

TOWN OF YORKTOWN
BID AND SPECIFICATIONS
FOR THE
SEWAGE TREATMENT PLANT
VARIOUS CHEMICALS

BID #15-3

Michael Grace
Town Supervisor

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Acting Town Engineer

Edward Mahoney
Assistant Superintendent
Wastewater Treatment Plant

Dated: September 2015

NOTICE TO BIDDERS

TOWN OF YORKTOWN

NEW YORK

Sealed proposals will be received by the **Town Clerk** of the Town of Yorktown, Westchester County, New York, at the **Town Hall, 363 Underhill Avenue, Yorktown Heights, New York, until 10:00 A.M., on Wednesday, October 7, 2015, for Various Chemicals for the Yorktown Heights Sewage Treatment Plant, Bid #15-3.**

Specifications and standard proposals for the bid may be obtained at the office of the Town Clerk at said Town Hall.

The bidder assumes the risk of any delay in the mail or in the handling of mail by the employees of the Town of Yorktown. Whether sent by mail or means of personal delivery, the bidder assumes the responsibility for having bids in on the time and the place specified above.

The Town of Yorktown reserves the right to waive any informalities in the bids, to reject any or all bids and reserves the right to accept that bid which it deems most favorable to the interests of the Town of Yorktown. No bidder may withdraw his bid within thirty (30) days after the actual date of the opening thereof.

If mailed, sealed proposals must be addressed in care of the Town Clerk at the above address.

ALICE E. ROKER
Town Clerk
Town of Yorktown

Dated: September 2015

TOWN OF YORKTOWN

BID: VARIOUS CHEMICALS (ENGINEERING DEPT.)

The Bid Documents consists of the following documents:

1. **Notice to Bidders**
2. **Part One** Summary of Bid and Bid Proposal Form
3. **Part Two** General Terms and Conditions of Bid
4. **Part Three** Specifications
5. **Part Four** Non-Collusive Bidding Certificate

A completed bid will consist of :

1. one copy of the **Bid Proposal Form**, signed on behalf of Bidder with information for all blanks supplied, and a detailed listing of any exceptions from any of the bid documents taken by Bidder; and
2. a signed Non-Collusive Bidding Certificate.

Bidder should be aware that any required information which is not supplied or any exception taken to any of the bid documents may, at Town's option, render such bid non-responsive.

If the bid is awarded by Town, the bid award will constitute a contract between the successful bidder and the Town of Yorktown. The Town Clerk will notify the successful bidder in writing. Successful bidder will be required to submit to the Town a completed W-9 form and proof of the Vendor's tax identification number.

The Town of Yorktown intends to award a contract to the lowest responsible bidder for each chemical for a period of one year, commencing on the first business day immediately following the day on which the bid is awarded.

PART ONE

SUMMARY OF BID

The Town of Yorktown seeks bids from qualified parties to supply the following goods: VARIOUS CHEMICAL (ENGINEERING DEPT.), the specifications of which are more fully set forth in Part Three of this document.

Bidders should, before submitting a bid, carefully examine and understand the contents of each Part of this bid package including the Summary of Bid, Specifications, General Terms and Conditions (and any Appendices), the Non-Collusive Bidding Certificate. These documents set forth the character and quality of the work and materials to be provided by the bidder.

Bidders shall have (7) business days prior to the bid opening date to bring to the attention of the Town Clerk any errors or defects in these specifications which would prevent Bidder from providing a responsive bid.

Bidder must be fully qualified to deliver the goods specified in the Specifications. The town reserves the right to request references from other parties for which Bidder has provided similar goods.

Town of Yorktown
BID: VARIOUS CHEMICALS (ENGINEERING DEPT.)

Bidder's Name: _____

BID PROPOSAL FORM
(consists of 3 pages)

1. Ferric Chloride _____ \$/per dry ton
2. Ferric Chloride 37% to 40% _____ \$/per 55 gal. drum
3. Caustic Soda 50% _____ \$/gallon
4. Caustic Soda 25% _____ \$/per 55 gal. drum
5. Citric Acid 50% _____ \$/per 55 gal. drum
6. Sulfuric Acid (not more than 51%) _____ \$/per 55 gal. drum
7. Sodium Bisulfite 38% _____ \$/per 55 gal. drum
8. Sodium Hypochlorite 15% _____ \$/per 55 gal. drum
9. Calgon Poly-E-Z or equivalent

Trade Name of equivalent _____

Guaranteed application rate: _____ lb/ton
(pounds of polymer per dry ton of dry sludge)

Cost per pound of Polymer: \$/lb _____

OR

Cost per dry ton: \$/dry ton _____

(Note: Calgon Poly-E-Z or equivalent polymer bid will be awarded based on cost per dry ton)

I did _____ did not _____ visit the location where the bid item is to be delivered.

