

October 28, 2019

## **BIDS WANTED**

### **Chemicals for the Fargo Water & Wastewater Treatment Plants**

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 20, 2019, and then publicly opened and read aloud at the Meadowlark Room, located on the second floor of City Hall (225 4th Street North), for the City of Fargo Water & Wastewater Treatment Plants for chemicals to be delivered as ordered between the hours of 7:30 am to 4:00 pm Monday through Friday for the year 2020.

On or before November 4, 2019, a bid package including bid form, instructions, and specifications will be available for viewing and download for printing from the city's website at: <http://www.FargoND.gov/BiddingOpportunities> If there are questions, please contact the office of Brian Ward, Fargo Water Treatment Plant, phone (701) 241-1470 or Mark Miller, Fargo Wastewater Treatment Plant, phone (701) 241-1454.

The Board of City Commissioners reserves the right to reject any and all bids and to waive any informalities.

***You are receiving this notice because you are a previous bidder, or have requested to be notified when the city of Fargo advertises chemical bids for the water and wastewater treatment plants.***

***As a reminder, we have recently made the following changes to our process:***

- 1. Bid bonds will no longer be required.***
- 2. A standardized bid form has been created and must be used to bid chemicals for the water and wastewater treatment plants.***
- 3. Bid documents are available on the city's website at the address listed above. From here you can view, download, and print them for mailing.***

***Please don't hesitate to contact us at the phone numbers listed above if you have any questions. We look forward to your bids on November 20<sup>th</sup>.***

***Sincerely,***

***Brian Ward  
Superintendent  
City of Fargo WTP***

## **2020 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 20, 2019, and then publicly opened and read aloud at the Meadowlark Room, located on the second floor of City Hall (225 4th Street North), for the City of Fargo Water & Wastewater Treatment Plants for chemicals to be delivered as ordered between the hours of 7:30 am to 4:00 pm Monday through Friday for the year 2020.

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 Water & Wastewater Treatment Plant 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.**

On the bid form there are five columns. The first two columns describe the products being bid. In the last three columns (#4, #5, and #6), the bidder is **required** to enter information for all the items being bid. 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** – *In this column you are **required** to acknowledge that you have read the bid specifications for the product you are bidding. The bid specifications page for each product contains the specific product requirements. Do this for each chemical you are bidding. **Failure to acknowledge the bid specification will result in the bid being rejected.***
4. **Column #4** – *In this column you are **required** to verify whether or not your company will accept a credit card as payment. If your company does not accept credit card payment, write "NA" (not acceptable) in the cells for the chemicals you are bidding and will not accept credit card payment. If your company does accept credit cards as payment, list the amount that will be charged for the product using a credit card as payment. If there are service fees for using a credit card, be sure to include them in your price. Do this for each chemical you are bidding.*
5. **Column #5** – *In this column you are **required** to list your bid price for payment by purchase order. Do this for each chemical you are bidding.*
6. *On the bottom of the form, you **must** enter the company name as well as the signature of the authorized representative submitting the bid on the lines labeled:*  
**"Bid Submitted by (company):"** \_\_\_\_\_  
**"Signature of Authorized Representative"** \_\_\_\_\_

In the example below, there are six products being bid. The bidder has acknowledged the bid specifications for the products the bidder is bidding. Credit cards are acceptable as payment for five of the six products (the bidder does not accept credit cards for polyphosphate - NA). Credit card payment and purchase order payment are the same for chlorine, ferric chloride, and sodium hypochlorite, but the bidder has included service fees for credit card payment of anhydrous ammonia and lime. Lastly, the bidder has signed and listed his company name on the bottom of the page.

