

**CITY OF THREE RIVERS, MICHIGAN**

**SPECIFICATIONS FOR BIDS**

**For**

**CHEMICALS**

**PERFORMANCE BIDS**

The City of Three Rivers is committed to the concept of performance bids. All vendors are encouraged to submit bids, which conform to the stated specifications, as well as, suggested deviations from the specifications, which in the vendor's opinion would be beneficial to the City in terms of price and performance. The City reserves the right to accept or reject any bid under these terms.

**I. INSTRUCTIONS TO BIDDERS.**

- A. Bidding information is available on the City of Three Rivers website or by contacting Doug Humbert (269) 273-5885 or at [dhumbert@threeriversmi.org](mailto:dhumbert@threeriversmi.org).
- B. Bids must be typewritten or clearly printed in ink (preferably on company stationery) and signed by a duly authorized representative of the firm submitting the bid.
- C. Bids must be submitted in sealed envelopes, clearly marked on the outside, "**WWTP 2018-2020 Chemical Bid**". FAX or email bids will not be considered.
- D. Bids will be received by the Office of the City Clerk, City Hall, Three Rivers, Michigan, until 11:00 AM local time, Friday, June 1, 2018. All bids will be date stamped and time marked.

**II. CONDITIONS APPLICABLE TO BIDS.**

- A. Applicable Laws: The Ordinances and Charter of the City and laws of the State of Michigan concerning competitive bidding, contracts and purchases will be employed.
- B. Taxes: The City of Three Rivers is exempt from Federal Excise and Michigan State Sales Tax. Prices should not include Tax.
- C. If the bidder elects to deviate from specifications stated, all exceptions or other changes must be clearly noted.

- D. The City reserves the right to reject any and all bids, waive informalities or defects in bids, accept or reject line items of the bid, or accept such bids as it shall deem to be in the best interest of the City of Three Rivers.
- E. Delivery must be made within time frame in specifications on notification of acceptance of bid.
- F. All Bidders must supply a GHS Safety Data Sheet or provide an electronic reference with their bid documents as well as providing the CAS# for their product with the bid submittal.
- G. **This bid shall be for a term of two years.** Bid prices shall be effective from **July 1, 2018 through June 30, 2020.**

### III. **SPECIFICATIONS.**

#### **A. Ferric Chloride**

1. The City estimates that it will use approximately 480,000 pounds per year.
2. Deliveries of 45,000 pounds are to be taken approximately 11 times a year. Delivery must be within 5 working days of the date the order is placed.
3. Costs per ton shall include cost of delivery to the Three Rivers WWTP at 409 Wolf Rd., Three Rivers, Michigan 49093.
4. Ferric Chloride shall be technical grade, 38% FeCl<sub>3</sub>.

**B. Polymer-RDT (liquid)**

1. The city estimates that it will use approximately 34,500 pounds per year.
2. Polymer shall be the following or a suitable equivalent as determined by testing and analysis:

Solenis

K275

**Polymer selection is subject to successful pilot testing and application at the City of Three Rivers WWTP. Pilot testing requirements include jar/floc testing with a mix of primary, septage, and WAS biosolids followed by a 24 hour live test with the proposed polymer operating in the plant dewatering device(s). The 24 hour live test will require a nominal 55 gallon drum of polymer. The City will not be responsible for any cost(s) associated with pilot testing. All venders wishing to supply polymers not listed above shall complete the pilot testing prior to bid submission. Bids will not be accepted for polymers not listed above without acceptable demonstration of performance as determined by the City.**

3. Delivery shall be in totes. Delivery must be within 7 working days of the date the order is placed. This contract requires that used totes shall be removed by the supplier at no cost to the City.
4. Bid costs shall be per pound of polymer and shall include cost of delivery to the Three Rivers WWTP at 409 Wolf Road, Three Rivers, Michigan 49093.

**C. Polymer-Fournier**

1. The city estimates that it uses approximately 120,000 pounds per year.
2. Polymer shall be the following or a suitable equivalent as determined by testing and analysis:

Solenis

K144

**Polymer selection is subject to successful pilot testing and application at the City of Three Rivers WWTP. Pilot testing requirements include jar/floc testing with ATAD digested biosolids at normal temperature (95-120°F) followed by a 24 hour live test with the proposed polymer operating in the plant dewatering machine(s). The 24 hour live test will require a nominal 55 gallon drum of polymer. The City will not be responsible for any cost(s) associated with pilot testing. All venders wishing to supply polymers not listed above shall complete the pilot testing prior to bid submission.**

**Bids will not be accepted for polymers not listed above without acceptable demonstration of performance as determined by the City.**

3. Delivery shall be in totes. Delivery must be within 7 working days of the date the order is placed. This contract requires that used totes shall be removed by the supplier at no cost to the City.

4. Bid costs shall be per pound of polymer and shall include cost of delivery to the Three Rivers WWTP at 409 Wolf Road, Three Rivers, Michigan.

**D. Polymer-Centrifuge (Liquid)**

1. The city estimates that it will use approximately 25,000 pounds per year.

2. Polymer shall be the following or a suitable equivalent as determined by testing and analysis:

Solenis

K144

**Polymer selection is subject to successful pilot testing and application at the City of Three Rivers WWTP. Pilot testing requirements include jar/floc testing with ATAD sludge at temperature (95-120°F) followed by a 24 hour live test with the proposed polymer operating in the plant machine(s). The 24 hour live test will require a 55 gallon drum of polymer. The City will not be responsible for any cost(s) associated with pilot testing. All vendors wishing to supply polymers not listed above shall complete the pilot testing prior to bid submission. Bids will not be accepted for polymers not listed above without acceptable demonstration of performance as determined by the City.**

3. Delivery shall be in totes. Delivery must be within 7 working days of the date the order is placed. This contract requires that used totes shall be removed by the supplier at no cost to the City.

