

City of Portsmouth, New Hampshire
"Annual Chemicals"

INVITATION TO BID

Sealed bid proposals, plainly marked, Annual Chemicals Bid #20-07 on the outside of the mailing envelope as well as the sealed bid envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until 2:00 p.m. January 25, 2007 at which time all bids will be publicly opened and read aloud.

Scope: To establish annual agreements to supply and deliver chemicals for various operations.

Specifications and bid proposal forms may be obtained from www.cityofportsmouth.com, the Finance/Purchasing Department on the third floor at the above address, or by calling 603-610-7227.

The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the City.

If you have any questions please contact the Finance/Purchasing Department at the following number: 603-610-7227.

**City of Portsmouth, New Hampshire
Annual Chemicals**

Instruction to Bidders

Intention:

It is the intent of this proposal to establish annual agreements to supply and deliver chemicals used in the operation of three municipal swimming pools (two indoor, one outdoor), two potable water treatment plants and two wastewater treatment plants and the Department of Public Works.

Special Instructions:

Any quantity specified is an estimate only. The City of Portsmouth will purchase just the quantities necessary, at various times, to perform the intended operation. The purchased quantities may be equal to, less than, or greater than, the estimate.

Bid prices shall be firm for 60 days from bid opening. Successful bidders (known as "suppliers") shall be expected to perform (i.e. make deliveries) through March 15, 2008 at the bid price. Bid prices shall be inclusive of all taxes, charges or other fees.

All bid prices shall be FOB delivered to the specific municipal destination. No added freight or handling charges will be allowed. Minimum orders which are greater than estimated delivery quantities are not acceptable.

Deposits for cylinders, pallets, or other containers shall be refundable and incidental to the award of bids.

Each chemical will be awarded separately. This proposal does not require any bidder to submit an "all-or-nothing" bid. The City anticipates awards to multiple suppliers.

Each item bid shall include the chemical analysis and the origin of manufacture. Any variation between these specifications and bid must be listed separately. Each bidder shall submit a **Certificate of Compliance** for each chemical bid.

Samples may be required for testing purposes. No charges for these samples will be allowed. All unused trial chemicals and their containers must be removed from the test site, at no cost to the City within 10 working days of the trial.

General Instructions:

1. **Preparation of Bid Proposal**

- a) The bidder shall submit her/his proposal upon the form furnished by the City (attached). All figures shall be in ink or typed. Corrections shall be in ink or typed, and initialed.
- b) The bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his name and post office address must be shown. If by a partnership the name and post office address of each partnership member must be shown. If as a joint venture, the name and post office address of each must be shown. If by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles, and business addresses of the President, Secretary, and Treasurer.

**Instruction to Bidders
(Continued)**

2. Disqualification

Bid proposals may be disqualified and rejected for any of the following reasons:

- a) If the proposal is on a form other than that furnished by the City or if the form is altered;
- b) If the proposal contains unauthorized additions, conditions or altered bids;
- c) Evidence of collusion among bidders;
- d) Failure to submit all required information as requested in the specifications;
- e) Product fails to meet specifications/testing/performance certificate;
- f) Disqualification is in the best interest of the City.

3. Delivery of Bid Proposals

When sent by mail, the sealed proposal shall be addressed to the Owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened. Faxed bid proposals are not acceptable.

4. Withdrawal of Bid Proposals

A bidder will be permitted to withdraw the proposal unopened after it has been deposited if such request is received in writing prior to the time specified for opening the proposals.

Award:

After the bids are opened and read, the lowest, responsible and qualified bidders for each chemical will be identified. Responsible and qualified bidders are those that have: the ability, capacity, and skill to perform within the specified time limits; the quality, availability and adaptability of the supplies; the financial resources to fulfill the contract; successfully conducted jar tests prior to bid (as may be applicable) and successfully conducted bench tests within time specified (as may be applicable). Bid results will be available to the public.

Within 60 calendar days after the opening of bids, awards will be made separately for each chemical to the lowest responsible and qualified bidder whose bid complies with all the requirements prescribed. Bidders will be notified by mail, that the bid has been accepted and that an award has been made.

If the award is contingent upon successful bench testing of the chemical(s), the bidder will be notified by mail, and shall have 15 days from the date of notification to perform tests. Failure to perform the testing within 15 days will result in disqualification.

Reservation of Rights:

The City reserves the right to reject any or all proposals, to waive technicalities and to advertise for new proposals, if in the judgment of the City, the best interest of the City of Portsmouth will be promoted thereby.

**Instruction to Bidders
(Continued)**

Terms of Award:

Those successful bidders (“suppliers”) to whom an award is made shall be required to meet the performance standards outlined in the bid specifications and as described below.

