

## **2024 CHEMICAL BID FORM INSTRUCTIONS**

Sealed bids will be received at the office of the City Auditor, City Hall, 225 4th Street North, Fargo, North Dakota 58102, until 11:30 o'clock a.m., Wednesday, November 15th, 2023 for the City of Fargo Water Treatment Plant & Regional Water Reclamation Facility for chemicals to be delivered as ordered between the hours of 7:30 am to 4:00 pm Monday through Friday for the year 2024. Bids can be mailed to the City Auditor or dropped in the blue, outside drop box located on the north side of City Hall. Bids will be opened and read aloud at 11:45 a.m. in the Engineering Conference Room in Fargo City Hall. The public is encouraged to view this bid opening from their computer, tablet, or smartphone by using the following link:

[www.fargobidopenings.com](http://www.fargobidopenings.com)

Please use only one bid form for all of the items you plan to bid, whether you are bidding one item or all items. Also, please be sure to label the outside of your envelope:

### **"Fargo WTP & RWRF Chemical Bid."**

**If addendums are issued, the bidder must acknowledge receipt of the addendum on the outside of the bid envelope, or the bid will be rejected and returned to the bidder unopened.**

The 2024 Chemical Bid Form consists of 2 pages this year. Page #1 lists all the chemicals being bid for the Fargo Water Treatment Plant. Page #2 lists all the chemicals being bid for Regional Water Reclamation Facility. **Both pages make up one bid form and should be submitted that way.**

The City of Fargo has eliminated use of credit cards as payment option to purchase chemicals from this bid. Purchase orders will be issued for each chemical after time of award and/or throughout the contract period for actual quantities ordered. Invoices shall be submitted to the "bill to" address indicated on each order. Payments shall be processed upon receipt of correct invoice after receipt and acceptance of delivery.

On the bid form there are four columns. Below is a description of the information contained in, or required for each column.

1. Column #1 – This column contains the item number of the product being bid.
2. Column #2 – This column lists the name of the product being bid.
3. **Column #3 – Bid specifications for each chemical being bid must be acknowledged in this column. The bid specifications page(s) for each chemical being bid also lists specific product requirements and documentation that must be submitted with the bid. Failure to acknowledge the bid specifications or failure to submit the required documentation within the bid specifications for chemicals being bid will result in bid being rejected.**
4. **Column #4 – In this column you are required to list your bid price for payment by purchase order. Do this for each chemical you are bidding.**
5. **On the second page of the bid form, you must enter the company bidder information.**

### **Questions?**

Please contact the office of Brian Ward, Fargo Water Treatment Plant, phone (701) 241-1470 or Mark Miller, Regional Water Reclamation Facility, phone (701) 241-1454 with any bid questions you have.

## **2024 CHEMICAL BID FORM**

Annual Bid to supply chemicals for the City of Fargo, ND, Water Treatment Plant and Regional Water Reclamation Facility from January 1, 2024 through December 31, 2024

**Bid opening - 11:30am Wednesday, November 15th, 2023**

**Engineering Conference Room in Fargo City Hall View online at:**

<http://www.fargobidopenings.com>

**\*\*\* For each line item bid, be sure to check or enter information in all yellow cells \*\*\***

Item #	Item	Mark this box to acknowledge chemical being bid meets the requirements of the bid specification ( X )	Purchase Order (PO) Payment Guaranteed Bid Price Per Unit
1	Aluminum Sulfate		\$/pound=
2	Anhydrous Ammonia		\$/pound=
3	Citric Acid, 50%		\$/pound=
4	Hydrofluosilicic Acid		\$/pound=
5	Hydrogen Peroxide, 34%		\$/pound=
6	Lime		\$/ton=
7	Liquid Carbon Dioxide		\$/ton=
8	Liquid Chlorine		\$/ton=
9	Liquid Oxygen		\$/ton=
10	Aluminum Chlorohydrate		\$/pound=
11	Polyphosphate		\$/pound=
12	Ferric Sulfate 60%		\$/gallon=
13	Soda Ash		\$/ton=
14	Sodium Bisulfite, 38%		\$/pound=
15	Sodium Hydroxide, 50%		\$/pound=
16	Sodium Hypochlorite, 12.5%		\$/pound=
17	Sulfuric Acid, 40% / Tote		\$/pound=
18	Sulfuric Acid, 40% / Pail		\$/gallon=
19	Sulfuric Acid, 93%		\$/pound=
20	Poly DADMAC 20		\$/pound=
21	Anionic Polyacrylamide		\$/pound=
22	Acetic Acid 56		\$/pound=
23	Anionic Flocculant Polymer		\$/pound=