Service

Each bidder must provide a listing of three (3) customers presently using the product bid herein for the purposes of verifying product performance, technical support, and overall supplier performance.

CUSTOMER PRODUCT CITY/STATE CONTACT TELEPHONE

1) _____

2) _____

3) _____

The undersigned, on behalf of the vendor, certifies that: (1) the person whose signature appears below is legally empowered to bind the company in whose name the bid is entered; (2) he has read the complete Request for Bid and understands all provisions; (3) if accepted by the Town, this bid is guaranteed as written and will be implemented as stated; and (4) by submitting its bid, Bidder agrees to all the terms of this Bid document, including but not limited to, each and every provision of the General Terms and Conditions of Bid; and (5) mistakes in writing of the submitted bid will be the bidder's responsibility; and by submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the state finance law.

(List found at <http://ogs.ny.gov/about/regs/docs/ListofEntities.pdf>.)

BIDDER'S OFFICIAL CORPORATE NAME (required, if bidder is a corporation):

BIDDER'S D/B/A NAME (if any) _____

Name of person authorized to submit bid for bidder:

Signed: _____
[Signature of authorized person]

TITLE of authorized person: _____

BIDDER'S CORPORATE NAME:

BIDDER CONTACT INFORMATION:

PRINT NAME: _____

TITLE: _____

Address: _____ State: _____ Zip: _____

Phone: _____

Fax: _____

Email: _____ @ _____

Placing Orders Contact: _____

Technical Service Representative: _____

- END OF BID PROPOSAL FORM -

PART TWO

General Terms and Conditions of Bid

<u>Article Numbers</u>	<u>Heading</u>
I.	QUALITY AND SAMPLES
II.	INTERPRETATION AND APPROVAL
III.	NON-COLLUSION
IV.	BID QUOTATIONS
V.	LATE BIDS
VI.	BID OPENING
VII.	ACCEPTANCE OR REJECTION
VIII.	AWARD
IX.	NOTICE OF AWARD
X.	DELIVERY POINT
XI.	DATE OF DELIVERY/TIME OF PERFORMANCE
XII.	DAMAGES
XIII.	WARRANTY/GUARANTEE
XIV.	PURCHASE OF ADDITIONAL QUANTITIES OF BID ITEMS
XV.	BREACH OF CONTRACT AND TERMINATION
XVI.	ASSIGNMENT PROHIBITED
XVII.	REPRESENTATIONS AS TO REVISIONS OF SOLICITATIONS
XVIII.	SPECIAL REQUIREMENTS

I. **Quality and Samples**

- 1.1 All equipment, material and supplies bid upon must conform to the description and specifications stated in the bid document, including Part Three Specifications. Any and all reference to type, style, trade name, and catalog are intended to be descriptive only and not restrictive.
- 1.2 If Bidder proposes to furnish the items specified in the bid document, Bidder shall fill in the unit price and the total price in the appropriate spaces on the bid form included herewith.
- 1.3 There shall be no substitutions of materials.

II. **Interpretation and Approval**

- 2.1 No interpretation of the meaning of the bid document will be made to any bidder orally. Any request for such interpretation shall be made not later than five (5) working days prior to the date fixed for the opening of bids and must be made in writing, addressed to:

Alice Roker, Town Clerk
Town of Yorktown
363 Underhill Ave.
Yorktown Heights, NY 10598

Notice of any and all such interpretations and any supplemental instructions will be served upon all bidders of record by the Town Clerk in the form of addenda to the bid specifications. All addenda so issued shall become a part of the bid document.

- 2.2 Interpretation of the bid specification shall be decided by Town Clerk. The Town Clerk's decision shall be final and binding on all parties.

III. **Non-Collusion**

Bidder shall certify that it has complied with all of the requirements stated in the non-collusive bidding certificate by signing the form included in this bid document. Failure by Bidder to complete and sign the non-collusive bidding certificate will constitute grounds for rejection of the bid proposal by Town.

IV. **Bid Quotations**

If bid is for purchase of goods, unit price and total price of each item quoted shall be written in ink, or typed, in the space opposite the name of the item listed on the bid proposal form.

If bid is for purchase of services and performance of work, price for work shall be set

forth in ink or typed, in increments as indicated on the bid proposal form (for example, hourly rate).

