



**CITY OF LEESBURG
FLORIDA**

INVITATION FOR BID (IFB)

IFB TITLE: CHLORINE SCRUBBER REHABILITATION

IFB Number:	<u>180131</u>	Contracting Buyer:	<u>Lisa Wolfkill</u>
Bid Due Date:	<u>March 29, 2018</u>	Pre-Bid Meeting:	<u>March 22, 2018</u>
Bid Due Time:	<u>2:00 P.M.</u>	Issue Date:	<u>March 15, 2018</u>

Estimate of Project Magnitude: \$25,000 - \$30,000

Brief Description / Purpose

**INVITATION FOR BID
City of Leesburg, Florida**

This solicitation invites qualified and experienced companies to submit sealed bids for providing all necessary labor, materials, equipment and supervision to rehabilitate and resupply a chlorine scrubber unit.

Sealed bids will be received at the Purchasing Office located at 204 N. 5th Street, Leesburg, Florida 34748 no later than the appointed due date and time or as revised by any addenda.

Registered vendors may obtain a copy of the IFB online at www.vendorregistry.com. A copy may also be obtained by e-mailing a request to purch@leesburgflorida.gov or by calling (352)728-9880.

Publish: Vendor Registry

Bid Package Distribution

The City of Leesburg utilizes Vendor Registry (www.vendorregistry.com) as the ONLY official on-line bid management system to distribute solicitations, addenda and answers to questions. Solicitation information obtained from other sources may not be current or accurate and should not be relied on for submitting a response to a solicitation.

There is no charge to vendors/contractors to register and participate in the solicitation, nor will any fees be charged to the awarded vendor. Refer to www.leesburgflorida.gov/purchasing/bids.aspx for further information.

Vendors are strongly encouraged to register (at no cost) with Vendor Registry to download solicitation documents. Should time not permit you to complete the registration process please contact the Purchasing Division at (352)728-9880 or by email at purch@leesburgflorida.gov to obtain a solicitation document(s).

SECTION 1 – SPECIAL TERMS & CONDITIONS

ST-1. **PURPOSE**

The purpose of this project is to provide a complete rehabilitation and resupply of a chlorine scrubber unit and resupply the caustic solution within the unit.

ST-2. **PROJECT LOCATION**

This chlorine scrubber unit is located at the City's Turnpike Water Reclamation Facility (WWRF) at 1600 County Road 470, Okahumpka, Florida 34762.

ST-3. **QUESTIONS, INFORMATION or CLARIFICATION**

ALL questions regarding this solicitation, including technical specifications or scope of work, shall be submitted in writing to the Designated Procurement Representative. To ensure fair consideration for all parties, the City prohibits communication to or with any department, division, employee, or city representative from the date of issuance of this solicitation until final City action.

- a. Bidders are encouraged to use the question/answer feature of Vendor Registry for the submission of questions and requests for information. Should that not be possible, questions relative to interpretation of specifications, scope of services or the submittal process shall be addressed in writing to the Designated Procurement Representative at **purch@leesburgflorida.gov**.
- b. The deadline for questions is seven (7) business days prior to the solicitation due date. Does not include the day the solicitations are due.
- c. Any interpretation made to Bidders shall be expressed in the form of a written Addendum to the solicitation. Which, if issued, will be made available to all prospective Bidders no later than the three (3) business days immediately before the solicitation due date. Does not include the day the solicitations are due.
- d. Inquiries received after the deadline for questions may not be given any consideration at the discretion of the Purchasing Manager.
- e. It will be the responsibility of the Bidders to contact the Purchasing Division prior to submitting bids to ascertain if any addenda have been issued, to obtain all such addenda, incorporate addenda in their bid response and acknowledge said addenda on the appropriate form.

ST-4. **PRE-BID CONFERENCE/SITE VISIT**

A "**MANDATORY**" pre-bid meeting/site visit will be held on:

Date/Time: Thursday, March 22, 2018 at 10:00 AM.

Location: Turnpike Water Reclamation Facility
1600 County Road 470
Okahumpka, Florida 34762

This is the only scheduled time contractors and their subcontractors can visit, inspect conditions, and take measurements. Additional contractor visits may take place at contractor's convenience.

Bidders are advised to bring this solicitation document to the conference, as additional copies may not be available. Also, attendees should have equipment needed for measuring, as this may be their only opportunity.

Prior to submitting a bid, it is advisable the vendor visit the site(s) of the projected work and become familiar with any conditions which may in any manner affect the work to be done or affect the equipment, materials and labor required. The vendor is also advised to examine carefully the specifications and to become thoroughly aware regarding any and all conditions and requirements that may in any manner affect the work to be performed under the contract. No additional allowances will be made because of lack of knowledge of these conditions. For any additional information regarding the specifications and requirements of this bid contact the designated procurement representative.

ST-5. ELIGIBILITY

To be eligible to respond to this IFB, bidding firms must demonstrate they, or the principals assigned to the project, have successfully completed projects similar to those specified in the Scope of Services section of the IFB, to at least three municipal entities.

Bidders/Contractors must have a minimum of 3-years experience in performing the same or similar work required on this project. Bidders shall provide a minimum of three (3) reference projects completed within the last 1 year related to similar contracts of similar scope and size. References shall be given on the forms provided.

ST-6. LICENSES

The vendor submitting a bid is responsible for obtaining and maintaining any licenses that may be required by the State of Florida to perform the work required under a resulting contract.

ST-7. DESIGNATED PROCUREMENT REPRESENTATIVE

Questions concerning any portion of this solicitation shall be directed in writing [fax and e-mail accepted] to the below named individual who shall be the official point of contact for this solicitation. Questions should be submitted no later than five (5) working days before the bid opening date.

Lisa Wolfkill, Purchasing Representative
City of Leesburg | Purchasing Department
204 N. 5th Street, Leesburg, FL 34748
Phone: 352-728-9880 | E-mail: purch@leesburgflorida.gov

No answers given in response to questions submitted shall be binding upon this solicitation unless released in writing as an addendum to the solicitation by the Purchasing Division for the City of Leesburg.

ST-8. RESTRICTED DISCUSSIONS

From the date of issuance of this solicitation until final City action, vendors should NOT discuss the solicitation or any part thereof with any employee, agent, or any other representative of the City except as expressly authorized by the designated procurement

representative. The only communications that shall be considered pertinent to this solicitation are appropriately signed written documents from the vendor to the designated procurement representative and any relevant written document promulgated by the designated procurement representative.

ST-9. METHOD FOR SOLICITATION RESPONSE

The Procurement Division shall receive responses to this Invitation for Bid by the methods listed here no later than the due date and time established within the solicitation. Bid responses will not be accepted by any other means.

a. ELECTRONIC SUBMISSIONS

Upload completed Bid Forms using the City's online bid management system Vendor Registry. Vendors must have an established account in advance of uploading bid submissions.

b. DELIVERED SUBMISSIONS

Deliver physical hardcopy submissions to:

City of Leesburg
Procurement Division
204 N. 5th Street
Leesburg, Florida 34748

If using physical hardcopy, allow sufficient time for transportation and inspection. Each package shall be clearly marked with the applicable solicitation number, title, and company name. Ensure that your bid is securely sealed in an opaque envelope/package to provide confidentiality of the bid prior to the solicitation closing.

ST-10. COMPLETION REQUIREMENTS FOR INVITATION FOR BID

Complete all forms and Item Bid Schedule. One (1) original of all forms and Item Bid Schedule must be submitted by the vendor using a listed acceptable Method of Solicitation Response no later than the appointed due date and time. Any submission not in possession of the City by the appointed due date and time shall be deemed non-responsive and shall not be considered for award. The City is not liable or responsible for any costs incurred by any Bidder in responding to this IFB including, without limitation, costs for product and/or service demonstrations if requested.

When you submit your bid, you are making a binding offer to the City and are agreeing to all of the terms and conditions in this Invitation for Bid. Use only the form(s) provided in this document. If you make any change to the content or format of any form, the City may disqualify your bid. All information shall be legible and either written in ink or typewritten. If you make a correction or change on any document, the person signing the bid or proposal must initial the change. The bid shall be manually signed by an official authorized to legally bind the Bidder to its provisions.

Specific Completion Directions - Pricing shall be completed using the provided Schedule of Bid Items in the Forms Section of this solicitation. Reproductions or variations of the Schedule of Bid Items shall not be acceptable.

ST-11. **BID RESPONSE GUARANTEE** – Not Applicable

ST-12. **RETURN OF BID RESPONSE GUARANTEES** – Not Applicable

ST-13. **GUARANTY OF FAITHFUL PERFORMANCE AND PAYMENT** – Not Applicable

ST-14. **POWER OF ATTORNEY** – Not Applicable

ST-15. **BID OPENING**

This project is considered a Construction Project. All bids that have been received in a timely manner will be opened in a Public Meeting in accordance with Chapter 255.0518 Florida Statute. The names of the bidders submitting bids will be read aloud and recorded with the bid amounts for each of the base bid items. The bids will be available for inspection in the Purchasing Division during normal business hours.

ST-16. **LOCAL VENDOR PREFERENCE**

(Applicable to projects whose cost is \$25,000 or greater.)

The City of Leesburg applies a Local Vendor Preference (LVP) for the purchase of personal property, general services, and professional services where the total purchase cost is \$25,000 and greater by means of competitive bid, request for proposals, qualifications or other submittals and competitive negotiation and selection. Except where federal or state law/requirements mandate to the contrary, preference shall be given to Local Vendors in the following manner:

- a. **“Tier I Local Vendor”** shall be defined as the primary Business Office or a Full Time Sales Office of the vendor being located within the City of Leesburg or the vendor receiving one or more Utility Services from the City of Leesburg.
 - i. **Tier I Local Vendor** - Under a Competitive Solicitation, the City may give a preference to a Tier I Local Vendor in the amount of five percent (5%) of the bid price or \$25,000, whichever is less.
- b. **“Tier II Local Vendor”** shall be defined as the primary Business Office or a Full Time Sales Office of the vendor not meeting the definition of a Tier I Local Vendor but nonetheless being located within the 20-Mile Radius as defined in this policy.
 - i. **Tier II Local Vendor** - Under a Competitive Solicitation, the City may give a preference to a Tier II Local Vendor in the amount of two percent (2%) of the bid price or \$10,000, whichever is less.

The Local Vendor preference will be applied only to the items/amount used for purposes of bid evaluation and determining award.

Bidders wanting a copy of the entire policy can receive one by making a request by e-mail to purch@leesburgflorida.gov or by calling the purchasing office at (352) 728-9880.

ST-17. **METHOD OF AWARD**

To a single vendor in the aggregate. Recommendation of Award will be to the responsible bidder submitting the lowest responsive bid and holding the necessary licenses, certifications

and experience. Determination of low bid amount will be made using the total bid for the Base Bid Items only and will not consider additional contract items. Local Vendor Preference will be considered when applicable in determining the low bid amount.

ST-18. QUANTITIES

Measurements and quantities which may be given are estimates only, given for informational purposes. Bidders are encouraged to visit the sites to verify measurements and quantities.

