

CHEMICALS FOR INTERNAL CORROSION CONTROL 2025 ANNUAL CONTRACT



MOBILE AREA WATER & SEWER SYSTEM

The Board of Water & Sewer Commissioners of the City of Mobile, Alabama

Barbara Drummond, Chair
Linda St. John, Vice Chair
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Director: Bud McCrory

For information regarding this project, contact

Heath Hardy, P.E.
25 W. Cedar Street
Suite 200
Pensacola, FL
Office: (850)-429-8925

IFB No. 25-013
March 2025



BID DOCUMENTS

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

**BIDDING REQUIREMENTS
AND
CONTRACT DOCUMENTS**

for the

CHEMICALS FOR INTERNAL CORROSION CONTROL

2025 ANNUAL CONTRACT

INVITATION FOR BID NUMBER	IFB 25-013
NAME OF BID	Chemicals for Internal Corrosion Control 2025 Annual Contract
BIDS WILL BE RECEIVED AT	MAWSS Bid Box Donaghey Business Entrance 4725A Moffett Road or PO Box 180249 Mobile, AL 36618
BID OPENING DATE	March 25, 2025
BID CLOSING TIME	10:30 am Central Time
AWARD WILL BE MADE BY	Total Annualized Cost
MATERIAL DELIVERED TO	To the Stickney and Myers WTPs as listed in Section 22-6.
CONTRACT PERIOD	5/1/2025 – 4/30/26 with two additional one-year extension options after prior written approval of both parties.
ADDITIONAL INFORMATION CONTACT	Heath Hardy (850) 429-8925 or heath.hardy@hdrinc.com
APPLICABLE DBE POLICY	None

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INVITATION FOR BIDS

Sealed bids, subject to the conditions contained herein, will be received by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, Purchasing Department at their 4725 Moffett Road, Mobile, Alabama 36618, offices until 10:30 a.m. Local Time, March 25, 2025 and then publicly opened and read in the Board Room, located at the Customer Service entrance, for furnishing all labor and materials and performing all work for the following project: Invitation for Bid No. 25-013, Chemicals for Internal Corrosion Control 2025 Annual Contract for the Mobile Area Water and Sewer System (MAWSS).

Specifications may be obtained or inspected from the MAWSS website at www.mawss.com. No Specifications will be issued to Bidders any later than twenty-four (24) hours prior to the time indicated above for receiving bids.

Bids must be submitted upon the standard forms furnished by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, included in the Project Specifications.

Bidders shall acknowledge receipt of all addenda to this solicitation by filling out the Addenda Acknowledgement Form. Failure to acknowledge receipt of any addendum by a bidder will result in rejection of the bid if MAWSS determines that the addendum contains information that materially changes the requirements.

The right is reserved, as the interest the Owner may require, to reject any and all bids and to waive any informality in bids received.

Envelope containing bids must be sealed, marked, addressed as follows, and delivered to the Purchasing Department. Bid Box located in the Business Entrance at 4725 Moffett Road, Mobile, Alabama 36618: Bid for Purchasing, Invitation for Bid No. 25-013, Chemicals for Internal Corrosion Control 2025 Annual Contract, to be opened 10:30 a.m., Local Time, March 25, 2025.

THE BOARD OF WATER AND SEWER COMMISSIONERS
OF THE CITY OF MOBILE, ALABAMA

INSTRUCTIONS TO BIDDERS

1. QUALIFICATION FOR BIDDERS

- 1.1 Bids will only be considered valid if the contractor has fully completed the requirements set forth in the technical specifications and bid documents for a complete bid.
- 1.2 All bidders shall be both manufacturers and suppliers of corrosion control chemicals, and shall have a minimum of 15 years experience providing corrosion control chemicals for the potable water industry. The successful bidder shall hereinafter be referred to as “Supplier”.

2. EXISTING EQUIPMENT

- 2.1 Existing equipment is in place to be used in dosing chemicals to provide internal corrosion control. Any modifications to the existing equipment that will be necessary shall be the responsibility of the Contractor.
- 2.2 Any modification to or the adjustment to the Board’s equipment must be made with complete cooperation and observance of the Plant operating personnel. All special equipment, products, tools, power, controllers, etc., required by the Bidder shall be supplied and installed at no cost to the board. Upon the completion of the contract, all items and equipment shall become the property of the Board.
- 2.3 Should special cleanup or out-of-the-ordinary effort be required by the Board during the contract, the Contractor will be required to reimburse the Board for the appropriate costs incurred.

3. EXAMINATION OF BID DOCUMENTS AND SITE

- 3.1 Bidders are encouraged to visit the water treatment facilities to familiarize themselves with local conditions that will affect their work.
- 3.2 Bidders should (a) examine the Bid Documents thoroughly, (b) familiarize themselves with Federal, State, and Local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance, and (c) study and carefully correlate observations with the Bid Documents.
- 3.3 Submission of a Bid will constitute representation by the Bidder that he has complied with every requirement of these instructions and that the Bid Documents are sufficient in scope

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and detail to indicate and convey understanding of all terms and conditions for the performance of work.

4. LATE PROPOSALS

4.1 Bidders are duly notified that Bids received after the time at which they are due will not be considered.

5 EXPENSES RELATED TO SUBMISSION OF BID

5.1 This Specification does not commit the Board or its agents to pay any cost incurred in the preparation or submission of a Bid or in the making of necessary travel, inspections, or designs for the proposed thereof.