1. Transportation of chemicals shall be done only in vehicles capable of handling the material in accordance with State and Federal transportation handling and safety requirements. Supplier shall, if requested by the City, produce documentation to demonstrate compliance with such requirements. Vehicles shall be capable of loading and unloading the chemicals as described for each chemical in the bid specifications. It shall be the contractor’s responsibility to have the proper fittings to connect to the existing fittings at each delivery site.
2. Deliveries shall be made upon order as described in the Bid Specifications.
3. Supplier shall be capable of receiving orders by fax.
4. Chemicals shall meet all specifications and perform per City requirements and needs.
5. All suppliers shall notify the City (Portsmouth Water Treatment Plant – Madbury, Pease Water Treatment Plant, Municipal Indoor Swimming Pool, Municipal Outdoor Swimming Pool, Spinnaker Point Adult Recreation Swimming Pool, Wastewater Treatment Plant Peirce Island, Wastewater Treatment Plant Pease, Public Works Department) with delivery date and a faxed confirmation including name of driver who will deliver the chemicals.
6. All invoices will have a reference number that matches to the delivery slip and shall indicate the chemical (specifying the percentage in liquid form as described in the bid specifications) and the unit of measurement shall be in accordance with the bid unit price.
7. The City reserves the right to deduct up to five percent (5%) from the total invoice for missed and late deliveries, or to deduct it’s expenses incurred such as overtime, whichever may be greater, when such failures to perform are not due to extremes in weather or other conditions that are not reasonably foreseeable or within the control of the supplier. Such late penalty shall not be construed as the sole remedy for the supplier’s failure to perform timely. Failure to perform may lead to cancellation.
8. The City of Portsmouth reserves the right to negotiate a one or two year extension of the award beyond the expiration date for each individual chemical if it is in the best interest of the City.

Cancellation of Award:

The City reserves the right to cancel the award should the supplier fail to perform in accordance with the terms of this award. If the City cancels the award, the City reserves the right to solicit the chemical from the next lowest bidder or other available sources as may be necessary to meet needs. Any expense incurred from this action may be the responsibility of the supplier who did not meet the requirements.

**City of Portsmouth, New Hampshire
Annual Chemicals**

Annual Chemicals Delivery Locations

Portsmouth Water Treatment Plant - Madbury

60 Freshet Road
Madbury, New Hampshire
Phone: 603-749-9692
Fax: 603-740-3650

Pease Water Treatment Plant

Pease International Tradeport
97 Grafton Drive
Portsmouth NH 03801
Phone: 603-749-9692
Fax: 603-740-3650

Municipal Indoor Swimming Pool

50 Andrew Jarvis Drive
Portsmouth, New Hampshire
Phone: 603-427-1546
Fax: 603-433-8819

Municipal Outdoor Swimming Pool

99 Peirce Island
Portsmouth, New Hampshire
Phone: 603-433-0039
Fax: 603-433-8819

Spinnaker Point Adult Recreation Facility

30 Spinnaker Way
Portsmouth, NH 03801
Phone: 603-766-1484
Fax: 603-766-1483

Wastewater Treatment Plant- Peirce Island

200 Peirce Island
Portsmouth, New Hampshire
Phone: 603-427-1553
Fax: 603-766-4422

Wastewater Treatment Plant- Pease

135 Corporate Drive
Pease International Tradeport
Portsmouth, New Hampshire
Phone: 603-430-9328
Fax: 603-430-2177

Public Works Department

680 Peverly Hill Road
Portsmouth, NH 03801
Phone: 603-427-1530
Fax: 603-427-1539

**Bid Specifications
Annual Chemicals**

PLEASE NOTE ESTIMATED QUANTITIES ARE BASED ON ANNUAL USAGE UNLESS OTHERWISE STATED

1) **25% Caustic Soda**

(i)

Estimated quantity

60,000 gallons

Delivery location

Water Treatment Plant - Madbury

Description

25% Caustic Soda, must conform to AWWA Standard B501-93. Flexible delivery amounts from 2,000 to 4,000 gallons per order delivered to one (1) 8,000 gallon underground tank and/or two (2), 1000 gallon above ground bulk tanks.

Deliveries will require the use of a compressor. All deliveries must be received between the hours of 7:30am and 2:00pm Monday through Friday.

(ii)

Estimated quantity

25,000 gallons

Delivery location

Peirce Island Wastewater Treatment Plant

Description

25% Caustic Soda, must conform to AWWA Standard B501-93, 2,000 gallon deliveries to an underground 4,300 gallon tank. A percentage of the delivery will be made to Pease Wastewater Treatment Plant as described below and the remainder to the Peirce Island Wastewater Treatment Plant. All deliveries must be received by noon, Monday through Friday.

(iii)

Estimated quantity

1,000-1,200 gallons

Delivery location

Pease Wastewater Treatment Plant

Description

25% Caustic Soda, must conform to AWWA Standard B501-93, 400 gallon deliveries to a 500-gallon bulk storage tank. A percentage of the delivery will be made to the Pease Wastewater Treatment Plant and the remainder to the Peirce Island Wastewater Treatment Plant as described above. All deliveries must be received by noon, Monday through Friday.

