropriate replacement. The customer shall have an opportunity for a hearing pursuant to Wausau Municipal Code Ch.2.21, adopting Wis. Stat. Ch. 68, within ten days of such emergency discontinuation of services.

Section 15. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 16. This ordinance shall be in full force and effect from and after its date of publication.

Adopted:

Approved:

Published:

Attest:

Approved:

Doug Diny, Mayor

Attest:

Kaitlyn Bernarde, City Clerk



TO: Wausau Waterworks Commissioners

FROM: Ben Brooks
Wastewater Operations Superintendent

DATE: June 2, 2026

SUBJECT: 2025 Compliance Maintenance Annual Report (CMAR)

Dear Commissioners,

The Wausau Wastewater Treatment Facility is seeking approval of the 2025 CMAR.

Wisconsin Administrative Code, Chapter NR 208, or more commonly known as the Compliance Maintenance Annual Report (CMAR) rule for publicly and privately owned domestic wastewater treatment facilities. The CMAR is a self-evaluation tool that promotes the owner's awareness and responsibility for wastewater collection and treatment needs, measures the performance of a wastewater treatment facility during a calendar year, and assesses its level of compliance with permit requirements.

CMAR requirements have been in existence since 1987.

The Wausau Waterworks Wastewater Treatment Facility received a grade point average of 4.0 for the 2025 calendar year. This highly achieved GPA means that Wastewater Utility is operating well, the collections system is being maintained appropriately, and all WPDES requirements are being met at a high level of certainty.

Best regards,

Ben Brooks

Superintendent

Wausau Waterworks- Wastewater

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

Influent Flow and Loading

1. Monthly Average Flows and BOD Loadings

1.1 Verify the following monthly flows and BOD loadings to your facility.

Influent No. 701	Influent Monthly Average Flow, MGD	x	Influent Monthly Average BOD Concentration mg/L	x	8.34	=	Influent Monthly Average BOD Loading, lbs/day
January	3.8045	x	224	x	8.34	=	7,104
February	3.7756	x	232	x	8.34	=	7,307
March	5.1759	x	149	x	8.34	=	6,424
April	6.6204	x	148	x	8.34	=	8,167
May	5.2217	x	177	x	8.34	=	7,687
June	4.7428	x	164	x	8.34	=	6,491
July	4.9176	x	173	x	8.34	=	7,102
August	4.1984	x	197	x	8.34	=	6,910
September	4.0168	x	197	x	8.34	=	6,590
October	3.7621	x	198	x	8.34	=	6,217
November	3.5078	x	221	x	8.34	=	6,460
December	3.6541	x	232	x	8.34	=	7,070

2. Maximum Monthly Design Flow and Design BOD Loading

2.1 Verify the design flow and loading for your facility.

Design	Design Factor	x	%	=	% of Design
Max Month Design Flow, MGD	8.2	x	90	=	7.38
		x	100	=	8.2
Design BOD, lbs/day	17000	x	90	=	15300
		x	100	=	17000

2.2 Verify the number of times the flow and BOD exceeded 90% or 100% of design, points earned, and score:

	Months of Influent	Number of times flow was greater than 90% of	Number of times flow was greater than 100% of	Number of times BOD was greater than 90% of design	Number of times BOD was greater than 100% of design
January	1	0	0	0	0
February	1	0	0	0	0
March	1	0	0	0	0
April	1	0	0	0	0
May	1	0	0	0	0
June	1	0	0	0	0
July	1	0	0	0	0
August	1	0	0	0	0
September	1	0	0	0	0
October	1	0	0	0	0
November	1	0	0	0	0
December	1	0	0	0	0
Points per each		2	1	3	2
Exceedances		0	0	0	0
Points		0	0	0	0
Total Number of Points					0

0

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 2025

3. Flow Meter

3.1 Was the influent flow meter calibrated in the last year?
 Yes Enter last calibration date (MM/DD/YYYY)

No

If No, please explain:

4. Sewer Use Ordinance

4.1 Did your community have a sewer use ordinance that limited or prohibited the discharge of excessive conventional pollutants ((C)BOD, SS, or pH) or toxic substances to the sewer from industries, commercial users, hauled waste, or residences?

Yes

No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

Yes

No

If Yes, please explain:

5. Septage Receiving

5.1 Did you have requests to receive septage at your facility?

Septic Tanks

Holding Tanks

Grease Traps

Yes

Yes

Yes

No

No

No

5.2 Did you receive septage at your facility? If yes, indicate volume in gallons.

Septic Tanks

Yes gallons

No

Holding Tanks

Yes gallons

No

Grease Traps

Yes gallons

No

5.2.1 If yes to any of the above, please explain if plant performance is affected when receiving any of these wastes.

6. Pretreatment

6.1 Did your facility experience operational problems, permit violations, biosolids quality concerns, or hazardous situations in the sewer system or treatment plant that were attributable to commercial or industrial discharges in the last year?

Yes

No

If yes, describe the situation and your community's response.

6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.?

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

<p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p> <p>If yes, describe the types of wastes received and any procedures or other restrictions that were in place to protect the facility from the discharge of hauled industrial wastes.</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

Effluent Quality and Plant Performance (BOD/CBOD)

1. Effluent (C)BOD Results

1.1 Verify the following monthly average effluent values, exceedances, and points for BOD or CBOD

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit > 10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	30	27	8	1	0	0
February	30	27	8	1	0	0
March	30	27	6	1	0	0
April	30	27	2	1	0	0
May	30	27	3	1	0	0
June	30	27	3	1	0	0
July	30	27	3	1	0	0
August	30	27	5	1	0	0
September	30	27	4	1	0	0
October	30	27	7	1	0	0
November	30	27	4	1	0	0
December	30	27	4	1	0	0

* Equals limit if limit is <= 10

Months of discharge/yr	12		
Points per each exceedance with 12 months of discharge		7	3
Exceedances		0	0
Points		0	0
Total number of points			0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge. Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

No violations occurred.

2. Flow Meter Calibration

2.1 Was the effluent flow meter calibrated in the last year?

- Yes

Enter last calibration date (MM/DD/YYYY)

2025-12-04

- No

If No, please explain:

3. Treatment Problems

3.1 What problems, if any, were experienced over the last year that threatened treatment?

No problems occurred that threatened treatment.