The City reserves the right to alter the quantities of work to be performed at any time when necessary and the Contractor shall perform the work as altered, increased or decreased. Payment for such altered increased or decreased quantity will result in an Equitable Adjustment for changed work. Equitable Adjustments can result in price increases for the Contractor for increased work, or price reductions for the City for reduced work. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any conditions or provisions of the Contract and Bond.

ST-19. CONTRACT

The City intends to execute a Firm-Fixed Price Construction Services Agreement prepared by the City with the awarded company as a result of this solicitation.

ST-20. TERM OF CONTRACT

The performance period under this contract shall commence upon the date of the Notice To Proceed and shall remain in effect until such time as the commodities, equipment and/or services acquired in conjunction with this solicitation and resulting contract have been delivered and/or completed, and accepted by the City's authorized representative, and will then remain in effect until completion of the expressed and/or implied warranty periods.

ST-21. START AND COMPLETION OF WORK

Work performed under the resulting agreement shall commence upon issuance of a Notice to Proceed and City purchase order. Notice to Proceed shall state the completion date of the ordered work.

All work shall be performed in accordance with good commercial practice. The work schedule and completion dates shall be adhered to by the vendor(s); except in such cases where the completion date will be delayed due to acts of God, strikes, or other causes beyond the control of the vendor. In these cases, the vendor shall notify the City of the delays in advance of the original completion so that a revised delivery schedule can be appropriately considered by the City.

Should the vendor(s) to whom contract(s) is/are awarded fail to complete the work within the number of days stated in its bid, or the "not-to-exceed timeframe cited above, it is hereby agreed and understood that the City reserves the authority to terminate the contract with the vendor and to secure the services of another vendor to complete the work. If the City exercises this authority, the City shall be responsible for reimbursing the vendor for work which was completed and found acceptable to the City in accordance with the contract specifications. The City may, at its option, demand payment from the vendor, through an invoice or credit memo, for any additional costs over and beyond the original contract price which were

incurred by the City as a result of having to secure the services of another vendor. If the incumbent vendor fails to honor this invoice or credit memo, the City may terminate the contract for default.

ST-22. METHOD OF PAYMENT

- i. All invoices shall contain the purchase order number, date and location of delivery or service, and confirmation of acceptance of the goods or services by the appropriate City representative.
- ii. Failure to submit invoices in the prescribed manner will delay payment.
- iii. The project is considered a construction project and retainage may be withheld according to State of Florida Statute.

ST-23. PERMITS

The City is not aware of any permits required for performance of the work. If permits are identified at a later date the City shall reimburse the Contractor for any costs associated with obtaining those permits.

ST-24. ACCEPTANCE OF GOODS OR SERVICES

The goods delivered as a result of an award from this solicitation shall remain the property of the Contractor, and services rendered under the contract will not be deemed complete, until a physical inspection and actual usage of the product(s) and/or service(s) is (are) accepted by the City and shall be in compliance with the terms herein, fully in accord with the specifications and of the highest quality.

Any goods and/or services purchased as a result of this solicitation and/or contract may be tested and/or inspected for compliance with specifications. In the event that any aspect of the goods or services provided is found to be defective or does not conform to the specifications, the City reserves the right to terminate the contract or initiate corrective action on the part of the vendor, to include return of any non-compliant goods to the vendor at the vendor's expense, requiring the vendor to either provide a direct replacement for the item, or a full credit for the returned item. The vendor shall not assess any additional charge(s) for any conforming action taken by the City under this clause. The City will not be responsible to pay for any product or service that does not conform to the contract specifications.

In addition, any defective product or service or any product or service not delivered or performed by the date specified in the purchase order or contract, may be procured by the City on the open market, and any increase in cost may be charged against the awarded Contractor. Any cost incurred by the City in any re-procurement plus any increased product or service cost shall be withheld from any monies owed to the Contractor by the City for any contract or financial obligation.

This project will be inspected by an authorized representative of the City. This inspection shall be performed to determine acceptance of work, appropriate invoicing, and warranty conditions.

ST-25. LABOR, MATERIALS, AND EQUIPMENT SHALL BE SUPPLIED BY THE VENDOR

Unless otherwise stated in this solicitation the vendor shall furnish all labor, material and equipment necessary for satisfactory contract performance. When not specifically identified in the technical specifications, such materials and equipment shall be of a suitable type and grade for the purpose. All material, workmanship, and equipment shall be subject to the inspection and approval of the City's Project Manager.

ST-26. CLAIMS FOR EXTRA COST

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this contract, he shall give the Project Representative written notice thereof within ten (10) days after the receipt of such instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property, the procedure shall then be as provided for changes in the work. No such claim will be valid unless so made.

ST-27. CONTRACTORS ACCEPTANCE OF CONDITIONS

The Contractor hereby agrees that he has carefully examined the surface of the site and surrounding areas to fully satisfy himself that such site is a correct and suitable one for this work and he assumes full responsibility therefore. The provisions of this contract shall control any inconsistent provisions contained in the specifications. All Drawings and Specifications have been read and carefully considered by the Contractor, who understands the same, and agrees to their sufficiency for the work to be done. It is expressly agreed that under no circumstances, conditions or situations shall this contract be more strongly construed against the City than against the Contractor and his Surety.

Any ambiguity or uncertainty in the Drawings or specifications shall be interpreted and constructed by the Engineer of Record and his decision shall be final and binding upon all parties.

It is distinctly understood and agreed that the passing, approval and/or acceptance of any part of the work or material by the City, the Engineer of Record, or by any agent or representative as in compliance with the terms of this contract and/or of the Drawings and Specifications covering said work, shall not operate as a waiver by the City of strict compliance with the terms of this Contract, and/or the Drawings and Specifications covering said work; and the City may require the Contractor and/or his surety to repair, replace, restore and/or make to comply strictly and in all things with this Contract and the Drawings and Specifications any and all of said work and/or materials which within a period of one (1) year from and after the date of the passing, approval, and/or acceptance of such work or material, are found to be defective or to fail in any way to comply with this contract or with the Drawings and Specifications. This provision shall not apply to materials or equipment normally expected to deteriorate or wear out and become subject to normal repair and replacement before the condition is discovered. The Contractor shall not be required to do normal maintenance work under the guarantee provisions. Failure on the part of the Contractor and/or his surety, immediately after notice to either, repair or replace any such defective materials and workmanship shall entitle the City, if it sees fit, to replace or repair the same and recover the reasonable cost of such replacement and/or repair from the Contractor and/or his surety, who shall in any event be jointly and severally liable to the City for all damage. Loss and expenses caused to the City by Reason for the Contractor's breach of this contract and/ or his failure to comply strictly and in all things with this Contract and with the Drawings and Specifications.

ST-28. FAILURE TO COMPLETE THE WORK ON TIME/LIQUIDATED DAMAGES

The Contractor shall take into account all contingent work which has to be done by other parties arising from any cause whatsoever, and shall not plead his need of knowledge of said contingent work as an excuse for delay in his work or for non-performance.

If the work is not completed in full by the deadline specified, then for each day thereafter on which the work has not been completed, Contractor shall pay to the Owner liquidated damages in the amount of One Hundred Twenty Five Dollars (\$125.00) per calendar day, which Owner is hereby authorized to deduct from the final draw before paying any remaining amount to Contractor. The parties agree that it would be impossible or extremely difficult to compute the actual damages suffered by the Owner due to late completion of the work, that it is therefore appropriate to provide for liquidated damages in this Contract, and that the amount of liquidated damages specified is reasonable and bears a substantial relationship to the probable amount of actual damages the Owner would suffer, and therefore does not constitute a penalty or forfeiture. Contractor acknowledges that this provision is material to the Owner and that the Owner would not have entered into this Contract but for this provision and that as a result of the Owner's reliance on this provision, the Contractor shall be stopped to deny or dispute the validity or enforceability of this liquidated damage clause.

Nothing shall be construed as limiting the right of the Owner to declare the Contract forfeited, or to take over the work, or to claim damages for the failure of the Contractor to abide by each and every one of the terms of the Contract Documents. The completion date shall be construed as being the date on which the work is fully accepted by the Owner.

ST-29. WARRANTY

Contractor's material and workmanship is warranted for a period of One (1) year from acceptance by the City. City shall notify Contractor of any defects in material or workmanship. Contractor shall coordinate with City any warranted repairs.

ST-30. MATERIAL STORAGE

Contractor is responsible for coordinating material and equipment storage for the duration of the project.

ST-31. RISK OF LOSS

The vendor assumes the risk of loss of damage to the City's property during possession of such property by the vendor, and until delivery to, and acceptance of, that property to the City. The vendor shall immediately repair, replace or make good on the loss or damage without cost to the City, whether the loss or damage results from acts or omissions (negligent or not) of the vendor or a third party.

The vendor shall indemnify and hold the City harmless from any and all claims, liability, losses and causes of action which may arise out of the fulfillment of any subsequent contract. The vendor shall pay all claims and losses of any nature whatsoever in connection therewith, and shall defend all suits, in the name of the City when applicable, and shall pay all costs and judgments which may issue thereon.

ST-32. INSURANCE AND INDEMNITY REQUIREMENTS

- a) **Scope of Insurance** - The Contractor shall procure and maintain at its own expense, the following minimum insurance coverage, unless otherwise specified in the agreement, contract or lease.
- i. All required insurance shall be provided by insurers acceptable to the City with an A.M. Best rating of at least A: VII.
 - ii. The Contractor shall require, and shall be responsible for assuring that any and all of its subcontractors secure and maintain such insurance that are required by law to be provided on behalf of their employees and others until the completion of that subcontractors work.
 - iii. The required insurance shall be secured and maintained for not less than the limits required by the City, or as required by law, whichever is greater.
 - iv. The required insurance shall not limit the liability of the Contractor. The City does not represent these coverages or amounts to be adequate or sufficient to protect the Contractor's interests or liabilities, but are merely required minimums.
 - v. The provisions of the required insurance are subject to the approval of the City's Risk Manager, and upon request, the Contractor shall make available certified copies of the various policies for inspection.
 - vi. All liability insurance, except professional liability, shall be written on an occurrence basis.
 - vii. The Contractor waives its right of recovery against the City to the extent permitted by its insurance policies.
 - viii. Insurance required of the Contractor, or any other insurance of the Contractor shall be considered primary, and insurance of the City, if any, shall be considered excess as applicable to any claims which arise out of the agreement, contract or lease.
- b) **Indemnification** - The Contractor shall indemnify and hold harmless the City and its officers and employees, from liabilities, damages, attorneys' losses, and costs, including, but not limited to, reasonable fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor and other persons employed or utilized by the Contractor in the performance of the contract.
- c) **Certificate of Insurance** - The Contractor shall provide evidence of required minimum insurance by providing the City an ACORD or other Certificate of Insurance in forms acceptable to the Risk Manager for the City, before any work under the agreement, contract or lease begins.
- i. Except for workers' compensation and professional liability, the Contractor's insurance policies shall be endorsed to name the City of Leesburg as additional insured to the extent of the agreement, contract or lease.
 - ii. The Certificate(s) of Insurance shall designate the City as certificate holder as follows: City of Leesburg, Attn: Purchasing Manager, P.O. Box 490630, Leesburg, Florida 34749-0630.
 - iii. The Certificate(s) of Insurance shall include a reference to the project and/or purchase order number.
 - iv. The Certificate(s) of Insurance shall indicate that the City shall be notified at least thirty (30) days in advance of cancellation.

