

## NOTICE TO BIDDERS

Notice is hereby given that the City of South Bend, Indiana, will receive sealed bids at the **Office of the Board of Public Works, 13th Floor, County-City Building, Room 1316, 227 West Jefferson, South Bend, Indiana, until the hour of 9:30 a.m., Local Time, on March 22, 2016,** for the following:

### **Water Treatment Chemicals 2016-2017**

Specifications are available for download by visiting the City of South Bend's web page at [www.southbendin.gov](http://www.southbendin.gov):

- X Click on "Business"
- X Click on "City Public Bids"
- X Click on "Vehicles, Equipment and Miscellaneous Bids"
- X Select specification to download
- X A pop up screen will appear; input company information (address/phone/fax/e-mail) where indicated
- X Click on "Submit Responses"
- X Print the specification or save it to your computer

There is no charge for the specifications. The specifications are also available for review only during regular working hours in the Department of Public Works, 1308 County-City Building, South Bend, Indiana 46601.

Bids received after **9:30 a.m., Local Time, on March 22, 2016,** will be returned unopened.

**Bids must be on the City of South Bend Bid/Proposal form provided, which includes a Non-Debarment Affidavit, Non-Discrimination Commitment form, and a Non-Collusion Affidavit Form. Certified Check or Bid Bond in the amount of not less than 10% must be submitted with the bid. A refund of the bid security will be issued upon satisfaction of Bid Award.**

**The Board may reject any bid that does not conform to these requirements as non-responsive.**

The Board reserves the right to reject any or all bids or to accept a full or partial award of the bid or bids which, in its judgment, will be to the best interest of the City of South Bend.

BOARD OF PUBLIC WORKS  
Linda M. Martin, Clerk

Publish two times:  
February 26, 2016  
March 4, 2016



- a. For purposes of this Certification, “Iran” means the government of Iran and any agency or instrumentality of Iran, or as otherwise defined at Ind. Code § 5-22-16.5-5, as amended from time-to-time.
- b. As provided by Ind. Code § 5-22-16.5-8, as amended from time-to-time, a Contractor is engaged in investment activities in Iran if either:
  - i. Contractor, its successor or its affiliate, provides goods or services of twenty million dollars (\$20,000,000) or more in value in the energy sector of Iran;  
or
  - ii. Contractor, its successor or its affiliate, is a financial institution that extends twenty million dollars (\$20,000,000) or more in credit to another person for forty-five (45) days or more, if that person will (i) use the credit to provides goods and services in the energy sector in Iran; and (ii) at the time the financial institution extends credit, is a person identified on list published by the Indiana Department of Administration.

4. Contractor does not knowingly employ or contract with an unauthorized alien, nor retain any employee or contract with a person that the Contractor subsequently learns is an unauthorized alien. Contractor agrees that he/she/it shall enroll in and verify the work eligibility status of all of Contractor’s newly hired employees through the E-Verify Program as defined by I.C. 22-5-1.7-3. Contractor’s documentation of enrollment and participation in the E-Verify Program is included and attached as part of this bid/quote; and

5. Contractor shall require his/her/its subcontractors performing work under this public contract to certify that the subcontractors do not knowingly employ or contract with an unauthorized alien, nor retain any employee or contract with a person that the subcontractor subsequently learns is an unauthorized alien, and that the subcontractor has enrolled in and is participating in the E-Verify Program. The Contractor agrees to maintain this certification throughout the term of the contract with the City of South Bend, and understands that the City may terminate the contract for default if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the City.

6. Persons, partnerships, corporations, associations, or joint venturers awarded a contract by the City of South Bend through its agencies, boards, or commissions shall not discriminate against any employee or applicant for employment in the performance of a City contract with respect to hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment because of race, sex, religion, color, national origin, ancestry, age, gender expression, gender identity, sexual orientation or disability that does not affect that person's ability to perform the work.

In awarding contracts for the purchase of work, labor, services, supplies, equipment, materials, or any combination of the foregoing including, but not limited to, public works contracts awarded under public bidding laws or other contracts in which public bids are not required by law, the City, its agencies, boards, or commissions may consider the Contractor’s good faith efforts to obtain participation by those Contractors certified by

the State of Indiana as a Minority Business (“MBE”) or as a Women’s Business Enterprise (“WBE”) as a factor in determining the lowest, responsible, responsive bidder.

In no event shall persons or entities seeking the award of a City contract be required to award a subcontract to an MBE/WBE; however, it may not unlawfully discriminate against said WBE/MBE. A finding of a discriminatory practice by the City’s MBE/WBE Utilization Board shall prohibit that person or entity from being awarded a City contract for a period of one (1) year from the date of such determination, and such determination may also be grounds for terminating the contract for which the discriminatory practice or noncompliance pertains.

7. The undersigned contractor agrees that the following nondiscrimination commitment shall be made a part of any contract which it may henceforth enter into with the City of South Bend, Indiana or any of its agencies, boards or commissions.

Contractor agrees not to discriminate against or intimidate any employee or applicant for employment in the performance of this contract with privileges of employment, or any matter directly or indirectly related to employment, because of race, religion, color, sex, gender expression, gender identity, sexual orientation, handicap, national origin or ancestry. Breach of this provision may be regarded as material breach of contract.

I, the undersigned bidder or agent as contractor on a public works project, understand my statutory obligations to the use of steel products or foundry products made in the United States (I.C. 5-16-8-1). I hereby certify that I and all subcontractors employed by me for this project will use steel products or foundry products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

\*\*\*

I hereby affirm under the penalties of perjury that the facts and information contained in the foregoing bid for public works are true and correct.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Contractor/Bidder (Firm)

\_\_\_\_\_  
Signature of Contractor/Bidder or Its Agent

\_\_\_\_\_  
Printed Name and Title

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

My Commission Expires \_\_\_\_\_

\_\_\_\_\_  
Notary Public

County of Residence \_\_\_\_\_

(To be completed only by Contractors/Bidders claiming to be a "local Indiana business" pursuant to I.C. 36-1-12-22)

**INDIANA LOCAL BUSINESS PREFERENCE CLAIM**

A "local Indiana business" refers to any of the following:

- (1) A business whose principal place of business is located in an affected county.
- (2) A business that pays a majority of its payroll (in dollar volume) to residents of affected counties.
- (3) A business that employs residents of affected counties as a majority of its employees.
- (4) A business that makes significant capital investments in the affected counties as defined in rules adopted by the political subdivision.
- (5) A business that has a substantial positive economic impact on the affected counties as defined by criteria in rules adopted by the political subdivision.