6 SOURCE EVALUATION AND SELECTION PROCESS

6.1 The Board reserves the right to waive any irregularities or errors in the Bid Documents or response thereto as determined to be in their best interest. Decisions of the Board concerning negotiations and award shall be final.

7 INQUIRIES

7.1 All inquires concerning the Bid should be addressed to:

Heath Hardy, P.E.

HDR, Inc.

25 W Cedar Street, Suite 200

Pensacola, Florida 32502

850-429-8925

Heath.hardy@hdrinc.com

7.2 Inquiries concerning the Bid shall be made in writing and must be submitted to the Engineer no later than five (5) days prior to the Bid opening date.

8 BID FORM

8.1 The Bid Form is attached hereto and additional copies may be obtained from the Engineer.

8.2 Bid Forms must be completed in ink or by typewriter. Erasers or type-overs must be initialed.

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- 8.3 The Bid shall contain an acknowledgment of receipt of Addenda in the space provided.
- 8.4 Cost per million gallons produced shall be determined by multiplying the cost per pound chemical by the estimated pounds of chemical per million gallons of water produced (dosage rate) needed to control corrosion.
- 8.5 Annualized cost shall be determined as described on the bid form.

9 SUBMISSION OF BIDS

- 9.1 Bids shall be submitted at the time and place indicated in the invitation for Bids and shall be submitted in a sealed envelope as indicated therein.

10 MODIFICATIONS AND WITHDRAWAL OF BIDS

- 10.1 Bids may be withdrawn at any time prior to the opening of Bids. Modifications to the Bid must be made by complete withdrawal of a previous Bid and re-submittal of a new Bid in accordance with the specification requirement.

11 OPENING OF BIDS

- 11.1 Bids will be opened and read publicly in the MAWSS Board Room.
- 11.2 A tabulation of the annualized amounts of the Bids will be made available after the opening of the Bids.

12 AWARD OF CONTRACT

- 12.1 The Board reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate Contract terms with the Lowest Responsive and Responsible Bidder, and the right to disregard all nonconforming, non-responsive or conditional Bids. Discrepancies between the indicated amount of any column of figures and the correct amount thereof will be resolved in favor of the correct amount.
- 12.2 Errors in the extension of unit prices stated in a bid or in multiplication, division, addition, or subtraction in a bid may be corrected by the MAWSS Purchasing Buyer prior to award. In such cases, unit prices shall not be changed.
- 12.3 If a Contract is awarded, the Board will give the successful Bidder a Notice of Award within sixty (60) days after the Bid Opening.

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12.4 The Board will award a single Contract if an award is made.

END OF SECTION

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INSTRUCTION TO BIDDERS

BID FORM
(Page 1 of 2)

PROPRIETARY BLEND PRODUCTS
CHEMICALS FOR INTERNAL CORROSION CONTROL
2025 ANNUAL CONTRACT

INVITATION TO BID, IFB NO. 25-013

Corrosion Control Chemicals:

_____ \$ _____ per lb.
(product name)

Estimated Dosage Rate X _____ lbs. per million
gallons

Cost = \$ _____ per million gallons
of water produced

X 15,000 million gallons of
water produced
per year

Annual Chemical Cost \$ _____ (1)
(See Section 10.1.06,B.1)

Start-Up Service: \$ _____ (2)
(See Section 10.1.06,B.2)

Additional Services: \$ _____ (per 8 hour visit day)
(See Section 10.1.06,B.3)

X _____ (visit days)

_____ (3)

Annual Sampling Cost _____ (4)
(See Section 10.1.06,B.4)

Total Annualized Bid: \$ _____ (Sum 1+2+3+4)

*Contract award will be based on total annualized bid.

**Contract period is from 5/1/2025 – 4/30/2026 with two additional one-year extension options after prior written approval of both parties.

BID FORM
(Page 2 of 2)

Provider Contact Information Sheet

Manufacturer _____

Delivery ARO _____ Payment Terms _____
(After Receipt of Order)

Company Name _____

Address _____

City, State, Zip _____

Submitted By _____ Title _____
Please Print

Phone _____ Fax _____

Email Address _____
Please Print

PROPOSAL

**TO: BOARD OF WATER AND SEWER COMMISSIONERS
OF THE CITY OF MOBILE, ALABAMA**

Submitted: _____
(Date)

The undersigned, as Bidder, hereby declares that he has examined the site of the Work and informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Plans and Specifications for the Work and all Contract Documents relative thereto, and has read the Board's Standard Specifications and all General Conditions and Special Provisions furnished; and that he has satisfied himself relative to the Work to be performed.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, in the form of contract specified to furnish all materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the following Work:

Chemicals for Internal Corrosion Control
2025 Annual Contract IFB 25-013

in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Plans, Specifications and all other Contract Documents to the full and entire satisfaction of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and other Contract Documents for the lump sum or unit prices listed opposite each item.

It is agreed that the description under each item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute Bidder's obligations as described in the Specifications and any details not specifically mentioned, but evidently included in the Contract shall be compensated for the item in which it most logically is included.