- v. The Certificate(s) of Insurance shall include all deductibles and/or self-insurance retentions for each line of insurance coverage.
- vi. The Contractor, at the discretion of the Risk Manager for the City, shall provide information regarding the amount of claims payments or reserves chargeable to the aggregate amount of the Contractor's liability coverage(s).
- d) **Comprehensive General Liability** - The Contractor shall purchase and maintain Commercial General Liability coverage on forms no more restrictive than the latest editions of the Commercial General Liability policies of the Insurance Services Office (ISO). The Commercial General Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for bodily and personal injury and property damage liability for premises, operations, products and completed operations*, independent contractors, contractual liability covering the agreement, contract or lease, broad form property damage coverage, and property damage resulting from explosion, collapse or underground exposures (x, c, u).
 - i. For remodeling and construction projects, the Contractor shall purchase and maintain products and completed operations coverage for a minimum of three (3) years beyond the City's acceptance of the project.
- e) **Business Automobile Liability** - The Contractor shall purchase and maintain Business Automobile Liability coverage on forms no more restrictive than the latest editions of the Business Automobile Liability policies of the Insurance Services Office (ISO). The Business Automobile Liability policy shall provide minimum limits of \$1,000,000 per occurrence combined single limit that includes coverage for claims for bodily injury and property damage arising from the use of motor vehicles, including on-site and off-site operations, and owned, non-owned and hired vehicles, and employee non-ownership use.
- f) **Workers' Compensation** - The Contractor shall purchase and maintain Workers' Compensation insurance for all workers' compensation obligations imposed by state law and with employers liability limits of at least \$100,000 each accident and \$100,000 each employee with \$500,000 policy limit for disease.

Contractors exempt from maintaining Workers' Compensation insurance must provide a valid certificate of exemption issued by the State of Florida.

ST-33. **ILLEGAL ALIEN LABOR**

Contractor shall comply with all provisions of the Federal Immigration and Control Act of 1986 (8 U.S. Code § 1324 a) and any successor federal laws, as well as all provisions of Section 448.09, Florida Statutes, prohibiting the hiring and continued employment of aliens not authorized to work in the United States. Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract or enter into a contract with a subcontractor that fails to certify to the contractor that the subcontractor is in compliance with the terms stated within. The General Contractor nor any subcontractor employed by him shall not knowingly employ or contract with an illegal alien to perform work under this contract. Contractor agrees that it shall confirm the employment eligibility of all employees through participation in E-Verify or an employment eligibility program approved by the Social Security Administration and will require same requirement to confirm employment eligibility of all subcontractors. All cost incurred to initiate and sustain the aforementioned programs shall be

included in contract price. Failure to meet this requirement may result in contract termination by the City.

ST-34. FAIR LABOR STANDARDS ACT

No contractor or subcontractor holding a service contract with the City for any dollar amount shall pay any of its employees working on the contract less than the minimum wage specified in section 6(a)(1) of the Fair Labor Standards Act 29 U.S.C. 206. Failure to meet this requirement may result in contract termination by the City.

[END OF SECTION]

SW-1. BACKGROUND

The following specifications establish minimum requirements for removal and replacement of caustic solution of an USFilter Chlorine Scrubber System located at the City of Leesburg's Turnpike WWRP.

All equipment or material must comply with the latest safety standards and meet or exceed these specifications. Literature and product specifications must accompany the bid.

Any subsequent agreement resulting from this solicitation shall include a requirement that the work be completed in a period of **FIFTEEN (15) CALENDAR DAYS** following receipt of Notice to Proceed. The Notice to Proceed date will be the date the system is taken off-line for the rehabilitation work.

SW-2. SCOPE

The contractor shall provide all labor, tools, equipment, materials, and supplies for removing and replacing caustic in the chlorine scrubber system.

Contractor **MUST** coordinate the taking of this system off-line with City staff to ensure permit parameters are met and safety procedures are followed.

SW-3. TECHNICAL SPECIFICATIONS

- 3.1. Read and follow all safety procedures described in the Manufacturers documentation provided in Appendix A of this solicitation document.
- 3.2. Shut down the system as described in the Manufacturers documentation provided in Appendix A of this solicitation document.
- 3.3. Lockout the control panel.
- 3.4. Remove caustic from the unit. Remove remaining caustic trapped in the level gauge. Contractor to provide disposal off-site to an approved disposal facility.
- 3.5. Flush unit using water, filling to the recommended operating level indicated on the level gauge.
- 3.6. Follow the Manual Start-up Procedure outlined in the Manufacturers documentation provided in Appendix A of this solicitation document. Operate the scrubber system for one hour.
- 3.7. Repeat steps 3.2 through 3.6 one more time.
- 3.8. Fill the scrubber sump with water. Add Muriatic Acid to the water until a pH level of approximately four (4) is obtained. Maintain the solution at the recommended operating level indicated on the level gauge.

- 3.9. Run the recirculation pump for one hour. Care must be taken to prevent any airflow through the scrubber in either direction. Prevent any natural convection (unforced draft or backdraft) from occurring and close any dampers in the duct work.
- 3.10. Repeat steps 3.2 through 3.6 one more time.
- 3.11. Follow the Manual Star-up Procedure.
- 3.12. Drain the water solution from the system as per step 3.4.
- 3.13. Refill the scrubber system with new caustic. USFilter recommends that a 20% +/- 1% caustic solution be ordered from a reputable chemical supplier. Experience has shown that the necessary blending of caustic and de-ionized (or distilled) water is best accomplished by professionals. A certificate of compliance is requested from supplier.
- 3.14. Lettering/Logo
- 3.14.1. The new USFilter logo shall be installed on one side of the tank facing the Operations building.
- 3.14.2. New hazardous material warning stickers need to be provided on the drainage pipes and the proper DOT diamond also mounted to the front of the unit.

SW-4. CAUSTIC REPLACEMENT AND SYSTEM FLUSH

- 4.1. Replacement of approximately 2,100 gallons of caustic solution along with an acid flush cleaning as recommended by the manufacturer. Replacement caustic solution supplier shall provide a certificate of compliance along with Safety Data Sheets. Disposal of spent caustic solution must be performed as per all applicable local guidelines and regulations.

Caustic Solution prior to dilution shall meet the following specifications:

50% Caustic Soda* - Rayon Grade Specification

<u>Component</u>	<u>Basis</u>	<u>Specification</u>
Total Alkalinity (as Na ₂ O)	wt. %	38.7 Min.
Hydroxide Alkalinity (as NaOH)	wt. %	50.0 Min.
Na ₂ CO ₃	wt. %	0.09 Max.
NaCl	wt. %	0.0050 Max.
NaClO ₃	wt. %	0.0003 Max.
Na ₂ SO ₄	ppm by wt.	52.0 Max.
Fe	ppm by wt.	2.0 Max.
Cu	ppm by wt.	0.3 Max.
Ni	ppm by wt.	0.3 Max.
Hg	ppm by wt.	0.3 Max.
Heavy Metals (as Pb)	ppm by wt.	15.0 Max.
As	ppm by wt.	1.5 Max.

[END OF SECTION]

SECTION 3 - GENERAL TERMS & CONDITIONS (IFB)

GT-1. DEFINITIONS

- 1.1. **Addendum:** A written change to a Solicitation.
- 1.2. **Bid, Offer, or Response:** Shall refer to any bid, offer, or response submitted in regard to this Invitation for Bid that if accepted would bind the Contractor to perform the resultant contract.
- 1.3. **Bidder:** A general reference to any entity responding to this solicitation and must be the party entering into the Agreement with the City; also includes bidder, contractor, company, respondent, vendor, etc.
- 1.4. **Contract:** The Agreement to provide the goods or perform the services set forth in this solicitation.
 - 1.4.1. **Purchase of Goods -** The contract will be comprised of the solicitation document signed by the vendor with any addenda and other attachments specifically incorporated and a City purchase order.
 - 1.4.2. **Performance of Services –** The contract will be comprised of the Agreement between the City and the vendor, the solicitation document, any addenda, and other attachments incorporated into the agreement.
- 1.5. **Contractor:** The vendor to whom award has been made.
- 1.6. **City:** Shall refer to City of Leesburg, Florida.
- 1.7. **In Writing –** Unless otherwise designated 'In Writing' includes submitting documents or questions through the electronic bid system, *Vendor Registry*, currently used by the City.
- 1.8. **Invitation for Bid (IFB):** Shall mean this solicitation document, including any Addenda, used to communicate City requirements to prospective bidders and to solicit bid responses from them.
- 1.9. **Language:** The City has established for purposes of this solicitation that the words "shall", "must", or "will" are equivalent in this solicitation and indicate a mandatory requirement or condition, the material deviation from which shall not be waived by the City. A deviation is material if, in the City's sole discretion, the deficient response is not in substantial accord with this IFB's mandatory requirements. The words "should" or "may" are equivalent in this solicitation and indicate very desirable conditions or requirements, but are permissive in nature. The masculine pronoun shall include the feminine and neuter and the singular shall include the plural.
- 1.10. **Official Purchasing Time:** The Official Purchasing Time shall be that time reflected on the digital clock located in the Purchasing Office and labeled 'Official Purchasing Time'. This clock shall be used for all time deadlines related to City purchasing solicitations.
- 1.11. **Owner:** Shall refer to City of Leesburg, Florida.
- 1.12. **Responsible:** Refers to a vendor that has the capacity and capability to perform the work required under a Solicitation and is otherwise eligible for award.
- 1.13. **Responsive:** Refers to a Bidder that has taken no exception or deviation from the terms, conditions, and specifications set forth in an IFB. Their bid, offer or response conforms to the instructions and format specified in the solicitation document.
- 1.14. **Solicitation:** The written document detailing the solicitation requirements and requesting bids, offers or submittals from Bidders.

GT-2. INSTRUCTIONS TO BIDDERS

- 2.1. **Addenda –** The Purchasing Division may issue an addendum in response to any inquiry received, prior to the deadline for questions which changes, adds to, or clarifies the terms, provisions, or requirements of the solicitation. The Bidder should not rely on any representation, statement or explanation whether written or verbal, regardless of the source, other than those made in this solicitation document or in any addenda issued. Where there appears to be a conflict between this solicitation and any addenda, the last addendum issued shall prevail.
 - 2.1.1. **Bidders Responsibility -** It is the Bidders responsibility to ensure receipt of all addenda and any accompanying documentation. The Bidder is required to Acknowledge receipt of the addenda issued on the appropriate bid form. Failure to acknowledge each addendum may cause the bid to be deemed non-responsive and not be considered for award.
- 2.2. **Contents of Solicitation and Bidders Responsibilities –** It is the responsibility of the Bidder to become thoroughly familiar with the requirements, terms, and conditions of this solicitation. Pleas of ignorance of these matters by the Bidder will not be accepted as a basis for varying the requirements of the City of the amount to be paid to the vendor.
- 2.3. **Request for Additional Information/Questions -** Any communication or inquiries, except for clarification of process or procedure already contained in the solicitation, are to be made in writing to the attention of the

Procurement Representative identified in Section 1 of the solicitation no later than **SEVEN (7) DAYS** prior to the bid opening date. Oral answers given by anyone shall not be authoritative.