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**\*\*\* For each line item bid, be sure to check or enter information in all yellow cells \*\*\***

Item #	Item	Check this box to acknowledge chemical being bid meets the requirements of the bid specification ( X )	Purchase Order (PO) Payment Guaranteed Bid Price Per Unit
24	Azone 15 / Sodium Hypochlorite		\$/gallon=
25	Pretreat Plus Antiscalant		\$/gallon=
26	Caustic Soda, 30%		\$/gallon=
27	Caustic Soda, 50%		\$/pound=
28	Ferric Chloride, 35%		\$/pound=
29	Ammonium Hydroxide, 19%		\$/pound=
30	Sulfuric Acid, 40%		\$/gallon=
31	Citric Acid, 50%		\$/pound=
32	Odor Control/Hydrogen Sulfide		\$/FT <sup>3</sup> media=
33	Odor Control/Broad Spectrum		\$/FT <sup>3</sup> media=
34	Calcium Nitrate / Bulk		\$/gallon=
	Calcium Nitrate / Tote		\$/gallon=
35	Hydrogen Peroxide 34% / Bulk		\$/gallon=
	Hydrogen Peroxide 34% / Tote		\$/gallon=
36	Cationic Flocculant		\$/pound=

Company Information Submitting Bid

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Company Telephone Number: \_\_\_\_\_

Company Contact Email Address: \_\_\_\_\_

Name of Authorized Representative (Print): \_\_\_\_\_

Signature of Authorized Representative: \_\_\_\_\_

## **Item #1**

### **LIQUID ALUMINUM SULFATE SPECIFICATIONS**

Aluminum Sulfate shall be priced per wet pound as product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The supplier's truck must be equipped to safely handle and unload bulk liquid aluminum sulfate.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

The Fargo Water Treatment Plant owns one 8,500 gallon bulk storage tank. The storage tank will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling.

The truck shall be equipped with a pump or air compressor to unload the tanker.

Liquid aluminum sulfate shall conform to the American Water Works Specification Standard B403-16.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 70,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

Aluminum sulfate is primarily used during cold weather months December through March.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #2**

### **ANHYDROUS AMMONIA (NH<sub>3</sub>) SPECIFICATIONS**

Anhydrous ammonia will be priced per pound, delivered in gas form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns two 1,300 gallon (6,500 pound) tanks for bulk storage.

The anhydrous ammonia shall be the refrigeration grade and meet the following specifications:

% Solution	99.9% minimum
Ammonia, wt%	99.9% minimum
Water, wt%	0.020 maximum
Color:	Colorless
Oil, ppm by wt:	3.0 maximum

Material shall be suitable for use in a potable water system.

Anhydrous ammonia shall conform to American Water Works Association Specification Standard B305-15.

**2024 usage is estimated to be 54,000 pounds.**

#### **THREE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)**

January	February	March	April	May	June	July	August	September	October	November	December
1.5	1.5	1.5	1.5	2	4	4	4	2	2	1.5	1.5

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

### **Item #3**

#### **CITRIC ACID, 50% SPECIFICATIONS**

Citric acid, 50% shall be priced per wet pound as product, delivered in liquid form in 330 gallon totes, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Citric acid, 50%, will be used in membrane cleaning-in-place (CIP) process for both Ultrafiltration membranes and reverse osmosis membrane. Citric acid shall not contain impurities that may foul membranes.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 26,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #4**

### **HYDROFLUOSILICIC ACID (FLUORIDE) SPECIFICATIONS**

Hydrofluosilicic acid shall be priced per wet pound as product, delivered in liquid form by bulk tank truck or totes f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns one 6,000 gallon bulk storage tank. The storage tank is located in the lower level of the water treatment plant and will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling. Supplier is responsible for unloading of product into this storage tank.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

The truck shall be equipped with a pump or air compressor to unload.