An "affected county" refers to St. Joseph County, Indiana, or the following counties located adjacent to St. Joseph County: Elkhart County, Marshall County, Starke County and LaPorte County

There are the following price preferences for supplies purchased from a local Indiana business:

- 5% for a purchase expected by the purchasing agency to be less than \$50,000
- 3% for a purchase expected by the purchasing agency to be at least \$50,000 but less than \$100,000.
- 1% for a purchase expected by the purchasing agency to be at least \$100,000.

**Date:** \_\_\_\_\_

Pursuant to I.C. 36-1-12-22, \_\_\_\_\_ claims a local Indiana business preference for Project \_\_\_\_\_ (Project # \_\_\_\_\_) located within the City of South Bend, St. Joseph County, Indiana.

- The location of the principal place of business is \_\_\_\_\_:  
(Address)
- St. Joseph County, Indiana
- The following county located adjacent to St. Joseph County, Indiana: \_\_\_\_\_.
- The majority of the business's payroll for the 12 months prior to the date of this Bid is to residents of St. Joseph County, Indiana or the adjacent county noted above.
- The majority of the business's employees for the 12 months prior to the date of this Bid are residents of St. Joseph County, Indiana, or the adjacent county noted above.

If the business is deemed to be the apparent lowest, responsible, responsive bidder, then it shall provide supporting documentation for the 12 month period prior to the date of the Bid of (i) the total payroll amount paid to all employees of the business, and (ii) the total payroll amount paid to employees who are residents of St. Joseph County and the adjacent county noted above.

**WHEN SUPPLYING SUPPORTING PAYROLL RECORDS,  
BIDDER SHALL REDACT ALL SOCIAL SECURITY NUMBERS.**

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Contractor/Bidder (Firm)

\_\_\_\_\_  
Signature of Contractor/Bidder or Its Agent

\_\_\_\_\_  
Printed Name and Title



## SPECIFICATIONS CITY OF SOUTH BEND

**BID NAME**                      Water Treatment Chemicals 2016-2017  
**FOR BIDS DUE**                March 22, 2016; 9:30 a.m., Local Time

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### **FOR ALL CHEMICALS**

**For security purposes vendors shall confirm via fax a copy of the delivery driver's license, truck and trailer information along with the anticipated time of arrival not later than 24 hours prior to arrival. Failure to do so will be cause for rejection of material, no billable time will be accepted.**

*Water Works facility deliveries are to be made on normal work days between 7:00 a.m. and 11:00 a.m. with unloading to be completed before 1:00 p.m. Waste Water facility deliveries are to be made between the hours of 6:00 AM and 4:00 PM Monday through Friday.*

No stop-off or fuel surcharges allowed; however, demurrage charges will be allowed after 2 hours per stop. All deliveries are F.O.B. Delivery Point.

Awards of this bid will be divisible by product. Awards will be based on the lowest responsive and responsible bidder per unit prices on the attached schedule.

All prices quoted are to be effective May 1, 2016 through April 30, 2017 (One Year). Prices are to be firm throughout that period without increases.

Quantities are estimated and not guaranteed.

# I. CHLORINE SPECIFICATIONS

## INCLUDE BOTH 150# AND TON CYLINDERS

### A. GENERAL

1. Only containers which currently are authorized by regulation for chlorine, which have been inspected and reconditioned as described herein, and which have been tested within the period required by regulations should be filled. ***It is illegal to ship chlorine containers that have been filled by or without the consent of the owner.***
2. Due to the volatile nature of this chemical, the chlorine provider must be able to have one (1) accredited Safety and Handling of Chlorine class per year.
3. Chlorine quotes should be deposit-free. No cylinder deposit should be included in the quote.

Boiling Point	-29.29 <sup>0</sup> F (-34.05 <sup>0</sup> C)
Critical Density	35.77 lb./cu. ft.
Critical Pressure	1118.4 psia (76.1 Atmos.)
Critical Temperature	291.20 <sup>0</sup> (144. <sup>0</sup> C)
Critical Volume	0.02796 cu. ft./lb.
Latent Heat of Vaporization	123.7 Btu./lb. @Boiling point
Liquid Gas Relationship:	1 volume liquid chlorine = wt. at 457.6 volumes of chlorine, 825 @ standard conditions
Melting Point	-149.76 <sup>0</sup> F (-100.98 <sup>0</sup> C)
Specific Gravity - Dry Gas	2.482
Specific Gravity – Liquid	1.468 0 ( <sup>0</sup> - 4 <sup>0</sup> C)

### B. CHLORINE 150 POUND CYLINDERS

1. Construction
  - a) *All cylinders must be compatible with Chlorine Institute Emergency Kit "A". All kit devices must be useable on any cylinder in chlorine service. The maximum neck ring diameter that will accommodate an "A" hood is 4-3/4 inches.*
2. Cylinder Types
  - a) *Chlorine cylinders must comply with DOT specs, 3A480, 3AA480, 25, 3, 3BN480 or 3E1800. The regulations permit only one opening in chlorine cylinders - at the top for the valve connection.*
3. Cylinder Styles
  - a) *Cylinders may be of three styles: footing, bumped bottom, or double bottom.*
4. Cylinder Threads

a) *The threads in new cylinders are NGT threads 3/4-14NGT(CI).*

5. Chlorine Ton Containers

a) *All ton containers must be compatible with Chlorine Institute Emergency Kit "B".*

6. Ton Container Types

a) *Chlorine ton container types must comply with DOT spec. 106A500X, DOT or ICC 106A500, 27, BE27.*

b) *Ton Container Valve and Fuse Plug Opening Threads*

c) *The threads in new ton containers are 3/4-14NGT (CI).*

7. Valve Protection

a) *The cylinder and ton container valves are protected during shipment and storage by a removable steel valve protective housing or cap. Pressure relief devices shall not be covered by the housing.*