(iv)

Estimated quantity

250 gallons

Delivery location

Peirce Island Wastewater Treatment Plant

Description

25% Caustic Soda, must conform to AWWA Standard B501-93, 55 gallon drum. A minimum of 1 drum shall be delivered at a time for a maximum total of 8 drums per year. Deliveries made to Peirce Island Wastewater Treatment Plant to an at grade on-site location as directed by personnel. Deliveries must be received by noon, Monday through Friday.

Note: All deliveries of 25% caustic soda are to be made within 24-48 hours of order unless otherwise directed by the City.

**Bid Specifications
Annual Chemicals
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- 2) **Fluoridation Compound**
Estimated quantity 8,000 gallons
Delivery location Water Treatment Plant - Madbury
Description 25% Hydrofluosilic Acid
 (H_2SiF_6), must conform to AWWA Standard B703-89, delivered in 30 gallon barrels. Delivery truck/trailer must have power tailgate. All deliveries must be received between the hours of 7:30am and 2:00pm, Monday through Friday.
- 3) **Diatomaceous Earth**
Estimated quantity 2400 pounds
Delivery locations Municipal Indoor Swimming Pool
Description Celite Diatomite, delivered. Quantities delivered at one time will vary between 10-36 50lb. pails. Delivery truck/trailer must have power tailgate. Deliveries are to be made within 5 business days from date of order. All deliveries must be received between the hours of 8:00am and 2:00pm, Monday through Friday.
- 4) **Liquid Sodium Hypochlorite**
 (i)
Estimated quantity 250 gallons
Delivery location Municipal Indoor/Outdoor Swimming Pool
Description Sodium Hypochlorite 15%
 AWWA Standard B300-92
 delivered in 55-gallon drums.
 Indoor Pool Delivery quantity - 1- 55 gal drum.
 Outdoor Pool Delivery quantity - 4-8 55 gal drums.
 Delivery truck/trailer must have power tailgate. All deliveries must be received between the hours of 8:00am and 2:00pm, Monday through Friday.

**Bid Specifications
Annual Chemicals
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(ii)

Estimated quantity
Delivery location
Description

60,000 gallons

Water Treatment Plant - Madbury

Sodium Hypochlorite 15%, must conform to AWWA Standard B300-92, min. 1,600 gallon delivery. Delivery truck/trailer will require a compressor. All deliveries must be made between the hours of 7:30am and 2:00pm, Monday through Friday.

(iii)

Estimated quantity
Delivery location
Description

550,000 gallons

Peirce Island Wastewater Treatment Plant

Sodium Hypochlorite 15%, must conform to AWWA Standard B300-92, 5,000 gallon deliveries to two 10,000 gallon above ground tanks. All deliveries must be received by noon, Monday through Friday.

(iv)

Estimated quantity
Delivery location
Description

60,000 gallons

Pease Wastewater Treatment Plant

Sodium Hypochlorite 15%, must conform to AWWA Standard B300-92. 5000 gallon deliveries shall be made to a 5800 gallon above ground tank. All deliveries must be received by noon, Monday through Friday.

Note: All deliveries of liquid sodium hypochlorite shall be made within 24-48 hours of order unless otherwise directed by the City.

5) **Calcium Hypochlorite**

(i)

Estimated quantity
Delivery location
Description

3,250 lbs. - 3,500 lbs.

Pease Water Treatment Plant

Dry tablets of calcium hypochlorite to be used with a calcium hypochlorite chlorinator manufactured by Arch Chemicals, Inc. Charlestown. The chlorinator uses dry tablets and a water stream to produce a reservoir of active chlorine solution via an electronically controlled spray manifold. Approximately 2 deliveries per year in 5 gallon pails. Delivery truck/trailer must have a power tailgate. Deliveries are to be made within 24-48 hours of order unless otherwise directed by the City and shall be received between the hours of 7:30 am and 2:00pm, Monday through Friday.

**Bid Specifications
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- (ii)
Estimated quantity 2,500 lbs. - 3,800 lbs
Delivery location Municipal Indoor Pool/Outdoor Pool/Spinnaker Point Indoor Pool
Description Used to Sanitize Pool water in a dry Chlorinator Pulsar System. 65% Calcium Hypochlorite in a one inch tablet form. Supply in 50lb pails. Delivered quantities will be 12 pails or greater. Delivery truck/trailer must have power tailgate. Deliveries are to be made within 24 to 48 hours of order unless otherwise directed by the City. All deliveries must be received between the hours of 8:00 am and 2:00 pm, Monday through Friday.
- 6) **Hydrochloric Acid**
Estimated quantity 140 gallons
Delivery location Municipal Indoor and Outdoor Swimming Pool
Description Muriatic Acid, 50% strength
 (i) Indoor Pool Delivery quantities - 1 55 gal drum
 (ii) Outdoor Pool Delivery quantities - 1 55 gal drum
 Delivery truck/trailer must have power tailgate. Deliveries are to be made within 5 business days from date of order. All deliveries must be received between the hours of 8:00am and 2:00pm, Monday through Friday.
- 7) **Sodium BiSulfite (Split Delivery)**
 (i) Estimated quantity 100,000 gallons
Delivery location Peirce Island Wastewater Treatment Plant in 4,000 gallon deliveries.
Description Sodium BiSulfite 38%, 4,000 gallon deliveries to an above ground 10,000 gallon tank. A percentage of the delivery will be made to Pease Wastewater Treatment Plant as described below and the remainder to the Peirce Island WWT Plant. The City will not incur any additional costs for concentrations greater than 38%. All deliveries must be received by noon, Monday through Friday.