Hydrofluosilicic acid shall conform to the American Water Works Specification Standard B703-19.

Hydrofluosilicic acid shall be a 24 ± 1% solution.

**2024 usage is estimated to be 200,000 pounds.**

#### **FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)**

January	February	March	April	May	June	July	August	September	October	November	December
6	6	6	7	10	13	14	13	8	6	6	5

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #5**

### **HYDROGEN PEROXIDE, 34% SPECIFICATIONS**

Hydrogen Peroxide, 34% shall be priced per wet pound as product, delivered in liquid form in 250 to 330 gallon totes, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 16,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**



**Item #6**

**LIME (CaO) SPECIFICATIONS**

Lime shall be priced per ton, delivered in dry form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns one lime storage bin with a capacity of 301 tons. The storage bin will be filled from an exterior fill station with 4” quick disconnect type couplings.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Delivery trucks with pneumatic blowers are required to unload the chemical.

Delivery of lime will be allowed at facility from hours 0700 to 2100 daily. There are no weekend or Holiday restrictions for delivery.

Lime shall conform to the American Water Works Specification Standard B202-19. It shall be high calcium quicklime, ¼” to ¾” in size.

Lime shall contain a minimum of 90% available calcium oxide and a maximum of 2.5% magnesium oxide.

On slaking, the lime shall produce a minimum 40-degree centigrade temperature rise in the first 30 seconds.

<b><u>2024 PROJECTED USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
200	200	200	300	400	700	700	600	400	300	200	200

**2024 usage is estimated to be 4,400 tons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

**Item #7**

**LIQUID CARBON DIOXIDE (CO<sub>2</sub>) SPECIFICATIONS**

Carbon Dioxide shall be priced per ton, delivered in bulk, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns two storage tanks, one 52 ton and one 50 ton.

Tank telemetry equipment from supplier is not allowed on Fargo Water Treatment Plant storage tanks.

The Fargo Water Plant staff will communicate and work directly with supplier to order product when needed.

The supplier shall communicate and work directly with the Fargo Water Treatment Plant staff to schedule product deliveries that meet projected usage. The 2024 projected usage is listed below.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Fargo Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Deliveries of carbon dioxide to the Fargo Water Treatment Plant are allowed at any time on any day.

Carbon dioxide shall conform to the American Water Works Specification Standard B510-18.

<u>2024 PROJECTED USAGE (TONS)</u>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
40	40	40	45	45	90	90	70	60	45	45	40

**2024 usage is estimated to be 650 tons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

**Item #8**

**CHLORINE (CL<sub>2</sub>) SPECIFICATIONS**

Liquid chlorine shall be priced per ton, delivered in ton containers, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103

Liquid chlorine shall conform to the American Water Works Specification Standard B301-18.

<u>2024 PROJECTED USAGE (TONS)</u>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
8	8	8	8	13	18	18	18	14	11	8	8

**2024 usage is estimated to be 140 tons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

**Item #9**

**LIQUID OXYGEN (O<sub>2</sub>) SPECIFICATIONS**

Liquid oxygen shall be priced per ton, delivered in liquid form in bulk storage trucks, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns two 9,000 gallon storage tanks.

Tank telemetry equipment from supplier is not allowed on Fargo Water Treatment Plant storage tanks.

The Fargo Water Plant staff will communicate and work directly with supplier to order product when needed.

The supplier shall communicate and work directly with the Fargo Water Treatment Plant staff to schedule product deliveries that meet projected usage. The 2024 projected usage is listed below.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Deliveries of liquid oxygen to the Fargo Water Treatment Plant are allowed at any time on any day.

The liquid oxygen supplier shall have a production facility to support oxygen with a quality verification level of Grade D or better for Type II liquid oxygen as defined by the Compressed Gas Association, Specification CGA G-4.3, 2018 Edition 8.