No bids will be considered acceptable unless properly made out on the bid proposal forms provided by Town and signed by Bidder in ink.

In the event of a discrepancy between the unit price and the total price of the bid proposal form, the unit price will govern. All prices must be quoted "per unit" quantity specified. (e.g. do not quote "per case" when "per dozen" is requested). All items not bid shall be indicated as "not bid" in the total price space. When bids are requested on a lump sum basis, Bidder must bid on each item in the lump sum group. A bidder desiring to bid "no charge" on an item in a group must so indicate. Failure to comply with the provisions of this paragraph may be grounds for rejection of the bid proposal by Town.

V. **Late Bids**

Bid proposals that arrive after the time stated for the opening of bids shall not be accepted, and will be returned to Bidder unopened. Whether sent by mail or by means of personal delivery, Bidder assumes responsibility for having its bid delivered on time at the place specified in the legal notice.

VI. **Bid Opening**

Sealed Bids will be publicly opened on the date, day and time specified in the notice included in the bid documents. Bids may be read aloud to those persons present when practicable. Any Bidder may request to review the bid proposals submitted by arranging a mutually convenient time when bids may be reviewed with the Town Clerk.

VII. **Acceptance or Rejection**

The Town reserves the sole right to waive any informality, to reject any or all bids, and Town's decision shall be final and binding on all parties.

VIII. **Award**

Awards will be made to the responsible bidder submitting the lowest bid that fully complies with all the specifications stated in the bid document.

Town reserves the right to make awards within sixty (60) days after the date of the bid opening, during which period bids may not be withdrawn, unless Bidder expressly states in its bid that acceptance thereof must be made within a shorter specified time.

Town reserves the right to reject all bids and to purchase any or all items on contracts awarded by agencies or departments of the State of New York or of the County of Westchester, if such items can be obtained on substantially the same terms, conditions,

specifications, and at a lower price.

IX. **Notice of Award**

If the bid is accepted by Town, Vendor will be notified in writing by the Town Clerk Bidder will be required to submit a fully completed W-9 form and proof of the Vendor's Tax identification number to the Town.

X. **Delivery Point**

With respect to the purchase of bid items, deliveries shall be made in accordance with the specifications, and shall be made Monday through Friday from **7:00 a.m. until 3:00 p.m. at Town of Yorktown Sewer Department, 2200 Greenwood Street, Yorktown Heights, New York, F.O.B.**, except on national, state or local holidays when Town buildings are closed. Bidder shall be responsible to verify that the appropriate Town building for delivery is open prior to delivering items or furnishing services. All bid items shall be unloaded and placed within the particular Town building, at points of delivery, and in quantities, as directed by the Town. Any costs incurred by the Town or Bidder due to the failure of Bidder to comply with this requirement will be the responsibility of Bidder. Bidder should be prepared to furnish proof of delivery, if requested by Town.

XI. **Date of Delivery/Time of Performance**

Delivery of all bid items and performance of all services under this bid shall be made not later than the date specified in the bid document. If Bidder cannot meet the delivery date specified in the bid document, Bidder shall state on the bid form the proposed date of delivery or furnishings services will be part of the consideration is awarding the bid.

XII. **Damages**

Bidder shall be fully responsible for shipping and delivery of bid items in an undamaged condition. Bidder shall be fully responsible for performance of work in a satisfactory manner with satisfactory results in the discretion of the Town. With respect to bid items Town will not consider the carrier responsible for damaged or delayed deliveries. Any bid item damaged or broken when delivered to Town shall be replaced immediately by Bidder. With respect to performance of work, Vendor shall correct any deficiencies immediately. Town shall notify Bidder of damaged material or defective or unsatisfactory work in writing within ten (10) business days from the date of delivery or date of performance of work.

XIII. **Warranty/Guarantee**

By submitting its bid, Bidder is deemed to warrant and guarantee as follows:

- 13.1 Except as noted in the Summary of Bid and the Specifications, all goods furnished in this bid proposal are guaranteed against defects in workmanship and/or material for a period of two (2) years from the date of delivery to Town.
- 13.2 Except as noted in the Summary of Bid and the Specifications, any goods furnished must be standard, new, latest model of the regular stock product, as required by the specifications, with parts regularly used for the type of equipment offered.
- 13.3 No attachment or part will be substituted or applied contrary to manufacturer's recommended and standard practice. All regularly manufactured stock electrical items must bear the label of the Underwriters Laboratories, Inc. It is the responsibility of Bidder to advise Town in the bid proposal if electrical equipment to be furnished hereunder does not have a U.L. label. Any equipment provided under the bid proposal which is or becomes defective during the guarantee period shall be replaced or redone by Bidder, free of charge. All replacements shall carry the same guarantee as the original equipment. Bidder shall make any such replacement promptly upon receiving written notice from Town.