4. Bid costs shall be per pound of polymer and shall include cost of delivery to the Three Rivers WWTP at 409 Wolf Road, Three Rivers, Michigan 49093.

### **E. Chlorine (gas)**

1. The City estimates that it will use approximately 42,000 pounds per year to be supplied in one-ton chlorine gas cylinders containing 1000 lbs. and, full, 150 lb. chlorine gas cylinders.
2. Bid costs shall be per one ton cylinder containing 1000 pounds of chlorine gas to include delivery cost at the Three Rivers WWTP on 409 Wolf Rd., Three Rivers, MI 49093; AND
3. Bid costs shall be per 150 lb cylinder containing 150 lbs of chlorine to include delivery cost at the Three Rivers WWTP on 409 Wolf Rd., Three Rivers, MI 49093. The shape of the top of the 150 lb chlorine cylinder must be compatible with the Regal Automatic Switchover Model A-216/A-226/A-256 chlorinator.
4. Delivery must be within 24 to 48 hours of the time the order is placed.
5. Annual chlorine safety training shall be offered at no additional cost for all operators and plant staff.

### **F. Sulfur Dioxide (gas)**

1. The City estimates that it will use approximately 25,000 pounds per year of sulfur dioxide.
2. Bid costs shall be per 150 lb. cylinder containing 150 lbs of sulfur dioxide and shall include delivery cost to the Three Rivers WWTP at 409 Wolf Rd., Three Rivers, MI 49093. The shape of the top of the 150 lb. sulfur dioxide cylinder must be compatible with the Regal Automatic Switchover Model A-716/A-726/A-756 sulphonator.
2. Delivery must be within 24 to 48 hours of the time the order is placed.
2. Costs per 150 pound cylinder shall include cost of delivery to the Three Rivers WWTP at 409 Wolf Road, Three Rivers, Michigan 49093.

## G. Odor Control; 70% Calcium Nitrate Solution

1. Odor control chemicals shall be one of the following or a suitable equivalent as determined by testing and analysis:

Siemens (US Filter)	Bioxide
Generic	70% Calcium Nitrate

2. The Bioxide/Calcium Nitrate solutions supplied shall be an aqueous solution of calcium nitrate containing a minimum of 3.5 pounds of nitrate-oxygen per gallon and shall not have a pH of less than 4.0 or greater than 9.0.
3. The odor control chemical solutions shall minimize the generation of dissolved hydrogen sulfide concentrations to less than 0.1 mg/L at the end of the 7 mile force main landing at the Three Rivers WWTP.
4. The product shall be free of objectionable odor-producing compounds and shall contain no hazardous substances as defined by both the Federal EPA's and State CERCLA lists.
5. Deliveries of Bioxide or Calcium Nitrate will be in loads of 3,500 gallon. Other proposed equivalent products shall be provided in a single shipment quantity that lasts a minimum of one month. Delivery must be within 5 working days of the date the order is placed.
6. Costs per gallon shall include cost of delivery to the City of Three Rivers Operated Facility at 300 Water Street in Constantine, Michigan, 49042.

## H Pulverized Hydrated Lime (Calcium Hydroxide)

1. CAS No. 1305-62-0. a.k.a., calcium hydrate or slaked lime, Nominal concentration 75% CaO and 25% H<sub>2</sub>O; typical size is substantially passing a No. 20 sieve. As generally determined by **ASTM C1529 Specification for Quicklime and Hydrated Lime for Environmental Uses**. Equivalent material may be accepted by the City provided that pilot testing demonstrates efficacy.
2. The city estimates that it will use approximately 60 tons of hydrated lime or its equivalent annually.
3. Hydrated lime or its equivalent shall be supplied in 1,500 to 2,000 pound supersacks. Each super sack is to be palletized. Loads will only be accepted when delivered on weather-protected, flat bed trailers. Deliveries made in semi-van trailers will be returned to the supplier at the supplier/transporter's expense.
4. Bid costs should be per ton of hydrated lime or its equivalent to include delivery cost at the Three Rivers WWTP on 409 Wolf Rd, Three Rivers, MI 49093.

#### IV. PROPOSAL TO THE CITY OF THREE RIVERS, MICHIGAN:

The undersigned, having familiarized (himself/themselves) with the local conditions affecting the cost of supplying **Wastewater Treatment Chemicals** and the Contract Documents hereby proposes to perform everything required to be performed and to provide and furnish all the labor, materials, necessary tools, equipment, utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required for supplying **Wastewater Treatment Chemicals** accordance with the specifications and plans as prepared by the WWTP Director, City of Three Rivers, Michigan, for the following price:

Ferric Chloride	\$ _____ / ton
Calcium Nitrate	\$ _____ / gallon
Polymer-RDT (liquid)	\$ _____ / pound
Polymer-Fournier (liquid)	\$ _____ / pound
Polymer-Centrifuge (liquid)	\$ _____ / pound
Chlorine:	\$ _____ / 1000# cylinder
Chlorine:	\$ _____ / 150# cylinder
Sulfur Dioxide:	\$ _____ / 150# cylinder
Hydrated Lime or its equivalent:	\$ _____ /ton

NAME OF COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

TITLE \_\_\_\_\_

EMAIL \_\_\_\_\_

TELEPHONE \_\_\_\_\_ CELL \_\_\_\_\_