Liquid Oxygen shall conform to the American Water Works Specification Standard B304-18.

The liquid oxygen supplier shall provide analytical test results certifying that the liquid oxygen being supplied meets the above specification with the bid. If the supplier changes source of liquid oxygen during the year, a new certification will be required.

<b><u>2024 PROJECTED USAGE (TONS)</u></b>											
January	February	March	April	May	June	July	August	September	October	November	December
15	15	15	30	50	65	65	70	45	40	25	15

**2024 usage is estimated to be 450 tons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #10**

### **LIQUID ALUMINUM CHLOROHYDRATE (ACH) SPECIFICATIONS**

Aluminum chlorohydrate shall be priced per wet pound as product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The supplier's truck must be equipped to safely handle and unload bulk liquid aluminum chlorohydrate.

The Fargo Water Treatment Plant owns two 13,000 gallon bulk storage tanks. The storage tank will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling.

The truck shall be equipped with a pump or air compressor to unload the tanker.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Liquid aluminum chlorohydrate shall conform to the American Water Works Specification Standard B408-18.

Liquid aluminum chlorohydrate shall have a basicity of 82-85% and shall not contain polymeric or inorganic additives that may interfere with the operation of ultrafiltration membrane and reverse osmosis membrane.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 1,700,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #11**

### **POLYPHOSPHATE SPECIFICATIONS**

#### **(Potable Water Stabilization)**

Polyphosphate shall be priced per pound, delivered in 20,000 to 40,000 pound lots, packaged in 50 pound bags, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The product bid shall be equal to Carus MP4020 or Shannon No-Cor type N2, and shall meet the following specifications:

1. Pulverized free flowing granular material
2.  $\text{Na}_2\text{O}$  to  $\text{P}_2\text{O}_5$  ration of 2.1 to 1.0 with  $\text{PO}_4$  content of 63%
3. Density of pulverized material of 64 pounds per cubic foot
4. PH of a 1% solution =10.6

As a function of phosphate bid, bidder shall provide 4 hours of on-site technical service per month in testing for phosphate feed, dosage requirements, and phosphate reversion rate. Bidder shall submit a written report of testing results within ten days.

**2024 usage is estimated to be 120,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

**Item #12**

**LIQUID FERRIC SULFATE SOLUTION (60%) SPECIFICATIONS**

Liquid Ferric Sulfate shall be priced per gallon of product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103. The supplier’s truck must be equipped to safely handle and unload bulk liquid ferric sulfate. The Fargo Water Treatment Plant owns two 4,500-gallon bulk storage tanks. The storage tanks will be filled from an exterior fill station through a 2” fill line with a quick disconnect type coupling. The truck shall be equipped with a pump or air compressor to unload the tanker.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Liquid ferric sulfate shall conform to the American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) Standard 60 for Drinking Water Treatment Chemicals - Health Effects. It must also meet the American Water Works Association (AWWA)’s Specification B406-14 (Ferric Sulfate) or most recent standard and be compliant with the recommended maximum impurity content found in the water chemicals codex. Liquid ferric sulfate shall demonstrate no appreciable sediment after standing for 24 hours at ambient temperatures.

The supplied liquid ferric sulfate supplied shall meet the following chemical and physical properties and limits as listed below:

Ferric Sulfate Content:	(60%± 3%) ferric sulfate by weight
Water Soluble Iron (as Fe 3+):	12.1 ± 0.2%
Water Soluble Fe (2+):	<3.0%
Specific Gravity (25°C):	1.50-1.59
pH	< 2

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 125,000 gallons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

Documentation of ANSI/NSF Standard 60 certification and AWWA compliance must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.

A maximum application dosage in potable water treatment must accompany the bid.

A (SDS) Safety Data Sheet must accompany the bid.

All fuel surcharges must be included as part of the bid submitted.

The City Commission reserves the right to reject any and all bids and waive any informality.