4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

- Yes

- No

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

<p>If Yes, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
<p>4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p> <p>If Yes, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
<p>4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input checked="" type="radio"/> N/A</p> <p>Please explain unless not applicable:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

Effluent Quality and Plant Performance (Total Suspended Solids)

1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit >10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	30	27	18	1	0	0
February	30	27	17	1	0	0
March	30	27	10	1	0	0
April	30	27	4	1	0	0
May	30	27	4	1	0	0
June	30	27	4	1	0	0
July	30	27	5	1	0	0
August	30	27	5	1	0	0
September	30	27	4	1	0	0
October	30	27	5	1	0	0
November	30	27	5	1	0	0
December	30	27	2	1	0	0
* Equals limit if limit is <= 10						
Months of Discharge/yr				12		
Points per each exceedance with 12 months of discharge:					7	3
Exceedances					0	0
Points					0	0
Total Number of Points						0

0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

No violations occurred.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

Effluent Quality and Plant Performance (Phosphorus)

1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

Outfall No. 001	Monthly Average phosphorus Limit (mg/L)	Effluent Monthly Average phosphorus (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance
January	1	0.616	1	0
February	1	0.580	1	0
March	1	0.424	1	0
April	1	0.283	1	0
May	1	0.450	1	0
June	1	0.524	1	0
July	1	0.501	1	0
August	1	0.869	1	0
September	1	0.486	1	0
October	1	0.492	1	0
November	1	0.371	1	0
December	1	0.241	1	0
Months of Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				10
Exceedances				0
Total Number of Points				0

0

NOTE: For systems that discharge intermittently to waters of the state, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

No violations occurred.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Biosolids Quality and Management

1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- Land applied under your permit
- Publicly Distributed Exceptional Quality Biosolids
- Hauled to another permitted facility
- Landfilled
- Incinerated
- Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

4156.2 acres

2.1.2 How many acres did you use?

415 acres

2.2 If you did not have enough acres for your land application needs, what action was taken?

There was enough acreage available to spread on in 2025.

2.3 Did you overapply nitrogen on any of your approved land application sites you used last year?

Yes (30 points)

No

2.4 Have all the sites you used last year for land application been soil tested in the previous 4 years?

Yes

No (10 points)

N/A

3. Biosolids Metals

Number of biosolids outfalls in your WPDES permit:

3.1 For each outfall tested, verify the biosolids metal quality values for your facility during the last calendar year.

Outfall No. 002 - CLASS B CAKE SLUDGE

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75		8.53		8.49				7.22		7.65				0	0
Cadmium		39	85		1.51		1.51				1.11		1.8				0	0
Copper		1500	4300		642		674				756		836				0	0
Lead		300	840		21		20				21		22				0	0
Mercury		17	57		.32		.19				.501		.454				0	0
Molybdenum	60		75		47		40				33		45			0		0
Nickel	336		420		33		44				34		38			0		0
Selenium	80		100		<4.06		<15				<26		<15			0		0
Zinc		2800	7500		622		587				586		634				0	0

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Outfall No. 010 - CLASS B LIQUID SLUDGE

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75		8.99		7.49				6.52		6.26				0	0
Cadmium		39	85		1.49		.918				1.18		1.17				0	0
Copper		1500	4300		595		531				749		631				0	0
Lead		300	840		20		21				22		21				0	0
Mercury		17	57		<1.19		<1.45				<1.6		<1.46				0	0
Molybdenum	60		75		46		19				27		19			0		0
Nickel	336		420		<48		33				33		27			0		0
Selenium	80		100		<7.56		<9.66				<53		<9.71			0		0
Zinc		2800	7500		592		483				695		631				0	0

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

- 0 (0 Points)
- 1-2 (10 Points)
- > 2 (15 Points)

3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)

- Yes
- No (10 points)
- N/A - Did not exceed limits or no HQ limit applies (0 points)
- N/A - Did not land apply biosolids until limit was met (0 points)

3.1.3 Number of times any of the metals exceeded the ceiling limits = 0

Exceedence Points

- 0 (0 Points)
- 1 (10 Points)
- > 1 (15 Points)

3.1.4 Were biosolids land applied which exceeded the ceiling limit?

- Yes (20 Points)
- No (0 Points)

3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken? Has the source of the metals been identified?

Did not exceed any of the above limits.

4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2025 - 03/31/2025
Density:	11
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Class B Cake Sludge that has been dryer processed.

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Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2025 - 06/30/2025
Density:	13
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Class B Cake Sludge processed through the dryer

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2025 - 09/30/2025
Density:	1
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	CLASS B CAKE SLUDGE

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2025 - 12/31/2025
Density:	2
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	CLASS B CAKE SLUDGE

Outfall Number:	010
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2025 - 03/31/2025
Density:	9,524
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	CLASS B LIQUID SLUDGE

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Outfall Number:	010
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2025 - 06/30/2025
Density:	4,830
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Class B Liquid Sludge

Outfall Number:	010
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2025 - 09/30/2025
Density:	1,070
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	CLASS B LIQUID SLUDGE

Outfall Number:	010
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2025 - 12/31/2025
Density:	19,400
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	CLASS B LIQUID SLUDGE

4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.

4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?

Yes (40 Points)

No

If yes, what action was taken?

5. Vector Attraction Reduction (per outfall):

5.1 Verify the following information. If any of the information is incorrect, use the Report Issue button under the Options header in the left-side menu.

0

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Outfall Number:	002
Method Date:	02/04/2025
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>= 38
Results (if applicable):	50.1

Outfall Number:	002
Method Date:	04/08/2025
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	45.7

Outfall Number:	002
Method Date:	08/05/2025
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	51.3

Outfall Number:	002
Method Date:	10/30/2025
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	51.2

Outfall Number:	010
Method Date:	02/04/2025
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>= 38
Results (if applicable):	53.6

Compliance Maintenance Annual Report

Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
5/26/2026 **2025**

Outfall Number:	010		
Method Date:	04/15/2025		
Option Used To Satisfy Requirement:	Volatile Solids Reduction		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):	>= 38		
Results (if applicable):	58.1		
Outfall Number:	010		
Method Date:	08/05/2025		
Option Used To Satisfy Requirement:	Volatile Solids Reduction		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):	>= 38		
Results (if applicable):	54.7		
Outfall Number:	010		
Method Date:	10/30/2025		
Option Used To Satisfy Requirement:	Volatile Solids Reduction		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):	>= 38		
Results (if applicable):	49.8		
<p>5.2 Was the limit exceeded or the process criteria not met at the time of land application?</p> <p><input type="radio"/> Yes (40 Points)</p> <p><input checked="" type="radio"/> No</p> <p>If yes, what action was taken?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
<p>6. Biosolids Storage</p> <p>6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site?</p> <p><input checked="" type="radio"/> >= 180 days (0 Points)</p> <p><input type="radio"/> 150 - 179 days (10 Points)</p> <p><input type="radio"/> 120 - 149 days (20 Points)</p> <p><input type="radio"/> 90 - 119 days (30 Points)</p> <p><input type="radio"/> < 90 days (40 Points)</p> <p><input type="radio"/> N/A (0 Points)</p> <p>6.2 If you checked N/A above, explain why.</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
<p>7. Issues</p> <p>7.1 Describe any outstanding biosolids issues with treatment, use or overall management:</p> <div style="border: 1px solid black; padding: 5px;"> <p>No outstanding biosolids issues with treatment or management.</p> </div>			

