

# **PROJECT MANUAL**

## **SPECIFICATIONS**

**“CHEMICAL PURCHASE FOR THE TOWN OF EXETER, NH, 2013”**

**FOR USE BY THE WATER AND WASTEWATER DIVISION**

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## INVITATION FOR PROPOSAL

The Town of Exeter invites interested suppliers to submit proposals for supplying and delivering chemicals for use at locations in the Town of Exeter. Chemicals will be used for the treatment of water and wastewater and be in complete conformance with the attached Scope of Work.

All prices submitted shall be unit prices for each chemical product.

**Proposals shall establish a firm delivered unit price to the Town of Exeter through December 31, 2013. Any attempts to increase the established delivered unit prices or implement any extra charges will not be accepted.**

The Town reserves the right to reject any and all proposals not conforming to the specifications, or deemed not in the best interest of the Town. The Public Works Director, Water & Sewer Managing Engineer, and Town Manager will evaluate proposals. Availability and quality of service shall be a consideration in selection of one or more suppliers.

The successful supplier must submit proof of liability and workers compensation insurance within ten (10) days of the "Notice of Selection" as a chosen supplier, and prior to release of a purchase order.

Proposals will be sealed and clearly marked, "Proposal – Chemical Purchase for The Town of Exeter, New Hampshire, 2013", and shall be submitted no later than 4:00 p.m., Monday, December 17<sup>th</sup>, 2012 to the Office of the Town Manager, 10 Front Street, Exeter, NH 03833.

## **SCOPE OF WORK**

The successful vender(s) shall provide **all** labor, supervision, materials, equipment and other incidentals required to provide and deliver the specified chemicals to the locations specified in strict accordance with the attached project manual with specifications and the unit prices established and in compliance with all applicable rules, regulations and laws.

### **DIVISION I: GENERAL REQUIREMENTS**

- 1.0 Marking: Each shipment shall be identified as to product, grade, assay, net weight, name of manufacturer and brand name.
- 1.1 Removal of Unsatisfactory Materials:  
If the material (chemical) does not meet the requirements of the appropriate AWWA Standard, or is not satisfactory to the Water & Sewer Managing Engineer, or a representative, the vendor shall remove the material from the premises at the purchaser's request and replace it with a like amount of satisfactory material, or a price adjustment may be agreed upon between the purchaser and the vendor.
- 1.2 Potable Water Chemicals:  
The chemicals shall contain no substances in quantities capable of producing deleterious or injurious effects upon the health of those consuming the water to which the chemical has been added, or causing water so treated to fail to meet the requirements of the USEPA Primary Drinking Water Regulations.
- 1.3 Chemicals provided for use at the Wastewater Treatment Facility shall contain no substance in quantities capable of producing deleterious effect on the natural environment, wildlife, water, or fail to meet all environmental standards that are applicable.
- 1.4 Venders and chemicals shall comply with all applicable rules and regulations of the State of New Hampshire and all other authorities having jurisdiction.
- 1.5 Deliveries will be within a reasonable time, relative to the placement of an order.
- 1.6 Delivery times shall be coordinated with the Water & Sewer Managing Engineer, or a representative, at the time of placing an order.
- 1.7 The Water Treatment Plant is located at 109 Portsmouth Avenue, Exeter, NH, 03833.  
The Wastewater Treatment Facility is located at 13 Newfields Road Exeter, NH 03833.

### **DIVISION II: PAYMENT**

Bills may be submitted to the Town of Exeter, Public Works Department, 13 Newfields Road, Exeter, NH, 03833, upon satisfactory delivery. All billing shall include the purchase order number submitted at the time of order. Payment request will be submitted to "Account's Payable" immediately and will be "Net, 30 days".

## DIVISION III: PROCEDURES, METHODS AND MATERIALS

### 1.0 Sodium Hypochlorite – 15%

Sodium Hypochlorite solution (NaOCL) for use at the Water Treatment Plant, and the Wastewater Treatment Facility.