XIV. Purchase of Additional Quantities of Bid Items

If bid is for goods or materials only: unless Town requests Bidder to supply used goods or materials, Town may purchase additional quantities of the bid items from Bidder at any time during the contract period, for the same price and under the same terms and conditions as set forth herein.

XV. Breach of Contract and Termination

If Bidder fails to deliver or perform as ordered, or within the time specified, or within reasonable time as interpreted by Town, or fails to make replacement of rejected or defective articles or services, whether so requested immediately or as directed by Town, Town may purchase goods or services from other sources to take the place of the goods or services rejected found defective or not delivered. Town reserves the right to authorize immediate purchase (within 24 hours) from other sources against rejections on any contract when necessary. On all such purchases Bidder agrees to reimburse Town promptly for excess costs occasioned by such purchases. Should the cost be less, Bidder shall have no claim to the difference. Such purchases may be deducted from the outstanding invoices or claims, or charged back against future invoices. Without limiting the foregoing, the Town reserves the right to terminate the Contract upon failure to comply with the Contract within ten (10) days of notice provided to Bidder.

XVI. **Assignment Prohibited**

Bidder shall not assign, transfer, convey, sublet, subcontract or otherwise dispose of the contract or its right, title, or interest therein, or its power to execute such contract, to any other person, or entity without the prior written consent of Town.

XVII. **Representations as to Revision of Solicitation**

If any questions or responses require revision to the bid solicitation as originally published, such revision will be by formal amendment only. If the solicitation includes a contact person for technical information, offerors are cautioned that any oral or written representation made by this or any other person that materially changes or appear to materially changes any portion of the solicitation must not be relied upon unless subsequently ratified by a written amendment to this solicitation. For determination as to whether any such representation requires an amendment, contact the Town Clerk.

XIX. **Special Requirements**

Special requirements for any bid proposal may supersede and/or be added to any provision contained in the instructions noted above. These instructions are to be considered an integral part of all bid proposals.

TOWN OF YORKTOWN

BID: VARIOUS CHEMICALS (ENGINEERING DEPT.)

PART THREE - SPECIFICATIONS

I. SCOPE

It is the intent of the Town of Yorktown to solicit bids for the supply and delivery of various chemicals for the Yorktown Heights Water Pollution Control Plant (YHWPCP). **The YHWPCP requires ferric chloride, ferric chloride 37% to 40%, caustic soda 50%, caustic soda 25%, citric acid 50%, sulfuric acid not more than 51%, sodium bisulfite 38%, sodium hypochlorite 15%, Calgon Poly-E-Z 6500 as manufactured by Calgon, or Town approved equal.** The award will be made after reviewing all factors herein and determining which bids are in the best interest of The Town of Yorktown. Failure to submit the requested information in the terms stated herein will result in the rejection of that bid. Bidders may bid on one or more of the required chemicals.

The Town of Yorktown intends to award a contract to the lowest responsible bidder for each chemical for a period of one year, commencing on the first business day immediately following the day on which the bid is awarded.

II. GENERAL SPECIFICATIONS

Product bid must be manufactured in the United States by a producer certified for ISO 9002 quality standards and at the specific plant or site holding such certification. A copy of the valid certificate must be included with the bid. If the product is to be supplied by an agent or distributor of the producer, then the agent or distributor must also be certified to meet ISO 9002 quality standards, and a copy of the valid certificate must be included with the bid. Failure to comply may be grounds for the Owner to reject bid. ISO 9002 Certification assures the Town of Yorktown of consistent conformation to stated product quality standards as listed in Product

Specifications

All deliveries are to be made within five (5) working days after receipt of order and during business hours of 7:00 a.m. to 3:00 p.m. Bidders must familiarize themselves with all aspects of

the delivery location. Any deviation from the criteria set forth must be addressed in writing. Delivery shall be made to Town of Yorktown Sewer Department, 2200 Greenwood Street, Yorktown Heights, New York 10598.

A Certificate of Analysis (C of A) noting proper corresponding lot numbers(s), date of manufacture, and pertinent product quality standards must accompany each delivery. An example of C of A must accompany the bid package. Failure to include one will be cause to reject and declare the bidder as non-responsive.

