



**TOWN OF GROTON**

**INVITATION TO BID**

**19-34 LIQUID CALCIUM NITRATE**

**April 2019**

**TOWN OF GROTON  
BIDDER INFORMATION**

BID NUMBER: 19-34  
BID OPENING: 2:30 P.M. May 16, 2019  
LOCATION: Purchasing Office, Groton Town Hall  
ADDRESS: 45 Fort Hill Road, Groton, CT 06340

Sealed bids will be received by Eileen Cardillo, Purchasing Agent of the Town of Groton, until 2:30 P.M. on May 16, 2019 for bid **19-34 Liquid Calcium Nitrate** for the Town of Groton in accordance with the specifications and information.

Bids received after 2:30 P.M. on May 16, 2019 will not be accepted.

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## TOWN OF GROTON

It is the intent of this "Invitation to Bid" to establish a vendor to supply the Town of Groton with **Liquid Calcium Nitrate**. The prospective bidder must complete the bid form and company information sheet, but need not return the entire Invitation to Bid. The bidder is not to include any taxes from which the Town is exempted by law. The Town will complete any tax exemption forms that the successful vendor may require if such forms are within the Town's legal parameters.

### **2. BID SUBMISSION**

The proposal shall be submitted to the Office of the Purchasing Agent no later than 2:30 P.M. on **May 16, 2019** at which time they will be publicly opened and read aloud. Bids received after that date and time will not be considered by the Town of Groton. Bids must be submitted on the blank forms furnished, and should be in a sealed envelope, addressed to the Office of the Purchasing Agent, marked public bid "**19-34 Liquid Calcium Nitrate**". PLEASE PROVIDE INFORMATION AND PRICING AS REQUESTED IN THE BID SPECIFICATIONS. The Town of Groton Purchasing Division shall receipt stamp each bid received. The date of the stamp shall prevail over any postmark date. The Town of Groton assumes no liability for any postal service delays.

### **3. WITHDRAWAL OF BIDS**

No bidder may withdraw their bid for a period of 90 days after the actual date of the bid opening, during which time prices will be firm. Bids may be withdrawn by written authorization only and only if withdrawal request is received one (1) day or more prior to the bid opening. The proposed prices in this bid shall hold through each delivery date indicated.

Costs for the preparation of this proposal are to be borne entirely by the bidders. They shall not in any way be charged to the Town of Groton. All submissions become the property of the Town of Groton to use as required to meet the objectives of this bid.

### **4. BID BONDS, CERTIFIED CHECKS OR CASHIER'S CHECKS (SEE BID FORM)**

When required each bid shall be accompanied by a bid bond signed by a surety company authorized to do business in Connecticut or by a cashier's check or certified check made payable to the Town of Groton. The amount of the bid deposit will be 0% of the total base bid unless otherwise specified.

Bond amount required: 0%

## **5. PERFORMANCE BOND**

If required by the bid specifications, the successful bidder may be required to provide a performance bond. The performance bond shall be made out in favor of the Town of Groton. The performance bond shall be required as security by the successful bidder for faithful performance of his contract. This performance bond shall be required within ten (10) days of the award notification. The performance bond must be written by a surety company licensed to conduct business in the State of Connecticut. The successful bidder, upon failure or refusal to furnish within ten (10) days the required performance bond, shall forfeit their bid deposit to the Town of Groton as liquidated damages.

Bond Amount Required: **0%**

## **6. VENDOR QUALIFICATION**

Each vendor shall present evidence that they are normally engaged in the purveying of the type of materials/equipment or workmanship proposed. The vendor shall make themselves thoroughly familiar with the contents of the notice before submitting his/her proposal. The vendor automatically acknowledges and accepts all of the provisions, conditions, and specifications of this notice. No proposal shall be considered from vendors who are unable to show that they are normally engaged in the purveying of the type of materials/equipment or workmanship proposed. For any type of service, construction or commodity, the vendor certifies that his product or service meets all local, State and Federal regulations applicable to his/her product or service. The vendor is responsible for complying with all ordinances, laws and regulations affecting their particular product or service and holds the Town of Groton harmless for any claims for damages whether bodily, personal or property due to the avoidance of any requirement of any governing body. All, bidders, in order for their proposals to be considered, must not be delinquent on any property tax or fees issued by the Town. Bidders shall certify that neither they nor any business or corporation fully or partially owned by the bidder is not delinquent on Town property taxes or fees.