8. Cylinder and Ton Container Capacity

a) *In cases where the capacity of a chlorine container is not known, it can be determined by weighing it empty and again when completely filled with water, and by multiplying the weight of water at 60°F by 1.25. This is the maximum allowable weight of chlorine allowed in the cylinder or ton container.*

C. STAMPING

1. Cylinder Stamping

a) *When manufactured, cylinders are stamped with DOT specification number, serial number, and owners and/or builders identifying symbols as well as inspector's official mark and initial test date [DOT Section 173.34(c)] of 49CFR.*

2. Ton Container Stamping

a) *When manufactured, ton containers are stamped with DOT specification number, material, serial number, inspector's official mark, name, mark or initials of company for whose use the tank is made, (or builder's symbol and serial number), date of test, and water capacity [DOT Section 179.300-18]. Tare weights may be stamped by builder. Changes in stamping must be made in compliance with DOT Section 173.31(d) or 49CFR.*

3. Retest Stamping

a) *Retested cylinders [DOT 49 CFR, Section 173.34 (e)(6)] and ton containers [DOT 49 CFR, Section 173.31(d)(7)] must be stamped to show date of retest. For cylinders, the stamp must include the test facility's certification number in a prescribed pattern. Ton containers do not require the test facility's number on the container.*

4. Tare-Weight Stamping

a) *It is recommended that all new chlorine cylinders and ton containers be stamped with the original tare weight by the container manufacturer.*

D. VALVES

## 1. Cylinders

- a) *Chlorine cylinders are to have a single chlorine style Ceodeux D174 valve which is equipped with a fusible metal plug-type relief device. This is a must comply safety requirement.*

## 2. Ton Container Valves

- a) *Chlorine ton containers are to have two identical chlorine style Ceodeux D174 valves near the center of one head. This is a must comply safety requirement. When vertically aligned, the valve in the upper position is used for gas withdrawal, and the lower one for liquid withdrawal. The standard ton container valve is identical to the cylinder valve except that it has no fusible metal type relief device, and the valve seat diameter may be larger than on most cylinder valves. There are tow sizes of ton container valves: 3/4 inch NGT and 1 inch NGT.*

## 3. Valve Outlet Threads

- a) *Outlet threads on cylinder and ton containers are special straight threads (1,030" - 14NGO-RH-EXT) which conform to connection number CGA 820 and B20C which utilize a yoke-type connection. These threads are to accommodate the outlet cap only and are not to be used for chlorine hose connections.*

# E. PRESSURE RELIEF DEVICES

## 1. Cylinders

- a) *The relief device on chlorine cylinders is a fusible metal plug in the cylinder valve located below the valve seat. The fusible metal is cast into an 'Alloy "B" or Alloy "A" holder which is screwed into a tapped hole in the valve body. The fusible plugs are designed to melt between 158 degrees F and 165 degrees F.*

## 2. Ton Containers

- a) *Ton container valves contain no fusible plugs. The container itself is equipped with six threaded fusible plugs, three in each head, spaced approximately 120<sup>o</sup> apart.*

## 3. Ton Container and Cylinder Inspection, Cleaning, and Reconditioning

- a) *In addition to the required period retest, it is recommended that each ton container and cylinder be internally and externally inspected prior to each filling. This includes all appurtenances, such as valves and fusible plugs. Criteria for such inspection is outlined in "Cylinder and Ton container Procedure for Chlorine Packaging," Chlorine Institute Pamphlet 17, Sections 3, 4, and 5.*

# F. PERIODIC RETESTING AND RE-INSPECTION

## 1. Cylinder and Ton Containers to be Tested

- a) *Cylinders (except DOT 3E 1800) and ton containers must be retested at least once in five years (DOT Section 173.34e and Section 173.31d).*
- b) *Cylinders cannot be filled until they are retested after the five year anniversary of the month in which it was tested. Ton containers can be filled until the end of the calendar year during which their five year test is due.*
- c) *Retests are also required after any reheat treatment. In addition, retest any container which shows evidence of weakness at any time, or show a 5 percent or more loss in weight.*

2. Test Procedure

- a) *Cylinders and ton containers are hydrostatically retested by the hydrostatic expansion method [DOT Section 173.34 (a) and Section 173.31 (d)]. If at the time of requalification a container shows a leak or a permanent expansion which exceeds 10% of the total expansion, it must be condemned.*

3. Container Records

- a) *Records must be kept showing results of the test. Each container must have the test date plainly and permanently stamped into the metal of one head or the chime of each tank passing the hydrostatic retest.*

G. CONDITIONS OF DELIVERY

- 1. A South Bend Water Works representative shall specify the location for chlorine cylinder and ton container deliveries.
- 2. Delivery Locations:

<b>Location</b>	<b>Type of Container</b>	<b>Address</b>
North Station	2,000 lb. Ton Container	830 North Michigan Street
Carriage Hills	150 lb. Cylinder	52290 Shenandoah Drive
Erskine	150 lb. Cylinder	4116 South Fellows Street
South	1,250 lb. Ton Container	3600 South Main Street
Cleveland South	150 lb. Cylinder	4900 Cleveland Road
Cleveland North	150 lb. Cylinder	4949 Cleveland Road
Waste Water	2,000 lb. Ton Container	3113 Riverside Drive

- 3. Vendor personnel shall conduct all activities related to the loading and unloading of cylinders.
- 4. Ton containers will need to be delivered with a cherry picker.
- 5. Minimum deliveries are two (2) ton containers and twelve cylinders.
- 6. Supplier must be able to guarantee delivery within five (5) calendar days after order placement
- 7. Vendor personnel shall not unload any filled cylinders or ton containers prior to live inspection by South Bend Water Works Personnel.
- 8. Vendor personnel shall assist South Bend personnel in the visual inspection of each cylinder or ton container for:

- a) *External damage or defect*
  - b) *Proper installation of valve protection housing or caps*
  - c) *Visual inspection of valves and fusible plugs*
  - d) *Determination of markings of retest and recertification*
9. Motor vehicles used to ship ton containers shall be properly equipped with lift equipment suitable for handling containers to any point where the container is to be loaded upon or unloaded from the vehicle.
- a) *Cylinders containing chlorine shall be securely lashed in an upright position, loaded into racks securely attached to the motor vehicle, or packed in boxes or crates of such dimensions as to prevent their overturning.*