**Bid Specifications
Annual Chemicals
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(ii)

Estimated quantity

20,000 gallons

Delivery location

Pease Wastewater Treatment Plant in 1,000 gallon deliveries

Description

Sodium BiSulfite 38%, 1,000 gallon delivery to a 1300 gallon above ground tank. After delivery to the Pease WWTP, the remainder is to be delivered to the Peirce Island WWTP as described above. The City will not incur any additional costs for concentrations greater than 38%. All deliveries must be received by noon, Monday through Friday. In an emergency situation, it may be required that the vendor deliver only to the Pease Wastewater Treatment Plant. This is very unlikely and the City would agree to pay an additional cost not to exceed more than 10% of the bid price for this delivery.

Price for sodium bisulfite as described above will be based on 4,000 Gallons Full Delivery; the first delivery will be to Pease WWTP to top off their tank and the remainder will be delivered to Peirce Island WWTP (2 different locations). NOTE: ALL DELIVERIES SHALL BE MADE WITHIN 24-48 HOURS OF ORDER UNLESS OTHERWISE DIRECTED BY THE CITY.

8) **Powdered Activated Carbon (PAC)**

Estimated quantity

7,200 pounds per year consisting of a delivery of a minimum of five (5) 900-pound bags net. All deliveries must be made between the hours of 7:30 am and 2:00 PM, Monday through Friday. Deliveries are to be made within 24 to 48 hours of the order unless otherwise directed by the City. The delivery vehicle shall be equipped to provide the off-loading on-site of the nine hundred pound bags to an at grade location as directed by WTP personnel.

Delivery Location:

Water Treatment Plant - Madbury

Description:

The powdered activated carbon (PAC) shall be HYDRODARCO B manufactured by Norit Americas Inc. The PAC shall be produced by steam activation of lignite coal under carefully controlled conditions. It shall be finely ground to obtain a high degree of suspendability in water and to have a high capacity for adsorption of organics that cause taste and odor problems in water supplies. The PAC shall be packaged in 900-pound bags and the bags shall be

**Bid Specifications
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manufactured by Norit Americas Inc. The bags shall be woven polypropylene bulk bags with a glued plastic liner. The PAC shall meet the physical and performance requirements of AWWA B-600-96 Carbon Standard. The product shall be certified to ANSI-NSF Standard 61 with a maximum use level of 250 mg/l. Its general surface area characteristics shall be 600 m2/g. Each 900 lb. bag shall be on a standard size pallet and wrapped in plastic to protect it from weather during shipment. Damaged pallets or unwrapped bags will not be accepted and replacement deliveries will be made within 24 to 48 hours.

9) **Potassium Permanganate**

Estimated Quantity:

1) **Peirce Island WWTP- 25,000 pounds** per year delivered in 125 Kg (320 pound) drums. The delivery vehicle shall be equipped to provide the off-loading on-site of the 320 pound drums to an at grade location as directed by WWTP personnel. The minimum delivery shall be 4 drums. All products shall be free flowing.

2) **Pease WWTP 3000 pounds** per year delivered in 55 pound pails. All products shall be free flowing. All deliveries must be received by noon. The delivery vehicle shall be equipped to provide the off-loading on-site of the pallets of pails to an at grade location as directed by WWTP personnel. The minimum delivery shall be eight-55 pound pails.

Delivery Location:

- 1) **Peirce Island Wastewater Treatment Plant**
- 2) **Pease Wastewater Treatment Plant**

Description:

The KmnO4 shall be manufactured by CAIROX or equivalent and shall be free flowing. The product shall meet AWWA specifications for water tolerance and particle size and must be NSF certified. Technical service shall be available for on-site assistance during the term of the contract. Technical service is defined as expertise in chemical treatment.

NOTE: All deliveries of potassium permanganate shall be within 24-48 hours of order unless otherwise directed by the City.