## **7. DELIVERY**

All prices quoted shall include any and all **shipping, handling, insurance, training, consulting, out of pocket expense**, and **delivery** charges necessary to deliver any materials and equipment ordered to:

**TOWN OF GROTON**  
**WATER POLLUTION CONTROL (various pump stations)**  
**GROTON, CT 06340**

Product does not get delivered to any location that has a loading dock.

USE BID FORM FOR DELIVERY INFORMATION.

ALL SAFETY DATA SHEETS ARE REQUIRED TO BE DELIVERED WITH THE PRODUCT. ONE COPY MUST ALSO BE SENT TO THE RISK MANAGER'S OFFICE, 45 FORT HILL RD., GROTON, CT. 06340.

## **8. ACCEPTANCE OR REJECTION**

The Town reserves the right to accept or reject any and all bids and to waive any minor deviations from our bid requirements if it is in the best interest of the Town to do so.

## **9. PAYMENT TERMS**

The Town agrees to pay for the material/equipment within thirty (30) days after acceptance. Acceptance means 100% delivery of satisfactory merchandise to comply with our specifications. If a vendor wishes to offer a prepayment discount he/she must provide a separate sheet with his/her bid showing the terms of the discount and the advantage to the Town of Groton in accepting this prepayment discount. Prepayment in no way forfeits any right of the Town to complete satisfaction with the purchase nor does it relieve the vendor of any responsibility to perform as required in the bid document.

## **10. SUPPLEMENTAL INFORMATION**

The vendor must submit with their proposals the detailed specifications, descriptive literature and all necessary details on the material/equipment they propose to furnish in order that the Town may have full information available when analyzing the bids. In cases where an item is identified by a manufacturer's name, trade name, catalog number or reference it is understood that the bidder proposes to furnish the item so identified and does not propose to furnish an "equal" unless the proposed "equal" is identified. The reference to the manufacturer's name, trade name or catalog number is intended to be descriptive, not restrictive and is used to indicate to the prospective bidder articles that will be satisfactory. Bids on other makes will be considered provided the bidder clearly states the item being proposed is an exception but an equal on the bid form. The Purchasing Agent reserves the right to approve as an equal or to reject as not being equal any article that the bidder proposes to furnish which contains major or minor variations from the specification requirements.

## **11. MULTIPLE BIDS**

No bidder will be allowed to offer more than one bid price on each item even though alternate models or styles may meet the specifications. Alternates will be considered only if requested by the Town of Groton.

## **12. EXCEPTIONS TO SPECIFICATIONS**

If the material/equipment offered differs from the provisions contained in this specification, such differences must be explained in detail on the sheets attached to this bid and if such deviations do not depart from the intent of this notice and are in the best interest of the Town, the bid will receive careful consideration. The absence of written deviations will hold the bidder strictly accountable to the Town of Groton to the specifications as written.

## **13. TESTS**

Before approval, the Town Manager or his agent shall have the right to inspect and test the materials and equipment furnished in accordance with this notice. When samples are required from bidders receiving the award, the samples may be retained by the Town of Groton until the delivery of the bid items. Bidders whose samples are retained may pick

them up after the delivery of the bid items has been accepted by the Town. Bidders shall be responsible for delivery and removal of samples. Cost of delivery and removal of samples is to be the responsibility of the bidder. All samples are to be marked "Samples" and delivered to the purchasing office. The package must indicate the name of the bidder, item enclosed and the bid number. Failure to properly identify the samples relieves the Town from any responsibility for their safe return and may disqualify the bidder from bidding.