The quantities for bid items listed on the Proposal sheet are estimated quantities only for the purpose of comparing bids. Any differences between these estimated quantities and actual quantities required for this Contract shall not be taken as a basis for claims by the Contractor for extra compensation. Compensation will be based on the lump sum or unit prices and actual construction quantities.

The Bidder acknowledges and agrees this Contract does not give Bidder exclusive rights to perform the work described herein for the Board. The Board in its sole discretion retains the right to use other contractors to perform units of work described herein.”

The Bidder further proposes and agrees hereby to commence the Work with adequate resources to efficiently and effectively perform the services as described herein for the full duration of the contract.”

By _____
(Legal Signature)

(Printed Name and Title)

Witness: _____
(Legal Signature)

Witness: _____
(Legal Signature)

CONTRACTOR'S LICENSE NO:

ADDRESS:

Board of Water and Sewer Commissioners
of the
City of Mobile, Alabama

Update of Standard Specifications
Section 10

Special Provisions

Updated May 2021

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PART 1 GENERAL

10.1.01 ALABAMA ACT NO. 84-228

- A. Contractors shall comply with the requirement of Act No. 84-228 of the Legislature of the State of Alabama. Particular attention is directed to Section 2 of Act. No. 84-228 which requires submission of certain documents with the bid documentation and failure to submit such documents may be cause for rejection of the Contractor's bid.
- B. As a convenience to bidders, the law is presented below; however, it shall be the Contractor's responsibility to satisfy himself as to the responsibilities under the law.
 - 1. ALABAMA LAW (Regular Session, 1984) - Act No. 84-228 - S. 135-Senators Foshee, and Teague - AN ACT
- C. Relating to contracts and contractors; to give preference to resident contractors who bid on public work projects except where federal funds are involved.
- D. Be it Enacted by the Legislature of Alabama:
 - 1. Section 1. In the letting of public contracts in which any state, county or municipal funds are utilized, except those contracts funded in whole or in part with funds received from a federal agency, preference shall be given to resident contractors and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded Alabama public contracts only on the same basis as the nonresident bidder's state awards contracts to Alabama contractors bidding under similar circumstances; and resident contractors in Alabama as defined in Section 39-2-12, Code of Alabama 1975, be they corporate, individuals or partnerships, are to be granted preference over nonresidents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of domicile of the nonresident.
 - 2. Section 2 Nonresident bidders must accompany any written bid documents with a written opinion of an attorney at law licensed to practice law in such nonresident bidder's state of domicile, as to the preferences, if any or none, granted by the law of that state to its own business entities whose principal places of business are in that state in the letting of any or all public contracts.
 - 3. Section 3. A summary of this law shall be made a part of the advertised Specifications of all projects affected by this law.
 - 4. Section 4. The provisions of this Act are severable. If any part of this Act is declared invalid or unconstitutional, such declaration shall not affect the part which remains.
 - 5. Section 5. All laws or parts of laws which conflict with this Act are hereby repealed.
 - 6. Section 6. This Act shall become effective immediately upon its passage and approval by the Governor, or upon its otherwise becoming law.
 - a. Approved April 30, 1984 Time: 4:30 P.M.

10.1.02 REVISIONS

- A. These specifications will be modified and updated as required to keep abreast of current technologies, industry standards, regulatory agency requirements, and best management practices. It shall be the responsibility of the end user of these Guide Specifications to insure the latest and most current revision is applied to the project.

10.1.03 PERMITS, CERTIFICATES, LAWS AND ORDINANCES

- A. The Contractor shall, at his own expense, procure all permits, certificates and licenses required of him by law for the execution of his work. He shall comply with all federal, state, and local laws, ordinances and rules and regulations relating to the performance of the Work.

10.1.04 WAGE RATES

- A. The execution of said Project shall in all respects conform to all applicable requirements of federal, state and local laws and ordinances.

10.1.05 REPORTS, RECORDS AND DATA

- A. The Contractor and each of his subcontractors shall submit to the Owner such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this Contract.

10.1.06 BASIS OF PAYMENT AND METHOD OF MEASURE:

- A. General: The unit price bid for the various items shall be compensation in full for furnishing all materials, labor, equipment, and incidentals for the item in place complete in every detail.
- B. Bid Items based on requirements outlined in Section 22 Specifications for Supplying Chemicals for Internal Corrosion Control and Related Services:
 - 1. **Item No. 1. Annual Chemical Cost:** The lump sum price bid for this item shall be full compensation for furnishing product for a period of one year, and shall include the cost of chemical(s), products, materials, fees, storage, shipping, handling, mixing, and other miscellaneous items not listed elsewhere. All deliveries shall be F.O.B. and shall include delivery and handling in both the Myers and Stickney Water Treatment Plants. Periodic and final payments shall be in accordance with the Board's purchase orders and terms of the contract.
 - 2. **Item No. 2. Startup Service:** The lump sum price bid for this item shall be full compensation for furnishing all services, equipment, products, materials, fees, shipping, handling, technical testing, laboratory services, and other miscellaneous items required to completely transition the existing corrosion control system to the system bid. Services, testing, technical services, and reporting required during this startup service shall be in full accordance with this specification. Should no transition be necessary, a bid price of zero (0) dollars should be entered for this item.