#### Specifications:

- Contain not more than 15% insoluble matter.
- Excess alkalinity % by weight, as NaOH: 0.9-1.8
- When expressed in milligrams/liter of available:
  - Chlorine (CL<sub>2</sub>): 150 (minimum)
  - Available chlorine by weight: 12.7% minimum
  - Copper (Cu): less than 1 mg/L
  - Nickel (Ni): less than 1 mg/L
  - Cobalt (Co): less than 1 mg/L
  - Manganese (Mn): less than 1 mg/L
  - Iron (Fe): less than 1 mg/L
  - Aluminum (Al): less than 1 mg/L
  - Calcium (Ca): less than 30 mg/L
  - Magnesium (Mg): less than 30 mg/L
  - Sodium chloride: 12.0% maximum
  - Sodium chlorate: % by weight: not established

- 1.1 Delivery will normally be Monday – Friday between the hours of (0700-1400), with volumes ranging from 1,000 to 1,500 gallons for the Water Treatment Plant, and between 1,500 to 3,000 gallons for the Wastewater Treatment Facility. **Estimated bid period quantities needed: 15,000 gallons for the Water Treatment Plant and 20,000 gallons for the Wastewater Treatment Facility.**
- 1.2 The supplier shall certify that the product furnished, Sodium Hypo-chlorite, complies with applicable requirements of American Water Works Association (AWWA B300), and the supplier shall comply with the applicable standards.
- 1.3 See Division I, section 1.3 above.

### 2.0 Activated Carbon

Activated Carbon for use at the Water Treatment Plant.

#### Specifications:

- Iodine No.: 500 minimum
- Modified phenol value: 30 maximum MPV (3.5 g/L).
- Odor adsorption capacity: taste and odor reduction not less than 70%
- Moisture % as packed: 8 % maximum

- Apparent density, mg/L 0.2-0.75 mg/L
- Particle size distribution
  - % thru 100 mesh: 99 minimum
  - % thru 200 mesh: 95 minimum
  - % thru 325 mesh: 90 minimum
- Tannin value: 200 ppm (carbon required to reduce 20-ppm tannin to 2 ppm)

- 2.1 Deliveries to the Water Treatment Plant will normally be between the hours of (0700-1700) in 40-50 lb bags on about 50 bag pallets. Estimated delivery size is 1 pallet weighing 2,000 lbs each (2,000 lbs per delivery). Estimated bid period quantity: 6,000 lbs.  
**The supplier will provide a lift gate and jack.**
- 2.2 The supplier shall certify that the activated carbon complies with all applicable requirements of American Water Works Association (AWWA B600), and the supplier shall comply with the applicable standards.

### 3.0 Potassium Permanganate

Free flowing Potassium Permanganate (KMNO<sub>4</sub>) for use at the Water Treatment Plant

Specifications:

- KMNO<sub>4</sub> content: not less than 95% by weight.
- *The free flowing grade shall not form lumps that cannot be broken up easily with minimal pressure and shall pass through a 5/c standard sieve, Series No. 200 and no more than 20 percent by weight may be retained on a US Standard No. 40 sieve.*
- Contents to be:
  - Potassium Permanganate (KMNO<sub>4</sub>): 95% minimum
  - Manganese Dioxide (MNO<sub>2</sub>): 0.75% maximum
  - Sulfate (SO<sub>4</sub>) 0.20% maximum
  - Cadmium (Cd) 100 mg/Kg maximum
  - Chromium (Cr) 500 mg/Kg maximum
  - Chlorine (Cl<sub>2</sub>) 0.10% maximum
  - Ammonia (NO<sub>3</sub>): 0.05% maximum
  - Arsenic (As): 1 ppm maximum
  - Moisture: 0.50% maximum

- 3.1 Delivery will normally be between the hours of (0700-1700) in 55 lb. drums to the Water Treatment Plant. Estimated delivery size is 36 barrels (1,980 lbs) Estimated bid period quantity: 36 barrels totaling 1,980 lbs.  
**The supplier will provide a lift gate and jack.**
- 3.2 The supplier shall certify that the product furnished, potassium permanganate, complies with applicable requirements of American Water Works Association (AWWA B603), and the supplier shall comply with the applicable standards.

#### 4.0 Sodium Hydroxide (NaOH) 25%

Sodium Hydroxide (NaOH) – 25% “caustic soda” for use at the Water Treatment Plant

##### Specifications

- Liquid sodium hydroxide, diluted to 25% by supplier.
- The anhydrous caustic soda, before dilution, shall contain a minimum of:  
74.4% alkalinity as Na<sub>2</sub>O  
96% sodium hydroxide as NaOH  
not more than 2% carbonate as Na<sub>2</sub>CO<sub>3</sub>
- Contents to be:  
Sodium hydroxide (NaOH): 24% by wt.  
Sodium Oxide (Na<sub>2</sub>O): 18.6% by wt.  
Sodium Carbonate ( Na<sub>2</sub>CO<sub>3</sub>): 0.08% maximum  
Sodium Chloride ( NaCl): 6% maximum  
Sodium Sulfate ( Na<sub>2</sub>SO<sub>4</sub>): 1% maximum  
Sodium Chlorate ( Na<sub>2</sub>CO<sub>3</sub>): 1% maximum  
Iron (Fe): 0.0004 % maximum

4.1 Delivery will normally be between the hours of (0700-1700) in 3,000 – gallon minimum truckloads delivered to the Water Treatment Plant.  
Estimated bid period quantity: 27,000 gallons

4.2 The supplier shall certify that the product, sodium hydroxide, complies with all applicable American Water Works Association (AWWA B501) and the supplier shall comply with the applicable standards.