#### **14. INQUIRIES**

Any inquiries for this bid shall be directed via email to Eileen Cardillo, Purchasing Agent, at [ecardillo@groton-ct.gov](mailto:ecardillo@groton-ct.gov) 7 days prior to bid opening date. Pricing shall not be discussed with any individual in the Town other than the Purchasing Agent. Once a bid date has been established only questions relevant to the technical aspects of the bid or how to properly complete the bid form may be addressed. Any vendor contacting any individual other than those named in this section may have their bid rejected by the Purchasing Agent. If addendum's clarifying the bid or providing additional information to bidders is necessary the Purchasing Agent of the Town can, at his/her option, extend the date of the bid opening. It is assumed that each vendor submitting a bid will have made himself/herself familiar with the requirements of the specifications and requested an on site review if necessary so that his/her bid is all inclusive as per the intent of the specifications.

#### **15. MATERIALS AND EQUIPMENT**

All materials/equipment shall be furnished complete and ready for use as indicated in specifications. Any materials/equipment not specifically mentioned herein, but which is necessary for the successful installation and/or operation of the systems shall be specified and quoted by the bidder.

#### **16. GUARANTEE**

The bidder guarantees that all articles offered for sale fully comply with the specifications. All expenses covering return of and replacement of defective or improper merchandise will be assumed by the vendor. In no instance shall the vendor refer the Town to any distributor or manufacturer for settlement of any claim arising from defective or improper merchandise. If the vendor shall fail to replace or repair any defective or improper merchandise within 30 days from date of notice, the Town may make the necessary corrective arrangements and deduct the cost from money due the vendor or bill the vendor. The vendor agrees to reimburse the Town in such instances. Samples of any warranties or guarantees which will apply to the goods being offered for sale shall be included as part of this bid.

#### **17. BASIS FOR SELECTION OF VENDOR**

The Purchasing Office reserves the right to reject the bid of a bidder who has previously failed to perform properly or complete on time bids of a similar nature or a bid of a bidder who upon investigation by the Town has shown that he/she is not in a position to perform the contract. The Town's review procedure in evaluating the bids received will include, but not be limited to, performance review, warranties, maintenance contract content, costs and availability, installation costs, reputation of manufacturer, qualification and experience of personnel, understanding of assignment and work plan, and previous experience. A demonstration of your product may also be required by the Town. All of this will be used in order to determine the **LOWEST** responsive bidder for the project or purchase. References



are required for this project. Please attach a list of references with names and phone numbers to the bid form.

#### **18. QUANTITY/CONTRACT LENGTH**

The Town of Groton reserves the right to purchase more or less than the quantity of items specified or may withdraw any or all requested items. Vendors are advised that the contract may be awarded in whole or in part. The Town of Groton is not bound to accept a proposal in its entirety. The Town of Groton may cancel this contract at any time if in the opinion of the Town the firm is not performing as stated in the specifications.

#### **19. TIE BIDS**

If two (2) or more bidders submit identical bids and are equally qualified, the decision of the Town to make award to one or more of such bidders shall be final. The Town, after determining that each bidder would provide equal benefit to the Town, shall set a separate date for a public drawing to determine the bidder that will be awarded the contract. The bidders involved will be notified in writing of when this drawing will be and will be notified in writing of the chosen vendor.

#### **20. AVAILABILITY OF FUNDS**

A bid or contract shall be considered executory only to the extent of appropriation available to each agency for the purchase of such articles. The Town's extended obligation on these contracts that anticipate extended funding through successive fiscal periods shall be contingent upon actual appropriations for the following fiscal years. Any bid or contract let for more than one fiscal period is also contingent upon performance of the vendor meeting the specifications. If, in the determination of the Town of Groton, a vendor is not meeting the requirement of the specifications the Town may terminate the bid or contract with 30 days written notice to the vendor. This can occur at any time during the contract period.

#### **21. BID ALTERATIONS/SIDETRACK AGREEMENTS**

No alterations or sidetrack agreements changing the specifications shall be valid unless made in writing to the Town and signed by the Purchasing Agent and department head. This agreement must be sent to the Purchasing Agent of the Town of Groton for consideration and review.