0

0

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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Staffing and Preventative Maintenance (All Treatment Plants)

<p>1. Plant Staffing</p> <p>1.1 Was your wastewater treatment plant adequately staffed last year?</p> <ul style="list-style-type: none">● Yes○ No <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>Could use more help/staff for:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping?</p> <ul style="list-style-type: none">● Yes○ No <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
<p>2. Preventative Maintenance</p> <p>2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items?</p> <ul style="list-style-type: none">● Yes (Continue with question 2) <input type="checkbox"/><input type="checkbox"/>○ No (40 points) <input type="checkbox"/><input type="checkbox"/> <p>If No, please explain, then go to question 3:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment?</p> <ul style="list-style-type: none">● Yes○ No (10 points) <p>2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly?</p> <ul style="list-style-type: none">● Yes<ul style="list-style-type: none">● Paper file system○ Computer system○ Both paper and computer system○ No (10 points)	0
<p>3. O&M Manual</p> <p>3.1 Does your plant have a detailed O&M and Manufacturer Equipment Manuals that can be used as a reference when needed?</p> <ul style="list-style-type: none">● Yes○ No	
<p>4. Overall Maintenance /Repairs</p> <p>4.1 Rate the overall maintenance of your wastewater plant.</p> <ul style="list-style-type: none">○ Excellent● Very good○ Good○ Fair○ Poor <p>Describe your rating:</p> <div style="border: 1px solid black; padding: 5px;">Rated Very good because there is always room for improvement.</div>	

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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Wausau Water Works Ww Treatment Facility

Last Updated: Reporting For:
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Operator Certification and Education

1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

- Yes (0 points)
- No (20 points)

Name:

BEN R BROOKS

Certification No:

28418

0

2. Certification Requirements

2.1 In accordance with Chapter NR 114.56 and 114.57, Wisconsin Administrative Code, what level and subclass(es) were required for the operator-in-charge (OIC) to operate the wastewater treatment plant and what level and subclass(es) were held by the operator-in-charge?

Sub Class	SubClass Description	WWTP	OIC		
		Advanced	OIT	Basic	Advanced
A1	Suspended Growth Processes	X			X
A2	Attached Growth Processes				
A3	Recirculating Media Filters				
A4	Ponds, Lagoons and Natural				
A5	Anaerobic Treatment Of Liquid				
B	Solids Separation	X			X
C	Biological Solids/Sludges	X			X
P	Total Phosphorus	X			X
N	Total Nitrogen				
D	Disinfection	X			X
L	Laboratory	X			X
U	Unique Treatment Systems				
SS	Sanitary Sewage Collection	X	NA	NA	NA

0

2.2 Was the operator-in-charge certified at the appropriate level and subclass(es) to operate this plant? (Note: Certification in subclass SS is required 5 years after permit reissuance.)

- Yes (0 points)
- No (20 points)

2.3 For wastewater treatment facilities with a registered or certified laboratory, is at least one operator that works in the laboratory certified at the basic level in the laboratory (L) subclass?

- Yes
- No
- N/A – Wastewater treatment facility does not have a registered or certified laboratory

2.4 For wastewater treatment facilities that own and operate a sanitary sewage collection system, has at least one operator been designated the OIC for sanitary sewage collection system and certified at the basic level in the sanitary sewage collection system (SS) subclass?

- Yes
- No
- N/A – Owner of the Wastewater treatment facility does not own and operate a sanitary sewage collection system

3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

- One or more additional certified operators on staff

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<input type="checkbox"/> An arrangement with another certified operator <input type="checkbox"/> An arrangement with another community with a certified operator <input type="checkbox"/> An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year <input type="checkbox"/> A consultant to serve as your certified operator <input type="checkbox"/> None of the above (20 points) If "None of the above" is selected, please explain: <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	0
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<p>4. Continuing Education Credits</p> <p>4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?</p> <p>OIT and Basic Certification:</p> <ul style="list-style-type: none"> <input type="radio"/> Averaging 6 or more CECs per year. <input type="radio"/> Averaging less than 6 CECs per year. <p>Advanced Certification:</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Averaging 8 or more CECs per year. <input type="radio"/> Averaging less than 8 CECs per year. 	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Financial Management

<p>1. Provider of Financial Information</p> <p>Name: <input style="width: 150px;" type="text" value="MaryAnne Groat"/></p> <p>Telephone: <input style="width: 150px;" type="text" value="715-261-6645"/> (XXX) XXX-XXXX</p> <p>E-Mail Address (optional): <input style="width: 300px;" type="text" value="maryanne.groat@wausauwi.gov"/></p>																	
<p>2. Treatment Works Operating Revenues</p> <p>2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ?</p> <p>● Yes (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ No (40 points)</p> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2025"/></p> <p>● 0-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A (private facility)</p> <p>2.3 Did you have a special account (e.g., CFWP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?</p> <p>● Yes (0 points)</p> <p>○ No (40 points)</p>	0																
<p>REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]</p>																	
<p>3. Equipment Replacement Funds</p> <p>3.1 When was the Equipment Replacement Fund last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2025"/></p> <p>● 1-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A</p> <p>If N/A, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>																	
<p>3.2 Equipment Replacement Fund Activity</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">3.2.1 Ending Balance Reported on Last Year's CMAR</td> <td style="width: 5%;"></td> <td style="width: 5%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;"><input style="width: 150px;" type="text" value="3,350,329.08"/></td> </tr> <tr> <td>3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)</td> <td style="text-align: center;">+</td> <td style="text-align: right;">\$</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="421.60"/></td> </tr> <tr> <td>3.2.3 Adjusted January 1st Beginning Balance</td> <td></td> <td style="text-align: right;">\$</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="3,350,750.68"/></td> </tr> <tr> <td>3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)</td> <td style="text-align: center;">+</td> <td style="text-align: right;">\$</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="146,430.35"/></td> </tr> </table>	3.2.1 Ending Balance Reported on Last Year's CMAR		\$	<input style="width: 150px;" type="text" value="3,350,329.08"/>	3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	+	\$	<input style="width: 150px;" type="text" value="421.60"/>	3.2.3 Adjusted January 1st Beginning Balance		\$	<input style="width: 150px;" type="text" value="3,350,750.68"/>	3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	\$	<input style="width: 150px;" type="text" value="146,430.35"/>	
3.2.1 Ending Balance Reported on Last Year's CMAR		\$	<input style="width: 150px;" type="text" value="3,350,329.08"/>														
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	+	\$	<input style="width: 150px;" type="text" value="421.60"/>														
3.2.3 Adjusted January 1st Beginning Balance		\$	<input style="width: 150px;" type="text" value="3,350,750.68"/>														
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	\$	<input style="width: 150px;" type="text" value="146,430.35"/>														

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*)

- \$ 0.00

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year

\$ 3,497,181.03

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

N/A

3.3 What amount should be in your Replacement Fund?

\$ 3,497,181.03

0

Please note: If you had a CFWP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

- Yes
- No

If No, please explain.