3. **Item No. 3. Additional Services:** The unit price bid for this item shall be full compensation for furnishing one technically proficient personnel for the time period of one 8-hour day, excluding travel time. The time required to complete work in accordance with the contract specification is included in Bid Items 1 and 2. Additional services requested by the Board, if necessary and in addition to those specified, will be paid for on a unit bid price for each man-day required in excess of the specified amount of time in the Contract.
4. **Item No. 4. Annual Sampling Cost:** The lump sum price bid for this item shall be full compensation for furnishing all services, equipment, products, materials, fees, shipping, handling, technical testing, laboratory services, and other miscellaneous items to provide the required sampling. Services, testing, technical services, and reporting required during this annual sampling shall be in full accordance with this specification.

END OF SECTION

MAWSS INSURANCE REQUIREMENTS

- A. **General:** The Supplier shall provide insurance in accordance with the required specifications. A current certificate of insurance must be provided with your bid. MAWSS does not need to be named as an additional insured on this certificate.
- B. **Supplier Coverage:** The Supplier shall not commence work under this Contract until he has obtained all insurance required under the following paragraphs and until such insurance has been approved by the Owner, nor shall the Supplier allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been obtained and approved. If the subcontractor does not take out insurance in his own name, the Supplier shall provide such insurance protection for the subcontractor and such subcontractor's employees.
- C. **Casualty Insurance:** The following insurance coverages (with limits not less than specified herein) shall be maintained by the Supplier for the duration of the Contract, affording coverage for any claim arising out of Supplier's operations herein, whether by the Supplier or by any subcontractor or by any Employee or Agent of either:
1. Claims of employees under Worker's Compensation and other similar employee benefit acts, including claims because of bodily injury, occupational sickness or disease, or death.
 2. Claims arising out of bodily injury, sickness, disease, or death of any person other than employee.
 3. Claims for damages arising out of libel, slander, false arrest, detention or imprisonment, malicious prosecution, defamation or violation of right of privacy, wrongful entry or eviction or other right of private occupancy, including claims as a result of an offense related to the employment of a claimant by Contractor (so-called "Personal Injury").
 4. Claims arising out of damage to or destruction of tangible property, including loss of use.
 5. The Supplier shall furnish certification of insurance and policies verifying that the above coverages are in effect before commencing any work, and that each policy is endorsed to give the Owner 30 days notice in writing in the event of cancellation or material change therein.

Policies of Insurance shall state that the Owner and the Owner's employees be named as additional insureds on the Supplier's Automobile Liability and Commercial General Liability policies. In respect to Worker's Compensation, a Waiver of Subrogation shall be issued in favor of the Owner. Where applicable, the U.S. Longshore and Harborworkers Compensation Act Endorsement shall be attached to the policy. Where applicable, the Maritime Coverage Endorsement (to include coverage under Jones Act) shall be attached to the policy. Both the U. S. Longshore and Harborworkers and the Maritime Coverage shall have limits equal to or greater than the employer's liability coverage.

6. Rated by AM Best – A- or better. For non-admitted companies, a rating of A or better by AM Best.
 - a. At the discretion of the Board, worker's compensation insurance may be placed through a qualified worker's compensation self-insurance fund.

b. **Limits of Liability:**

Worker's Compensation Statutory

Employers' Liability \$500,000 Each Accident
\$500,000 by Disease, Policy Limit
\$500,000 by Disease, Each Employee

Commercial Automobile \$1,000,000 Each Accident
Bodily Injury and Property Damage
Combined
Business Auto Includes All Owned, Leased,
Hired and Non-Owned Automobiles

Commercial General Liability \$1,000,000 per Occurrence
\$1,000,000 Personal & Advertising Injury
\$2,000,000 General Aggregate per Project
\$2,000,000 Products & Completed Operations
Aggregate
\$100,000 Fire Damage Liability

Umbrella Liability: In addition to the basic limits previously set out for Commercial General Liability, Products and Completed Operations, Automobile Liability and Worker's Compensation, coverage shall be issued with a "pay on behalf of" wording, including Personal Injury and other extensions, and provide coverage at least as broad as that afforded by the primary insurance policies.

Extensions (only if applicable):

Blanket Contractual Liability

Personal Injury

Host Liquor Liability

Non-owned Watercraft Liability

Worldwide Products
Fire Legal Liability
Newly Acquired Organizations
Blanket Collapse and Underground Coverage
Broad Form Property (including Completed Operations)
Employees as Additional Insureds
Incidental Medical Malpractice
Extended Bodily Injury (Assault and Battery)

When and if the use of explosives for blasting purposes appears necessary or desirable, such methods shall not be undertaken without written authorization of the Owner, and then only provided that acceptable extensions of liability coverage have been obtained specifically to include the explosion ("X") hazard and the collapse ("C") hazard. The policy of general liability shall include the special underground property damage coverage (providing the so-called "U" hazard) on a blanket basis.

- D. **Owner's Protective Liability**: The Supplier shall furnish from a carrier acceptable to the Owner, a policy of liability insurance, commonly called "Owner's Protective Liability" in the name of the Board of Water and Sewer Commissioners of the City of Mobile, d/b/a MAWSS, providing "Independent Contractor's Coverage" for the operations embraced by this Contract with limits of \$1,000,000 bodily injury and \$1,000,000 property damage. Policy shall be endorsed that the premium is to be paid by the named Supplier.