## II. FERRIC CHLORIDE

### A. *GENERAL*

1. Normal concentration percent by Weight; 33-35%
2. Specific Gravity: 0.33

### B. *DELIVERY*

1. Full truck deliveries (4500 gallons) to the Ferric feed facility Plant located at; 3113 Riverside Drive, South Bend, IN 46628

### III. FLUORISILICIC ACID

#### A. GENERAL

1. The Fluorisilicic Acid supplied under these specifications shall be clean and free of visible suspended matter and shall not contain more than 0.020 percent of the "heavy metals", mercury, lead, bismuth and copper expressed as lead (Pb); and shall contain no soluble mineral or organic substances in quantities capable of a deleterious or injurious effect upon the health of those consuming water that has been treated properly with fluorsilicic acid.
2. Product to meet the latest AWWA standard for Fluorisilicic Acid (B703).
3. Price is to be based on a 23% solution.
4. Bidders shall quote price per pound.

#### B. DELIVERY

1. The vendor shall deliver bulk fluoride to the following well locations in the quantities as specified by a representative of the South Bend Water Works.
2. 23% Fluorisilicic Acid delivered in tank truckloads.
3. Deliveries are estimated at thirteen (13) tank trucks with two to four stop-offs per 20,000 lb. load.
4. No stop-off or fuel surcharges allowed however, demurrage charges will be allowed after 2 hours per stop.
5. Suppliers must furnish own unloading hose at least 40 feet in length with proper couplings to hook onto two male N.P.T., and must blow off hose to bulk tank at each stop.
6. City will not accept delivery of more than 10% over the order quantity.
7. Delivery Locations:

<b>Location</b>	<b>Bulk Tank</b>	<b>Address</b>
North Station	1600 gallons	830 North Michigan Street
Carriage Hills	0 gallons	52290 Shenandoah Drive
Edison	1350 gallons	2708 Rockne Drive
Erskine	450 gallons	4116 South Fellows Street
South	500 gallons	3600 South Main Street
Cleveland South	1100 gallons	4900 Cleveland Road
Cleveland North	550 gallons	4949 Cleveland Road
Pinhook	1000 gallons	3801 Riverside Drive
Olive	1750 gallons	915 South Olive Street

#### IV. POTASSIUM PERMANGANATE

##### A. MATERIAL

1. Free Flowing Grade Potassium Permanganate shall meet the requirements of AWWA Specification 603-98 and shall be manufactured domestically and certified suitable for use in public water supply by appropriate state and federal agencies.

##### B. DELIVERY

1. The potassium permanganate shall be delivered in 55 pound pails made of 24-gauge steel or plastic and shall be equipped with a handle.
  - a) *The pails shall remain the property of the South Bend Water Works.*
  - b) *The pails shall be unloaded and neatly stacked at the pumping stations.*
2. Deliveries will be ordered on an as needed basis with each delivery consisting of approximately 8 to 16 (55 Lb.) pails.
3. Deliveries must be made within 5 days of placement of the order.
4. Vendor shall deliver pails to the following site:
  - a) *Water Works North Station – 830 North Michigan Street*

**V. BLENDED PHOSPHATE SEQUESTRANT CORROSION INHIBITOR**

**A. STANDARDS**

1. Product shall be a minimum of 85% sodium pyrophosphate.
2. The remaining ingredient(s) shall also be sodium phosphate material(s). Product must already be listed in the latest National Sanitation Foundation (NSF) Standard 60 directory.
3. The percent phosphate as PO<sub>4</sub> must be disclosed and by Indiana law, be marked on the outside of the container.

**B. TECHNICAL ASSISTANCE**

1. The successful vendor giving a quote must also provide on-site technical assistance to the Authority for an eight hour day per month for the first six months of product usage.
2. After the first 6 months of on-site technical assistance, the Authority will request further on-site technical assistance on an as needed basis.
3. The vendor shall provide a per visit cost in their quote for the additional site visits.
4. Each visit will be one workday (Monday through Friday only), from 7:00 a.m. to 3:30 p.m. EST.
5. Vendor must submit the name(s) and resume(s) of the technical representative that will perform the on-site assistance with your quote submittal.
6. The technical representative shall be an employee or certified representative of the vendor and have a minimum of three years of experience in the application of blended phosphate sequestering products in municipal water supply and be available Monday through Friday from 7:00 a.m. to 3:30 p.m. EST to answer questions which may arise in applying their product.

**C. REQUIREMENTS**

1. A list of two municipal references within a one hundred mile radius of South Bend using the product for a minimum of one year.
2. Each reference must include the name of the municipality, the superintendent's name, and phone number.
3. A one pint sample must be submitted with bid for analysis.
4. During the contract period, additional sampling and analysis will be made.
5. Contract can be nullified if testing indicates unauthorized changes have been made to product.
6. Samples of product being used by references may also be sampled.
7. Evaluation

- a) *Sample product analysis*
- b) *Reference interview and possible sample analysis*
- c) *Verification of ingredients.*

8. Testing

- a) *The City reserves the right to submit samples of the polyphosphate product to an independent laboratory of the City's choice for chemical, biological, and physical analysis and testing.*
- b) *Any product which, in the City's opinion, contains hazardous or deleterious substance or fails to comply with these specifications will be disqualified.*
- c) *The cost of this analysis and testing will be incurred by the vendor with the understanding that a maximum of ten samples per year will be submitted.*
- d) *Guaranteed minimum available phosphate percentage as PO<sub>4</sub> is to be Eighty Percent (80%).*

9. Other evaluation:

- a) *List of data that confirms products effect on (a) copper, (b) sequestration*
- b) *List of data that confirms company' experience in other cities and technical support.*

10. Certified Analysis

- a) *The supplier shall provide a certified chemical analysis of a polyphosphate product sample taken from the production facility from which he proposes to supply the City of South Bend.*
- b) *He shall further certify analysis to be representative of the product he proposes to provide the City.*

11. Performance Requirements

- a) *When applied at a rate yielding not more than four (4) parts of polyphosphate as PO<sub>4</sub> to each part of iron and manganese, the product shall be capable of holding iron and manganese in solution for no fewer than five (5) days at seventy (70) degrees Fahrenheit in the presence of one-half milligram per liter (0.5 mg/l) free chlorine residual and for no less than twenty-four (24) hours at 140 degree F.*
- b) *The City reserves the right to run performance tests once a month.*
- c) *Any product which, in the City's opinion, does not meet the specified performance requirements or fails to comply with the specifications will be disqualified.*

D. COVERAGE

- 1. These specifications cover blends of phosphate compounds used to stabilize or sequester soluble iron and manganese in potable water.