#### 5.0 Liquid Sodium Bisulfite

Liquid Sodium Bisulfite (NaHSO<sub>3</sub>) to be used at the Wastewater Treatment Plant

##### Specifications

- Liquid Sodium Bisulfite diluted to 38% by the supplier
- The supplier shall certify that the product furnished, liquid sodium bisulfite, complies with American Water Works Association (AWWA B601) and the supplier shall comply with the applicable standards.

5.1 Delivery will normally be between the hours of (0700-1400) in 3,000-3,500 gallon truckloads delivered to the Wastewater Treatment Plant.  
Estimated bid period quantity: 7,000 gallons.

5.2 See Division I, section 1.3 above

## **DIVISION IV: WARRANTIES**

The chemicals supplied shall be warranted to be in complete compliance with the specifications and completely satisfactory for their intended use. Unsatisfactory items will be replaced, at no cost, or satisfactory adjustment made.

## **DIVISION V: ATTORNEY'S FEES AND COST**

The contractor agrees to indemnify the Town from any and all liability, loss or damage, including but not limited to bodily injury, illness, death or property damage which the supplier becomes legally obligated to pay, including reasonable attorney's fees, investigative and discovery cost, and court cost, as a result of claims, demands, costs or judgments against the Town, arising out of this agreement, caused by, or arising out of, the negligence, fault, breach of warranty, products liability or strict liability of the contractor, and/or third parties, whether such negligence, fault, breach of warranty, products liability, or strict liability is sole, joint or several.

## **INSURANCE**

Successful supplier shall provide proof of insurance, as shown, before any purchase order is issued, or chemical delivery is made.

1. Liability coverage: General Liability \$500,000 combined single limit comprehensive form; broad form property damage, independent supplier insurance, product operator's insurance.
  2. Vehicle insurance: \$500,000 combined single limit, comprehensive form: hired/non-owned.
  3. Workers compensation: Statutory limits; employer liability, \$500,000
- These certificates shall contain a provision that the insurance company will notify, by registered mail, the certificate holder and Town at least fifteen (15) days in advance of any cancellation or material change.

## PROPOSAL

TO: Town Manager

FOR: Furnishing of chemicals, delivered to the Town of Exeter for the year 2013 in accordance with the attached project manual and specifications.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those, as named herein; that this proposal is made without collusion with any other person, firm or corporation; that he/she has carefully examined the delivery locations, and project manual and specifications, attached hereto; and he/she proposes and agrees, if this proposal is accepted, that he/she will contract with the owner, in the form of purchase orders, to provide all necessary labor, transportation, tools, incidental materials and materials (chemicals), as specified, and will deliver all chemicals bid on in the time specified, and that he will take payment for completed deliveries, when approved by the Town Manager, for the following unit prices.

**Bid Item #1:**

Sodium Hypochlorite solution-15% for Water Treatment Plant and Wastewater Treatment Plant.

Unit Price, per gallon, delivered: \$ \_\_\_\_\_

**Bid Item #2:**

Activated Carbon, for Water Treatment Plant.

Unit Price, per pound, delivered: \$ \_\_\_\_\_

**Bid Item #3:**

Potassium Permanganate – Free flowing, for the Water Treatment Plant.

Unit Price, per pound, delivered: \$ \_\_\_\_\_

**Bid Item #4:**

Sodium Hydroxide – 25% for the Water Treatment Plant.

Unit Price, per gallon, delivered: \$ \_\_\_\_\_

**Bid Item #5**

Liquid Sodium Bisulfite-38% for the Wastewater Treatment Plant.

Unit Price, per gallon, delivered: \$ \_\_\_\_\_

Information regarding individual, firm, partnership or corporation submitting this bid

COMPANY SUBMITTING BID: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: (\_\_\_\_) \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ PRINT: \_\_\_\_\_

TITLE: \_\_\_\_\_ FED ID # OR SS# \_\_\_\_\_

NOTICE:

1. Person having proper legal authority shall sign bid in black ink.
2. Drum deposits shall not be included in bid items. Bidders shall provide deposit information upon request.
3. If you do not submit a bid but wish to remain on the Town of Exeter's "Bid List" provide your name and address above and check here: \_\_\_\_\_ and return.