END OF SECTION

SECTION 22
SPECIFICATIONS FOR SUPPLYING CHEMICALS FOR INTERNAL CORROSION
CONTROL AND RELATED SERVICES

PART 1 GENERAL

1.1 General Information

- A. MAWSS currently owns and operates a raw and potable water distribution system, serving the Mobile, Alabama area. The predominant use of the water is the domestic demand from residents in the service area. However, there is a significant demand to the system for potable water from industrial and commercial users.
- B. Water is drawn from two sources: (1) Big Creek (Converse) Lake, located to the northwest of Mobile, and (2) Mobile River. The domestic water is taken from Big Creek Lake, treated at two plants, and distributed into the pipe system. The domestic water, as it leaves the two plants, is the water that will be treated with internal corrosion control chemicals, The Stickney Plant treats an average of 26.42 million gallons per day (MGD) and the Myers Plant treats an average of 14.00 MGD.
- C. MAWSS currently addresses corrosion control in the system by treating the water leaving both plants with a proprietary blend chemical, Carus 8500 Phosphate. Carus 8500 Phosphate is an orthophosphate-polyphosphate blend (50% polyphosphate, 50% orthophosphate), with a sequestering agent included. The chemical is fed at a rate sufficient to produce adequate orthophosphate residual at all points tested in the system, as tested by the current supplier.
- D. The Contractor's overall goal should be to assist MAWSS in consistently producing the highest quality water possible.
- E. Bulk storage and day storage tanks exist at both facilities. The Stickney Plant has one 6,000-gallon polypropylene bulk storage tank and one 300-gallon polypropylene day tank available for corrosion control chemicals. The Myers Plant has one 7,000-gallon fiberglass bulk storage tanks and one 300-gallon fiberglass day tanks.
- F. Metering pumps also are in place at both locations. At the Stickney Plant, there are two Watson Marlow, QDOS 30 peristaltic metering pumps installed, and one spare. At the Myers Plant, there are two Watson Marlow, QDOS 30 peristaltic metering pumps installed, and one spare.. The metering pumps are flow-paced to the plants' outlet flow meter.
- G. Any treatment option proposed will need to be fully compatible with existing treatment chemistry. As water is drawn from Big Creek Lake, copper sulfate is added to minimize algae growth at the pump intake. Water is then pumped to two raw water reservoirs at each treatment facility. Before entering the flocculation and settling basins, chemicals are added. At this point, chlorine dioxide is added at 0.75 to 1.0 parts per million (ppm), lime is added to bring the pH to a level between 6.3 and 6.8, and alum is added at a rate between 30 and 45 ppm. Powdered activated carbon (PAC) is added to the raw water. Some orthophosphate residual may result from the PAC slurry feed, but the residual amount is expected to be negligible. The corrosion control phosphate Contractor shall confirm the background phosphate residuals will not affect the corrosion control treatment dosages. The water is mixed, then flows through flocculation basins and then through settling basins. After leaving the settling basins, lime is again added to bring the water to a pH between 5.7 and 6.8 to counteract the finishing chemical reactions where finished pH is between 7.2 and 8.0. The water then passes through filters and finishing chemicals are added. Currently, those

chemicals consist of fluoride at 0.7 ppm, chlorine at 2.5 to 3.0 ppm total, or 1.5 to 2.4 ppm free chlorine and the corrosion control chemical at 1.0 ppm.

1.2 Terms of Contract

- A. The Contract duration is for a period of one year, 5/1/25 to 4/30/26, with two additional one-year extension options after prior written approval of both parties.
- B. MAWSS reserves the right to terminate the Contract if the Contractor fails to meet delivery or technical assistance schedules as specified herein, or if regulations change to preclude use of the product in the potable water distribution system. MAWSS also reserves the right to terminate the Contract if the product fails to perform satisfactorily. Such failure will be defined as a greater than 10 percent increase in dosage rate, compared to the estimated dosage rate included in the Bid Form, which the Contractor is unable to correct within 30 days. At the Contractor's option and with the written approval of the Owner, an appropriate dosing rate above the 10% variance may be allowed for longer periods of time. However, the price of the chemical would be adjusted at that time to limit total cost to 110% of the total price bid based on provided flow rates.
- C. Increases in corrosion control chemical usage or consumption due to circumstances beyond the Contractor's control will not be the responsibility of the Contractor.
- D. Inconsistent product characteristics, such as stratification, which requires mixing of the solution to achieve a homogenous state on an ongoing basis, also will be cause for termination.
- E. Additionally, an increase in customer complaints associated with the use of, or effectiveness of, the corrosion control chemicals, or effects resulting thereof, shall be considered a lack of acceptable performance.
- F. Acceptable performance shall be based on the timely and satisfactory conductance of the services described herein.