Vendors are encouraged to submit their questions electronically through *Vendor Registry*. If this is not possible questions may be submitted via e-mail at purch@leesburgflorida.gov. You must reference the solicitation number in the subject line. All requests for information or questions should be clearly marked and must be received no later than the cutoff for questions.

- GT-3. **Award** – Award may be made to the Bidder which offers the best value to the City. The City reserves the right to reject any and all offers, to waive non-material irregularities or technicalities and to re-advertise for all or any part of this solicitation as deemed in its best interest. The City shall be the sole judge of its best interest.
- GT-4. **Assignment** – The Contractor shall not assign or transfer any contract resulting from this solicitation, including any rights title or interest therein, or its power to execute such contract to any person, company or corporation without the prior written consent of the City.
- GT-5. **Basis for Bidding** - The total amount bid shall be based on quantities, unit prices and/or lump sum(s) according to the Schedule of Bid Items form provided. Any quantities shown in the Schedule of Bid Items Form are estimates for the purpose of arriving at a total bid price for comparison of Bid Responses.

A Bidders bid prices shall be firm for ninety (90) calendar days after the solicitation opening date, unless stated differently in the Special Terms and Conditions. In the case of a discrepancy between the unit cost and extended cost the unit cost quoted will take precedence and the Purchasing Division shall make and note the correction on the Final Bid Tabulation.

- GT-6. **Bidder Eligibility** – It is the policy of the City to encourage full and open competition among all available qualified vendors. All vendors regularly engaged in the type of work specified in the solicitation are encouraged to submit bids. Eligibility requirements for contract award are:
- 6.1. Have NO delinquent indebtedness to the City of Leesburg or other federal, state, or municipal agencies;
 - 6.2. Shall be regularly and consistently engaged in providing services the same or similar to those being requested in the solicitation;
 - 6.3. Have adequate financial resources, or the ability to obtain such resources as required during performance of the contract;
 - 6.4. Be able to comply with the required or proposed delivery or performance schedule;
 - 6.5. Have a satisfactory record of performance. Vendors who are or have been deficient in current or recent contract performance (when the number of contracts and the extent of the deficiency of each are considered, in the absence of evidence to the contrary or circumstances properly beyond the control of the contractor) shall be presumed unable to meet this requirement. Past unsatisfactory performance will ordinarily be sufficient to justify a finding of non-responsibility;
 - 6.6. Vendors performing work for the City at the time responses to this solicitation are received may be deemed non-responsible and not considered for award of this solicitation should their current performance be rated as less than satisfactory by the City's designated representative. Previous award of work does not guarantee future award(s). The Vendor must perform satisfactorily and professionally on all City work undertaken;
 - 6.7. Have a satisfactory record of integrity and business ethics;
 - 6.8. Be properly licensed by the appropriate regulatory agency for the work to be performed;
 - 6.9. Not have any previous or current investigations, regardless of disposition or outcome, by the regulatory agency responsible for licensing Contractors; and
 - 6.10. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.
- GT-7. **Cancellation of Solicitation** – The City reserves the right to cancel, in whole or in part, any solicitation when it is in the best interest of the City. Availability of all information related to a cancelled solicitation is subject to Chapter 119, Florida Statutes.
- GT-8. **Changing of Forms** – If the City discovers any bid forms submitted by a bidder in response to this solicitation have been altered the City may, at its discretion, disqualify the Bidder and not consider their bid for award.
- GT-9. **City is Tax Exempt** - The City is generally exempt from Federal Excise Taxes and all State of Florida sales and use taxes. The City will provide a tax exemption certificate upon request. Contractors doing business with the

City are not exempt from paying sales tax to their suppliers for materials to fulfill contractual obligations with the City, nor shall any contractor be authorized to use any of the City's Tax Exemptions in securing such materials.

- GT-10. **Collusion Among Firms** - Where two (2) or more related parties, as defined herein, each submit a bid for the same contract, such bids shall be presumed to be collusive. The foregoing presumption may be rebutted by the presentation of evidence as to the extent of ownership, control and management of such related parties in preparation of such submittals. Related parties shall mean an interested party or the principals thereof which have a direct or indirect ownership interest in another interested party for the same contract or in which a parent company or the principals thereof of one interested party have a direct or indirect ownership interest in another interested party for the same contract. Furthermore, any prior understanding, agreement, or connection between two (2) or more corporations, firms, or persons submitting a response for the same materials, supplies, services, or equipment shall also be presumed to be collusive. The relationship of manufacturer or their representative(s) providing pricing to distributors while each party submits a bid for the same materials, supplies, services, or equipment shall be presumed to be collusive. Responses found to be collusive shall be rejected. Respondents which have been found to have engaged in collusion may be considered non-responsible, and may be suspended or debarred, and any contract resulting from collusive actions may be terminated for default.
- GT-11. **Conflict of Interest** - The award hereunder is subject to Chapter 112, Florida Statutes. All respondents must disclose with their response the name of any officer, director, or agent who is also an employee of the City of Leesburg. Further, all respondents must disclose the name of any City of Leesburg employee who owns, directly or indirectly, an interest of five percent (5%) or more of the Bidders firm or any of its branches.
- GT-12. **Conflicts within the Solicitation** – Where there appears to be a conflict between the General Terms and Conditions, Special Terms and Conditions, the Supplemental Terms & Conditions the Statement of Work, the Schedule of Bid Items, or any addendum issued, the order of precedence shall be the last addendum issued, the Schedule of Bid Items, the Statement of Work, the Special Terms & Conditions, the Supplemental Terms & Conditions and then the General Terms & Conditions. In addition, in the case of a conflict between any term or provision contained in contract documents which cannot be resolved by the order of precedence set forth previously, the term or condition that is more stringent and/or specific shall govern and apply.
- GT-13. **Continuation of Work** – Any work that commences prior to and will extend beyond the expiration date of the current contract period shall, unless terminated by mutual written agreement between the City and the vendor, continue until completion without change to the then current prices, terms and conditions.
- GT-14. **Contract Documents** – Following City Commission approval of the execution of a Construction Services Agreement, the Contract Documents shall consist of the following:
- 14.1. The Construction Services Agreement;
 - 14.2. This Solicitation issued by the City;
 - 14.3. Any Addendum to the Solicitation issued by the City;
 - 14.4. Applicable Engineer Drawings, Design and Specifications;
 - 14.5. The Contractors Bid Response;
 - 14.6. The Notice to Proceed issued by the City and acknowledged by the Contractor.
- GT-15. **Contingent Fees Prohibited** - The CONTRACTOR warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the CONTRACTOR, to solicit or secure this Agreement and that he or she has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Bidder any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. In the event of a breach of this provision, the CITY shall have the right to terminate this Agreement without further liability and at its discretion, deduct from the contract price, or otherwise recover, the full amount of any such fee, commission, percentage, gift or consideration paid in breach of this Agreement.
- GT-16. **Copeland "Anti-Kickback" Act** - The Contractor must comply with the Copeland "Anti-Kickback" Act, 18 USC 874 as supplemented in Department of Labor regulations, 29 CFR Part 3, prohibiting employers from inducing any person employed to give up any part of the compensation to which he or she is otherwise entitled.

GT-17. **Cost of Preparing Bid Response** - All costs incurred by the Bidder for proposal preparation and participation in this competitive procurement will be the sole responsibility of the Bidder. The City of Leesburg shall not reimburse any Bidder for any such costs.

GT-18. **Disputes** - In case of any doubt or differences of opinion as to the items to be furnished hereunder, the decision of the City of Leesburg Purchasing Manager shall be final and binding on both parties.

GT-19. **Execution of Contract** – The Contractor to whom the City intends to award a Contract will be required to execute an Agreement within **ten (10) days** from the date of the Notice of Recommendation for Award, and deliver these executed instruments as instructed to the City of Leesburg Purchasing Division.

GT-20. **Governing Law/Jurisdiction** – The interpretation, effect, and validity of any contract(s) resulting from this solicitation shall be governed by the laws and regulations of the State of Florida. Venue of any court action shall be in Lake County, Florida. In the event that a suit is brought for the enforcement of any term of the contract(s).

GT-21. **Interpretation of Contract Documents** - Each Bidder shall thoroughly examine the Forms Response Form, and all other papers comprising the Contract Documents. He shall also examine and judge for himself all matters relating to the location and the character of the proposed work. If the Bidder should be of the opinion that the meaning of any part of the specifications is doubtful or obscure, or that they contain errors or reflect omissions, he should report such opinion or opinions in writing for an interpretation to the Purchasing Division at 204 N. 5th Street Leesburg, Florida 34748 or by electronic mail to: purch@leesburgflorida.gov. Such notification should be done immediately, but in no case no later than **seven (7) business days** before the due date and time of Bid Responses.

The City shall not be responsible for oral interpretation given by any City representative, the issuance of a written addendum being the only official method whereby such an interpretation will be given. The failure of the Bidder to direct the attention of the Purchasing Representative to errors or discrepancies will not relieve the Bidder, should he be awarded the contract, of responsibility of performing the work to the satisfaction of the City of Leesburg in accordance with the specifications.

GT-22. **Liability** - The Contractor shall hold and save the City of Leesburg, its officers, agents, and employees harmless from liability of any kind in the performance of or fulfilling the requirements of a Contract resulting from this solicitation.

GT-23. **Notice to Proceed** – Following contract award the City shall schedule with Contractor a pre-construction meeting. At that meeting the parties will mutually agree on a projects start date which will be used as the Notice to Proceed date. The City shall provide the Notice to Proceed (NTP) to the Contractor. Contractor shall sign NTP acknowledging receipt and agreeing to the dates. The performance period will be defined in the NTP using the NTP date with the days stated in the Time of Completion paragraph of the Contract Documents.

GT-24. **Price Bid** - The unit prices, lump sum(s) and total price bid for the work shall be stated in figures in the appropriate places on the prescribed form(s), and shall be firm for ninety (90) calendar days after the solicitation opening date, unless stated differently in the Special Terms and Conditions. In the case of a discrepancy between the unit cost and extended cost the unit cost quoted will take precedence.

GT-25. **Protests** – Protests can only be made by Interested Parties. Protests must be submitted in writing to the Purchasing Manager at 204 N. 5th Street, Leesburg, FL 32748, no later than three (3) business days after the day the Notice of Recommendation to Award is posted to Vendor Registry, the City's official on-line bid management and vendor notification system. The written protest must specifically state the reason for the protest and exactly what is being protested. Protests received after the deadline will not be considered. The Purchasing Manager will respond to protests no later than seven (7) business days from the day it is received. In case of a protest the determination and decision of the City of Leesburg Purchasing Manager shall be final.