#### **22. ALTERNATIVE/RECYCLED PRODUCTS**

Wherever possible, the Town of Groton would like to receive quotes from vendors on products that are environmentally safe, in that they do not contain toxic chemicals as identified under Subpart z. of the OSHA "Right to Know" standard, or products that contain recycled material and post consumer material, or re-refined motor oils, etc. We would like to purchase products that do not require special disposal requirements or respirator requirements where possible and are not harmful to others, including animals. If these products could be supplied as an alternative to what is being requested please provide a special sheet attached to the bid form showing the price of the item, the item being substituted and the new or alternative product. Please also supply the manufacturer's literature describing the product and its uses. IF POSSIBLE, AND IF NOT INFLUENCING THE COST IN ANY WAY THE TOWN OF GROTON WOULD LIKE TO RECEIVE ALL

PROPOSALS ON PAPER AND IN BINDERS MEETING OR EXCEEDING THE EPA GUIDELINES FOR PAPER. THIS SHOULD BE SO NOTED ON YOUR PROPOSAL IF YOU COMPLY.

PLEASE PROVIDE A SEPARATE SECTION ATTACHED TO THE BID FORM IF YOU WOULD SUGGEST USING REMANUFACTURED OR RECYCLED PRODUCTS FOR THIS PROJECT. ANY SUBSTITUTION OF A PRODUCT OF THIS TYPE MUST MEET PROVEN CONSTRUCTION STANDARDS AS RECOGNIZED BY THE STATE AND FEDERAL GOVERNMENT.

### **23. OTHER**

The Town of Groton is eligible in most cases to receive GSA pricing and Federal and State contract pricing options. Each bidder should check with the applicable State or Federal Agency to determine if the government pricing for such commodities has been extended to political subdivisions.

The Town of Groton is an Affirmative Action/Equal Employment Opportunity Employer. The Town of Groton and any vendor awarded this project shall comply with the regulations of the United States Department of Transportation (Title 49, Code of Federal Regulations, Part 21), issued in implementation of Title VI of the Civil Rights Act of 1964, 78 Statute 252, 42 United States code 2000d to 2000d-4. Further, the Town of Groton and any vendor awarded this contract warrants that in the performance of this project, it will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex or physical disability, including, but not limited to blindness, unless it is shown to be that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States, or the State of Connecticut, and further agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission concerning the employment practices and procedures of the Town of Groton and any vendor awarded this contract as related to the provisions of this section. (Section 4-114a of the General Statutes of Connecticut as revised.)

The Town of Groton shall follow the State of Connecticut Department of Transportation minority business affirmative action program as approved by the United States Department of Transportation.

The Town of Groton accepts no liability for the product until it is completely received and installed on the Town of Groton's premises. All vendors are responsible for the equipment while in transit to the Town of Groton.

The Town of Groton has extensive insurance requirements that must be met for certain services. If insurance is required it will be so stated in the Invitation to Bid and all vendors are expected to meet those requirements in full by providing a certificate of insurance at least ten (10) days prior to the start of any contract or service by the vendor awarded the bid. Any vendor unable to provide the required insurance shall forfeit his right to the bid award and the Town will reject his bid. The vendor is required to maintain insurance for delivery and handling until the units are signed for by the Town of Groton representative. THE TOWN OF GROTON DOES NOT ASSUME ANY RESPONSIBILITY FOR THE EQUIPMENT UNTIL IT IS ON SITE AND IN THE CARE, CUSTODY AND CONTROL OF THE TOWN. THE VENDOR IS RESPONSIBLE FOR THE PRODUCT LIABILITY COVERAGE.

THE VENDOR MUST HAVE EVIDENCE OF WORKER'S COMPENSATION COVERAGE IF HIS EMPLOYEES ARE DELIVERING THE ITEMS. IF THE VENDOR CONTRACTS WITH A DELIVERY FIRM; THAT FIRM IS THE RESPONSIBILITY OF THE VENDOR DURING ALL DELIVERY TO THE TOWN OF GROTON FACILITY AND UNTIL THE DELIVERY VEHICLE AND INDIVIDUALS LEAVE THE TOWN OF GROTON PREMISES.