1.3 Experiences and References

- A. The Contractor shall provide, with the bid package, a minimum of five (5) references of systems where the Contractor has successfully treated with the product bid. Reference information shall include at a minimum:
 - 1. Name of utility
 - 2. Name of Contact Person
 - 3. Telephone number where contact person can be reached
 - 4. Average daily production of the utility, listed by plant if more than one
 - 5. Brief history of the utility's previous corrosion control treatment program
 - 6. Discussion of chemical(s) used by the Bidder, including dosing rates per million gallons of water produced

1.4 Submittal Requirements

A. Bid Submittal Requirements

- 1. The following items will be required with the bid submittal:

- a. Experience and reference information as described in paragraph 1.3
- b. Certification that product meets Federal (EPA), State (ADEM), and National Sanitation Foundation (NSF) criteria where appropriate, in accordance with paragraph 1.8.C

B. Pre-Award Requirements

1. Upon notice to a Bidder that it is the apparent low bidder, that Bidder shall provide the following items prior to award of the contract:
 - a. Certificate of Insurance and Insurance Policy as required by bid documents.
 - b. Emergency Response Plan as described in paragraph 3.2

1.5 Technical Assistance

- A. For the duration of the Contract, the Contractor shall have qualified staff that is capable of responding within 24 hours to provide assistance to MAWSS's staff or Engineers to resolve problems related to water corrosion or difficulties with the systems of chemicals provided by the Contractor,
 1. For the duration of the Contract, the Contractor shall provide a local or toll free 24-hour access phone number where MAWSS may contact knowledgeable personnel and obtain instruction of appropriate actions to be taken should spills or other emergencies occur with equipment or chemicals supplied by the Contractor. This availability shall be considered as part of the chemical supply and shall not be counted toward service time as requested by MAWSS listed in Bid Item 3.
 2. The Contractor shall provide a qualified service representative to visit both the Myers and Stickney Water Treatment Plants on not less than a monthly basis during the first 6 months of the Contract to assure the proper use of the product. During the remainder of the Contract and any applicable extensions, the Contractor shall visit both sites at least quarterly to ensure continued proper use of the product. This regular attendance at the plants will be considered part of the chemical supply and shall not be counted toward additional service time as requested by MAWSS and listed in Bid Item 3.

1.6 Safety and Training

- A. The Contractor shall provide a minimum of two chemical handling and safety training classes for each of the plants' operations staff, 1 hour each (minimum). These classes shall be held within 1 week prior to the start of supply of chemicals and once each year thereafter for the duration of this Contract and appropriate extensions. The cost of the safety training classes shall be at no additional cost to MAWSS but included in the Contractors total product bid for chemical supplies.
- B. The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (P.L. 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (P.L. 91-54).

- C. When required, the Contractor shall supply all safety equipment (such as spill kits) required to successfully handle, control, and contain the product supplied. Safety equipment supplied by MAWSS for the normal operation of the Plant (such as safety glasses and hearing protection) will continue to be supplied by MAWSS.
- D. Contractor shall supply MAWSS with copies of the Safety Data Sheets (SDS) pertaining to the products to be used for corrosion control.
- E. Contractor shall prepare standard daily chemical feed calculation sheets for plant operators to use for the purpose of consistent conversions from chemical dosage to chemical feed rates to chemical quantities consumed.

PART 2 PRODUCTS

2.1 Chemicals

- A. Adequate chemicals shall be supplied to control internal corrosion within the service system. The chemical(s) shall control the corrosion to an extent where annual lead and copper samples are below permitting requirements. The chemical(s) also shall control “red water” and “black water” complaints throughout the system by reducing the available iron and manganese in the water. Chemical(s) shall inhibit calcium scale build-up in residential hot water heaters throughout the service area.
- B. The following basic criteria shall be used in establishing minimum chemical characteristics and performance:
 - 1. Chemical(s) used for treatment shall be a blend of orthophosphates and polyphosphates as it leaves the treatment facility. The Contractor shall provide:
 - a. Proprietary Blend or Blended Phosphates:
 - 1) Corrosion control chemicals will consist of supplying a phosphate product that will sequester iron, manganese, and hardness while inhibiting internal corrosion. The Contractor shall supply on the bid form the Trade Designation for the product as listed in NSF Standard No. 60. The following information must be provided with this bid:
 - a) The optimum type of product the vendor recommends being used (i.e., what type of phosphate and if blended, what percentages of polyphosphate, orthophosphate, and food grade fillers such as sodium carbonate, sodium silicate, lime, hydroxide, potassium hydroxide, etc.)
 - b) The optimum pH range at the MAWSS’s plants for optimum performance of your product.
 - c) The optimum Dosage Rate for the MAWSS system. This should be listed as follows:
 - (1) In lbs/MG, how many pounds of your product will be needed per million gallons of water and (2) based upon your experience with your product and the knowledge of our water quality, you must provide a letter of guarantee that your product will perform at the dosage rate you recommend. If your product does not perform as promised, you must

provide free of charge any additional product needed including all shipping costs. If the system's water quality should change which would affect your Dosage Rate at any time during the year, then the vendor can revise their Dosage Rate without penalty.