#### 2020 BID FORM

Annual Bid to supply chemicals for the City of Fargo, ND, Water and Wastewater Treatment Plants from

January 1, 2020 through December 31, 2020

Bid opening - 11:30am Wednesday, November 20, 2019

Meadowlark Room on 2nd Floor of City Hall - 225 4th ST N

*** For each line item bid, be sure to check or enter information in all yellow cells ***				
Item #	Item	Check this box to acknowledge bid specifications (x)	Guaranteed Bid Price Per Unit	
			Credit card payment (NA) if not acceptable	Purchase order (PO) payment
1	Aluminum Sulfate		\$/pound=	\$/pound=
2	Anhydrous Ammonia	X	\$/pound= 1.975	\$/pound= 1.95
3	Citric Acid, 50%		\$/pound=	\$/pound=
4	Hydrofluosilicic Acid		\$/pound=	\$/pound=
5	Hydrogen Peroxide, 34%		\$/pound=	\$/pound=
6	Lime	X	\$/ton= 180.00	\$/ton= 177.00
7	Liquid Carbon Dioxide		\$/ton=	\$/ton=
8	Liquid Chlorine	X	\$/ton= 470.00	\$/ton= 470.00
9	Liquid Oxygen		\$/ton=	\$/ton=
10	Polyaluminum Chloride		\$/pound=	\$/pound=
11	Polyphosphate	X	\$/pound= NA	\$/pound= 1.08
12	Powdered Activated Carbon		\$/ton=	\$/ton=
13	Soda Ash		\$/ton=	\$/ton=
14	Sodium Bisulfite, 38%		\$/pound=	\$/pound=
15	Sodium Hydroxide, 50%		\$/pound=	\$/pound=
16	Sodium Hypochlorite, 12.5%		\$/pound=	\$/pound=
17	Sulfuric Acid, 40%		\$/pound=	\$/pound=
18	Sulfuric Acid, 93%		\$/pound=	\$/pound=
19	Azone 15 / Sodium Hypochlorite 12%		\$/gallon=	\$/gallon=
20	Pretreat Plus Antiscalant		\$/gallon=	\$/gallon=
21	Caustic Soda, 30%		\$/gallon=	\$/gallon=
22	Ferric Chloride, 35%	X	\$/pound= 0.110	\$/pound= 0.110
23	Ammonium Hydroxide, 19%		\$/pound=	\$/pound=
24	Sulfuric Acid, 40%		\$/pound=	\$/pound=
25	Citric Acid, 50%		\$/pound=	\$/pound=
26	Calcium Nitrate/Bulk		\$/gallon=	\$/gallon=
	Calcium Nitrate/Tote		\$/gallon=	\$/gallon=
27	Cationic Flocculant		\$/pound=	\$/pound=
28	Ferrous Chloride/Bulk		\$/pound iron=	\$/pound iron=
29	Ferrous Chloride/Mini-bulk		\$/pound=	\$/pound=
30	Non-selective Herbicide		\$/gallon=	\$/gallon=
31	Selective Herbicide		\$/gallon=	\$/gallon=
32	Odor Control/Hydrogen Sulfide		\$/FT³ media=	\$/FT³ media=
33	Odor Control/Broad Spectrum		\$/FT³ media=	\$/FT³ media=
34	Sodium Hypochlorite, 12%	X	\$/gallon= 2.40	\$/gallon= 2.40

Bid Submitted by (company):

Tox Chemical Service

Signature of Authorized Representative:

Joe Seller

## 2020 BID FORM

Annual Bid to supply chemicals for the City of Fargo, ND, Water and Wastewater Treatment Plants from