In the case of ferric chloride, the successful bidder must supply a Certificate of Analysis (C of A) for each and every delivery of ferric chloride.

A copy must be faxed to the wastewater plant at the time of shipment with a hard copy mailed at the same time. Generic C of A's will not be accepted; i.e. batch specific C of A's are required.

Bill of Lading (B of L) must accompany all deliveries. The B of L must identify the origin of shipment, the material being delivered and the number of units shipped. A copy of all scale tickets and material safety data sheets (MSDSs) must accompany all deliveries.

VENDOR'S INSURANCE

- A. Bidders must submit with bid proof of insurance coverage for general and environmental liability. Proof is defined as a copy of the insurance certificate. The Town of Yorktown will accept bids from suppliers who can show proof of a minimum level of coverage of \$5 million per incident. Bidders who cannot or do not include this documentation will not be considered for an award.

- B. Cancellation of insurance or failure to renew insurance, if such occurs prior to the commencement of work or during the performance of work under this contract, shall constitute a material breach of this contract if not cured as described in paragraph D below. If Contractor is notified by its insurer that Contractor's general liability policy has been cancelled or will be cancelled any time within the next thirty (30) days for any reason including but not limited to nonpayment of premiums, Contractor shall immediately all cease work under this agreement, and shall give the Town of Yorktown same day or next business day written notice of such cancellation or threatened cancellation by personal delivery of such notice to the Town Clerk. A copy of such written notice shall also be sent simultaneously to the Town Attorney by personal delivery, email or facsimile transmission. Failure to provide such notice as provided herein shall constitute a material breach of the contract and in such event the Town of Yorktown may in its sole discretion withhold any payment otherwise due under the

contract. The Town of Yorktown reserves the right, as a condition of final payment, to require Contractor to provide proof that Contractor maintained the required insurance throughout the performance of the work to be performed under this Agreement.

- C. Any policy that lapses, expires or is cancelled during the term of work shall be renewed, and proof of such renewal shall be sent by Contractor and received by the Town of Yorktown no less than ten (10) days prior to lapse, expiration or cancellation of the original policy.

III. PRODUCT SPECIFICATIONS

1. FERRIC CHLORIDE

General

The ferric chloride supplied must have the capability to act as a primary coagulant under wide fluctuations in wastewater characteristics and remove soluble and insoluble phosphorous.

Product Specifications

Liquid ferric chloride must be easily applied via metering pump.

Liquid ferric chloride must be available in bulk.

Liquid ferric chloride must conform to these specifications:

Ferric Chloride	28.0 - 42.0% concentration
Ferrous Chloride	0.75% maximum
Free Acid as HCl	1.0% maximum
Insolubles	0.5% maximum (Anhydrous Basis)
Appearance	Dark brown liquid
Specific Gravity	1.38 to 1.49
Viscosity at 44 ⁰ F	12.1 centipoises for a 40% solution

*Product is certified to meet American Water Works Association and Water Chemicals Codex Specifications.

Delivery

Ferric chloride shall be delivered in bulk via NYS DOT approved vehicles, 40,000 lb maximum.

2. FERRIC CHLORIDE 37% to 40%

Product Specification

This specification contains pertaining to the supply and delivery of Ferric Chloride 37% to 40% by weight minimum, corresponding to 12.7% by weight Ferric Iron.

Free Hydrochloric Acid – 1.0% by weight maximum.

Insoluble Material – 80 ppm by weight maximum.

1.1 Trace Metals

<u>Element</u>	<u>Maximum Concentration Limit</u>
Arsenic (As)	1.0 ppm
Beryllium, (Be)	0.04 ppm
Mercury (Hg)	0.5 ppm
Selenium (Se)	3.0 ppm
Cadmium (Cd)	0.5 ppm
Chromium (Cr)	100 ppm
Lead (Pb)	3 ppm
Nickel (Ni)	40 ppm
Silver (Ag)	1 ppm
Copper (Cu)	60 ppm
Titanium (Ti)	50 ppm
Zinc (Zn)	20 ppm

In addition, there shall be no detectable amounts of any insecticide, pesticide, poly-chlorinated byphenyl (PCB), hexachlorobenzene or radionuclides in the delivered ferric chloride solution. Only material originating from the Steel Pickling process will be allowed. No material originating as a by-product of the Titanium Dioxide manufacturing process will be allowed. The material shall be free of any foreign element or compounds that may negatively affect the treatment plant operations or contaminate residuals for use in landfill or land application.