## **Item #13**

### **SODA ASH ( $\text{Na}_2\text{CO}_3$ ) SPECIFICATIONS**

Soda ash shall be priced per ton, delivered in dry form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns one soda ash storage tank with a capacity of 270 tons. The bin will be filled from an exterior fill station with 4" quick disconnect type couplings.

Delivery trucks with pneumatic blowers are required to unload the chemical.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Soda ash shall conform to the American Water Works Specification Standard B201-18.

**2024 usage is estimated to be 1,100 tons.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification and maximum application dosage in potable water treatment must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**



## **Item #14**

### **SODIUM BISULFITE, 38% SPECIFICATIONS**

Sodium bisulfite, 38% shall be priced per wet pound as product, delivered in liquid form in 330 gallon totes, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Sodium bisulfite, 38%, will be used to quench and or neutralize oxidants. It shall not contain impurities that may interfere with operations of or cause damage to ultra-filtration or reverse osmosis membranes.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 66,000 pounds**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #15**

### **SODIUM HYDROXIDE 50% SPECIFICATIONS**

Sodium Hydroxide 50% shall be priced per wet pound as product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Sodium Hydroxide, 50%, will be used to adjust pH in Fargo Integrated Dual-membrane (Ultrafiltration membrane and reverse osmosis membrane) Water Treatment Plant.

The supplier's truck must be equipped to safely handle and unload bulk sodium hydroxide.

The Fargo Water Treatment Plant owns two 7,000 gallon bulk storage tanks. The storage tank will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling.

The truck shall be equipped with a pump or air compressor to unload the tanker.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

Sodium Hydroxide shall conform to the American Water Works Specification Standard B501-13.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 1,100,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #16**

### **SODIUM HYPOCHLORITE, 12.5% SPECIFICATIONS**

Sodium hypochlorite, 12.5% shall be priced per wet pound as product, delivered in liquid form in 330 gallon totes, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Sodium hypochlorite, 12.5%, will be used in membrane cleaning-in-place (CIP) process for Ultrafiltration membranes and shall not contain impurities that may foul membranes.

Liquid sodium hypochlorite shall conform to the American Water Works Specification Standard B300-18.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 90,000 pounds**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #17**

### **SULFURIC ACID, 40% SPECIFICATIONS**

Sulfuric acid, 40% shall be priced per wet pound as product, delivered in liquid form in 330 gallon totes, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The Fargo Water Treatment Plant owns one 400 gallon storage tank. The storage tank is located in the sulfuric acid building of the water treatment plant. Supplier must pump tote(s) into storage tank from an exterior fill station through a 1" fill line with a quick disconnect type coupling.

Sulfuric acid, 40% will be used in Ultrafiltration Membrane cleaning-in-place (CIP) and shall not contain impurities that may foul membranes.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 16,000 pounds**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #18**

### **SULFURIC ACID, 40% SPECIFICATIONS**

Sulfuric acid, 40% shall be priced per gallon, **delivered in liquid form in 5 gallon plastic pails**, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Sulfuric acid, 40% will be used with online instrumentation at WTP facilities and shall not contain impurities that may foul or damage equipment.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 50 gallons**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #19**

### **SULFURIC ACID, 93% SPECIFICATIONS**

Sulfuric acid, 93% shall be priced per wet pound as product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Sulfuric acid, 93% will be used to adjust raw water pH to facilitate coagulation process in Fargo Integrated Dual-membrane (Ultrafiltration membrane and reverse osmosis membrane) Water Treatment Plant.

Sulfuric acid, 93% shall be burner grade and meet the following specifications:

Symbol of "<" means "less than".

<b>Parameter</b>	<b>Specification</b>	<b>Parameter</b>	<b>Specification</b>
% Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	93-94%	Arsenic (As) ppm	< 1
Iron (Fe) ppm	0 to 50	Manganese (Mn) ppm	< 1
Sulphur Dioxide (SO <sub>2</sub> ) ppm	0 to 50	Chromium (Cr) ppm	< 2
POM (mL KMnO <sub>4</sub> )	0 to 5 mL	Copper (Cu) ppm	< 1
Color (APHA)	0 to 50	Nickel (Ni) ppm	< 1
Lead (Pb) ppb	< 100	Zinc (Zn) ppm	< 2
Mercury (Hg) ppb	< 2		

The supplier's truck must be equipped to safely handle and unload bulk liquid sulfuric acid, 93%.