GT-26. **Public Entity Crimes** – Pursuant to Section 287.133(12)(a) of the Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid Response on a contract to provide any goods or services to a public entity, may not submit a bond on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bid Responses on leases of real property to a public entity may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant

under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for Category Two (\$25,000) for a period of 36 months from the date of being placed on the convicted vendor list."

GT-27. **Public Records Law** – The State of Florida has a very broad public records law. Florida Statute Chapter 119 will apply to all bid responses.

GT-28. **Qualifications of Respondents** - The City of Leesburg reserves the right before awarding the contract, to require the Bidder to submit such evidence of his qualifications and experience as it may deem necessary, and may consider any evidence available to it of the financial, technical and other qualifications and abilities of a respondent.

28.1. The Bidder is assumed to be familiar with all Federal, State or local laws, codes, ordinances, rules and regulations that in any manner affect the work, and to abide thereby if awarded the Contract. Ignorance of legal requirements on the part of the Bidder will in no way relieve him of responsibility.

28.2. Any Bidder may be required to show to the complete satisfaction of the City of Leesburg that he has the necessary personnel, facilities, abilities, and financial resources to perform the work in a satisfactory manner and within the time specified.

28.3. Bidder must possess any and all required licenses to perform and complete the work necessary in this project. The Bidder must be licensed at the time of submitting their bid and the license must be in effect for the entire period of the project.

GT-29. **Quantities** – The City reserves the right to adjust quantities stated in this solicitation. Available funding versus prices bid may affect actual quantities ordered. The City may choose to increase or decrease quantities stated in the documents depending on the circumstance. The City is not obligated to place any order for a given amount subsequent to the award of this Solicitation. The City may use any stated estimated quantities in the award evaluation process. Estimated quantities do not contemplate or include possible additional quantities that may be ordered by other government, quasi-governmental or non-profit entities utilizing this contract. In no event shall the City be liable for payments in excess of the amount due for quantities of goods or services actually ordered.

GT-30. **Registration** – Any vendor being recommended for an award or purchase from this solicitation is required to register with the City's on-line vendor management system. That on-line system is powered by Vendor Registry and can be accessed by navigating to www.leesburgflorida.gov/purchasing and select the Vendor Registry icon. There is no cost to register. Following issuance of the Notice of Recommendation for Award (NORA), the recommended vendor will be provided instructions on how to register with Vendor Registry. Registration must be completed prior to any work or purchases be made under the Contract.

GT-31. **Responsibility of Respondent to Inform Himself as to All Conditions Relating To Project** - The respondent, by and through the submission of his bid response, agrees that he shall be held responsible for having theretofore examined the site, the location and/or route of all proposed work and for having satisfied himself as to the character of such location and/or route of surface and underground obstructions, the nature of the ground and water table conditions and all other physical characteristics of the job, in order that he may include in the prices which he proposes, all costs pertaining to the work and thereby provide for the satisfactory completion thereof, including the removal, relocation or replacement of any objects or obstructions which will be encountered in doing the proposed work.

GT-32. **Responsiveness (Bids/Proposals)** – Responses shall conform in all material respects to the solicitation in order to be considered for award. Any response which fails to conform to the solicitation's essential requirements may be rejected.

32.1. An effective bid/proposal will be formatted to the solicitation specifically with particular attention paid to providing the information necessary to meet the evaluation factors in detail. The bid/proposal must demonstrate to the City that the respondent is highly qualified with regard to each requirement in the solicitation.

GT-33. **Right to Accept or Reject Submittals** – Submittals which are incomplete, unbalanced, conditional, obscure or which contain additions not required, or irregularities of any kind, or which do not comply in every respect with the solicitation, and the Contract Documents, may be rejected at the option of the City of Leesburg (also see the solicitation Definitions).

33.1. The City of Leesburg does not bind itself to accept the lowest price for the minimum specifications stated herein, but reserves the right to accept any response which in the judgment of the City will best serve the needs and interests of the City of Leesburg.

- 33.2. If, at the time this contract is to be awarded, the lowest Cost Response submitted by a responsible Bidder having acceptable qualifications and abilities to perform the work, does not exceed the amount of funds then estimated by the City as available to fund the work under the contract; the contract may be awarded to that Bidder.
- 33.3. If such lowest Cost exceeds the available funding for the work, the City may reject all Bids or may award the contract to the lowest Cost Bid less such deductible alternates or schedules of work which are listed in the Bid, as produces a net amount which is within the available funds.

GT-34. Rules, Regulations and Licenses – The Contractor shall comply with all federal, state, county, and local laws ordinances, rules and regulations applicable to the provision of the services specified in this solicitation. Lack of knowledge by the Bidder will in no way be relief from responsibility.

GT-35. Signature of Bidder - The Bidder shall sign the Bidders Certification Form in the space provided for the signature. If the vendor is an individual, the words, "Doing Business As (business name)", or "Sole Owner" shall appear beneath his signature. In the case of partnership, the signature of at least one of the partners shall follow the firm name and the words, "Member of Firm", should be written beneath such signature. If the vendor is a corporation, the title of the office signing the Response in behalf of the corporation shall be stated and evidence of his authority to sign the Response shall be submitted.

GT-36. State Registration Requirements – Any corporation submitting a bid in response to this Solicitation shall either be registered or have applied for registration with the Florida Department of State in accordance with the provisions of Chapter 607, Florida Statutes. A copy of the registration/application may be required prior to award of a contract. Any partnership submitting a response to this Solicitation shall have complied with the applicable provisions of Chapter 620, Florida Statutes. For additional information on these requirements, please contact the Florida Secretary of State's Office, Division of Corporations, (800) 755-5111 (<http://www.dos.state.fl.us>).

GT-37. State Professional Licenses – The Bidder shall hold all required Professional Licenses as issued by the State of Florida Department of Business and Professional Regulation at the time their bid is submitted and maintain said licenses for the duration of the Contract.

GT-38. Subcontracting – Unless otherwise specified in this solicitation or Contract Documents, the Contractor shall not change subcontractors from those listed on their Subcontractor Listing form provided in advance of the Notice to Proceed being issued. Changes to Subcontractors may only be made following Contractor submitting a revised Subcontractor Listing and written approval by the City of the requested change in the subcontractor(s).

GT-39. Time Allowed – Contractor will start and complete the work in an expeditious manner which meets the mutually agreed upon schedule and Performance Period as set in the Contract Documents.

GT-40. Warranty - All warranties express and implied, shall be made available to the City for goods and services covered by this solicitation. All goods furnished shall be fully guaranteed by the vendor against factory defects and workmanship. At no expense to the City, the vendor shall correct any and all apparent and latent defects that may occur within the manufacturer's standard warranty period. The special conditions of the solicitation may supersede the manufacturer's standard warranty. This paragraph does not apply to Solicitations for professional services covered by Chapter 287.055, Florida Statutes.

GT-41. Withdrawal of Bids - Any response to this solicitation may be withdrawn **prior** to the due date and time specified in the solicitation document or as revised by an addenda.

[END OF SECTION]

Complete ALL the forms in this section and submit them in a sealed envelope as your bid response.

General Vendor Information			
Company Name:			
Physical Address:			
Mailing Address:			
Phone No.:		FEIN No.:	
Email Address:			
Financial Status: <input type="checkbox"/> Poor <input type="checkbox"/> Good <input type="checkbox"/> Excellent	No. of Years in Business:		
No. of Personnel Currently Employed:		No. of Personnel Available for this Project:	
Principal Name	Title		
Describe the type of work normally performed by your company:			

Provide information regarding who may be contacted regarding this bid response.

Primary Contact	
Name:	_____
Title:	_____
Address:	_____
Phone No.:	_____ Mobile Phone No.: _____
Email Address:	

IFB 180131

SCHEDULE OF BID ITEMS

Your Bid MUST BE submitted on this form. Double check the Bid prices.
Amounts cannot be changed following the Bid due date and time.

Submitting Vendor Name: _____

BASE BID

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE
1	REHABILITATION OF A CHLORINE SCRUBBER as specified in the bid documents.	1	LS	\$
TOTAL BASE BID:				\$

Time for Completion

Completion of project is desired within **FIFTEEN (15) CALENDAR DAYS** from Notice to Proceed (NTP). Bids which do not indicate a completion time that is within this delivery time may be deemed as non-responsive.

Number of CALENDAR DAYS to <u>begin</u> work after receipt of NTP: _____	Calendar Days
Number of CALENDAR DAYS to <u>completion</u> after receipt of NTP: _____	Calendar Days

[Rest of page intentionally left blank.]

BIDDER'S CERTIFICATION

- I have carefully examined the Invitation to Bid, Instructions to Bidders, General and/or Special Conditions, Specifications, the Bid submitted and any other documents accompanying or made a part of this invitation.
- I hereby promise to furnish the goods or services specified in the Invitation to Bid at the prices or rates set forth in my bid. I agree that my bid will remain firm for the period established in the bid document in order to allow the City adequate time to evaluate the bids and make award. Furthermore, I agree to abide by all conditions of the bid.
- I certify that all information contained in this bid is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this bid on behalf of the vendor / contractor as its act and deed and that the vendor / contractor is ready, willing and able to perform if awarded the bid.
- I further certify that this bid is made without prior understanding, agreement, connection, discussion, or collusion with any person, firm or corporation submitting a bid for the same product or service; no officer, employee or agent of the City of Leesburg or of any other bidder interested in said bid; and that the undersigned executed this Bidder's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.
- I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the Solicitation.
- I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the "work" will be performed in strict accordance with such requirements, and understands that any exceptions to the requirements of the specifications and documents may render the bidder's submission non-responsive.

NO EXCEPTIONS WILL BE ALLOWED AFTER THE BID IS SUBMITTED.

Please check one:

I take NO exceptions

I take the exceptions listed here:

(If more space is needed, please indicate exceptions here and attach additional pages as needed)

ADDENDUM ACKNOWLEDGMENT

No Addendum were issued.

The undersigned acknowledges receipt of the following addenda to the Invitation to Bid (indicate number and date of each):

Addendum No.	Dated:	Addendum No.	Dated:
Addendum No.	Dated:	Addendum No.	Dated:

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS THE BID PRICES IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF THE BID.

LOCAL VENDOR STATUS DECLARATION

The responding firm and firm that will enter into an agreement with the City, if selected, declares the following selected Local Vendor status.

Provide Physical Address of Business Office or Full Time Sales Office:
--

- My Firm Qualifies as a Tier I - Local Vendor for this solicitation**
 “Tier I Local Vendor” shall be defined as the primary Business Office or a Full Time Sales Office of the vendor being located within the City of Leesburg or the vendor receiving one or more Utility Services (excluding communications/Internet) from the City of Leesburg.
- My Firm Qualifies as a Tier II - Local Vendor for this solicitation**
 “Tier II Local Vendor” shall be defined as the primary Business Office or a Full Time Sales Office of the vendor not meeting the definition of a Tier I Local Vendor but nonetheless being located within the 20-Mile Radius as defined in this policy.
- My Firm does not qualify as a local vendor**

BID CERTIFICATION SIGNATURES
 (this section must be signed and completed.)