Drum Returns

Empty drums are to be picked up by the supplier, at Yorktown Heights Water Pollution Control Plant (YHWPCP), at no cost to the Town for Recycling/Reuse.

Delivery

Product delivered must be in 55gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

3. CAUSTIC SODA 50%

Product Specification

This specification contains requirements pertaining to the supply and delivery of 50% liquid caustic soda. Caustic Soda 50% shall meet the following specifications:

Characteristic	Unit	Lower Limit	Upper Limit
NaOH	wt%	49.5%	51.5%
Na ₂ O	wt%	38.3%	39.9%
Fe	ppm		2.0
NaCl	wt%		0.0075%
Na ₂ CO ₃	ppm		500
Hg	ppm		0.010
Ni	ppm		.050

Delivery

Caustic Soda shall be delivered in bulk via NYS DOT approved vehicles. The container must be properly labeled and provide a lot number to identify batch allotments and date of manufacture. All shipping containers must be new and unused meeting all local, state, and federal requirements.

4. CAUSTIC SODA 25%

Product Specification

This specification contains requirements pertaining to the supply and delivery of 25% liquid caustic soda.

<u>COMPONENT</u>	<u>BASIS</u>	<u>SPECIFICATION</u>
Total Alkalinity (as Na ₂ O)	wt. %	19.4 min.
Hydroxide Alkalinity (as NaOH)	wt. %	25.0 min.
Na ₂ CO ₃	wt. %	0.1 max.
NaCl	wt. %	0.6 max.
NaClO ₃	wt. %	0.07 max.
Na ₂ SO ₄	ppm by wt	250 max.
Fe	ppm by wt.	5.0 max.
Cu	ppm by wt.	0.15 max.
Ni	ppm by wt.	1.5 max.

Delivery

Product delivered must be in 55gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

5. CITRIC ACID 50%

Product Specification

This specification contains requirements pertaining to the supply and delivery of 50% liquid citric acid.

APPEARANCE

Specific Gravity 20/20 C
 Assay WT %
 Color APHA

FREE FROM FOREIGN MATTER

1.237 to 1.249
 49.0 to 51.0%
 50 Max.

Delivery

Product delivered must be in 55gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

6. SULFURIC ACID NOT MORE THAN 51%

Product Specification

This specification contains requirements pertaining to the supply and delivery of sulfuric acid not more than 51%.

<51% - 1,400 Specific Gravity

<u>IMPURITY</u>	<u>SPEC. MAX (%)</u>
Organic Matter	To Pass Test
Platinum	To Pass Test
Fixed Residue	0.016
Sulfurous Acid	0.0022
Iron	0.0027
Copper	0.0027
Zinc	0.0022
Arsenic	0.00005
Antimony	0.00005
Selenium	0.0011
Nickel	0.00005
Manganese	0.000011
Nitrate	0.00027
Ammonium	0.0005
Chloride	0.0005

Delivery

Product delivered must be in 55gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

7. **Sodium Bisulfite 38%**

Product Specification

This specification contains requirements pertaining to the supply and delivery of sodium bisulfite not more than 38%.

PROPERTIES

Formula NaHSO_3

Molecular Weight 104.06

Specific Gravity 1.32

	Typical Analysis	Specification
Total reducing substances (as NaHSO_3)	39.3%	38.0-40.0%
PH (as is)	4.0	3.8-4.4
Iron (Fe)	1 ppm	2 ppm max
Alkalinity (Na_2SO_3)	0.25%	0.6% max
Turbidity (NTU)	0.3	2 max
Sodium Sulfate (Na_2SO_4)	0.2%	0.75% max

Delivery

Product delivered must be in 55 gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

8. SODIUM HYPOCHLORITE 15%

Product Specification

This specification contains requirements pertaining to the supply and delivery of sodium hypochlorite liquid 15%.

<u>COMPONENT</u>	<u>BASIS</u>	<u>SPECIFICATION</u>
Available Chlorine (Cl ₂)	grams/liter	150 min.
Sodium Carbonate (Na ₂ CO ₃)	grams/liter	1.0 max.
Sodium Hydroxide (NaOH)	grams/liter	0.5-10.0
Heavy Metals	ppm by wt.	<1
Temperature	Fahrenheit	<90
Specific Gravity	H ₂ O=1	1.180-1.210

Clarity – Free of particulate matter above 100 micron in size

Delivery

Product delivered must be in 55gallon drums. All shipping containers must be new and unused meeting all local, state, and federal requirements. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

9. CALGON POLY-E-Z 6500

Product Specification

This specification contains requirements pertaining to the supply and delivery of emulsion cationic polymer to be used for the conditioning of sludge to dewater via existing continuous belt filter presses in operation at the YHWPCP.