- d) Weight and Cost of phosphate per gallon
 - e) Usage (lb/MG) and Cost of phosphate (\$/lb).
 - f) Cost of phosphate to use per year.
 - g) A list of all the countries of origin where the raw material phosphates are mined (Not where the raw materials are put together in the United States).
 - h) The phosphate product must remain stable and perform over the pH range of 5.7 through 11 without the need of a pH adjustment product (e.g., lime or caustic) with at least one system reference for each high and low pH level. This pH range does not have to be the optimum range of your product's performance (as stated above). The phosphate product must sequester iron, manganese and calcium and perform and remain stable with no more than a 5% reversion rate in a temperature range up to approximately 230 to 250 degrees Fahrenheit. This must be documented by at least one independent reference.
 - i) The phosphate product should be able to reduce and clean out home water heaters of scale buildup.
 - j) The phosphate product must provide system-wide cleanout of corrosion.
 - k) The phosphate product must be capable of stopping colored water events from occurring throughout all area of the distribution system.
 - l) The liquid phosphate product cannot contain any ammonium, chlorides, sulfates, and zinc in excess of 0 ppm other than trace amounts of naturally occurring minerals. Supporting document must be included.
 - m) Product must be NSF certified. A current Certification Document must be included.
 - n) Provide the most current SDSs with this Bid.
 - o) Bids without required references will not be considered under any circumstances. All vendors must guarantee the dosage rate in writing as stated herein. MAWSS has the right to reject any bid for any reason and will consider awarding a contract based upon all specifications in this Bid including issues relevant to the MAWSS's needs, which include, but are not exclusive to price, quality, proven results, and documentation.
2. Average corrosion rate as indicated by the initial (120-day) and the quarterly (90-day) mild steel corrosion coupons shall not be more than 15 mils per year, with a system goal of 10 mils per year. The corrosion of any one coupon shall not vary by more than 25 percent from the indicated standard. If the corrosion rate is above 15 mils per year, then the chemical vendor is required to evaluate the phosphate program, meet with MAWSS, and recommend changes to improve the results.
3. Sequestration of raw water iron (Fe) and manganese (Mn) shall not result in discoloration of more than 10 pcu with a variance of 3 pcu or less from the average established in Section 3.1-B.2 herein.

4. Introduction of corrosion control chemicals to the filtered water shall not cause the total dissolved solids (TDS) of the finished water to deviate by more than 5 percent after a 60-minute period on the distribution system nor 10 percent after 5 minutes in the clearwell.
 5. Corrosion control chemicals shall not destabilize the pH of the filtered water. Lime dosing rates may be adjusted to ensure the pH remains stable. The pH of finished water typically is within the range of 7 to 8 standard units. The target range is 7.3 to 7.6 standard units. The pH of finished water shall not vary as a result of distribution system corrosion resulting from loss of product, deterioration of product, or reduced effectiveness of product while in the distribution system. The pH shall be measured at points designated by MAWSS prior to contract execution.
 6. The chemical(s) added to the water system for corrosion control shall result in a detectable amount of residual orthophosphate at all points in the distribution system.
 7. The corrosion control chemical(s) must be stable (i.e., remain in solution and effective) throughout an ambient air temperature range of 0 to 55 degrees Celsius.
 8. The chemical(s) must be able to maintain or reduce the existing lead and copper levels found in customer premise plumbing throughout the service area.
- C. Listed in Table 1 are the flow characteristics for each MAWSS water treatment plant and the total chemical cost by year for 2021 through 2024. Table 2 lists the water quality data for MAWSS's raw water source.

Table 1. MAWSS WTP Flow Characteristics and Chemical Costs

	Facility	Gallons Pumped	Average Flow (MGD)	Total Chemical Cost
2021				
	Myers	4,001,247,270	10.96	
	Stickney	9,599,854,996	26.30	
	Total			\$126,541.00
2022				
	Myers	4,251,890,000	11.65	
	Stickney	10,258,771,000	28.11	
	Total			\$274,097.00
2023				
	Myers	5,452,604,000	14.94	
	Stickney	9,582,019,000	26.25	
	Total			\$393,563.00
2024				
	Myers	5,110,158,000	14.00	
	Stickney	9,643,179,000	26.42	
	Total			\$403,792.00

Table 2. MAWSS WTP Water Quality Data

Date	Calcium (mg/L as CaCO3)	Manganese (mg/L)	Iron (mg/L)	pH (range)
2021	15.0	1.072	Non-Detect	7.20-8.00
2022	15.0	Non-Detect	Non-Detect	7.10-8.00
2023	15.9	0.0053	Non-Detect	7.10-8.00
2024	16.3	Non-Detect	Non-Detect	6.50-8.50

- D. Certifications: Contractor must supply certifications with their bid package that their chemicals meet Federal (EPA), State (ADEM), and National Sanitation Foundation (NSF) Standard No. 60 criteria where appropriate and will not adversely affect the ability of the MAWSS to dispose of water and wastewater sludges as desired. All chemicals must be certified to meet all Federal, State, and other appropriate requirements for human consumption when used in the production of potable water. Chemicals must not have any adverse impacts on the distribution system.
- E. Any product proposed to be supplied by the Contractor must be manufactured within the Continental United States of America.