4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

- Yes - If Yes, please provide major project information, if not already listed below.
- No

Project #	Project Description	Estimated Cost	Approximate Construction Year
1	Sewer Sliplining (annual)	\$1,100,000	2026
2	Cherry St. Lift Station upgrade	\$1,100,000	2025
3	Lift Station Forcemain Cleaning	\$200,000	2027
4	Airport & 32nd Ave. Lift Station upgrades	\$1,320,000	2027
5	Crocker St. Lift Station upgrade	\$1,100,000	2026
6	Headworks Screening Project	\$3,400,000	2025
7	Asset Management/Work Order Program	\$300,000	2027
8	Automated Septage Receiving Station	\$1,200,000	2027
9	Biogas Conditioning skid & Microturbine upgrade	\$1,309,000	2028
10	Lift Station radio communications upgrade	\$173,500	2026
11	Sewer Capacity Study	\$159,000	2026

5. Financial Management General Comments

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations:

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	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	297,000	48,194
February	289,200	43,485
March	294,000	33,981
April	357,000	28,350
May	333,600	14,778
June	379,800	15,365
July	325,800	15,601
August	345,600	12,254
September	361,200	13,788
October	326,400	15,078
November	360,000	32,273
December	342,000	56,233
Total	4,011,600	329,380
Average	334,300	27,448

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- Comminution or Screening
- Extended Shaft Pumps
- Flow Metering and Recording
- Pneumatic Pumping
- SCADA System
- Self-Priming Pumps
- Submersible Pumps
- Variable Speed Drives
- Other:

6.2.2 Comments:

6.3 Has an Energy Study been performed for your pump/lift stations?

No

Yes

Year:

By Whom:

Describe and Comment:

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6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

With each lift station upgrade energy efficient pumps with VFD's will be installed. The target is to upgrade 1-2 lift stations per year, budget depending.

7. Treatment Facility

7.1 Energy Usage

7.1.1 Enter the monthly energy usage from the different energy sources:

TREATMENT PLANT: Total Power Consumed/Month

	Electricity Consumed (kWh)	Total Influent Flow (MG)	Electricity Consumed/ Flow (kWh/MG)	Total Influent BOD (1000 lbs)	Electricity Consumed/ Total Influent BOD (kWh/1000lbs)	Natural Gas Consumed (therms)
January	40,794	117.94	346	220.22	185	181
February	41,245	105.72	390	204.60	202	188
March	37,852	160.45	236	199.14	190	116
April	40,881	198.61	206	245.01	167	88
May	27,484	161.87	170	238.30	115	96
June	27,217	142.28	191	194.73	140	97
July	22,608	152.45	148	220.16	103	172
August	24,803	130.15	191	214.21	116	154
September	25,427	120.50	211	197.70	129	89
October	22,504	116.63	193	192.73	117	90
November	33,941	105.23	323	193.80	175	129
December	44,381	113.28	392	219.17	202	143
Total	389,137	1,625.11		2,539.77		1,543
Average	32,428	135.43	250	211.65	153	129

7.1.2 Comments:

7.2 Energy Related Processes and Equipment

7.2.1 Indicate equipment and practices utilized at your treatment facility (Check all that apply):

- Aerobic Digestion
- Anaerobic Digestion
- Biological Phosphorus Removal
- Coarse Bubble Diffusers
- Dissolved O2 Monitoring and Aeration Control
- Effluent Pumping
- Fine Bubble Diffusers
- Influent Pumping
- Mechanical Sludge Processing
- Nitrification
- SCADA System
- UV Disinfection
- Variable Speed Drives

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Other:

7.2.2 Comments:

7.3 Future Energy Related Equipment

7.3.1 What energy efficient equipment or practices do you have planned for the future for your treatment facility?

Any future upgrades will include energy efficient equipment.

8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?

No

Yes

If Yes, how is the biogas used (Check all that apply):

Flared Off

Building Heat

Process Heat

Generate Electricity

Other:

9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?

No

Yes

Entire facility

Year:

By Whom:

Describe and Comment:

Part of the facility

Year:

By Whom:

Describe and Comment:

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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

- Yes
- No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

- Yes
- No (30 points)
- N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

- Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

The continuation of operating the new TV Van and equipment efficiently. Identify any clear water intrusions and make repairs if required including manhole rehab.

Did you accomplish them?

- Yes
- No

If No, explain:

- Organization [NR 210.23 (4) (b)]

Does this chapter of your CMOM include:

- Organizational structure and positions (eg. organizational chart and position descriptions)
- Internal and external lines of communication responsibilities
- Person(s) responsible for reporting overflow events to the department and the public

- Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

Wausau Municipal Code, Ch 13

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2009-06-19

Does your sewer use ordinance or other legally binding document address the following:

- Private property inflow and infiltration
- New sewer and building sewer design, construction, installation, testing and inspection
- Rehabilitated sewer and lift station installation, testing and inspection
- Sewage flows satellite system and large private users are monitored and controlled, as necessary
- Fat, oil and grease control
- Enforcement procedures for sewer use non-compliance

- Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

- Equipment and replacement part inventories
- Up-to-date sewer system map

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A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
 A description of routine operation and maintenance activities (see question 2 below)
 Capacity assessment program
 Basement back assessment and correction
 Regular O&M training
 Design and Performance Provisions [NR 210.23 (4) (e)]
 What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?
 State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
 Construction, Inspection, and Testing
 Others:

Overflow Emergency Response Plan [NR 210.23 (4) (f)]
 Does your emergency response capability include:
 Responsible personnel communication procedures
 Response order, timing and clean-up
 Public notification protocols
 Training
 Emergency operation protocols and implementation procedures
 Annual Self-Auditing of your CMOM Program [NR 210.23 (5)]
 Special Studies Last Year (check only those that apply):
 Infiltration/Inflow (I/I) Analysis
 Sewer System Evaluation Survey (SSES)
 Sewer Evaluation and Capacity Management Plan (SECAP)
 Lift Station Evaluation Report
 Others:

0

2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Cleaning	48.9	% of system/year
Root removal	2.5	% of system/year
Flow monitoring	0	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	10.7	% of system/year
Manhole inspections	14	% of system/year
Lift station O&M	27	# per L.S./year
Manhole rehabilitation	1.5	% of manholes rehabbed
Mainline rehabilitation	.93	% of sewer lines rehabbed
Private sewer inspections	0	% of system/year

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Private sewer I/I removal % of private services

River or water crossings % of pipe crossings evaluated or maintained

Please include additional comments about your sanitary sewer collection system below:

3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

<input type="text" value="37.67"/>	Total actual amount of precipitation last year in inches
<input type="text" value="33.91"/>	Annual average precipitation (for your location)
<input type="text" value="233"/>	Miles of sanitary sewer
<input type="text" value="27"/>	Number of lift stations
<input type="text" value="0"/>	Number of lift station failures
<input type="text" value="3"/>	Number of sewer pipe failures
<input type="text" value="6"/>	Number of basement backup occurrences
<input type="text" value="73"/>	Number of complaints
<input type="text" value="4.450"/>	Average daily flow in MGD (if available)
<input type="text" value="6.6204"/>	Peak monthly flow in MGD (if available)
<input type="text"/>	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

<input type="text" value="0.00"/>	Lift station failures (failures/year)
<input type="text" value="0.01"/>	Sewer pipe failures (pipe failures/sewer mile/yr)
<input type="text" value="0.00"/>	Sanitary sewer overflows (number/sewer mile/yr)
<input type="text" value="0.03"/>	Basement backups (number/sewer mile)
<input type="text" value="0.31"/>	Complaints (number/sewer mile)
<input type="text" value="1.5"/>	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
<input type="text" value="0.0"/>	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **				
	Date	Location	Cause	Estimated Volume
0	9/19/2025 4:15:00 PM - 9/19/2025 4:20:00 PM	435 Adrian Street, 400 Myron Street	Equipment Failure, Other causes	3,500

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurrences in the future?

The SSO listed above was due to contractor error during the headworks screening project. Wastewater staff came to the aid of contractor quickly to resolve the overflow effectively. Educating the contractor on the importance of overflow prevention is an important key here.

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

- Yes
- No

If Yes, please describe:

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<p>5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p> <p>If Yes, please describe:</p>	
<p>5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:</p>	
<p>With the ability to camera the gravity sanitary sewers and laterals during wet weather conditions we are finding it easier to locate I&I intrusions.</p>	
<p>5.4 What is being done to address infiltration/inflow in your collection system?</p>	
<p>Notices are being sent to homeowners that have suspicious clear water discharging from their laterals into the sanitary sewer system. The plumbing inspector follows up with the homeowner with a home inspection to detect sewer ordinance violations of illegal sump pump connections.</p>	

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Grading Summary

WPDES No: 0025739

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	A	4	3	12
BOD/CBOD	A	4	10	40
TSS	A	4	5	20
Phosphorus	A	4	3	12
Biosolids	A	4	5	20
Staffing/PM	A	4	1	4
OpCert	A	4	1	4
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			32	128
GRADE POINT AVERAGE (GPA) = 4.00				

Notes:

- A = Voluntary Range (Response Optional)
- B = Voluntary Range (Response Optional)
- C = Recommendation Range (Response Required)
- D = Action Range (Response Required)
- F = Action Range (Response Required)

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Resolution or Owner's Statement

Name of Governing
Body or Owner:

City of Wausau

Date of Resolution or
Action Taken:

Resolution Number:

Date of Submittal:

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = A

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

SSO reported was caused by Contractor error during the Headwork Screening project and not caused by City staff or equipment. We received the new WPDES permit along with Class A/EQ Biosolids approval, but still waiting on final approval of the sludge management plan. We will continue to adhere to the current SMP until final approval is granted by the WDNR.

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4.00

CITY OF WAUSAU, 407 Grant Street, Wausau, WI 54403

RESOLUTION OF WAUSAU WATER WORKS – WASTEWATER DIVISION	
Review and Approval of the 2025 Compliance Maintenance Annual Report (CMAR) for the Wastewater Plant.	
Committee Action:	Approve
Fiscal Impact:	There is no fiscal impact to the City.
File Number:	Date Introduced: June 2, 2026

FISCAL IMPACT SUMMARY			
COSTS	<i>Budget Neutral</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	<i>Included in Budget:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Budget Source:</i>
	<i>One-time Costs:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount:</i>
	<i>Recurring Costs:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount:</i>
SOURCE	<i>Fee Financed:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount:</i>
	<i>Grant Financed:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount:</i>
	<i>Debt Financed:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount</i> <i>Annual Retirement</i>
	<i>TID Financed:</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<i>Amount:</i>
	<i>TID Source: Increment Revenue</i> <input type="checkbox"/> <i>Debt</i> <input type="checkbox"/> <i>Funds on Hand</i> <input type="checkbox"/> <i>Interfund Loan</i> <input type="checkbox"/>		

RESOLUTION

WHEREAS, Wausau Water Works – Wastewater Division owns, operates, and maintains a public owned treatment works (POTW) in the City of Wausau on Adrian Street, and

WHEREAS, the Utility’s POTW is authorized to discharge to the Wisconsin River under WPDES Permit No. WI-0025739-09, and

WHEREAS, by Wisconsin Administrative Code NR 208, all Wisconsin POTW’s are required to submit a Compliance Maintenance Annual Report (CMAR), and

WHEREAS, Wausau Water Works – Wastewater Division has prepared the attached 2025 CMAR and acknowledges the point total in the report, and

WHEREAS, the City of Wausau is committed to addressing the actions set forth in the attached 2025 CMAR; now therefore

BE IT RESOLVED that the Common Council of the City of Wausau has reviewed the attached 2025 Compliance Maintenance Annual Report from Wausau Water Works – Wastewater Division and hereby submits the Report as prescribed.