The emulsion polymer is to be used to facilitate the extraction of water from the sludge by use of two (2) BDP 2M belt filter presses prior to composting.

Prior to conditioning, sludge concentrations will range from approximately 2.0-3.0% percent solids. Conditioned sludge is to be dewatered to produce a sludge cake of a minimum of 26.0% solid with a capture rate of not less than 94.0% solids at a feed rate of approximately 150 g.p.m.

At any time, failure of the polymer to meet the guaranteed application rate or to perform as required by these specifications may be grounds for the Town of Yorktown to void the contract, award to the next lowest responsible bidder, re-advertise for bids, or take such actions as to the Town of Yorktown's interest may require.

All bidders are required to run full laboratory bench tests prior so submitting a bid. Each bidder shall submit laboratory evaluations stating the polymer tested and polymer recommended as a result of the tests. Bids offered that specify a polymer other than the trial tested polymers **will not be considered and the bid deemed nonresponsive by the Town.** Chemicals offered must be certified commercially and available in production quantities.

The polymer shall be Calgon PEZ 6500, a high molecular weight, high cationic charge water-soluble polymer, or equivalent. Product equivalence will be based upon meeting specifications, laboratory evaluation, and plant evaluation.

The polymer shall have a minimum shelf life of 48 hours in the aqueous form and from six (6) months in the concentrated form.

The polymer shall be emulsion type, available in 55 gallon containers. Incidental to handling, it shall have a low toxicity with respect to contact with the skin and eyes and to accidental ingestion and inhalation, and with no objectionable odor.

Bidders shall include with the proposal, specifications for the polymer for which the bid submitted. Furthermore, the following information must be submitted with the proposal:

1. A producer Certification of Analysis (C of A) showing product name, manufacturing lot number, and product quality criteria;
2. ISO 9002 Certification;
3. Minimum safe storage and usage temperatures;
4. pH of aqueous solution;
5. Recommendation of chemicals or other substances, which can be used for cleaning spills;
6. Material Safety Data Sheet;
7. Cationic charge density;
8. Recommended makedown solution strength as a percent (%).

Failure to provide this information will result in rejection of bid.

Bench Testing

Each prospective bidder will be required to perform bench testing in order to determine the most effective polymer for their proposal. The bench testing shall be performed at the YHWPCP's laboratory facility in the presence of the YHWPCP's staff and Engineer. The bidder may request a sludge sample in advance of his scheduled testing date so that he may determine which polymer(s) he wishes to test during the YHWPCP's laboratory trials.

For the purpose of standardization, each bidder wishing to participate in the YHWPCP's laboratory trials will be required to conduct the same bench test on all polymer samples. The following procedures shall be used for each test:

1. Prepare a 0.25% solution for each polymer to be tested.
2. To a maximum six (6) 200 ml samples of thickened sludge, add differing amounts of the 0.25% solution (to be determined by bidder) to each sludge sample.
3. Mix all samples simultaneously by pouring back and forth between two beakers ten times.
4. Pour each sample into a Buchner Funnel (filter media to be similar in porosity to belt material on press).
5. Record filtrate volume to 5, 10, 15, 20, 25 and 30 seconds.
6. Evaluate and records Filtrate clarity and Cake compressibility.
7. Determine plant trial dosage from bench test as following:

$$\text{lbs/ton} = \frac{(\text{polymer sol. \% (ml polymer sol.) (2000 lb./ton)}}{(\text{sludge \% solids) (sludge sample ml)}}$$

Example:

$$\text{lbs/ton} = \frac{(0.25\% \text{ polymer}) (40 \text{ ml polymer}) (2000/\text{lb/ton})}{(2.0\% \text{ sludge solids}) (200 \text{ ml sludge sample})} = 50 \text{ lbs./ton}$$

The bidder shall use the results of two of these trials in order to form his own opinion as to which polymer he wishes to use in his proposal.

Full Plant Test

The Town of Yorktown will schedule laboratory times for bidders up to five (5) days prior to bid opening date, or as determined by the Town of Yorktown so as to not interfere with the operations of the facility. **Bidders shall contact the YHWPCP's Chief Operator Ed Mahoney (914-245-3510)** for scheduling a date for trials.