**Bid Specifications
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- 10) **Liquid Corrosion-Inhibited Calcium Chloride**
Estimated quantity **5,000 gallons**
Delivery location **Public Works Department**
Description 32% +/- 1% Calcium Chloride, 2% max.
 1kali Chloride as NaCl, 0.1% Magnesium as MgCl.
 Typical (in lbs. per gallon)
 Calcium Chloride - 4.5 lbs.
 Sodium Chloride - 0.2 lbs.
 Magnesium Chloride - 0.004 lbs.
 Calcium Sulfate - 0.0004 lbs
 Water - 5.80 lbs.
 The calcium chloride solution shall be provided
 by the manufacturer as a true solution and
 shall not be reconstituted from flake CaCl₂.
 Deliveries are to be made within 48 hours from
 date of order unless otherwise directed by the
 City. All deliveries must be received between
 the hours of 8:00am and 3:00pm, Monday through
 Friday.
- 11) **Calcium Hypochlorite Granular**
Estimated Quantity **300 lbs -650 lbs**
Delivery location **Municipal Indoor Pool/Outdoor
Pool/Spinnaker Point Indoor Pool**
Description 65% Calcium Hypochlorite, granular.
 Delivered in 25 lb. pails.
 Deliveries are to be made within
 24 to 48 hours of order unless otherwise
 directed by the City. Delivery truck/trailer
 must have power tailgate. All
 deliveries must be received between
 the hours of 8:00 am and 2:00 pm,
 Monday through Friday.
- 12) **Sodium Bicarbonate**
Estimated Quantity **250 lbs -650 lbs.**
Delivery location **Municipal Indoor Pool/Outdoor Pool/Spinnaker
Point Indoor Pool**
Description Used to balance alkalinity.
 Delivered in 50lb. pails,
 5 pails per delivery. Delivery truck/trailer
 must have power tailgate. Deliveries are to be
 made within 5 business days from date of order.
 All deliveries must be received between the
 hours of 8:00am and 2:00pm, Monday through
 Friday.

**Bid Specifications
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- 13) **Calcium Chloride**
Estimated Quantity 2150 lbs
Delivery location Municipal Indoor Pool/Outdoor Pool/Spinnaker Point Indoor Pool
Description Used to balance calcium hardness. 77% - 80% Flake. Delivered in 50lb pails, 5-10 pails per delivery. Delivery truck/trailer must have power tailgate. Deliveries are to be made within 5 business days from date of order. All deliveries must be received between the hours of 8:00am and 2:00pm, Monday through Friday.
- 14) **Pulsar Plus Briquettes**
Estimated quantity 2,500 lbs. - 3800 lbs
Delivery location Municipal Indoor Pool/Outdoor Pool/Spinnaker Point Indoor Pool
Description used to Sanitize Pool water in a dry Chlorinator Pulsar System. 65% Calcium Hypochlorite in a pellet form. Supply in 50-lb pails. Delivered quantities for the Outdoor Pool 22-30/ 50-lb. pails. Must be pulsar plus briquettes name brand only. Deliveries are to be made within 24 to 48 hours of order unless otherwise directed by the City. All deliveries must be received between the hours of 8:00 am and 2:00 pm, Monday through Friday.
- 15) **Sodium Thiosulfate**
Crystal Formula Na 2 S2 O3
Estimated quantity 300 lbs - 700 lbs
Delivery location Municipal Indoor Pool/Outdoor Pool/Spinnaker Point Indoor Pool
Description Used to reduce the level of free available chlorine after shocking the pool. Requesting this be supplied in 50lb. pails. Delivery truck/trailer must have power tailgate. All deliveries are to be made within 5 business days from date of order. All deliveries must be received between the hours of 8:00am and 2:00pm, Monday through Friday.

**Bid Specifications
Annual Chemicals
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16) De-Watering Polymer

(i)

Estimated quantity

2700 pounds

Delivery Location

Pease Wastewater Treatment Plant

Description:

Product type must be Percol 757, or Atlantic Coast ACP-68. Copolymer of a quaternary acrylate salt and acrylamide. White free-flowing micro beads, 1,650 lb delivery. Deliveries are to be made within 24 to 48 hours of order unless otherwise directed by the City. Delivery truck must be equipped with a hydraulic tailgate for ground delivery. All deliveries must be received by noon, Monday through Friday.

NOTE: Jar testing prior to bid opening is required for any new polymer.

Free trial (one 55 pound bag) is required prior to bid award if low bidder supplies other than those listed.

All unused trial chemicals and their containers must be removed from the test site, at no cost to the City within 10 working days of the trial.

(ii)

Estimated quantity

3,000 gallons

Delivery Location

Peirce Island Wastewater Treatment Plant

Description

Polymer is to be supplied in 275 gallon totes. Delivery will be one tote. Polymer must be dispersion quality (50% active). **Polymer must equal Aries 3220.** Deliveries are to be made within 24 to 48 hours of order unless otherwise directed by the City. Delivery truck must be equipped with a hydraulic tailgate for ground delivery.

Supplier must guarantee there will be no separation of the oil/polymer for a minimum of six months.

NOTE: Jar testing prior to bid opening is required for any polymer.

Free trial (minimum of one 55 gallon drum for demonstration) must be supplied prior to the award of the bid.

All unused trial chemicals and their containers must be removed from the test site, at no cost to the City, within 10 business days of the trial.

**Bid Specifications
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17) **Ferric Chloride "Blend" Coagulant and Polymer
(High Molecular Weight Anionic Flocculant)**

Estimated Quantity 1) **Coagulant** Approximately 60,000 gallons (600,000 pounds) per year consisting of individual deliveries of 3,500 to 4,000 gallons of liquid Ferric Chloride and Polymer Blend. It is anticipated that a single delivery will be required every 20 to 30 days. Delivery will be within five days of order. The delivery vehicle shall be equipped to pump the liquid to a quick disconnect storage tank as directed by WWTP personnel.