Insurance Requirements

Insurance shall be written with carriers approved in the State of Connecticut and with a minimum AM Best Rating of "A-" VIII. In addition, all carriers are subject to approval by the Town of Groton and no coverage shall contain special limitations on the scope of protection afforded to the Town, its officers, officials, employees or volunteers. The Town of Groton shall be named as the certificate holder. The Town of Groton shall be named as an Additional Insured on a primary and non-contributory basis to all policies except Workers' Compensation and Professional Liability. **A waiver of subrogation shall apply on all lines.**

|  |   | (Minimum Limits) |
|--|---|------------------|
| General Liability                              | Each Occurrence   | \$1,000,000      |
|  | General Aggregate   | \$3,000,000      |
|  | Products/Completed operations Aggregate   | \$3,000,000      |
|  | - Policy must contain no exclusion for Explosion.<br>Collapse and Underground Hazard (XC & U)       |                  |
|  | - Contractor must notify the Town whenever claims<br>Reduce the General Aggregate below \$1,000,000 |                  |
|  | - The Town should be notified if the Aggregate limits<br>Include defense costs                      |                  |
| Auto Liability                                 | Combined Single Limit   |                  |
|  | Each Accident   | \$1,000,000      |
| Pollution Liability                            | Each Claim or Each Occurrence   | \$1,000,000      |
|  | Aggregate   | \$1,000,000      |
|  | -Policy must contain no exclusion for Asbestos  |                  |
| Umbrella (Excess Liability)                    | Each Occurrence   | \$1,000,000      |
|  | Aggregate   | \$1,000,000      |
| Workers' Compensation and Employers' Liability | WC Statutory Limits EL  |                  |
|  | Each Accident EL Disease  | \$500,000        |
|  | Each Employee EL Disease  | \$500,000        |
|  | Policy Limit  | \$500,000        |

For Contractors:

(Should a Contractor be involved in operations requiring coverage under special State or Federal Acts, such as Maritime or Railroad, the Contractor must provide evidence of this coverage. Should a Contractor be exempt from the Workers' Compensation Laws of the State of Connecticut, or any other State or Federal requirements, evidence of such exemption must be provided and a "Hold-Harmless" agreement provided in language satisfactory to the Town, holding it harmless in the event of any claim for injury or damages. Contractors based out-of-state must provide evidence that their Workers' Compensation policy will cover injuries/illnesses sustained while working in the State of Connecticut. The Contractor is responsible for ensuring that all of its subcontractors carry Workers' Compensation Insurance, as described above. If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of three (3) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for three (3) years from the completion date. Original, completed Certificates of Insurance must be presented to the Town of Groton Public Works prior to purchase order/contract issuance. Contractor agrees to provide replacement/renewal certificates at least 60 days prior to the expiration of any policy. Should any of the above described policies be cancelled before the expiration date, written notice must be made to the Town thirty (30) days prior to cancellation).

**Certificates of Insurance should be sent to the Town of Groton Human Resources Department for review except ones that go thru Purchasing.**

**ATTACHMENT FOR CONTRACTORS  
TOWN OF GROTON  
"OSHA LOCK OUT TAG OUT STANDARD REQUIREMENTS"  
HAZARD COMMUNICATION REQUIREMENTS**

**HAZARDOUS COMMUNICATION:** The Town of Groton requires that any vendor or contractor using hazardous materials or any material that would fall under the OSHA "Right to Know" standard provide a list to the Town of Groton of those materials that will be used while on Town property as well as the safety data sheets for those products. Conversely, the Town of Groton shall inform the Contractor of where the "Employee Right to Know" station is in the area where they are working so that the Contractor's employees can be aware of any substances that they may encounter while working within the Town of Groton workplace.

**LOCK-OUT TAG-OUT STANDARD:** The Town of Groton requires that any contractor that maintains or is hired to work on any Town equipment abide by the OSHA "Lock Out Tag Out" standard. The Contractor must provide his worker's with locks, hasps and keys approved by OSHA for the proper locking and tagging out of equipment from its power source according to the OSHA standard. The Town of Groton is not responsible for providing the Contractor with the locks and hasps. The Contractor is responsible for complying with this standard and assuring that all of his employees comply with it while working on Town of Groton equipment. The

Town requires that any Contractor's equipment brought onto Town property by the Contractor be properly locked or tagged out from its power source in accordance with the OSHA standard.