Approved:

Doug Diny, Mayor



Department of Public Works & Utilities

Eric Lindman, P.E.
Director of Public Works and Utilities

TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: June 2, 2026

SUBJECT: Lift Station Analysis, Design & Construction – 32nd & Airport LS's

In 2021 the utility hired Clark Dietz to complete an analysis of 6-Lift Stations:

1. 32nd Ave Lift Station
2. Cherry Street Lift Station
3. Crocker Street Lift Station
4. Airport Lift Station
5. Northwestern Lift Station
6. Greenwood Hills Lift station

Based on the analysis a Request for Proposals was prepared, and engineering firms were solicited to provide proposals for the scope of services requested. Services included initial design, flow calculations, recommendations for rehabilitation, engineer estimates for construction and budgeting. Clark Dietz was selected to perform preliminary design services, estimates, initial plans and bid documents for the above listed lift stations.

As budgets for the construction of the lift stations were approved Clark Dietz was hired to complete final design, bid the projects and provide construction oversight. To date four of the lift stations have been bid and are under construction or construction has been completed. The final two lift stations, 32nd Ave and Airport, need completed final designs, bidding documents prepared, projects to be bid, and periodic construction oversight during construction. As with the other four lift stations, this proposal from Clark Dietz will complete the work for these two lift stations which currently have preliminary plans prepared.

There are currently funds budgeted for this project and staff recommends approval of the proposed scope of work and contract.



May 26, 2026

Eric Lindman, PE
Director of Public Works
City of Wausau
407 Grant Street
Wausau, WI 54403

Re: Airport and 32nd Avenue Lift Stations Design Completion, Bidding, and Construction Services

Dear Eric:

On behalf of Clark Dietz, Inc., I am pleased to offer this engineering design and construction services proposal to complete the design of the Airport lift station and 32nd Avenue lift station rehabilitation project, issue the project documents for bidding, and provide construction management and observation.

The Airport and 32nd Avenue lift station plans and specifications are currently at an approximately 75% completion point. Design modifications have been requested by City Wastewater staff. This contract will include taking the existing documents to 100% completion and submitting them to the City for bidding on QuestCDN. Modifications to the project documents will be based on comments received from City staff on the current plans, lessons learned during construction of the Northwestern, Greenwood Hills, and Cherry Street lift stations, and comments from our in-house quality assurance review. This contract will also include construction management and observation services throughout construction of the lift stations as described below.

SCOPE OF SERVICES

Design Phase Services

- Meet with City staff to review the current plans and verify requested design modifications
- Airport lift station:
 - Prepare design plans and specifications for two mechanical screen alternatives
 - Design replacement of the water service
 - Modify process piping plan to show bypass through building wall
- 32nd Avenue lift station:
 - Verify condition and size of existing enclosure
 - Design replacement of piping inside enclosure
 - Review current and expected future flow rates
 - Size and select new Flygt Concertor submersible pumps
 - Design replacement of the control panel
 - Verify compatibility of selected generator with new pumps
- Make modifications to the project documents and submit to City staff
- Prepare and submit an updated opinion of probable cost
- Perform an in-house quality assurance review of the project documents
- Attend a meeting with City staff to discuss the project documents
- Submit the project plans, specifications, and design report to WDNR for permit approval
- Submit final bidding plans, technical specifications, and front end bidding and contract documents to City staff

Bidding Phase Services

- Provide contractor coordination during bidding, including project clarification, preparation of addenda, etc.
- Review bids from contractors



- Make recommendation of award to the City

Construction Phase Services

- Prepare the construction contracts for execution
- Conduct a meeting and site visits with the contractor prior to construction
- Review shop drawings
- Coordinate construction staking with the City of Wausau’s surveyor
- Coordinate with the contractor throughout construction; estimated 16 months total between Notice of Award and Final Completion
- Respond to the contractor’s requests for information
- Review pay applications and make payment recommendations; estimated 8 pay applications
- Conduct progress meetings with City staff
- Provide periodic site visits by the design engineers during construction
- Provide full-time inspection during utility construction; estimated one day
- Observe field testing of the forcemain
- Observe startup and testing of the pumps and controls
- Observe generator startup and testing
- Provide part-time inspection during construction; estimated 10 months
- Coordinate equipment startup services
- Review the O&M manuals submitted by the contractor
- Prepare the punch list
- Prepare Record Drawings of the project
- Perform a final inspection of the project

Deliverables

- Electronic copy of technical specifications, drawings, and front end documents for bidding
- Four (4) hard copies of the construction contract
- Electronic copy of the Record Drawings

Services Not Included

- Geotechnical services
- Easement research or coordination
- Surveying
- Material Testing
- Other services not specifically listed

SCHEDULE OF WORK

Receive notice to proceed	July 2026
Submit bidding documents and opinion of probable cost to City	October 2026
Project advertises	November 2026
Bid opening	December 2026
Award project and issue contracts	January 2027
Construction begins (approximate)	June 2027
Construction ends (approximate)	June 2028

COMPENSATION

For the above-described work Clark Dietz proposes the following Engineering Services fees:

Final Engineering	\$31,000
Bidding Services	\$4,800
Construction Management and Observation	\$95,300
Total Lump Sum Fee	\$131,100



Please let us know at your earliest convenience if this proposal is satisfactory and sets forth your understanding of the proposed work. If you would like us to consider any modifications to this proposal or if you have any questions, you can contact me at (715) 432-8381.

We look forward to continuing to work with you on this project. Thank you for your consideration.

Sincerely,

Tonia S. Westphal, PE, LEED AP
Vice President

City of Wausau
CONTRACT FOR SERVICES
(Design Professionals)

1. PARTIES.

This is a Contract for Services ("Contract") between the City of Wausau, Wisconsin, a municipal corporation ("City") and Clark Dietz, Inc. ("Contractor").

The Contractor is a: Corporation Limited Liability Company General Partnership
 Sole Proprietor Other: _____

2. PROJECT DESCRIPTION.

The project includes the final design, preparation of bid documents, submittal review and periodic construction inspection and oversight of the rehabilitation and reconstruction of the 32nd Ave and Airport Lift Stations as described in the attached proposal.

3. SCOPE OF SERVICES AND SCHEDULE OF PAYMENTS.

A proposal and scope of services was prepared by **Clark Dietz** and is attached.

Order of Precedence. In the event of a conflict between the terms of this Contract and any of its Attachments, the terms of this Contract shall control and supersede any such conflicting term.

4. TERM AND EFFECTIVE DATE.

This Contract shall become effective upon execution by the Mayor on behalf of the City, unless another effective date is specified in the Attachments in Section 3. In no case shall work commence before execution by the City.

The term of this contract shall be: **Contract Completion October 31, 2027**

5. ENTIRE AGREEMENT.

This Contract, including any and all Attachments referenced in Section 3, constitutes the entire agreement of the parties and supersedes any and all oral contracts and negotiations between the parties.