E. PHYSICAL FORM

- 1. Product shall be a granular form. Powdered material will not be accepted.

F. PHYSICAL STANDARDS

1. Phosphate blend shall comply with the following physical requirements:
  - a) *Color: White*
  - b) *Solubility: Completely miscible in water*
  - c) *Percent Phosphate as PO4 Minimum of 80%*
  - d) *Physical Form: Granular*

G. CHEMICAL STANDARDS

1. Phosphate blend shall contain only NSP approved phosphorous ingredients.
2. No amines or other chelating agents shall be used.
3. Blended phosphate product formulation shall be only sodium salts of phosphate compounds.
4. No potassium salts shall be used.
5. Impurities in polyphosphate products shall not exceed the following concentrations:

Arsenic as AS	0.001 mg/1
Copper as CU	0.2 mg/1
Heavy Metals (total as Pb)	0.001 mg/1
Iron FE	0.1 mg/1
Manganese as MN	< .05 mg/1
Organics as C	None
Silica as SIO2	1.0
Zinc as ZN	0.01 mg/1

6. In addition to the above standards, polyphosphate products shall contain no substance, for which the Indiana Pollution Control Board has established a limit in potable water, in a concentration exceeding the limit established for potable water.

H. PACKAGING & DELIVERY

1. Product shall be shipped in 50 pound bags and stored locally.
2. Deliveries are to be made within two to three days of notice.
3. Vender will be required to deliver product weekly or as needed to each well field in order to maintain specified stock levels.
4. Weekly delivery receipts will be issued.
5. Delivery sites are as follows:

<b>Location</b>	<b>Address</b>
Carriage Hills	52290 Shenandoah Drive
Erskine	4116 South Fellows Street
South	3600 South Main Street

Cleveland South	4900 Cleveland Road
Cleveland North	4949 Cleveland Road

**VI. SOLAR SALT SPECIFICATION**

**A. GENERAL**

1. The salt will be used to prepare a saturated brine solution which will be used as a chloride source for the on-site hypochlorite generator.
2. Bids will be all inclusive.
3. Solar salt/Purex manufactured by Morton Salt (or equal) shall be supplied in bulk deliveries and blown into the brine saturator tank using the supplier's truck-mounted blower.
4. The existing brine saturator tank has the capacity to receive 25-ton bulk deliveries.
5. Equipment such as hoses with the 4" quick disconnect shall be provided with salt delivery by the provider.
6. Off-loading truck air pressure shall not exceed 10 p.s.i. for every salt delivery.

**B. PRODUCT**

1. Salt for sodium hypochlorite generation
2. To ensure proper operation of the on-site hypochlorite generator, solar salt shall meet or exceed the following quality parameters:

Description	Percent	Maximum/ Minimum
Water Insoluble	0.01%	maximum
Calcium Sulfate	0.14%	maximum
Magnesium Sulfate	0.02%	maximum
Magnesium Chloride	0.1%	maximum
Sodium Chloride	99.82%	minimum
NaCl Wet	93.3%	minimum
NaCl Dry	96.3%	minimum
Moisture (as H <sub>2</sub> O)	3%	maximum
Lead	0.0007%	maximum
Copper	0.0003%	maximum
Iron (as Fe)	0.002%	maximum
Fluoride	0.01%	maximum

3. Sodium Chloride content shall be determined per the AWWA B200-03 standard or per ASTM Standard Methods.
4. Salt shall be certified to ANSI/NSF Standard 60 when the sodium hypochlorite solution produced by the electrolytic generator will be used for disinfection of drinking water.
5. Salt shall contain no anti-caking or free-flowing additives or conditioners.

6. Salt shall be medium, coarse or extra coarse grade with a minimum bulk density of 60 lb/ft<sup>3</sup> to avoid use of gravel bed in brine saturator tank.

C. PHYSICAL PROPERTIES

1. Purex or Equal

- a) *The pour (loose) bulk density shall be 1.15-1.25 g/ml (72-78 lbs/ft<sup>4</sup>).*
- b) *Production shall be unscreened, receiving a coarse scalping of 10-14mesh. The mean crystal size shall be 290-430 um.*
- c) *The mean surface area of the crystals shall be 65-98 cm. sq/g.*
- d) *Sodium Chloride content shall be determined per the AWWA B200-03 standard or per ASTM Standard Methods.*
- e) *Morton's Purex or equal shall be certified to ANSI/NSF Standard 60 when the sodium hypochlorite solution produced by the electrolytic generator will be used for disinfection of drinking water.*
- f) *Morton's Purex or equal shall contain no anti-caking or free-flowing additives or conditioners.*

D. DELIVERY LOCATIONS:

1. Edison Filtration Plant, 2708 Rockne Drive, South Bend, IN
2. Olive GAC Building, 915 S. Olive Street, South Bend, IN

**VII. SULFUR DIOXIDE**

**A. PROPERTIES**

Boiling Point	-10°C
Color	Colorless
Specific Gravity (80°F)	1.363
Critical Temp.	314.82°F
Critical Pressure	1141.5 PSIA

**B. USAGE**

1. Estimated annual usage is 100 tons, more or less, to be delivered in 2,000 lb containers of liquid SO<sub>2</sub> in truckload lots of 10 containers.

**C. DELIVERY**

1. Supplier must be able to guarantee delivery of 10 tons (20,000 lbs) within five (5) calendar days from release of requirement.
2. Material to be delivered F.O.B.
3. No freight surcharges allowed.
4. Billing must be submitted on a CWT unit basis.
5. Delivery Location: Waste Water Treatment Plant located at 3113 Riverside Drive, South Bend, Indiana 46628.