The Town of Groton does maintain a bidder's list of qualified vendors. The Town may, at its option, mail specifications to these bidders as a courtesy. The Town is under no obligation to notify vendors of bid opening dates. The Town of Groton posts its Invitations to Bid and Requests for Proposals on its website as well as the State of Connecticut Department of Administrative Services' web portal.

The Town of Groton does not discriminate against individuals with disabilities as provided in the Americans with Disabilities Act (ADA). The Town expects that the vendors and/or contractors that it does business with will comply with the Americans with Disabilities Act to the extent required by law. If awarded a contract with the Town, the successful vendor/contractor will be required to sign a statement agreeing to comply with the provisions of the ADA.

I AGREE TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) TO THE EXTENT REQUIRED BY LAW.

VENDOR/CONTRACTOR

The following information is requested by the Town of Groton. You are not required to answer these questions.

Has your business been in existence for one (1) full year?

Is your company based in Connecticut?

Have the gross receipts for your company been less than \$3,000,000 for the most recently completed fiscal year?

Is 51% or more of the stock in the company owned by a person or persons who are minorities as defined in sec 32-9n of the Connecticut General Statutes?

Do minorities/women play an active role in the day-to-day affairs of the business?

COMPANY \_\_\_\_\_

REPRESENTATIVE \_\_\_\_\_

PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

## Specifications

### 19-34 Liquid Calcium Nitrate

The Town of Groton, Connecticut, Public Works Department, Water Pollution Control Division will accept sealed bids for supplying approximately 15,000 to 30,000 gallons of Liquid Calcium Nitrate (Bioxide), to be delivered as needed with a minimum of 48-hour notice, in shipments of approximately 2,000 to 3,800 gallons. Delivery will be between 8:00 a.m. and 2:00 p.m. Monday through Friday.

Bid price shall be submitted at cost per gallon and billed per gallon and include delivery to various pump stations of the Town of Groton, Water Pollution Control Facility, Groton, CT, without any price adjustment through June 30, 2020.

## **PART 1 – GENERAL**

### **1.01 SCOPE**

- A. The material required under this specification shall be used to remove hydrogen sulfide, thereby preventing odor and corrosion within wastewater collection and treatment systems. The material shall utilize and enhance naturally occurring biochemical processes to accomplish hydrogen sulfide removal.
- B. The material shall be a liquid phase product. It shall be delivered, stored, and fed into the wastewater via standard liquid-phase chemical handling procedures.
- C. The material shall be fully compatible with storage and feed equipment constructed of any of the following
  - 1. High Density Crosslinked Polyethylene
  - 2. PVC
  - 3. Polypropylene
  - 4. FRP
  - 5. Stainless Steel (316)

### **1.02 PROCESS DESCRIPTION**

The material supplied shall utilize the inherent ability of the facultative bacteria normally present in wastewater to metabolize hydrogen sulfide and other odor-causing, reduced sulfur containing compounds. The material shall provide nitrate-oxygen to the wastewater to support this biochemical mechanism. This nitrate-oxygen shall be applied via nitrate salts. The material shall be chemically stable, allowing continuous

removal of sulfide contributed by side streams downstream of the application point.

As a result of the biochemical process, the material shall provide the additional benefit of biochemical oxygen demand (BOD) reduction in the wastewater.

This process is described and protected by United States Patent Number 4,911,843.

### **1.03 SUPPLIER**

- A. The supplier of this material shall be one recognized and established in the field of wastewater odor control. The supplier must provide a list of 10 references currently using the material for control of hydrogen sulfide and other compounds. The list shall contain telephone numbers and contact names. At least five of these references must have used the material for 3 or more years.
- B. The supplier shall be capable of providing on-site technical assistance within 24 hours of notification.
- C. The supplier shall provide delivery of the material within 48 hours of order placement.
- D. The supplier shall have at least two distribution centers from which product can be shipped.
- E. The supplier shall indemnify and hold harmless the Owner (Purchaser) and its officers, agents, employees, or any other interested party from any and all liability, including costs and expenses, associated with any product license or patent infringement resulting from the supply and application of the supplier's material.