 Name of Business

 Telephone Number

By: _____
 Signature

 e-mail Address

 Printed Name

 Mailing Address

 Title

 City, State, Zip Code

STATEMENT OF EXPERIENCE - “SIMILAR” PROJECTS

List all SIMILAR projects your firm has completed. Copy this sheet if additional pages are needed. You must use this form. Attaching a separate listing may cause your bid to be deemed non-responsive and rejected.

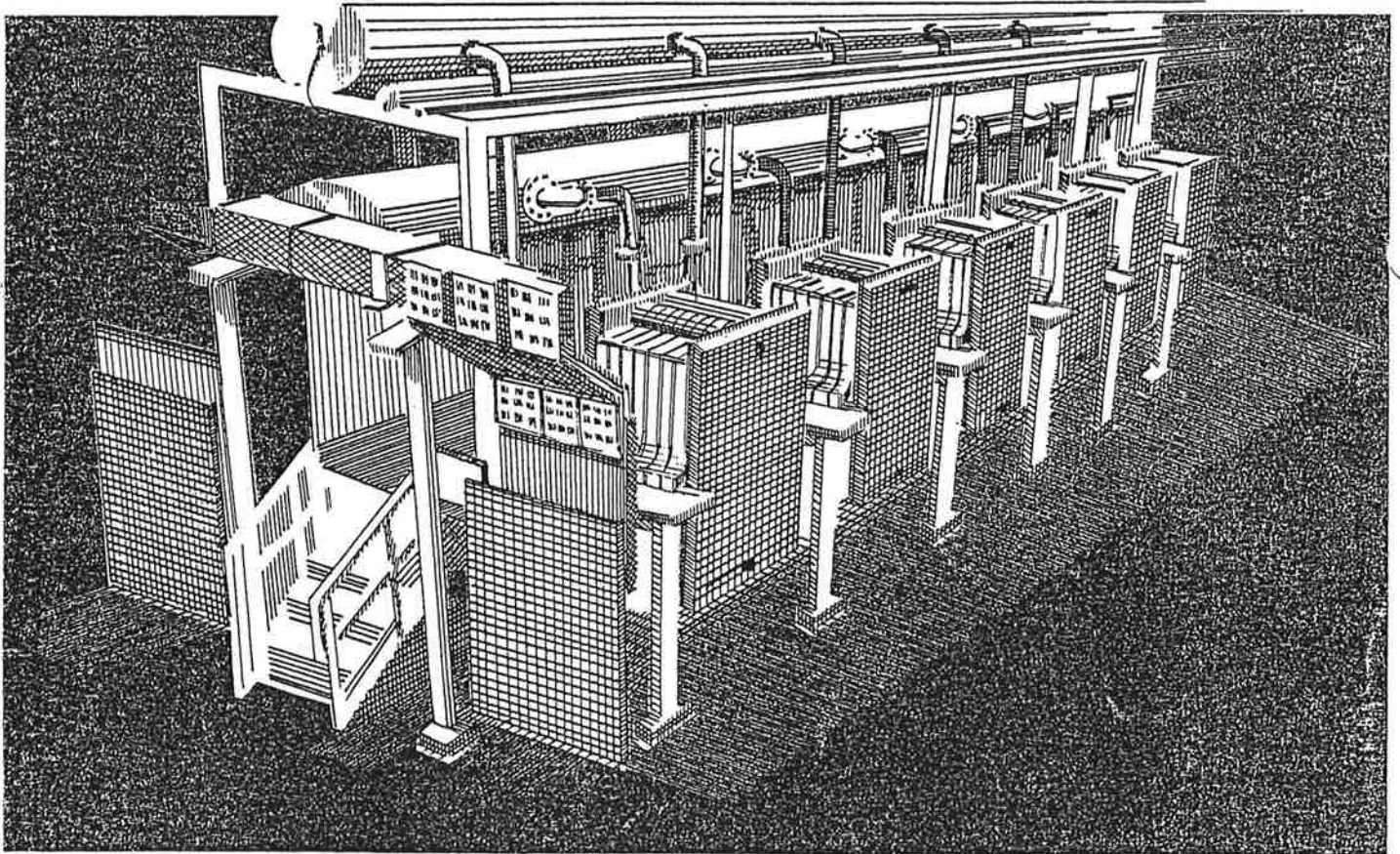
<i>Project Name/Location:</i>		
<i>Project Owner:</i>		Date Completed:
<i>Project Description and Specific Scope: Be Descriptive. Use additional pages.</i>		
Contract Amounts:	Original \$	At Completion \$
Briefly Explain Any Variance:		
Contact Person:		
Contact e-mail:		
Phone Number:		
Project Name/Location:		
<i>Project Owner:</i>		Date Completed:
<i>Project Description and Specific Scope: Be Descriptive. Use additional pages.</i>		
Contract Amounts:	Original \$	At Completion \$
Briefly Explain Any Variance:		
Contact Person:		
Contact e-mail:		
Phone Number:		
Project Name/Location:		
<i>Project Owner:</i>		Date Completed:
<i>Project Description and Specific Scope: Be Descriptive. Use additional pages.</i>		
Contract Amounts:	Original \$	At Completion \$
Briefly Explain Any Variance:		
Contact Person:		
Contact e-mail:		
Phone Number:		

APPENDIX A

MANUFACTURER'S
DOCUMENTATION FOR
EMERGENCY VAPOR SCRUBBER
SYSTEM

CAUSTIC SODA

HANDBOOK



OxyChem[®]

5. MATERIAL SAFETY DATA SHEETS AND SAFETY PROCEDURES:

This Section contains typical Materials Safety Data Sheets (MSDS) for the hazardous chemicals used in USFilter Emergency Vapor Scrubber Systems. These documents are for general reference. Please consult the MSDS information provided by your chemical supplier for specific safety instructions.

The Material Safety Data Sheet and the Caustic Product Information are attached for the following chemical:

- NaOH

Safety in Handling Caustic Soda

Caustic Soda in liquid or dry form has a markedly corrosive action on all body tissue. Even dilute solutions may have a destructive effect on tissue after prolonged contact. Inhalation of dust or concentrated mists can cause damage to the upper respiratory tract, while ingestion of liquid or solid causes severe damage to mucous membranes or other tissue with which contact is made. In addition, considerable heat is generated when liquid or solid Caustic Soda is added to water; boiling and spattering may result.

It is important that those who handle Caustic Soda are aware of its highly reactive and corrosive properties and know what precautions to take. It is also important to know what procedures to follow in case of accidental exposure. Suggestions for first-aid measures and several protective practices are given in the following paragraphs.

First-Aid Measures

If for any reason Caustic Soda should come in contact with the eyes, the eyes should be flooded immediately with plenty of clean water. Flushing should continue for at least 15 minutes. While flushing, the eyelids should be held apart to ensure flushing of the entire eye surface.

Seek medical attention immediately.

If Caustic Soda comes in contact with skin or clothing, flush with plenty of clean water for at least 15 minutes. Remove contaminated clothing and footwear. Affected clothing should be washed before reusing and footwear that cannot be decontaminated should be discarded.

If discomfort is experienced from exposure to Caustic Soda dust, mist or spray, the person should employ respiratory protection or leave the contaminated area and report the event to the medical department.

If overcome due to the inhalation of Caustic Soda dust, mist or spray, the person should be removed from the contaminated area to fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered if readily available. **Seek medical attention immediately.**

It is unlikely in an industrial situation that Caustic Soda would be ingested; however, if it should be swallowed, DO NOT induce vomiting. Give large quantities of water, or if available, give several glasses of milk. If vomiting occurs spontaneously, position individual's head to keep airway clear. **Never** give anything by mouth to an unconscious person. **Seek medical attention immediately.**

The final objective in case of Caustic Soda contact and/or overexposure is to get patient rapidly to a hospital emergency room.

Any Caustic Soda burn may be serious. DO NOT use any kind of neutralizing solution in the eyes. Only clean water should be used.

Both eyewash fountains and safety showers must be provided in all areas where Caustic Soda is used or handled.

Protective Practices

1. Keep equipment clean by washing off any accumulation of Caustic Soda.
2. Pipelines should be welded where practical. Joints should be flanged with gaskets made of caustic-resistant material (such as rubber or Teflon* composite) fitting inside the bolt holes of the flanges. If any screwed fitting is used, apply Teflon* tape to the threads.
3. When disconnecting equipment for repairs, make certain that there is no internal pressure on the equipment and that the equipment has been drained and washed.
4. Storage tanks should be provided with suitable overflow pipes to prevent the tanks themselves from overflowing.
5. Shield the packing glands of pumps to prevent spraying of caustic solution in case the packing glands should leak.
6. When releasing air pressure from a pressurized system, every precaution must be taken to avoid spurts or sprays of caustic solution.
7. When making solutions, **always** add the Caustic Soda slowly to the liquid surface with constant stirring. **Never add the liquid to the Caustic Soda.**

Always start with lukewarm liquid (80°-100°F). Never start with hot or cold liquid.

If Caustic Soda becomes concentrated in one area, or if added too rapidly, or if added to hot or cold liquids, a rapid temperature increase can result in **dangerous** boiling and/or spattering which may cause an immediate **violent eruption**.

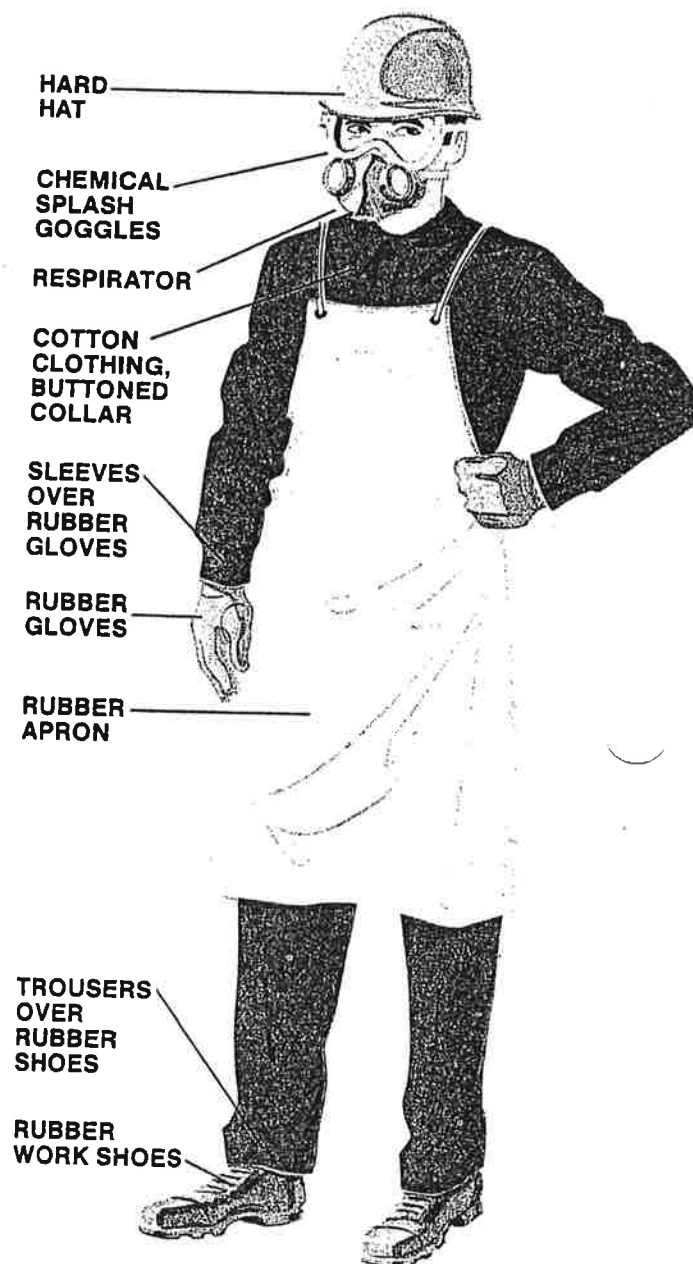
*Trademark of E.I. duPont de Nemours and Company, Inc.