6. COMPENSATION.

In no event will the total compensation under this Contract exceed: **\$131,100.00**

7. PAYMENT.

- (a) The City will pay the Contractor for the completed and accepted services rendered under this Contract at the price set forth in Section 6 and according to the schedule as set forth in the Attachments. Payment shall be full compensation for services rendered and for all labor, material supplies, equipment and incidentals necessary to complete the services.
- (b) The Contractor shall submit invoices to the City on a monthly basis. Invoices shall be due and payable within thirty (30) days from receipt of the invoice, except for any amounts disputed by City in good faith.
- (c) Payment for services shall not be construed as City acceptance of unsatisfactory or defective services or improper materials. Contractor will not be compensated for unsatisfactory performance.
- (d) Final payment of any balance due the Contractor will be made upon acceptance by the City of the services under this Contract and upon receipt by the City of documents required to be returned or to be furnished by the Contractor under this Contract.
- (e) The City has the equitable right to set off against any sum due and payable to the Contractor under this Contract, any amount the City determines the Contractor owes the City, whether arising under this Contract or any other Contract.
- (f) Compensation in excess of the total Contract price, or for extra services will not be allowed unless authorized by an amendment under Section 16.

8. PROSECUTION AND PROGRESS.

- (a) Services under this Contract shall commence upon written order from the City to the Contractor. This order will constitute authorization to proceed.
- (b) Contractor shall complete the services under this Contract within the time for completion specified in the Scope of Services, including any amendments. The time for completion shall not be extended because of any delay attributable to the Contractor, but may be extended by the City in the event of a delay attributable to the City or in the event of unavoidable delay as set forth in Section 17.
- (c) Services by the Contractor shall proceed continuously and expeditiously through completion of each phase of the work. Progress reports documenting the extent of completed services shall be prepared by the Contractor and submitted to the City with each invoice under Section 7 of this Contract.
- (d) Contractor shall notify the City in writing when the Contractor has determined that the services under this Contract have been completed. When the City determines that the services are complete and are acceptable, it will provide written notification to the Contractor, acknowledging formal acceptance of the completed services.

9. CHANGE ORDERS.

City may at any time, by written instructions and/or drawings issued to Contractor ("Change Order"), order changes to the services set forth in Section 3. Contractor shall within ten (10) days of receipt of a Change Order submit to City a firm cost proposal for the Change Order. If City accepts such cost proposal, Contractor shall proceed with the changed services subject to the cost proposal and the terms and conditions of this Contract. Contractor acknowledges that a Change Order may or may not entitle Contractor to an adjustment in the Contractor's compensation or the performance deadlines under this Contract. Change Orders shall not increase the total compensation set forth in Section 6 unless the Contract is amended as provided in Section 16.

10. COMPLIANCE.

All work performed under this Contract shall comply with all applicable federal, state and local laws, rules, regulations and ordinances. Contractor shall secure, pay for, and shall maintain during the term of the Contract any and all federal state and local licenses and permits required in order to perform the required services or deliver the required supplies under this Contract. Contractor shall ensure that all persons, whether employees, agents, subcontractors, or anyone acting for or on behalf of Contractor, are properly licensed, certified or accredited as required by applicable law and are suitably skilled, experienced and qualified to perform the services under this Contract.

11. DEFAULT/TERMINATION.

- (a) This Contract may be terminated by either party as a result of a default or other failure in performance by the other party under the terms of this Contract which continues unremedied for a period of ten (10) days after written notice to such party in default. In the event of default by the Contractor, it shall not be entitled to compensation for work or services unsatisfactorily or improperly performed.
- (b) Notwithstanding subparagraph (a) above, the City may, in its sole discretion and without any reason, terminate this Contract at any time by furnishing the Contractor with ten (10) days written notice of termination. In the event of termination under this subsection, the City will pay for all work completed by the Contractor and accepted by the City.
- (c) The rights and remedies under this section shall be in addition to those otherwise allowed by law or in equity and shall be cumulative and deemed not inconsistent with each other.

12. INDEMNIFICATION.

Contractor shall defend, indemnify and hold harmless the City of Wausau, its employees, agents, officers, volunteers, elected and appointed officials, from and against any and all liabilities, losses, judgments, actions, legal or administrative proceedings, suits, obligations, debts, demands, damages, penalties, claims, costs, charges and expenses, including reasonable attorneys' fees, of any kind or of any nature whatsoever which may be imposed, incurred, sustained, or asserted against the City of Wausau, its employees, agents, officers, volunteers, and/or elected or appointed officials by reason of any bodily injury or death to any person, or on account of any loss, damage, or destruction of any property or loss of use thereof, arising from, in connection with, caused by or resulting from the Contractor's and/or any subcontractor's **negligent** errors, omissions or negligence in the performance of this Contract.

13. INSURANCE.

Contractor shall procure and maintain, during the term of this Contract, insurance coverage in the following amounts and types:

- (a) Professional Liability
 - (1) Limits
 - (i.) \$1,000,000 each claim
 - (ii.) \$1,000,000 annual aggregate
 - (2) Must continue coverage for 2 years after final acceptance of service/job/work.

- (b) Commercial General Liability Coverage at least as broad as Insurance Services Office Commercial General Liability Form, including coverage for Products Liability, Completed Operations, Contractual Liability, and Explosion, Collapse, Underground coverage:
 - (i.) \$1,000,000 each Occurrence limit
 - (ii.) \$1,000,000 Personal and Advertising Injury limit
 - (iii.) \$2,000,000 general aggregate (other than Products-Completed Operations) per project
 - (iv.) \$2,000,000 Products-Completed Operations aggregate
 - (v.) \$50,000 Fire Damage limit – any one fire
 - (vi.) \$5,000 Medical Expense limit – any one person
 - (vii.) Products-Completed Operations coverage must be carried for two years after final acceptance of work.

- (c) Automobile Liability Coverage at least as broad as Insurance Services Office Business Automobile Form, with minimum limits of \$1,000,000 combined single limit per accident for Bodily Injury and Property Damage, provided on a Symbol #1 – “Any Auto” basis.

- (d) Worker’s Compensation and Employer’s Liability if required by Wisconsin State Statute or any Worker’s Compensation Statutes of a different state. Must carry coverage for Statutory Worker’s Compensation and an Employer’s Liability with limits of:
 - (i.) \$100,000 Each Accident,
 - (ii.) \$500,000 Disease-Policy Limit
 - (iii.) \$100,000 Disease-Each Employee
 - (iv.) Employer’s Liability limits must be sufficient to meet umbrella liability insurance requirements.