The Fargo Water Treatment Plant owns one 10,000 gallon bulk storage tank. The storage tank will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling.

The truck shall be equipped with a pump or air compressor to unload the tanker.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 1,000,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #20**

### **CATIONIC POLY (DIALLYL-DIMETHYL-AMMONIUM CHLORIDE) POLYMER (PolyDADMAC)**

Poly DADMAC shall be priced per wet pound as product, delivered in liquid form in a bulk tank truck, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The supplier's truck must be equipped to safely handle and unload bulk liquid PolyDADMAC.

The Fargo Water Treatment Plant owns one 8,500 gallon bulk storage tank. The storage tank will be filled from an exterior fill station through a 2" fill line with a quick disconnect type coupling.

The truck shall be equipped with a pump or air compressor to unload the tanker.

Suppliers of bulk chemical shipments to the Fargo Water Treatment Plant are required to provide the Water Treatment Plant staff with certified scale weight tickets for each shipment upon delivery.

PolyDADMAC shall conform to the American Water Works Specification Standard B451-16.

PolyDADMAC shall have active polymer 20% plus or minus 1%.

NSF approved for use in potable water at dosages up to 50 mg/liter.

Bulk viscosity of 80 to 400 cps

Similar molecular weight to Kemira Superfloc C-587 or SNF Floquat FL 4420 PWG

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 50,000 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #21**

### **Anionic Polyacrylamide**

Granular Anionic Polyacrylamide shall be priced per pound, packaged in 55 pound heavy mil plastic or plastic lined paper bags, delivered in 2,200 pound lots f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

The product bid shall be equivalent to AquaPure AF 3335 PHW or Neo Solutions NS 6550P.

Granular Anionic Polyacrylamide shall conform to the American Water Works Specification Standard B453-19.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 6,600 pounds.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A maximum application dosage in potable water treatment must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**



## **Item #22**

### **Acetic Acid 56% SPECIFICATIONS**

Acetic acid, 56% shall be priced per wet pound as product, delivered in liquid form in 55 gallon drums, f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

Acetic acid, 56% will be used for acidifying and cleaning of chemical feed lines and piping at the WTP.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

**2024 usage is estimated to be 2,250 pounds**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Item #23**

### **ANIONIC FLOCCULANT SPECIFICATIONS**

Anionic flocculant shall be priced per pound, delivered in IBC 275 gallon (totes – six per order), f.o.b. to the Fargo Water Treatment Plant, 435 14<sup>th</sup> Avenue South, Fargo, North Dakota, 58103.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

To be eligible to bid, product will have to be proven through plant trials.

The following products have been proven through plant trials and are eligible to be bid:

Hawkins AH 9937  
SNF Polydyne A-210 P

### **2024 usage is estimated to be 66,000 pounds**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**An SDS (Material) Safety Data Sheet) must accompany the bid.**

**Documentation of ANSI/NSF Standard 60 certification and maximum application dosage in potable water treatment must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Items #24-31**

### **Effluent Reuse Facility Chemicals**

The following chemicals are for use at the Effluent Reuse Facility (ERF) located at the Regional Water Reclamation Facility at 3400 North Broadway, Fargo, ND 58102.

#### **#24 Azone 15/Sodium Hypochlorite (12%):**

Shall be priced per gallon, for bidding purposes, consumption is expected to be approximately 1320 gallons every two weeks. Product shall be pumped into bulk container by the distributor.

2,480 - Approximate gallons used per month

#### **#25 Pretreatment Plus Antiscalant:**

Shall be priced per gallon and be delivered and pumped into a tote at the ERF building by the distributor. King Lee Plus 100 is also required.

278 – Approximate pounds used per month

#### **#26 Caustic Soda (30%):**

Shall be priced per gallon and be delivered and pumped into a bulk container at the ERF building by the distributor.

890 - Approximate gallons used per month

#### **#27 Caustic Soda (50%):**

Shall be priced per pound and be delivered and pumped into a bulk container at the ERF building by the distributor.