8. Exercise extreme care when breaking solid Caustic Soda into smaller pieces.
9. In case of a spill or leak: Leaks should be stopped. Spills, after containment, should be shoveled up and removed to chemical waste area or removed by vacuum truck, if liquid. Neutralize residue with dilute acid, preferably acetic acid. Flush spill area with water and follow with liberal covering of sodium bicarbonate.
10. Avoid breathing dust, mist or spray of Caustic Soda.
11. Wear proper protective equipment.

OSHA requires employers to supply suitable protective equipment for employees. When handling Caustic Soda, it is recommended that the following protective equipment be worn:

 1. **Suitable goggles must be worn for eye protection during the handling of Caustic Soda in any form.** The goggles should be close-fitting and equipped with side shields. Goggles which provide adequate ventilation to prevent fogging, without allowing entry of liquids, are preferred.
 2. Gloves coated with rubber, synthetic elastomers, PVC, or other plastics should be worn to protect the hands while handling Caustic Soda. Gloves should be long enough to come well above the wrist. Sleeves of cotton jackets or shirts should be buttoned over the glove wrists.
 3. Caustic Soda causes leather to disintegrate quite rapidly. For this reason, rubber boots are recommended for footwear. The bottoms of trouser legs should be worn outside the boots. Do **NOT** tuck in.
 4. Cotton clothing provides good protection for the body and the use of rubber aprons will provide additional protection.
 5. Shirts or jackets should have long sleeves and should be worn with the collar tightly fastened.
 6. Hard hats provide some protection for the head, face and neck.
 7. NIOSH approved respirators for dusts and mists or protective hoods should be provided for workers who handle flake or granular Caustic Soda.

Protective Equipment



Dilution Calculations

The matter of diluting liquid Caustic Soda to a given concentration frequently is confusing. Dilutions can be simplified to the following formula:

$$[A \times (B-C)] \div C = D$$

- A = Specific gravity of strong solution.
- B = % NaOH in strong solution.
- C = % NaOH in desired diluted solution.
- D = Volumes of water to add to each volume of strong solution.

Examples:

It is desired to dilute 50% liquid Caustic Soda (specific gravity at 60°F. = 1.53) to 20% Caustic Soda solution.

$[1.53 \times (50-20)] \div 20 = 2.295$ volumes of water to add to each volume of 50% liquid Caustic Soda.

To dilute 20% Caustic Soda solution (specific gravity at 60° F. = 1.223) to 7.15% Caustic Soda solution:

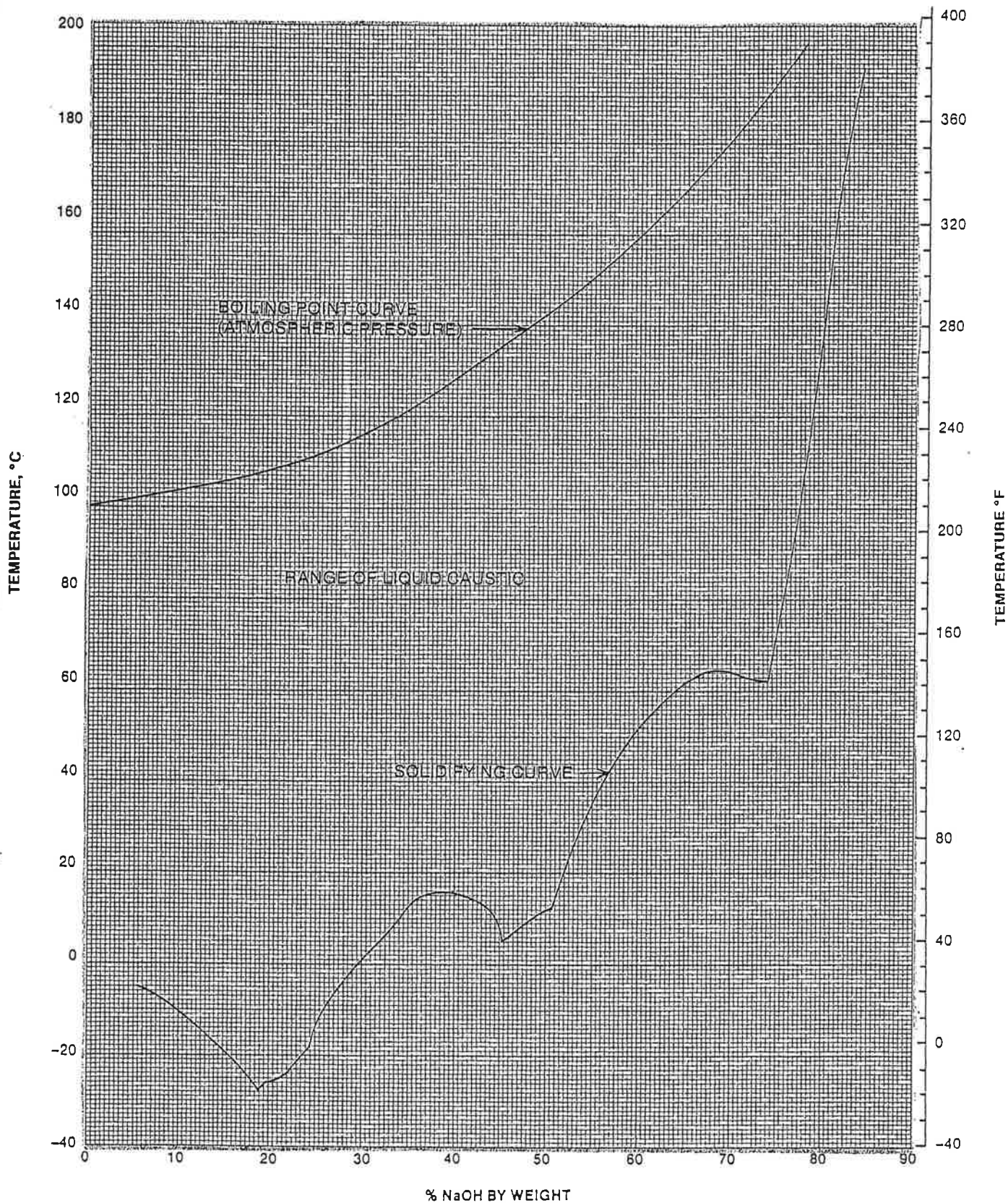
$[1.223 \times (20-7.15)] \div 7.15 = 2.198$ volumes of water to add to each volume of 20% Caustic Soda solution.

It should be noted that volumes of Caustic Soda solutions and water are not additive. If 10 gallons of water and 10 gallons of Caustic Soda solution are mixed, the resulting volume will be slightly less than 20 gallons. This fact is quite significant when dealing with large volumes.

Density and Caustic Soda Content of Rayon Grade Caustic Soda Solutions at 60 Degrees F

WT % NaOH	% Na ₂ O	SPECIFIC GRAVITY	DEGREES		NaOH G/L	NaOH LB/GAL	TOTAL WT		
			BAUME (AM STD)				SOLUTION LB/GAL	NaOH LB/CU FT	SOLUTION LB/CU FT
1.0	0.775	1.0120	1.706		10.118	0.084	8.437	0.631	63.113
2.0	1.550	1.0230	3.259		20.457	0.171	8.529	1.277	63.804
3.0	2.325	1.0342	4.782		31.019	0.259	8.622	1.935	64.497
4.0	3.100	1.0453	6.274		41.803	0.349	8.715	2.608	65.191
5.0	3.874	1.0564	7.736		52.811	0.440	8.807	3.295	65.885
6.0	4.649	1.0676	9.170		64.042	0.534	8.900	3.995	66.581
7.0	5.424	1.0787	10.580		75.496	0.630	8.993	4.710	67.277
8.0	6.199	1.0899	11.960		87.174	0.727	9.087	5.438	67.973
9.0	6.974	1.1010	13.310		99.076	0.826	9.180	6.181	68.670
10.0	7.748	1.1122	14.630		111.210	0.927	9.273	6.937	69.367
11.0	8.523	1.1234	15.930		123.550	1.031	9.366	7.707	70.063
12.0	9.298	1.1345	17.200		136.130	1.136	9.459	8.492	70.759
13.0	10.080	1.1457	18.440		148.920	1.242	9.552	9.290	71.455
14.0	10.850	1.1569	19.660		161.930	1.351	9.645	10.110	72.150
15.0	11.630	1.1680	20.850		175.170	1.461	9.738	10.930	72.845
16.0	12.400	1.1791	22.030		188.630	1.573	9.830	11.770	73.539
17.0	13.180	1.1902	23.170		202.300	1.687	9.923	12.620	74.231
18.0	13.950	1.2013	24.300		216.200	1.803	10.020	13.490	74.922
19.0	14.730	1.2124	25.400		230.310	1.921	10.110	14.370	75.612
20.0	15.500	1.2234	26.480		244.640	2.040	10.200	15.260	76.300
21.0	16.280	1.2344	27.530		259.180	2.162	10.300	16.170	76.987
22.0	17.050	1.2454	28.570		273.940	2.285	10.390	17.090	77.672
23.0	17.830	1.2563	29.590		288.910	2.409	10.480	18.030	78.355
24.0	18.600	1.2672	30.580		304.090	2.536	10.570	18.970	79.035
25.0	19.370	1.2781	31.550		319.470	2.664	10.660	19.930	79.713
26.0	20.150	1.2889	32.510		335.070	2.794	10.750	20.910	80.389
27.0	20.920	1.2997	33.440		350.870	2.926	10.840	21.890	81.062
28.0	21.700	1.3105	34.350		366.870	3.060	10.930	22.890	81.731
29.0	22.470	1.3212	35.250		383.070	3.195	11.020	23.900	82.398
30.0	23.250	1.3317	36.120		399.450	3.331	11.110	24.920	83.057
31.0	24.020	1.3424	36.980		416.070	3.470	11.200	25.960	83.722
32.0	24.800	1.3529	37.830		432.860	3.610	11.280	27.010	84.379
33.0	25.570	1.3634	38.650		449.850	3.751	11.370	28.070	85.033
34.0	26.350	1.3738	39.450		467.010	3.895	11.460	29.140	85.681
35.0	27.120	1.3842	40.240		484.370	4.039	11.540	30.220	86.327
36.0	27.900	1.3944	41.020		501.910	4.186	11.630	31.310	86.968
37.0	28.670	1.4046	41.770		519.630	4.333	11.720	32.420	87.605
38.0	29.450	1.4148	42.510		537.520	4.482	11.800	33.530	88.237
39.0	30.220	1.4248	43.230		555.590	4.633	11.880	34.660	88.864
40.0	31.000	1.4348	43.940		573.830	4.785	11.970	35.800	89.487
41.0	31.770	1.4447	44.640		592.240	4.939	12.050	36.950	90.105
42.0	32.550	1.4545	45.310		610.810	5.094	12.130	38.110	90.717
43.0	33.320	1.4643	45.980		629.530	5.250	12.210	39.270	91.324
44.0	34.100	1.4739	46.630		648.420	5.407	12.290	40.450	91.926
45.0	34.870	1.4835	47.260		667.450	5.566	12.370	41.640	92.522
46.0	35.650	1.4930	47.880		686.640	5.726	12.450	42.840	93.113
47.0	36.420	1.5023	48.480		705.970	5.887	12.530	44.040	93.697
48.0	37.200	1.5116	49.080		725.440	6.049	12.610	45.260	94.275
49.0	37.970	1.5208	49.650		745.040	6.213	12.680	46.480	94.847
50.0	38.740	1.5298	50.220		764.780	6.377	12.760	47.710	95.412
51.0	39.520	1.5388	50.770		784.640	6.543	12.830	48.950	95.971
52.0	40.290	1.5476	51.310		804.630	6.710	12.910	50.200	96.523