2) **Polymer** (Anionic Flocculant) - Approximately 2100 gallons (18,000 pounds) per year consisting of 275-gallon tote bins, single tote deliveries. Delivery will be within 7 days of order. It is anticipated that 8 totes will be required per year (2315 lbs/tote). Bid price shall include vendor's cost for pick-up and return of empty totes for duration of contract.

Delivery Location: **Peirce Island Wastewater Treatment Plant**

Description: The product shall be provided as part of an ongoing "Chemical Enhanced Primary Treatment Program". The program is for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) removal in the primary clarification system to achieve minimum removal rates of 40% BOD and 80% TSS removal on the primary effluent. The primary product shall be a cationic coagulant in a liquid form. It shall be Aries 2076 or approved equal, and shall be a minimum of 10% by volume organic coagulant. The vendor shall guarantee that any inorganic portion of coagulant not exceed metal concentrations as follow: Ag < 1 ppm, As <3 ppm, Ba <9 ppm, Cd <0.5 ppm, Cr <70 ppm, Cu <35 ppm, Hg < 0.1 ppm, Mn < 700 ppm, Ni < 40 ppm, Pb < 9 ppm, Se < 1 ppm, Ti < 10 ppm and Zn < 35 ppm. In addition it shall have the following specifications: 11.1 to 12.4 % Fe+3, 0 to 1.5% Fe+2, 0-1.0% HCl, less than 0.1% insolubles and a freezing point of at least 10 degrees F.

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The same vendor shall supply the coagulant and the flocculant for the annual contract period.

The liquid emulsion polymer product shall be a high molecular weight liquid anionic flocculant.—The polymer shall be no less than 32% solids content and shall have the following properties; Opaque white liquid appearance, 8.5 lbs./gal density, 300-600 cps typical effective viscosity, 0 degree F (-18 degrees C) freezing temperature and a flash point (tag closed cup) of greater than 200 degrees F (93 degrees C).

The vendor shall supply qualified technician(s) for servicing the on-going operations of the chemical treatment program, including regular on-site service (minimum once-monthly), and emergency response services with a maximum 24-hour response time, for duration of contract period.

The vendor shall provide delivery of coagulant in tankers of appropriate design and licensing for bulk chemical transport, using professional drivers qualified in the handling of hazardous chemicals. The coagulant shall be manufactured by a chemical manufacturer with a minimum of ten years experience in custom formulations of proprietary coagulant chemistries (documentation to be provided on request).

In order to qualify to bid, the vendor shall conduct jar testing on-site prior to bid in order to demonstrate product performance and compliance with product specifications. Jar test samples shall be submitted for a Certified Lab Analysis by the vendor and results shall demonstrate minimum 80% TSS and 40% BOD removal rates.

Vendor will have 15 days after receiving an intent to award notice to perform a successful Bench test. Bench testing must demonstrate minimum required performance at the proposed treatment dosage on 24-hour composite samples for five (5) consecutive days. Bench test performance shall be evaluated on the basis of dosage and treatment cost required to achieve this minimum specification (80% TSS and 40% BOD removals) without the need for addition of any other chemical or change to the existing treatment processes. Treatment cost shall be calculated by the vendor and included as part of the bid proposal with supporting documentation including treatment cost calculations and **certified lab analysis of treated samples**. Treatment cost shall be calculated as total chemical cost per million gallons treated. No change in product specification shall be permitted.

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18) **Liquid Ortho-Poly Phosphate Blends**

<u>Estimated Quantity</u>	15,000 gallons/year 1000- 1500 Gallons per month
<u>Delivery Location</u>	Water Treatment Plant - Madbury (other Locations may be added).
<u>Description</u>	Blended Ortho-Polyphosphate-Product must be certified for use in potable water by the NSF, approved for use in potable water supplies by the U.S.E.P.A., and comply with the U.S.D.A. Guide Requirements for use in a public water supply.

Product must be a true blend of Poly (Meta, Pyro, Tripoly) and Ortho phosphate. Shall have a minimum total phosphate (as PO4) percent by weight of 36%. Shall have a minimum total active complex phosphate (Meta, Pyro, Poly, etc.) content of 18% (+1%) by weight. Shall have a maximum total orthophosphate content of 18% (+1%) by weight. Shall have a pH range between 1.0 and 5.0 and not have any injurious effect on personnel handling the phosphate. Shall have a specific gravity of between 1.3 and 1.4. Shall have the capability to sequester iron and manganese over a broad temperature and pH range. Shall be able to prevent deposition as well as remove existing scale deposits without causing any deleterious effects to the water supply system. Shall provide effective corrosion inhibition without the presence of zinc on both ferrous and non-ferrous surfaces. Shall be liquid and easily applied via existing Water Authority metering pumps.