January 1, 2020 through December 31, 2020

**Bid opening - 11:30am Wednesday, November 20, 2019**

**Meadowlark Room on 2nd Floor of City Hall - 225 4th ST N**

*** For each line item bid, be sure to check or enter information in all yellow cells ***				
Item #	Item	Check this box to acknowledge bid specifications (x)	Guaranteed Bid Price Per Unit	
			Credit card payment (NA) if not acceptable	Purchase order (PO) payment
1	Aluminum Sulfate		\$/pound=	\$/pound=
2	Anhydrous Ammonia		\$/pound=	\$/pound=
3	Citric Acid, 50%		\$/pound=	\$/pound=
4	Hydrofluosilicic Acid		\$/pound=	\$/pound=
5	Hydrogen Peroxide, 34%		\$/pound=	\$/pound=
6	Lime		\$/ton=	\$/ton=
7	Liquid Carbon Dioxide		\$/ton=	\$/ton=
8	Liquid Chlorine		\$/ton=	\$/ton=
9	Liquid Oxygen		\$/ton=	\$/ton=
10	Polyaluminum Chloride		\$/pound=	\$/pound=
11	Polyphosphate		\$/pound=	\$/pound=
12	Powdered Activated Carbon		\$/ton=	\$/ton=
13	Soda Ash		\$/ton=	\$/ton=
14	Sodium Bisulfite, 38%		\$/pound=	\$/pound=
15	Sodium Hydroxide, 50%		\$/pound=	\$/pound=
16	Sodium Hypochlorite, 12.5%		\$/pound=	\$/pound=
17	Sulfuric Acid, 40%		\$/pound=	\$/pound=
18	Sulfuric Acid, 93%		\$/pound=	\$/pound=
19	Azone 15 / Sodium Hypochlorite 12%		\$/gallon=	\$/gallon=
20	Pretreat Plus Antiscalant		\$/gallon=	\$/gallon=
21	Caustic Soda, 30%		\$/gallon=	\$/gallon=
22	Ferric Chloride, 35%		\$/pound=	\$/pound=
23	Ammonium Hydroxide, 19%		\$/pound=	\$/pound=
24	Sulfuric Acid, 40%		\$/pound=	\$/pound=
25	Citric Acid, 50%		\$/pound=	\$/pound=
26	Calcium Nitrate/Bulk		\$/gallon=	\$/gallon=
	Calcium Nitrate/Tote		\$/gallon=	\$/gallon=
27	Cationic Flocculant		\$/pound=	\$/pound=
28	Ferrous Chloride/Bulk		\$/pound iron=	\$/pound iron=
29	Ferrous Chloride/Mini-bulk		\$/pound=	\$/pound=
30	Non-selective Herbicide		\$/gallon=	\$/gallon=
31	Selective Herbicide		\$/gallon=	\$/gallon=
32	Odor Control/Hydrogen Sulfide		\$/FT³ media=	\$/FT³ media=
33	Odor Control/Broad Spectrum		\$/FT³ media=	\$/FT³ media=
34	Sodium Hypochlorite, 12%		\$/gallon=	\$/gallon=

**Bid Submitted by (company):** \_\_\_\_\_

**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.

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 B403-09.

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.

**2020 usage is estimated to be 42 Tons.**

<b><u>TWO YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	February	March	April	May	June	July	August	September	October	November	December
13	7	16	1	0	0	0	0	0	0	0	5

**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 a 2,000 gallon (10,000 pound) tank 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.

Consider the following five-year historical usage summary. Usage in 2020 is anticipated to be similar, so please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	February	March	April	May	June	July	August	September	October	November	December
2	2	2	2	2	3	3	3	2	2	2	2

**Annual Total = 27**

**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 #3**

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

Citric acid, 50% 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.

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.

**2020 consumption is estimated to be 20,000 pounds**

**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 #4**

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

Hydrofluosilicic acid 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 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.

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

Hydrofluosilicic acid shall conform to the American Water Works Specification Standard B703-11.

Hydrofluosilicic acid shall be a  $24 \pm 1\%$  solution.

Consider the following five-year historical usage summary. Usage in 2020 is anticipated to be similar, so please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	February	March	April	May	June	July	August	September	October	November	December
5	5	6	6	8	10	10	10	9	6	5	5

**Annual Total = 85**

**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 #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.

**2020 consumption is estimated to be 3,000 pounds**

**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.

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 B202-13. 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.

Consider the following five-year historical usage summary. Usage in 2020 is projected to be 20% less than 5 year average. Please plan deliveries accordingly.

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

January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
397	371	414	272	486	572	633	505	454	434	391	459

#### **2020 PROJECTED USAGE (TONS)**

January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
318	297	331	218	389	458	507	404	363	347	313	367

**Annual Total = 4,312 TONS**

**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 #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.

Deliveries of carbon dioxide to the Fargo Water Treatment Plant are allowed at any time on any day. The supplier will employ a delivery schedule to keep up with usage and maintain adequate supplies in the storage tanks. Tank level readings will be made available on request and or frequency desired by supplier.

Carbon dioxide shall conform to the American Water Works Specification Standard B510-12.