**VIII. DRY POLYMER FLOCCULENT**

**A. GENERAL**

1. The purpose of this specification is to outline minimum acceptable properties of a polymer at the Bureau of Waste Water in the treatment process.
2. Quantity of the polymer stated in this specification is intended as an estimated usage during a 12 month period rather than an absolute quantity.
3. Polymer is considered a performance product and must meet certain standards due to compliance related issues on the NPDES Permit.
4. Any supplier that has not been previously approved must perform bench testing on any polymer bid to prove the product will meet the standards necessary to ensure permit compliance.
5. When samples are required, such samples shall be delivered or shipped at the vendor's expense to the following name and address: Nancy Clay, 3113 Riverside Dr. South Bend, IN 46628.
6. Samples must be clearly labeled with your company's name, address, and (item number).
7. All samples must be representative of the item bid.
8. All samples will become the property of the City of South Bend, and will not be returned.

**B. PROPERTIES**

1. Products will be a high molecular weight cationic polyelectrolyte, supplied as a micro-bead or in granular form.
2. The product must be completely non-dusting, free flowing and completely soluble in water with a very rapid dissolving rate.
3. Typical Properties

Bulk Density	50 lbs. per cubic ft.
Particle Size	95% less than 1 mm
pH of 1% Solution	3.5 – 4.5

**C. PACKAGING/DELIVERY**

1. Packaging to be in 50 – 55 lb polyethylene bags.
2. Must be able to guarantee delivery of 9,000 lbs within 14 calendar days after order placement.
3. Prices must be submitted in cost per pound with freight included.
4. Material to be delivered F.O.B. the Waste Water Treatment plant located at 3113 Riverside Drive, South Bend, IN. 46628.

**IX. LIQUID CALCIUM NITRATE 66%**

**A. GENERAL**

1. The estimated annual usage of Liquid Calcium Nitrate (66%) is 25,000 gallons, more or less.
2. Supplier must be able to guarantee delivery of 6,000 gallons within five (5) calendar days after order placement.

**B. TYPICAL PROPERTIES**

Concentrations:	
Ca(NO <sub>3</sub> ) <sub>2</sub>	46.34%
Ca(NO <sub>3</sub> ) <sub>2</sub> • 4H <sub>2</sub> O	66.5%
Ca	11.2%
Mn (ppm)	Less than 1
Specific Gravity:	1.454 g/ml at 20°C
pH:	6.00 at 20°C

**C. DELIVERY**

1. Full truck load quantities are to be approximately 6,000 gallons
2. Delivery to the Waste Water Treatment plant, at 3113 Riverside Drive, South Bend, Indiana 46628.
3. Prices must be submitted in cost per gallon with freight included.

**X. SODIUM HYPOCHLORITE 12.5%**

**A. GENERAL**

1. The estimated annual usage of Sodium Hypochlorite is 30,000 gallons, more or less.
2. The City owns a 2,550 gallon tank for the storage of Sodium Hypochlorite 12.5%.
3. This tank comes equipped with all necessary fittings and outlets, as well as secondary containment for increased safety.
4. Supplier must have necessary hoses and connectors to connect to a 2 inch quick disconnect fitting.

**B. TYPICAL PROPERTIES**

Concentrations	
Sodium Hypochlorite	12.5%
Specific Gravity	1.1964
pH	12.5 to 13.5
Molecular Weight	74.44
Boiling Point	>212°F
Freezing Point	-11°F

**C. DELIVERY**

1. Supplier must be able to guarantee delivery of 1,800 to 2,200 gallons within seven (7) calendar days after order placement.
2. Full truck load quantities of approximately 1,800 to 2,200 gallons are to be delivered, F.O.B. to:
  - a) *Waste Water Treatment Plant, 3113 Riverside Drive, South Bend, IN. 46628.*
  - b. Pinhook Filtration Plant, 2801 Riverside Drive, South Bend, IN 46628.
3. Prices must be submitted in cost per gallon with freight included.

## XI. SODIUM PERMANGANATE

### A. **GENERAL:**

1. The bid will be for two separate line items for the same product (20% Liquid Sodium Permanganate)
2. One line item will be for deliveries of 275-gallon totes.
3. The other will be for deliveries between 500 and 550 gallon increments.

### B. **TYPICAL PROPERTIES**

1. Product shall be bulk 20% (by weight) +/- 0.5% liquid sodium permanganate (NaMnO<sub>4</sub>).
2. 20% Liquid Sodium Permanganate shall be produced domestically with in the United States.
3. Product shall meet or exceed ANSI/AWWA standard B603-03 or subsequent revisions.
4. Product shall be listed by the NSF as being in full compliance with NSF Standard No. 60 for Drinking Water Treatment Chemicals – Health Effects.

### C. **DELIVERY**

1. All deliveries shall be made within 48 hours of the request to the following address: 2801 Riverside Drive, South Bend IN 46628.
2. The product is to be delivered in clean containers/tanks and is free of contamination. Contamination of stock shall render the contractor liable for disposal of contaminated material, cleanup of storage facilities and full replacement of stock at the Supplier's expense.
3. All deliveries shall be made on weekdays (excluding holidays) between the hours 7:00 AM and 11:00 AM
4. The off-loading of the 275-gallon totes containing sodium permanganate from the delivery vehicle to the City's storage location will be performed by pressurizing the container to our point of delivery or by transfer pump.
5. Deliveries must be coordinated with the City. The Identity of the driver must be made known by fax or email 24 hr. prior to delivery. The delivery vehicle operator must call the City contact no less than one hour prior to delivery.
6. The Contractor and shipper shall be responsible for all health, safety, and costs associated with the transportation of the product to the Pinhook WTP. 2801 Riverside Drive 46628.
7. The City reserves the right to reject any delivery which does not conform to these specifications or which has been contaminated.