### **1.04 SUBMITTALS**

The supplier shall submit the following data to the Owner for approval prior to the delivery of any material:

- A. Material Safety Data Sheet for the material, showing the CAS number of the material.
- B. Reference list as described under Paragraph 1.03A.
- C. List of material distribution points as described under Paragraph 1.03D.



- D. Technical documentation detailing the process by which the material controls hydrogen sulfide. This documentation must: Clearly show the stoichiometry of the biochemical reaction, describe a minimum of three case studies, and clearly demonstrate compliance with Paragraph 1.02.

## **1.05 SUBSTITUTIONS**

No substitutions are allowed.

The material shall be provided in strict compliance with these specifications. Any bid for material with deviations from these specifications shall be considered non-responsive and shall not be considered.

## **PART 2 – PRODUCT REQUIREMENTS**

### **2.01 TECHNICAL REQUIREMENTS**

- A. The material supplied shall be an aqueous solution of calcium nitrate containing a minimum of 3.5 pounds of nitrate-oxygen per gallon and a minimum specific gravity of 1.45.
- B. The material shall be capable of reducing the dissolved hydrogen sulfide concentration in wastewater to less than 0.1 mg/liter.
- C. The material shall be free of any objectionable odor-producing compounds.
- D. The pH of the material shall not be less than 4.0 nor greater than 7.5
- E. The product shall be Bioxide or 100% equal.

### **2.02 SAFETY REQUIREMENTS**

- A. The material shall contain no hazardous substances as defined by both the Federal EPA's and State CERCLA lists.
- B. The material shall be exempt from Federal DOT placard requirements.
- C. Recommended handling procedures for the material shall require protective gloves and safety glasses only. Any material recommending more sophisticated equipment (i.e., face shield, body suit, etc.) during routine handling shall not be considered.

## **PART 3 – EXECUTION**

### **3.01 DELIVERY**

- A. The material shall be delivered by tanker trucks with a maximum volume of 6,000 gallons.
- B. The supplier shall be responsible for the safe, clean delivery of the material into the Owner's storage tanks. The supplier shall be responsible for any damage to the Owner's storage tank and feed system that is directly attributable to product quality or improper delivery practices. The supplier shall provide prompt clean-up of any spills made during delivery.
- C. The supplier shall be responsible for the proper labeling of storage tanks in compliance with local, state and federal requirements. The supplier shall not deliver the material into any tank or vessel which is not properly labeled.

### **3.02 PRICING**

- A. The supplier shall provide pricing in terms of price per gallon of solution delivered. The minimum nitrate-oxygen content of the solution must be provided in the bid and must be expressed as pounds nitrate-oxygen per gallon of solution. All charges, including freight, technical assistance, delivery, etc. shall be included in the per gallon bid price.
- B. The price shall be valid for delivery quantities of 2,000 to 3,800 gallons. The estimated annual volume is 15,000 to 30,000 gallons.

TOWN OF GROTON  
BID FORM  
19-34 Liquid Calcium Nitrate

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

**PROVIDE A DELIVERED PRICE, FOB GROTON, CT**

Per specifications

Liquid Calcium Nitrate

Estimated annual quantity 15,000 to 30,000 gallons

Price per gallon        \$ \_\_\_\_\_/gallon

Receipt of Addendum(s) \_\_\_\_\_

The Town of Groton is Tax Exempt

ESTIMATELY DELIVERY ARO:

\_\_\_\_\_

**LIST EXCEPTIONS TO SPECIFICATIONS ON PAGE TO FOLLOW**

VENDOR NAME: \_\_\_\_\_

VENDOR ADDRESS: \_\_\_\_\_

\_\_\_\_\_

EMAIL ADDRESS:

\_\_\_\_\_

TELEPHONE NUMBER:

\_\_\_\_\_

EXCEPTIONS TO SPECIFICATIONS:

BY: \_\_\_\_\_  
Print & Sign Name/Title

VENDOR \_\_\_\_\_