- (e) Umbrella Liability Coverage at least as broad as the underlying Commercial General Liability, Automobile Liability, and Employer’s Liability, with a minimum limit of \$2,000,000 each occurrence and \$2,000,000 aggregate, and a maximum self-insured retention of \$10,000. The Umbrella Liability must be primary and non-contributory to any insurance or self-insurance carried by City.

- (f) Additional Provisions.
 - (i.) All insurance must be primary and non-contributory to any insurance or self-insurance carried by City.
 - (ii.) Insurance is to be placed with insurers who have an A.M. Best rating of no less than A- and a Financial Size Category rating of no less than Class VII, and who are authorized as an admitted insurance company in the State of Wisconsin.
 - (iii.) The following must be named as additional insureds on all liability policies: City of Wausau, and its officers, council members, agents, employees and authorized volunteers. On the Commercial General Liability Policy, the additional insured coverage must be ISO form CG 20 10 07 04 and also include Products – Completed Operations additional insured coverage per ISO form CG 20 37 07 04 or their equivalents for a minimum of 2 years after acceptance of work. This does not apply to Worker’s Compensation policies or Professional Liability policy.
 - (iv.) Waivers of subrogation in favor of the City must be endorsed onto the Worker’s Compensation, Commercial General Liability, Automobile Liability, and Umbrella Liability coverages.
 - (v.) Any deductible or self-insured retention must be declared to the City.
 - (vi.) Prior to execution of the Contract the Contractor shall file with the City a certificate of insurance (Acord Form or equivalent for all coverages) signed by the insurer’s representative evidencing the coverage required by this Contract. In addition, form CG 20 10 07 04 for ongoing work exposure and form CG 20 37 07 04 for products-completed operations exposure must also be provided or its equivalent on the Commercial General Liability coverage.

14. OWNERSHIP OF CONTRACT PRODUCT.

All of the work product, including, but not limited to, documents, materials, files, reports, data, including magnetic tapes, disks of computer-aided designs or other electronically stored data or information (collectively referred to as “Documents”) which the Contractor prepares pursuant to the terms and conditions of this Contract are the sole property of the City. The Contractor will not publish any such materials or use them for any research or publication, other than as expressly required or permitted by this Contract without the prior written permission of the City in its sole discretion.

The Contractor intends that the copyright to the Documents shall be owned by City, whether as author (as a Work Made for Hire), or by assignment from Contractor to City. The parties expressly agree that the Documents shall be considered a Work Made for Hire as defined by Title 17, United States Code, Section 101.

15. CONTRACTOR AUTHORITY.

Contractor is an independent contractor and not an employee of the City. The Contractor is engaged by virtue of the Contract to perform only those services contained herein. Contractor is not authorized to contract on behalf of, to incur any liability, or make any representation on the part of, or on behalf of, the City.

16. AMENDMENT.

This Contract shall be binding on the parties, their respective heirs, devisees, and successors, and cannot be varied or waived by any oral representations or promise of any agent or other person of the parties hereto. Any change in any provision of this Contract may only be made by a written amendment, signed by the duly authorized agent who executed this Contract.

17. FORCE MAJEURE.

In the event either party is rendered unable, in whole or in part, to perform its duties or obligations hereunder as a result of acts of God, authority of laws, strikes, lockouts, labor disputes, riots or other causes beyond its control, it shall notify the other party of such event in writing and the obligations of such party may be suspended during the continuation of any inability to perform so caused by such event.

18. AUTHORITY.

The parties represent and warrant that they have obtained all authorizations and approvals necessary to enter into this Contract and that the undersigned individual(s) acting on behalf of each party have been duly authorized to execute this Contract on behalf of the respective party.

19. ASSIGNABILITY/SUBCONTRACTING.

Contractor shall not assign or subcontract any interest or obligation under this Contract without the City’s prior written approval. All of the services required hereunder will be performed by Contractor and employees of Contractor.

20. NO WAIVER.

The failure of either party to enforce any of the provisions of this Contract in whole or in part shall not be construed as a waiver of such provision or the right of the party thereafter to enforce each and every such provision.

21. NONDISCRIMINATION.

During the term of this Contract, Contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex (including pregnancy, sexual orientation, or gender identity), physical condition, disability, sexual orientation (defined in s. 111.32(13m), Wis. Stats.) or national origin, arrest record or conviction record. Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this Contract because of age, race, religion, color, disability, sex (including pregnancy, sexual orientation, or gender identity), or national origin.

22. COUNTERPARTS.

This Contract may be executed in counterparts, each of which shall be taken together as a whole to comprise a single document. Signatures on this Contract may be exchanged between the parties by facsimile, electronic scanned copy (.pdf) or similar technology and shall be as valid as an original. Copies of this Contract, fully executed, shall be as valid as an original.

23. PUBLIC RECORDS LAW.

Contractor shall assist City in complying with any public record request in connection with this Contract submitted to City pursuant to the Wisconsin Public Records Law, Wis. Stat. §§19.31 – 19.39.

24. ASSIGNMENTS.

Neither party may assign this Contract, or any of the services provided hereunder, without the express written approval of the other party. The approval of the City may be manifested only by a resolution adopted by a majority of the Common Council. All of the services required hereunder will be performed by Contractor and employees of Contractor.

25. TIME IS OF THE ESSENCE.

Time of performance under this Contract is of the essence.

26. NOTICES.

All notices to be given under the terms of this Contract shall be in writing and signed by the person serving the notice and shall be sent registered or certified mail, return receipt requested, postage prepaid, or hand delivered to the addresses of the parties listed below:

CITY: Eric Lindman, P.E. – Director of Public Works & Utilities

City of Wausau

407 Grant Street

Wausau, WI 54403

CONTRACTOR: Tonia Westphal PE – Vice President

Clark Dietz, Inc.

500 North 3rd Street, Suite 703

Wausau, WI 54401

27. CHOICE OF LAW.

This Contract shall be governed by and construed under the laws of the State of Wisconsin and venue for any legal action between the parties shall be in the Marathon County Circuit Court.

28. SEVERABILITY.

It is mutually agreed that in case any provision of this Contract is determined by any court of law to be unconstitutional, illegal or unenforceable, it is the intention of the parties that all other provisions of this Contract remain in full force and effect.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have caused this Contract to be executed on the date first above written.

CONTRACTOR:

(Name of Contracting Entity)

By: _____
(Signature)

(Name and Title of Person Signing)

Date: _____

CITY OF WAUSAU

BY _____
Doug Diny, Mayor

Attest:

Rachel Brown, City Clerk

Date: _____