The product shall be 11.4 pounds per gallon. All deliveries must be made between the hours of 7:30am and 2:30pm, Monday through Friday. Consisting of delivery of 1000 gallons bulk. The delivery vehicle shall have a compressor, and be equipped to provide the off-loading on-site to an at grade location as directed by WTP personnel.

**Bid Specifications
Annual Chemicals
(Continued)**

19) **Polyaluminum Chloride (PC-H180)**

Estimated Quantity **40,000 Gallons**

Delivery Location **Water Treatment Plant - Madbury**

Description Product must meet or exceed the current American Water Works standard for Polyaluminum Chloride. Product must also be certified under ANSI/NSF standard 60-Drinking Water Treatment Chemicals. The manufacturer and all intermediate vendors, if any, taking custody of the product must have ANSI/NSF Standard 60 certification for product from the National Sanitation Foundation (NSF). Without proof of current certification accompanying the bid proposal, the proposal shall be considered unresponsive. The product shall be manufactured to meet the following specifications: %AL2O3:10.5+/-0.5, %Basicity: 70+/-5, Specific Gravity: 1.24-1.26.

Deliveries will be approximately 4000 gallons per order, made to an above ground tank. Deliveries will be made in dedicated tank trucks used exclusively for the shipment of Polyaluminum Chloride. Delivery truck will require a compressor. Deliveries must be made between the hours of 7:30am and 2:00pm Monday through Friday.

In order to qualify to bid, the vendor shall conduct jar testing on-site prior to bid in order to demonstrate product performance and compliance with product specifications. Jar test samples shall be submitted for a Certified Lab Analysis by the vendor.

20) **Sodium Aluminate**

Estimated quantity **5000 - 7500 gallons**

Delivery locations **Water Treatment Plant - Madbury**

Description 750 gallon deliveries approximately every other month. Deliveries will be made to three 275 gallon second floor tanks. Truck will need a compressor and enough hose for delivery to the three second floor tanks.

Deliveries are to be made within 24-48 hours of order.

All deliveries must be received between the hours of 7:30am and 2:00pm, Monday through Friday.

**Bid Specifications
Annual Chemicals
(Continued)**

21) **Ammonium Hydroxide**
Estimated quantity
Delivery locations
Description

20,000 gallons
Pease Wastewater Treatment Plant
Ammonium Hydroxide Solution (NH₄OH).
Molecular Weight: 35.06.
Specific gravity: 0.896 g/cm³.
Weight of solution: 7.47264 lbs/gal.
Weight of Ammonia per gallon: 2.24 lb. NH₃-N per gallon.
Solution is 29.4 to 29.6 % ammonia by weight.
pH 11.6 SU @ 77 degrees F.
Solubility in water: complete.
2,000 gallon deliveries to a 2,500 gallon above ground tank.
Deliveries will require the use of a compressor.
All deliveries must be received by noon, Monday through Friday.

22) **Sodium Chloride**
Estimated quantity
Delivery locations
Description

20,000 pounds
Pierce Island Wastewater Treatment Plant
95.5% pure salt for water softeners.
The salt shall be manufactured by Morton or equivalent. 20,000 pounds per year delivered in 40 pound bags. The delivery will be for a minimum of 40 bags per pallet. The delivery vehicle shall be equipped to provide the offloading on-site. All deliveries must be received by noon, Monday through Friday.

**CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE
Bid Proposal Form (1 of 3)**

- 1) **25% Caustic Soda**
 - (i) 2,000 to 4,000 gallon delivery (WTP-M) \$ _____/gal
 - (ii) 2,000 gallon delivery (WWTP-PI) \$ _____/gal
 - (iii) 400 gallon delivery (WWTP-P) \$ _____/gal
 - (iv) 55 gallon drum delivery (WWTP-PI) \$ _____/gal

- 2) **25% Hydrofluosilic Acid (WTP-M)** \$ _____/gal

- 3) **Diatomaceous Earth (MISP)** \$ _____/lb

- 4) **Liquid Sodium Hypochlorite**
 - (i) 55 gallon drum delivery (MI/OSP) \$ _____/gal
 - (ii) 1,600 gallon delivery (WTP-M) \$ _____/gal
 - (iii) 5,000 gallon delivery (WWTP-PI) \$ _____/gal
 - (iv) 5,000 gallon delivery (WWTP-P) \$ _____/gal

- 5) **Calcium Hypochlorite**
 - (i) 50 lb delivery in 5 gal pails (WTP-Pease) \$ _____/lb
 - (ii) 12 or greater 50lb. pails (MISP, MOSP, SP) \$ _____/lb

- 6) **Hydrochloric Acid**
 - (i) 55 gallon drum delivery (MISP) \$ _____/gal
 - (ii) 55 gallon drum delivery (MOSP) \$ _____/gal

- 7) **Sodium BiSulfite**
4,000 gallon delivery (WWTP-PI); \$ _____/gal (one price)
(WWTP-P) split delivery

- 8) **Powdered Activated Carbon (WTP-M)** \$ _____/lb

- 9) **Potassium Permanganate**
 - (i) 320 lb drum (WWTP-PI) \$ _____/lb
 - (ii) 55 lb pail delivery (WWTP-P) \$ _____/lb