165 - Approximate gallons used per month

#### **#28 Ferric Chloride (35%):**

Shall be priced per pound. 55 gallon drums are required to be delivered at the ERF building by distributor.

2,350 - Approximate pounds used per month

#### **#29 Ammonium Hydroxide (19%):**

Shall be priced per pound. Totes shall be delivered at the ERF building and shall be pumped into bulk container by distributor.

80 - Approximate gallons used per month

**#30     Sulfuric Acid (40%):**

Shall be priced per gallons. Totes shall be delivered at the ERF building and shall be pumped into bulk container by the distributor.

23 - Approximate gallons used per month

**#31     Citric Acid (50%):**

Shall be priced per pound. 55 gallon drums shall be supplied at the ERF building and shall be pumped into tote by distributor.

50 - Approximate pounds used per month

**Upon completion of the ERF expansion, expected for July 1, 2024. It is expected that chemical consumption for chemicals (items 24-31) to increase approximately 30%.**

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs

**All fuel surcharges must be included as part of the bid submitted.**

**Safety Data Sheets must accompany this bid.**

**The City Commission reserves the right to reject any or all bids and to waive any informality.**

## **Items #32 & 33**

### **ODOR CONTROL MEDIA SPECIFICATIONS**

The media will be of two types, hydrogen sulfide removal media and broad spectrum removal media, and will serve to replace spent media located in scrubbers manufactured by Purafil.

Odor control media shall be priced per cubic foot of media, delivered in bulk, f.o.b. to the following locations:

1. Regional Water Reclamation Facility, 3400 North Broadway, Fargo, North Dakota, 58102.
2. Lift Station 61, 3598 40<sup>th</sup> Ave North, Fargo, ND 58102.
3. Lift Station 60, 3083 43 St South, Fargo ND 58103.
4. Lift Station 25, Intersection of 36<sup>th</sup> Street South and 32<sup>nd</sup> Ave South.
5. Lift Station 19, Intersection of 25<sup>th</sup> Street South and 17<sup>th</sup> Ave South.
6. Lift Station 1, 4<sup>th</sup> Street and 2<sup>nd</sup> Street S. (Island Park)
7. Lift Station 2, 3<sup>rd</sup> Street and 1<sup>st</sup> Avenue N. (Library)

Bid price will be based upon a minimum annual quantity of 250 cubic feet of hydrogen sulfide removal media and 50 cubic feet of broad spectrum removal media.

#### Hydrogen Sulfide Removal Media Parameters:

Moisture Content of 35% max.

Crush Strength 35-70%

Abrasion: 4.5% Max

Pellet Diameter: 1/16-1/4 inch

Bulk Density: 26 lb/ft<sup>3</sup>

H<sub>2</sub>S Removal Capacity: 0.30 g/cc minimum

Process Temperature Range: -4 – 125 F

Humidity: 10 – 95 %RH

#### Broad Spectrum Gas Removing Media Parameters:

The broad spectrum gas removing media shall be an equal mixture (by volume) of sodium or potassium permanganate impregnated media and activated carbon media.

Spent media must be capable of being disposed of in a normal domestic landfill and must not qualify as a hazardous waste.

Moisture Content of 35% max.

Crush Strength of 35-70%

Abrasion: 4.5%

Pellet Diameter: 1/16 – 1/8 inch

Bulk Density: 50 lb/ft<sup>3</sup>

Permanganate Content: 12% Minimum.

Process Temperature Range: -4 – 125 F

Humidity: 10 – 95% RH

Upon delivery, the Owner will retain 16 oz samples of H<sub>2</sub>S Removal Media in air-tight containers. The Owner will store the samples in the controlled environment of the Fargo Wastewater Lab. At the Owner's discretion, at any time throughout the year, the Owner may analyze the media for H<sub>2</sub>S capacity in accordance with ASTM D6646. If the media fails to meet the specified H<sub>2</sub>S capacity per this specification, the media manufacturer will supply a replacement media which meets the required H<sub>2</sub>S capacity at no additional cost to the Owner.