Arrangements of trial times and dates is on a first come, first serve basis and may be limited to a four (4) hour period for each bidder, depending on the number of those participating. At the time of the laboratory trials, each bidder shall furnish, at no cost to the Town of Yorktown, five (5) to ten (10) gallon samples of each polymer to be tested.

Samples of polymers and the containers shall be removed once the evaluation is completed. Failure to comply will result in rejection of bid.

The procedure of this application will be as follows:

- The polymer will be introduced into the YHWPCP's existing polymer feed equipment, at the optimum application rate as determined by the Bidder. All polymer solution shall be 0.25% in solution, and recorded as such. The YHWPCP's personnel shall determine the percent capture rate and the percent solid of the sludge cake. Four (4) samples will be collected and averaged.
- Once the bidder has determined his optimum dosage, both the sludge tank and polymer tank will be measured and recorded, after four (4) hours the trial will be complete. Again, the polymer tank will be measured to determine volumes.

$$\text{lbs/ton} = \frac{(\text{polymer sol. \%}) (\text{gals. polymer sol.}) (2000 \text{ lbs/ton})}{(\text{sludge solids\%}) (\text{gals. sludge})}$$

The results of the Application Plant trial, the offered polymer shall be submitted with the bid proposal. Only one bid may be submitted by each supplier.

For the purposes of the Application Plant trial, the offered polymer shall be capable of consistently producing a sludge cake of 26.0% solid minimum. The successful bidder shall furnish, at no extra cost to the Town of Yorktown, adequate chemicals and equipment necessary to conduct the performance test, if needed.

A technical service representative shall be present for the entire Application Plant trial and shall with assistance of the Owner's personnel, be responsible for conducting all field and laboratory experimentation relative to determining the effectiveness of the chosen polymer. The technical service representative shall explain to the YHWPCP's personnel the techniques used and results collected during the test, including any calculations.

The Town of Yorktown reserves the right to conduct independent laboratory analysis relative to the Application Plant trial in order to verify the bidder's results. The YHWPCP's personnel shall be furnished with sufficient information, in writing, in order to determine approximate quantities of polymer required per unit weight dry sludge as a result of the Application Plant trial. The cost of independent testing conducted by the technical service representative or any other costs incurred by the bidder during the testing shall be the responsibility of the bidder.

At no time shall the testing interfere with the normal operation of the Owner's sludge handling and disposal activities, nor shall the polymer offered have any detrimental effects on the YHWPCP's treatment process or equipment. If the polymer offered fails to meet with the Town of Yorktown shall award to the next lowest responsible bidder.

Low Bidder Determination

The determination of the lowest bidder shall be based upon the bidder's price per dry ton, using the bidder's guaranteed application rate times the bidder's price per pound.

Increase and Decrease in Quantities

The Town of Yorktown reserves the right at any time during the life of the contract to increase or decrease the quantity of polymer to meet operating needs. Any increase or decrease as above provided shall in no way invalidate the contract. The Town of Yorktown will order polymer on an as-needed basis.

The Contractor will be paid per pound for the actual quantity of material furnished and delivered as designated in the proposal at the price stipulated. In case the quantity of materials is increased as above provided, the Contractor shall not be entitled to any increased compensation over and above the bid price per pound, and in case the quantity is diminished as above provided, the Contractor shall not have any claims for damages on account of loss of anticipated profits of such diminution.

Delivery

Product delivered must be in 55-gallon, 465-pound net weight containers. The container must be properly labeled and provide a lot number to identify bath allotments and date of manufacture. All shipping containers must be new and unused meeting all local, state, and federal requirements.

Product is to be delivered in minimum quantities of four (4) units per shipment. All containers are to be intact, with no visible signs of damage, which would allow product to be exposed.

Drum Returns

Empty drums are to be picked up by the supplier, at YHWPCP, at no cost to the Town for Recycling/Reuse.

Non-Collusive Bidding Certification
PART FOUR

Made pursuant to Section 103-d of the
General Municipal Law of the State of New York

By submission of this bid, each bidder and each person signing on behalf of Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his or her knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other bidder or to any competitor, and
3. No attempt has been made or will be made the Bidder to induce any other person, partnership or corporation to submit or not to submit to bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where (1) (2) and (3) above, have not been complied with; provided, however, that if in any case Bidder cannot make the foregoing certification, Bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

Dated: _____ Bidder: _____
(Legal name of person, firm or corporation)

By: _____
(Signature)

(Title)

State of New York)
Count of _____)ss.:

On the ____ day of _____ in the year 20____, before me, the undersigned, personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Notary Public)