- 10) **Liquid Calcium Chloride (PWD)** \$ _____/gal

- 11) **Calcium Hypochlorite Granular (MI/OSP/SP)** \$ _____/lb

- 12) **Sodium Bicarbonate (MI/OSP/SP)** \$ _____/lb

- 13) **Calcium Chloride (MI/OSP/SP)** \$ _____/lb

- 14) **Pulsar Plus Briquettes (MI/OSP/SP)** \$ _____/lb

- 15) **Sodium Thiosulfate, Crystal (MI/OSP/SP)** \$ _____/lb

**CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE
Bid Proposal Form (2 of 3)**

- 16) **De-Watering Polymer**
 - (i) 1650 lb. delivery (WWTP-P) \$ _____/lb
 - (ii) 275 gallon tote delivery (WWTP-PI) \$ _____/gal

- 17) **Ferric Chloride “Blend” Coagulant and Polymer
(High Molecular Weight Anionic Flocculant)**
 - (i) Coagulant 3,500 to 4000 gal delivery (WWTP-PI) \$ _____/gal
 - (ii) Polymer 275 gal tote bins delivery (WWTP-PI) \$ _____/gal

- 18) **Liquid Ortho-Poly Phosphate Blend (WTP-M)** \$ _____/gal

- 19) **Polyaluminum Chloride (WTP-M)** \$ _____/gal

- 20) **Sodium Aluminate (WTP-M)** \$ _____/gal

- 21) **Ammonium Hydroxide (WWTP-P)** \$ _____/gal

- 22) **Sodium Chloride (WWTP-PI)** \$ _____/lb

WTP-M (Water Treatment Plant – Madbury)
WT-P (Water Treatment Plant – Pease)
WWTP-PI (Wastewater Treatment Plant –Peirce Island)
WWTP-P (Wastewater Treatment Plant – Pease)
MISP (Municipal Indoor Swimming Pool)
MI/OSP (Municipal Indoor/Outdoor Swimming Pool)
SP (Spinnaker Point Adult Recreation Indoor Pool)
PWD (Public Works Department)

**CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE
Bid Proposal Form continued (3 of 3)**

The undersigned agrees that he/she on behalf of Bidder has read the bid proposal documents, including the instructions to bidders, terms of award and bid specifications and agrees to the terms and conditions set forth therein.

At all times the undersigned agrees to maintain insurance coverage as described in Exhibit A. The City reserves the right to request insurance certificates demonstrating proof of coverage. The undersigned also agrees that Bidder will indemnify the City against all suits, claims, judgements, awards, loss, cost or expense (including without limitation attorneys' fees) arising in any way out of the Bidder's performance of its obligation under this award. Bidder will defend all such actions with counsel satisfactory to the City at its own expense, including attorneys' fees, and will satisfy any judgment rendered against the City in such action.

Bidder further agrees that this bid is not made jointly or in conjunction, cooperation or collusion with any person, firm, corporation or other legal entity.

Bidder agrees no officer, agent or employee of the Owner is directly or indirectly interested in this Bid.

Submitted by: _____
(Print Name & Title)

Signature: _____

Date: _____

Company: _____

Address: _____

City/State/Zip: _____

Telephone: (_____) _____

Fax No: _____

CONTACT NAME FOR ORDERING PURPOSES: _____

**EXHIBIT A
INSURANCE REQUIREMENTS**

General

Insurance shall be in such form as will protect the Contractor from claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this award whether such operation by himself or by anyone directly or indirectly employed by Contractor.

At a minimum, the Contractor shall purchase and maintain, during the term of the award, insurance of the limits and types specified below:

- A) Comprehensive General Liability:
 - Bodily injury or Property Damage -- \$1,000,000/\$2,000,000
 - Single Limit/aggregate

- B) Automobile and Truck Liability:
 - Bodily Injury or Property Damage -- \$1,000,000/\$2,000,000
 - Single Limit/aggregate

- C) Full Workers Comprehensive Insurance coverage for all people employed by the contractor to perform work on this project. This insurance shall, at a minimum, meet the minimum requirements of the most current laws of the State of New Hampshire.
 - Coverage requirements may be satisfied by an excess/umbrella policy.
 - Contractor shall obtain and maintain such pollution riders and other coverage as may be necessary to insure against risks specifically related to the transportation and delivery of chemicals.
 - The Contractor agrees to pay on the behalf of and hold harmless the City of Portsmouth for all claims arising in whole or in part from its work on behalf of the City.
 - The Contractor's insurance shall be primary in the event of a loss.

Evidence of Insurance

As evidence of insurance coverage, the City may, in lieu of actual policies, accept official written statements from the insurance company certifying that all the insurance policies specified above are in force for the specified period. The Contractor shall submit evidence of insurance to the City upon request. Written notice shall be given to the City of Portsmouth, New Hampshire at least thirty (30) days prior to cancellation or non-renewal of such insurance coverage.