Acceptable Media Manufacturers:

1. Purafil, Inc. of Doraville, Georgia, USA
2. Pure Air Filtration, Inc. of Atlanta, Georgia, USA

Product Delivery, Installation and Handling:

All packing slips and shipments must be inspected upon delivery to ensure shipments are complete and no damage has occurred during transportation. In the case of an incomplete shipment or damage has occurred the Manufacturer will be contacted by the Owner.

The Owner will install the media according to the Manufacturer's instructions.

The Owner will dispose of all spent media.

**All fuel surcharges must be included in the bid submitted.**

**A Safety Data Sheet must accompany the bid.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**

## **Items #34**

### **CALCIUM NITRATE SPECIFICATIONS**

Calcium nitrate deliveries. Price based on per gallon of product deliveries.

#### **Bulk Delivery**

Chemical Injection Station at 25<sup>th</sup> Street and 30<sup>th</sup> AVE South Fargo, ND

Lift Station 60 at 3083 43<sup>rd</sup> Street South Fargo, ND

10,433 - Approximate gallons used per month

#### **Tote Delivery**

Lift Station 57 US Hwy 81 & 112 AVE S Oxbow, ND

Please provide two prices, one for bulk tanker deliveries and one for tote deliveries.

Calcium Nitrate product shall be:

Calcium Nitrate Tetrahydrate 68 %

216 - Approximate gallons used per month

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**All fuel surcharges must be included as part of the bid provided.**

**A Safety Data Sheet must accompany this bid.**

**The City Commission reserves the right to reject any or all bids and to waive any informality.**

## **Item #35**

### **HYDROGEN PEROXIDE, 34% SPECIFICATIONS**

Hydrogen Peroxide, 34% shall be priced per gallon, delivered in liquid form by bulk tank truck and /or tote, f.o.b. to Lift Station 61, 3598 40<sup>th</sup> AVE North, Fargo, North Dakota, 58102.

The supplier's truck must be equipped to safely handle and unload liquid hydrogen peroxide.

Lift Station 61 has a 6500 gallon chemical storage tank. The storage tank is located on the main level of the lift station.

For bulk deliveries the storage tank will be filled through a 2" fill line with a quick disconnect type coupling.

Tote delivery of product will be coordinated between chemical supplier and RWRF staff.

Please provide price for bulk tanker deliveries and / or price for tote deliveries.

A (COA) Certificate of Analysis must accompany each delivery.

A (SDS) Safety Data Sheet must accompany order if chemical has changed or there have been revisions to (SDS) since bid submittal.

750 - Approximate gallons used per month

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**Documentation of ANSI/NSF Standard 60 certification must accompany the bid. A product will be considered as meeting these standards if so certified by an organization accredited by the American National Standards Institute to test and certify such products.**

**A (SDS) Safety Data Sheet must accompany the bid.**

**All fuel surcharges must be included as part of the bid submitted.**

**The City Commission reserves the right to reject any and all bids and waive any informality.**



## **Item #36**

### **CATIONIC FLOCCULANT SPECIFICATIONS**

Cationic Flocculent shall be priced per wet pound, delivered in totes, f.o.b. to the Regional Water Reclamation Facility at 3400 North Broadway, Fargo, ND 58102.

The Flocculant bid shall be equal to that of Polydyne Clarifloc CE-1300. The flocculant bid will have to be proven equal as demonstrated during actual operation of the belt filter press before closing of bid date. There will be no cost charged to the City during testing of the alternate flocculant. The product being tested must meet or exceed the Polydyne CE-1300 performance and be shown to be equal to or more economical to use based on cost of quantity used to achieve satisfactory results.

1,540 - Approximate pounds used per month

Bid will be awarded based on the price and evaluation of data obtained from plant trials.

The quantity indicated for each item in the specifications is estimated only, and the City of Fargo reserves the right to order less or more as dictated by actual needs.

**All fuel surcharges must be included as part of the bid submitted.**

**Safety Data Sheets must accompany this bid.**

**The City Commission reserves the right to reject any or all bids and to waive any informality.**