**BOARD OF PUBLIC WORKS**

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Gary A. Gilot, President

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Elizabeth A. Maradik, Member

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Brian J. Pawlowski, Member

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James Mueller, Member

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Attest: Linda M. Martin, Clerk



## CITY OF SOUTH BEND INSTRUCTIONS TO BIDDERS

1. BID FORMS AND EXECUTION
  - A. Bidders are expected to examine the Drawings, Specifications, Proposal and all Instructions. Failure to do so will be at the Bidder's risk.
  - B. Each Bidder shall furnish all information required by the Notice, Instructions to Bidders and Specifications. Bids must be made on the form provided. The Bidder shall sign the Proposal and Non-Collusion Affidavit, which is a part of the provided form, where indicated, provide a notary signature and provide all other information required.
  - C. The Bidder shall sign the Proposal in the following manner: If the Proposal is made by an individual, his/her name and post office address must be shown. If made by a partnership or joint venture, the name and post office address of each member of the partnership or joint venture must be shown. If made by a corporation, the Proposal must be signed by an officer of the corporation or by a representative duly authorized by the corporation to execute the Proposal in its behalf.
2. SEALED BIDS ONLY
  - A. Bids, Proposals, Guaranty, and other required documents must be submitted in a sealed envelope marked on the outside with the general classification of material bids, i.e. "Bid for Computer Equipment," "Bid for Front End Loader," or "Bid for Office Supplies."
  - B. When samples are required, such samples shall be delivered or shipped at the bidder's expense to the address specified in the Invitation to Bid. Samples must be shipped separately from bid documents and labeled clearly with the Bidder's name, address and the commodity or equipment classifications and documents, the item (and item number, if any), and Material Safety Data Sheets (if applicable). All samples must be representative of the commodities or equipment which will be supplied by the successful Bidder. All samples will become the property of the City of South Bend and none will be returned, unless otherwise stated in the Specifications.
  - C. In the event of an inconsistency between provisions of the contract documents, the inconsistency shall be resolved by giving precedence in the following order:
3. ORDER OF PRECEDENCE
  - A. Bid Form attached Proposal
  - B. Amendments to Specifications
  - C. Specifications
  - D. Special Provision
  - E. Instructions to Bidders
  - F. Notice to Bidders
4. DELIVERY OF BIDS
  - A. Bids must be delivered to the Office of the Board of Public Works, 13<sup>th</sup> Floor, County-City Building, Room 1316, 227 West Jefferson Boulevard, South Bend, Indiana 46601 (574) 235-9251, by the time specified (local time) in the Notice to Bidders. If not delivered personally, the sealed envelope containing the Bid must be mailed to the following address:  

City of South Bend  
Clerk of the Board of Public Works  
1316 County-City Building  
227 West Jefferson Boulevard  
South Bend, Indiana 46601
  - B. The Post Office Department will be considered agent of the Bidder in delivering the bid. The City will not be responsible for deliveries. **Any Bids received after the time specified will be returned unopened.**

- C. Bids will be opened and read publicly at the time and place designated in the Notice to Bidders. Bidders, their authorized agents, and the public are invited to be present.
  - D. Bidders may bid on one (1) or more item, provided however, that the bid submitted for each is delivered in a **separate, sealed envelope**, with the **envelope clearly labeled** on the outside as to the specific item for which the bid is being submitted. Bidders may submit separate bid bonds for each item being bid upon OR may submit one (1) bid bond equal to 10% of the combined total of all bids submitted.
  - E. **The Board may reject any bid based on being non-responsiveness should such bid not conform to these requirements as listed herein or if a bid cannot be delivered in a manner consistent with the needs of the City.**
5. ADDENDA – NO VERBAL INTERPRETATIONS
- A. No inquiries by Bidders relative to interpretation of Plans, Specifications, Special Provisions, or other Bidding Documents will be answered verbally. If any prospective Bidder is unable or unwilling to comply with one or more requirements of the bidding document, such Bidder should so inform the Board of Public Works in writing. Upon receipt of such information, consideration will be given to the advisability of issuing an Addendum which would thereupon become applicable to all Bidders. Any such inquiry must be submitted at least seven (7) days prior to the bid opening date in order to give the Board sufficient time to consider any necessary Addendum. All answers to such inquiries, in the form of Addenda, will be furnished to all prospective Bidders who have registered with the City. All Bidders are required to acknowledge receipt of any Addenda by inserting the Addendum number and the issuing date on executed Proposals.
6. REJECTION OF PROPOSALS CONTAINING ALTERATION, ERASURES, INCOMPLETE BIDS AND ETC.
- A. Proposals shall be rejected if they show any alteration of form, additions not called for, conditional or alternate bids (except when and insofar as are invited), incomplete bids, erasures or irregularities of any kinds.
  - B. All blank spaces for bid prices must be filled in, in ink, with the unit price and total price for each item (This does not apply to divisible bids). In case of incorrect totaling of amounts and where the unit price and the extension thereof do not agree, the unit price for each item shall govern, and the City is authorized to correct all erroneous extension and totals for the purpose of comparing bids.
7. TRADE DISCOUNTS
- A. Trade discounts shall not be shown separately, but shall be incorporated in the Bidder's unit price, unless otherwise specified.
8. VEHICLE BIDS
- A. Bidders may bid on one (1) or more vehicles, provided however, that the bid submitted for each vehicle is delivered in a separate, sealed envelope, by vehicle, with the envelope clearly labeled on Bidders may bid on one (1) or more vehicles, provided however, that the bid submitted for each vehicle is delivered in a separate, sealed envelope, by vehicle, with the envelope clearly labeled on the outside as to the specific vehicle for which the bid is being submitted. Bidders may submit separate bid bonds for each vehicle being bid upon OR may submit one (1) bid bond equal to 10% of the combined total of all vehicle bids submitted.
  - B. If an Option is included within these specifications, please be advised that, optional items placed in the specifications are to determine the best configuration of the item within a budgeted amount and may be included in the award criteria. If the Board elects to award one or more option(s), the base bid price and the option bid price(s) will be totaled and compared for all bidders offering the final configuration. Award will be made based on the lowest responsible/responsive bid prices submitted for the base bid with the selected option(s), if applicable. Failure to submit a bid on an option may result in the entire bid being non-responsive, depending on the final configuration of the product.