2.2 Delivery and Equipment

- A. Delivery shall be made by truck to the Myers Water Treatment Facility at 1475 Hubert Pierce Road, Mobile, Alabama 36608 and the Stickney Water Treatment Plant at 4800 Moffett Road, Mobile, Alabama 36628. The delivery vehicle and containers shall be compatible with MAWSS's existing equipment and personnel. Any special handling equipment shall be supplied by the Contractor at no additional cost to MAWSS. MAWSS shall write purchase orders, as needed, and in quantities as required during the term of the Contract. It shall be the responsibility of the Contractor to assure that delivery is made within 14 working days after an order is placed by MAWSS. Delivery shall be made Monday through Friday, 7:30 A.M. to 3:30 P.M., and shall be performed in a safe and efficient manner. Any equipment necessary to assure safe and efficient delivery shall be the responsibility of the Contractor. Contractor assumes all risks, responsibilities, and costs that may arise and are incident to handling, transportation, delivery, and unloading of the chemicals as specified herein, until proper unloading of the chemicals has been completed at the delivery point. All carriers must abide by all applicable Federal and State regulations concerning the transportation of such materials.
- B. Products shall be delivered at designated times, split between the two plant locations, Stickney and Myers Plants. Tankers should be owned and operated by the supplier and dedicated to this product. Supplier must be the manufacturer of the product.
- C. Any equipment necessary to ensure proper operation such as pumps, piping, electronics, electrical systems, and tank modifications shall be supplied and installed by the Contractor. Any existing equipment removed shall remain the property of MAWSS and shall be delivered to a location identified by MAWSS. All equipment or systems required to implement the Contractor's systems shall be fully compatible with MAWSS's systems and ability to operate and maintain said system. All equipment and/or modifications made to facilitate the implementation of the contract shall become the property of MAWSS upon conclusion of the Contract period.

PART 3 EXECUTION

3.1 Sampling and Performance Monitoring

- A. The Contractor shall conduct all sampling and performance monitoring as described in this section outside as part of the Contract. MAWSS reserves the right to modify this sampling and performance monitoring plan during the course of this Contract as needed to ensure

performance and maintain regulatory compliance. MAWSS may perform independent sampling concurrent with any sampling performed by the Contractor at its discretion.

B. Initial Testing Requirements

1. At MAWSS sole discretion, the Contractor may be required to perform coupon testing and/or dosage testing, as described below, immediately after notice of award to demonstrate that the proposed product and dosage rates will meet the contract performance requirements.
 - i. Coupon Testing
 - a. The Contractor will be responsible for monitoring a minimum of three (3) corrosion control coupons within the first 120 days after the start of the contract.
 - b. Testing results shall adhere to the requirements of Section 2.1 of this document.
 - ii. Dosage Testing
 - a. Contractor shall perform jar testing at each plant to confirm that the proposed dosage rate is appropriate for the performance requirements listed in Section 2.1.
 - b. Jar testing shall establish the average color of the treated water for Section 2.1-B.3.
 - c. Contractor shall submit a testing plan to MAWSS for review and approval.
 - d. MAWSS will select and provide the Contractor access to sampling locations.
 - e. Jar testing for the sequestering of raw water iron (Fe) and manganese (Mn) shall be completed by the Contractor within the first fourteen (14) days of the contract.
 - f. Analysis of water samples from the jar testing shall be analyzed by equipment provided the Contractor. Aliquots of water samples shall be provided to MAWSS for their own analysis to verify the Contractor's results.

C. Quarterly Sampling

1. The Contractor shall inspect and test the water quarterly for the following:
 - a. Alkalinity (mg/L as CaCO₃)
 - b. pH
 - c. Hardness (mg/L as CaCO₃)
 - d. Temperature
 - e. Total Dissolved Solids
 - f. Langelier or Aggressive Index
 - g. Total and dissolved Iron
 - h. Poly and Ortho Phosphates
 - i. Total and dissolved Manganese
 - j. Total Lead
 - k. Total Copper
2. These analyses are required at a minimum of ten (10) locations in the distribution system each time at locations selected by MAWSS.

3. All laboratory testing work will be performed by the Contractor. The Contractor shall utilize a certified, local laboratory (within a 70-mile radius of Mobile) for all analysis. The laboratory shall be an independent third-party entity.
4. Coupon Testing
 - a. The Contractor will be responsible for monitoring a minimum of ten (10) corrosion control coupons during the full length of the contract.
 - b. MAWSS will select and provide the Contractor access to sampling locations in the distribution system.
 - c. The coupons are to be tested quarterly (90 days).
5. Performance Monitoring
 - a. MAWSS may provide a performance monitoring program consistent with the treatment program proposed.
 - b. Criteria for the Performance Monitoring Program are as follows:
 - 1) Sampling of at least ten (10) sites in the distribution system must be done by the contractor every month. MAWSS will utilize the sampling results throughout the contract period to determine if the chemical vendor is meeting the criteria of performance.
 - 2) MAWSS analysis of lead-in tap water samples shall be monitored monthly to show the corrosion control program results in trending downward toward the lead action limit of 0.015 mg/L and with a goal of achieving the 90th percentile less than 0.005 mg/L.
 - 3) Discolored water complaints shall not exceed the calendar year 2024 average of 26 per month.
 - 4) Parameter(s) measured shall show clear correlation to effectiveness of the treatment program.
 - 5) Chemical dosing rate adjustments shall be clearly correlated to results of the performance monitoring done in the distribution system.
 - 6) Performance monitoring shall be integrated with and related to other sampling and monitoring listed in this section.

3.2 Emergency Response Plan

- A. The Contractor shall develop and submit to MAWSS for approval, an Emergency Response Plan to be used in the event of natural disasters, extended loss of power, and loss of treatment chemical feed rate or supply. This plan will supplement any plan prepared by MAWSS, the MAWSS's staff, or consultants employed by MAWSS, and shall be in the form of a written plan.

END OF SECTION