Consider the following five-year historical usage summary. Usage in 2020 is projected to be 25% less than 5 year average. Please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
73	79	92	73	104	146	125	118	103	88	69	90

<b><u>2020 PROJECTED USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
55	60	69	55	78	110	94	89	78	66	52	68

**Annual Total = 874 TONS**

**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 #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 and the Fargo Wastewater Treatment Plant, 3400 North Broadway, Fargo, North Dakota, 58102.

Liquid chlorine shall conform to the American Water Works Specification Standard B301-10.

Consider the following five-year historical usage summary. Usage in 2020 is projected to be 10% higher than 5 year average. Please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
8	8	8	8	12	14	15	15	13	9	8	8

<b><u>2020 PROJECTED USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
8	8	8	8	15	17	18	18	13	9	8	8

**Annual Total = 138 TONS**

**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 #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.

Deliveries of liquid oxygen to the Fargo Water Treatment Plant are allowed at any time on any day. The supplier will employ a delivery schedule to keep up with usage and maintain adequate supplies in the storage tanks. Tank level readings will be made available on request and or frequency desired by supplier.

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, 2000 Edition.

Liquid Oxygen shall conform to the American Water Works Specification Standard B304-13.

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.

Consider the following five-year historical usage summary. Usage in 2020 is anticipated to be similar, so please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	February	March	April	May	June	July	August	September	October	November	December
50	59	57	67	83	108	132	114	86	66	50	57

**Annual Total=929**

**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 #10**

### **LIQUID POLYALUMINUM CHLORIDE SPECIFICATIONS**

Polyaluminum chloride 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 polyaluminum chloride.

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.

Liquid polyaluminum chloride shall conform to the American Water Works Specification Standard B408-10.

Liquid polyaluminum chloride 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.

**2020 consumption is estimated to be 950 Tons.**

**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 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.

**2020 usage is estimated to be 45 Tons.**

**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 #12**

### **POWDERED ACTIVATED CARBON SPECIFICATIONS**

Powdered activated carbon shall be priced per ton, delivered in powdered 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 carbon slurry tanks, each capable of holding approximately 48,000 pounds of carbon.

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

Powdered Activated Carbon shall conform to the American Water Works Specification Standard B600-16.

The powdered activated carbon furnished shall be of a grade in extensive use for the removal of taste and odor from water.

Powdered activated carbon shall have a minimum iodine number of 600 and a maximum tannin value of 300.

**2020 usage is estimated to be 20 Tons.**

**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 #13**

### **SODA ASH (Na<sub>2</sub>CO<sub>3</sub>) 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.

Soda ash shall conform to the American Water Works Specification Standard B201-13.

Consider the following five-year historical usage summary. Usage in 2020 is projected to be 10% less than 5 year average. Please plan deliveries accordingly.

<b><u>FIVE YEAR AVERAGE MONTHLY CHEMICAL USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
101	45	153	80	230	279	272	235	172	215	190	222

<b><u>2020 PROJECTED USAGE (TONS)</u></b>											
January	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
90	41	138	72	207	251	245	212	155	194	171	200

**Annual Total = 1,976 TONS**

**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 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.

Sodium bisulfite, 38%, will be used to quench oxidant to prevent damage of reverse osmosis membranes and shall not contain impurities that may interfere the operation of 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.

**2020 usage is estimated to be 40,000 pounds**

**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.

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.

**2020 usage is estimated to be 500 Tons.**

**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 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.

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.

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.

**2020 usage is estimated to be 70,000 pounds**

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 55 gallon drums, 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 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.

**2020 usage is estimated to be 10,000 pounds**

**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 #18**

### **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.

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.

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.

**2020 usage is estimated to be 300 Tons.**

**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.**

## **Items #19-25**

### **Effluent Reuse Facility Chemicals**

The following chemicals are for use at the Effluent Reuse Facility (ERF) located at the Fargo Wastewater Treatment Facility.

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

Shall be priced per gallon, and shall be delivered in three (3) totes every two weeks, and pumped into bulk container by the distributor.

**#20     Pretreatment Plus Antiscalant:**

Shall be priced per gallon and be delivered in six (6), 55 gallon drums per month, pumped into a tote at the ERF building by the distributor. King Lee Plus 100 is also required.

**#21     Caustic Soda (30%):**

Shall be priced per gallon. One (1) 330 gallon tote is required per month and must be pumped into bulk container at the ERF building by the distributor.

