# **CHEMICAL BID SPECIFICATIONS**

#### **SCOPE**

The bid will be for one (1) year, the bidder shall deliver chemicals in the amount, in the prescribed package form, and at the time requested by the Owner. The Owner reserves the right to make additions to or deletions from the quantities listed on the bid proposal without invalidating the contract.

### **CHEMICAL SPECIFICATIONS**

# <u>Liquid Alum Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub></u>

Liquid Alum 8.3% solution shall conform to AWWA specifications B403-70, and be NSF certified. The liquid alum shall be delivered to the water treatment plant site in 4,000 gallon tank trucks and shall have provisions for pumping the liquid alum into a storage tank located eighteen (18) feet above the un-loading area. Connection to the fill pipe is via 3" hose adapter.

Note: Loads might be split between plants 1 & 2.

### Hydrated Lime Ca(OH<sub>2</sub>)

Hydrated lime shall conform to AWWA specification B202-65, and be NSF certified. The lime shall be delivered in bulk form to the water treatment plant site in trucks capable of transferring the lime to an elevated storage bin approximately fifty-eight (58) feet high. Connection to the bin fill line is via a 4" hose adapter.

Note: Loads might be split between plants 1 & 2.

### Fluosilicic Acid, 23% H<sub>2</sub>SiF<sub>6</sub>

Fluosilicic acid shall conform to AWWA specification B703-71, and be NSF certified. The fluosilicic acid shall be delivered to the water treatment plant site in fifty-five (55) gallon drums.

#### Chlorine C1<sub>2</sub> -- One Ton Cylinders

Chlorine shall conform to AWWA specification B301-59, and be NSF certified also must 99.5% purity or above. The chlorine shall be delivered to the water treatment plant site in one (1) ton cylinders. The delivery trucks shall have the provisions to transfer the cylinders from the truck to the loading dock.

#### Chlorine Cl<sub>2</sub> -- 150 lb. Cylinders delivered to Water Plant

Chlorine shall conform to AWWA specification B301-59, and be NSF certified. The chlorine shall be delivered to the Water Treatment plant in one hundred fifty pound (150 lb.) cylinders. The delivery trucks shall have the provisions to transfer the cylinders from the truck to the loading dock.

#### Sodium Permanganate NaMn04

Sodium permanganate shall conform to AWWA specification B603-68, and be NSF certified. The potassium permanganate shall be delivered to the water treatment plant site in 300 gallon tota.

#### Activated Carbon (Calgon WPH)

Activated carbon shall conform to AWWA specification B600-66, and be NSF certified no less than 1,000 Iodine mg/g avg. The activated carbon shall be delivered to the water treatment plant site in 40 or 55 lb. bags.

#### Dry Polymer

Cyanamid No. 844A or approved substitute and NSF certified. Polymer shall be delivered to water treatment plant in shipments of five - 50 lbs. bags.

### Liquid Polymer

Magnifloc # 1849 A, or approved substitute. Liquid Polymer shall conform to AWWA specification, and be NSF certified. The Liquid Polymer shall be delivered to the water treatment plant site in 55 gal. drums

### Sulphur Dioxide

Sulphur dioxide shall be delivered to sewage treatment plant in 150 lb. cylinders.

# **Liquid Polymer**

Liquid Polymer SPD CL20N or approved substitute and shall conform to AWWA specification B600-66, and be NSF certified. The Liquid Polymer shall be delivered to the water treatment plant site in 55 gallon drums.

# **CHEMICAL QUANTITIES**

The bidder shall submit unit prices based on the following quantities. All unit prices shall include delivery costs.

| <u>ITEMS</u>                         | <u>UNIT PRICE</u> | <b>QUANTITY</b> |
|--------------------------------------|-------------------|-----------------|
| 1. Liquid Alum (based on dry weight) | Per ton           | 170 ton         |
| 2. Hydrated Lime                     | Per ton           | 20 ton          |
| 3. Fluosilicic Acid                  | Per cwt.          | 750 cwt.        |
| 4. Chlorine (one ton cylinder)       | ton               | 85 ton          |
| 5. Chlorine (150lb.) cylinder        | Per lb.           | 12,000 lbs.     |
| 6. Sodium Permanganate               | Per lb.           | 20,000 lbs.     |
| 7. Activated Carbon Calgon WPH       | Per lb.           | 20,000 lbs.     |
| 8. Polymer (Dry)                     | Per lb.           | 200 lbs.        |
| 9. Polymer (Magnifloc #1849 A)       | Per lb.           | 2,000 lbs.      |
| 10. Sulphur Dioxide                  | Per lb.           | 1,500 lbs.      |
| 11. Polymer (SPD CL20N)              | Per lb.           | 600 lbs.        |
|                                      |                   |                 |

# **METHOD OF BILLING**

Proposals shall be properly and completely executed on the proposal forms (Indiana Form No. 95), which included the Non-Collusions Affidavit. The envelopes containing the bids must be sealed and addressed to:

Patoka Lake Regional Water and Sewer District 2647 North State Road 545 Dubois, IN 47527-9750 ATTN: Chemicals Bid

The low bid shall be a summation of quoted unit price multiplied by the quantity of each item.

The Owner reserves the right to reject any and all bids and to waive informalities in bidding, and to accept individually bid items from various bidders.

# **ADVERTISEMENT FOR CHEMICAL BIDS**

Separate sealed bids for a one (1) year supply of chemical bids for the Water and Sewer Plants, for the period from January 1, 2018 to December 31, 2018 will be received by the Patoka Lake Regional Water and Sewer District at 2647 North State Road 545, Dubois, Indiana 47527, until 6:30 p.m. (local time) on Monday, December 11, 2017.

Then at the Board of Director's meeting at 6:30 p.m. (local time or eastern time) on December 11, 2017, to be held at the Patoka Lake Regional Water and Sewer District office on Highway 545, five (5) miles East of Dubois, Indiana, all bids will be opened and read aloud.

The information for bidders and form of bid and other contract documents may be examined at the Patoka Lake Regional Water and Sewer District office.

The OWNER reserves the right to waive any informality or to reject any or all bids.

No bidder may withdraw the bid within thirty (30) days after the date of the opening.

Louie Allstott, Secretary Patoka Lake Regional Water and Sewer District