9. The Board may reject any bid that does not conform to these requirements as non-responsive.
10. TAX EXEMPTIONS
  - A. The City of South Bend is exempt from the payment of federal excise and transportation taxes levied under the provision of the Internal Revenue Code. It is also exempt from the Indiana State Gross Retail Tax (sales tax). The City will furnish the successful Bidder with any certificate of exemption required.
11. WITHDRAWAL OF BIDS
  - A. Withdrawal of bids will be allowed only in those cases in which a written request to withdraw a bid is received by the Board of Public Works prior to the date and hour for receiving and opening bids. In such cases, the same will be returned to Bidder unopened.
12. ESCALATOR OR CONTINGENT CLAUSES
  - A. The use of escalator clauses or other contingent clauses by the Bidder is prohibited, unless requested or permitted by the Invitation to Bid. No Proposal shall contain nor be accompanied by any writing purporting to limit or qualify the City's right to accept such Proposal or purporting to alter such Proposal or any Contract which may be executed pursuant thereto.
13. PRICES MUST BE DELIVERED PRICES
  - A. The bid price shall be a delivered price. All materials shall be shipped F.O.B. destination as specified in the Invitation to Bid. No fuel surcharges accepted.
14. AWARD – WAIVER OF TECHNICALITIES
  - A. The Award of Bid, if any award be made, will be made within sixty (60) calendar days after the opening of Proposals to the lowest responsible and responsive Bidder who's Proposal complies with all the requirements prescribed, exclusive of technicalities waived. Until the final award of the Bid, however, the right is reserved by the City to reject any and all Proposals and to waive technical errors.
15. SPLITTING OF AWARDS/DIVISIBLE BIDS
  - A. Bids will be awarded on the basis of the total dollar amount for all items in the Proposal unless the bid is described by the City as a Divisible Bid. The City may award a Divisible Bid to the lowest responsible and responsive Bidder for each item or class of items as indicated in the bid documents.
16. BIDDER QUALIFICATION
  - A. The City may require any Bidder to submit evidence of qualifications, and may consider any evidence of the financial, technical, and other qualifications and abilities of the Bidder. The City will not award a Contract to a Bidder who, in its opinion, is not fully qualified on the basis of financial resources and responsibility, possession of adequate equipment, personnel, experience, and past record of performance to perform the obligations to be undertaken competently and without delay.
17. PURCHASE ORDERS
  - A. A Purchase Order will be issued to the successful Bidder after formal acceptance of the bid is made by the City.
18. NEW MANUFACTURE
  - A. Unless otherwise specified in the Invitation to Bid, the items offered shall all be new and the latest model of manufacture.
19. SOURCE OF SUPPLY
  - A. If the Bidder is not a manufacturer, the source of supply must be shown and all sub-contractors must be identified.
20. PACKAGING
  - A. All items shall be delivered strongly packed and marked according to accepted commercial practice unless otherwise directed in the Specifications. No charge shall be made for containers and the City shall have no obligation to return containers unless otherwise provided by the Specifications or Special Provisions. Any items not received in good condition will be rejected.

21. INSPECTION OF GOODS
- A. The City of South Bend reserves the right to inspect and have any goods tested after delivery for compliance with the specifications. Notice of latent defects, which would make the item unfit for the purposes for which they are required, may be given at any time within one year after discovery of the defects.
  - B. All items rejected must be removed immediately by the Contractor at the expense of the Contractor. If the Contractor fails or refuses to remove the rejected items, they may be sold by the City of South Bend.
  - C. In some cases, at the discretion of the City, inspection of the commodities or equipment will be made at the factory, plant, or other establishment where they are produced before shipment.
  - D. The above provision shall not be construed in limitations of any rights the City may have under any laws including the Uniform Commercial Code.
22. ASSIGNMENTS
- A. No person to whom a Contract has been awarded may assign his interest in the Contract without the consent, in writing, of the City.
23. CANCELLATION
- A. The City of South Bend reserves the right to cancel any Contract for failure or refusal of performance, fraud, deceit, misrepresentation, collusion, conspiracy, or any other misconduct on the part of the Contractor.
24. DEDUCTION OF DAMAGES
- A. If the City cancels the contract for any cause, it shall deduct from whatever is owed the Contractor on the Contract or any other Contract, any amount sufficient to compensate the City for any damages suffered by it because of the Contractor's wrongdoing.
25. METHOD OF INVOICING FOR PAYMENT
- A. Contractor shall bill the City of South Bend
    - 1. On regular invoice form giving a complete and detailed description of the goods delivered, including purchase order number.
    - 2. If the Contractor allows a discount, the period of time in which the City must make payment to qualify for the discounts shall be computed from the date the City received the invoice (completely filled out), or the date the goods are delivered and accepted, whichever may be later, and shall not be less than twenty (20) days.
    - 3. If more than one shipment is made under the Contract and on the same purchase order, the City will make partial payments on a basis that is agreeable to both parties.
26. OWNERSHIP OF GOODS
- A. The goods which are the subject of the Contract shall remain property of the Contractor until delivered to and accepted by the City of South Bend.
27. ESTIMATED QUANTITIES
- A. If the quantity set forth in the Notice to Bidders and Proposal is approximate and represents the estimated requirements of the City for a specified period of time, the unit price and the extended total price thereof shall be used only as a basis for the evaluation of bids. The actual quantities necessary may be more or less than the estimate, but the City shall neither be obligated nor limited to any specific amount. The City will, if at all possible, restrict increases to twenty percent (20%) of the estimated quantity and will, if at all possible, restrict decreases to twenty percent (20%) of the estimated quantity.
28. TERM "OR EQUAL"
- A. Where the term "OR EQUAL" is used in these Specifications, the Bidder deviating from specified item shall file with his/her bid a letter fully explaining and justifying his/her proposed article or equal. The City of South Bend shall be the sole judge in determining if the "OR EQUAL" offered meets the Specifications.

29. INDEMNIFICATION CLAUSE

- A. The Contractor agrees to indemnify, defend, and hold harmless the City of South Bend, its agents, officers, and employees from all costs, losses, claims and suits, including court costs, attorney fees, and other expenses, arising from or out of the negligent performance of this Contract by the Bidder or because or arising out of any defect in the goods, materials or equipment supplied by the Bidder.

**NOTE: Incoming mail does not reach the Board of Public Works until after 9:30 a.m. If you are sending your bid via Federal Express or another overnight source, please confirm that your package will arrive before the bid opening time and date.**