**#22     Ferric Chloride (35%):**

Shall be priced per pound of product. Six (6), 55 gallon drums are required to be delivered every month. Drums will be placed on scale by distributor.

**#23     Ammonium Hydroxide (19%):**

Shall be priced per pound of product. One (1) tote shall be delivered every four months and shall be pumped into bulk container by distributor.

**#24     Sulfuric Acid (40%):**

Shall be priced per pound of product. One (1) tote shall be delivered every six months and shall be pumped into bulk container by the distributor.

**#25     Citric Acid (50%):**

Shall be priced per pound of product. Four (4) 55 gallon drums shall be supplied every month and shall be pumped into tote by distributor.

**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 #26**

### **CALCIUM NITRATE SPECIFICATIONS**

Calcium nitrate deliveries. Price based on per gallon of product deliveries. Calcium Nitrate shall be delivered in bulk F.O.B. to the Chemical Injection Station at 25<sup>th</sup> Street and 30<sup>th</sup> Avenue South, Fargo, ND and Lift Station 60 at 3083 43<sup>rd</sup> Street South, Fargo, ND, Lift Station 59 in north Fargo. Calcium Nitrate shall be delivered in tote deliveries to Lift Station 57 at US Highway 81 & 112 Avenue S-Oxbow, and Lift Station 64 at the Harwood, ND.Lift Station.

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

Calcium Nitrate product shall be:

Calcium Nitrate Tetrahydrate 68 %

**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 #27**

### **CATIONIC FLOCCULANT SPECIFICATIONS**

Cationic Flocculent shall be priced per pound, delivered in totes, f.o.b. Wastewater Treatment Plant, 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.

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

**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 #28-29**

### **FERROUS CHLORIDE SPECIFICATIONS**

Ferrous Chloride ( $\text{FeCl}_2$ ) shall be priced per pound of iron ( $\text{Fe}^{+}$ ) in solution for bulk deliveries and per pound of product for mini tote deliveries. It shall be delivered in bulk F.O.B. to the Chemical Injection Station at 25<sup>th</sup> Street and 30<sup>th</sup> Avenue South, Fargo, ND and Lift Station 60 at 3083 43<sup>rd</sup> Street South, Fargo, ND, and in tote deliveries to Lift Station 57 at US Highway 81 & 112 Avenue S-Oxbow.

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

Ferrous Chloride shall conform to the applicable American Water Works Association Standard B4707-88 for Ferris Chloride except at amended below:

Ferrous Chloride	23% to 30%
Percent Iron	10% to 13%
Free Acid	1.0% to 2.0%
Water Insolubles	Less than 0.03%

**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 #30**

#### **NON-SELECTIVE HERBICIDE SPECIFICATIONS**

Glyphosate type non-selective herbicide shall be priced per gallon of 18% solution. Shall be delivered in 2.5 to 5.0 gallon containers, FOB to the Wastewater Treatment Facility at 3400 North Broadway, Fargo, ND 58102.

- Must be EPA approved for land and water use.
- Must kill all plants.
- Must be able to kill plants emerging from water surface.
- Approximately 150 gallons needed.

**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 #31**

### **SELECTIVE BROAD-LEAF HERBICIDE SPECIFICATIONS**

Selective herbicide shall be priced per gallon of approximately 20% solution. Shall be delivered in 2.5 to 5.0 gallon containers, FOB to the Wastewater Treatment Facility at 3400 North Broadway, Fargo, ND 58102.

- Must be capable of killing a wide variety of broadleaf weeds.
- Must be capable of killing woody brush, poison oak, poison ivy, sumac and honeysuckle.
- Must have surfactants already added.
- Must be safe on all grasses.
- Approximately 100 gallons needed.

**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.**

## **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. Fargo Wastewater Treatment Plant, 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.**

**Item #34****SODIUM HYPOCHLORITE SPECIFICATIONS**

Sodium Hypochlorite shall be priced per gall of 12% solution. It shall be delivered in 1,500 to 2,000 gallon loads, FOB to the Wastewater Treatment Facility at 3400 North Broadway, Fargo, ND 58102.

Sodium Hypochlorite shall conform to American Water Works Association Standard B300-87.+

**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.**