Chart No. 4 Boiling & Solidifying Temperatures of Aqueous Caustic Soda Solutions



Sodium Hydroxide in Caustic Soda

Purpose and Theory

The sodium hydroxide content of Caustic Soda is determined by adding barium chloride to a prepared sample and titrating with 1N HCl to the phenolphthalein end-point. The results are reported as percent NaOH on a sample-weight basis. This method is to be used only in samples where the sodium carbonate content is greater than 0.5 percent.

Apparatus

Volumetric equipment: Kimax A or equivalent

- All volumetric glassware used should be Class A with Kimax 100 ml MCA No. 3 buret being preferred. This buret has a 50-ml uncalibrated reservoir.
- Glass or plastic weighing bottles may be used.

Reagents

Barium chloride, 10% solution; 120 g. reagent-grade $\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$ in 880 ml of distilled water.

Hydrochloric acid, 1N, determined to nearest 0.005; Phenolphthalein indicator, 10 g. phenolphthalein in 900 ml methyl alcohol and 100 ml of distilled water.

Safety

Refer to "Laboratory Safety Procedures."

Procedure

I. Sample Preparation

The 50% liquid Caustic Soda will solidify at 54°F. If the sample is solidified at the time of the analysis, it may be thawed by holding in warm water until no solids are present. The sample must then be thoroughly shaken.

No special preparation is required for anhydrous samples. Carbonate and moisture should be avoided by rapid sample handling.

A. Direct weighing method

- Weigh 2.5 to 3.0 grams of anhydrous Caustic Soda or 5.0-6.0 grams of 50% Caustic Soda into a clean, dry glass or plastic weighing bottle to the nearest 0.0001 g.
- Transfer quantitatively into a suitable vessel.

II. Analysis

- Add 3 to 4 drops of phenolphthalein indicator, and 100 ml of hot 10% barium chloride solution.
- Titrate with 1N HCl from a buret calibrated to nearest 0.1 ml until the pink color is just discharged. Record the volume of acid required, reading the buret to the nearest 0.01 ml.
- Correct the volume of acid used to a 20°C basis, using the procedure as outlined in ASTM Standards E-291, Section 9. Record as V_2 .

Calculations

Report results as percent NaOH, calculated to nearest 0.1.

$$\begin{aligned} \text{Let: } W &= \text{Weight of sample in grams} = 2.9000 \\ N &= \text{Normality of HCl} = 1.0000 \\ V_2 &= \text{Volume of HCl required, ml} = 71.92 \end{aligned}$$

Then:

$$\begin{aligned} \% \text{NaOH} &= \frac{(V_2)(N)(0.04000)(100)}{W} \\ &= \frac{(71.92)(1.000)(0.04000)(100)}{2.900} = 99.2\% \end{aligned}$$

If the value for N is always the same, the formula reduces to:

$$\% \text{NaOH} = \frac{kV_2}{W} \quad \text{Where } k = (N)(0.040)(100)$$

Notes and References

- If the NaOH content is to be reported on an anhydrous basis, sum the values ("sample weight" basis) for NaOH, Na_2CO_3 , and Na_2SO_4 , divide the NaOH value by this sum, and multiply by 100.
- References: Laboratory manuals Occidental Chemical Corporation plants.

Laboratory Safety Procedures

Caustic Soda

Caustic Soda, sodium hydroxide, is a strong base. It is corrosive to body tissue; contact with eyes causes immediate and severe damage. Inhalation of mist, vapor or dust causes damage to the respiratory tract. Caustic Soda generates a large amount of heat when contacted with water or acids.

Wear eye protection as required to prevent contact with eyes. Wear gloves and other protective clothing to prevent contact with skin. Specific circumstances demand splash-proof goggles or face shield.

In cases of skin contact, wash immediately with plenty of soap and water for 15 minutes. Seek medical attention immediately.

If even minute quantities of Caustic Soda, in any form, enter the eyes, they should be flooded immediately with copious amounts of water for a minimum of 15 minutes. The eyelids must be held apart during the flooding while the patient rolls the eyes in a circular motion to insure contact of the water with all surface tissue of the eye and lids. A physician or trained first-aid technician should be called in attendance at the first possible moment, preferably by a third party, while the washing is being done. If such professional help is not immediately available, the eye washing should be continued for a second period of 15 minutes. Professional help is needed to prevent permanent eye damage.

Caustic Soda should not be taken internally. Ingestion of Caustic Soda causes severe burns of the mucous membranes of the mouth, throat, esophagus and stomach. Dilution of the chemical by drinking large quantities of water or fruit juice may be given to accomplish neutralization. Vomiting may occur spontaneously but should not be induced nor should a stomach tube be inserted except on the advice of a physician.

Acetic Acid

Causes eye and skin burns and can cause dermatitis and ulcers. Inhalation causes irritation of the mucous membranes. If contacted, immediately flush skin or eyes thoroughly with water and remove contaminated clothing. Acetic acid is particularly dangerous in contact with chromic acid, sodium peroxide and nitric acid.

Ammonium Thiocyanate

Prolonged absorption may produce skin eruptions, running nose, occasional dizziness, cramps, nausea, vomiting and disturbances of the nervous system. Avoid inhalation or contact with skin or eyes.

Ascarite

POISON. CORROSIVE. Burns skin, eyes and clothing. In case of contact with skin or clothing, immediately flush thoroughly with water for at least 15 minutes. For eyes, flush with water or saturated boric acid solution for at least 15 minutes.

Barium Chloride

POISON, may be fatal if swallowed. Avoid contact with eyes and skin; wear rubber gloves when handling.

Barium Diphenylamine Sulfonate

POISON. Avoid inhalation or contact with skin. Upon decomposition by heat or contact with acids, highly toxic fumes of oxides of sulfur are emitted.

Ferric Ammonium Alum

Avoid contact with skin or eyes.

Hydrochloric Acid

Avoid inhalation or contact with skin or eyes. Gas and liquid are both particularly damaging to the eyes. Goggles or face shield should be used when handling. If contacted, wash affected area thoroughly with water.

Hydroxylamine Hydrochloride

Irritating to skin, eyes and mucous membranes. Wash skin or eyes with water in case of contact. Keep away from flames, heat or sparks.

Magnesium Perchlorate

FLAMMABLE SOLID. Avoid contact with acids, moisture and combustibles. Store in a cool, dry, ventilated area. Causes irritation of skin, eyes and respiratory tract. In case of contact with skin or eyes, flush thoroughly with water.

Nitric Acid

Produces severe and penetrating burns. Shower and eye wash fountain should be used to wash affected area if skin or eyes are contacted. Avoid breathing fumes or vapors. Extremely irritating to mucous membranes and is corrosive to teeth.

Ortho-Tolidine

SUSPECTED CARCINOGEN. Avoid contact with skin or eyes.

Phosphoric Acid

Burns all tissues contacted. Flush affected areas with water for at least 15 minutes. Heating to decomposition emits fumes of oxides of phosphorus which are toxic. Wear splash-proof goggles when handling.

Potassium Dichromate

Contact with breaks in the skin may result in slow-healing "chrome sores." Exposure to dust or mist causes irritation or ulceration of the mucous membranes. Perforation of the nasal septum can occur from repeated exposure.

Potassium Dithio Oxalate

TOXIC. IRRITATING. Avoid inhalation and contact with skin. Corrosive. Dangerous when heated to decomposition, emits toxic fumes.

Potassium Permanganate

Avoid breathing dust or mist. Avoid contact with skin or eyes. Flush contacted skin or eyes thoroughly with water.

Silver Nitrate

Wear rubber gloves when handling. Repeated exposure causes a permanent blue-black discoloration of the skin and mucous membranes. Keep away from heat, spark and open flames.

Sodium Carbonate

Avoid inhalation or contact with the skin. Wash hands thoroughly after handling.

Sodium Oxalate

CORROSIVE. Will produce local irritation of the skin. Flush skin or eyes thoroughly with water after contact.

Sodium Sulfite

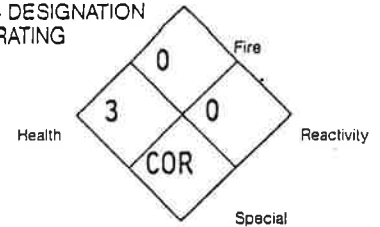
Wash hands thoroughly after handling. Contact with acid liberates toxic gases.

Xylene Cyanole

FLAMMABLE. Use with adequate ventilation. Avoid prolonged breathing of vapors or prolonged or repeated contact with skin.

MATERIAL SAFETY DATA SHEET

NFPA 704 DESIGNATION
HAZARD RATING



4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant



GREAT WESTERN CHEMICAL CO.

Issue Date: 07/16/91 Supersedes: 01/15/90

PRODUCT NAME: CAUSTIC SODA LIQUID 25%	
CHEMICAL NAME: Sodium Hydroxide Solution	CHEMICAL FAMILY: Hydroxides
FORMULA: NaOH (in water)	MOLECULAR WEIGHT: 40.0 (in water)
D.O.T. SHIPPING CLASSIFICATION: Sodium Hydroxide Solution Corrosive Material UN1824	

I. PHYSICAL DATA

BOILING POINT 760mm, Hg	112° C.	FREEZING POINT	- 10° C.
SPECIFIC GRAVITY (WATER = 1)	1.278 @ 15° C.	pH of 1% (w/v) SOLUTION	13.0 - 14.0
PERCENT VOLATILE ORGANICS BY VOLUME	N/A	SOLUBILITY IN WATER	Complete
APPEARANCE AND ODOR	Clear, colorless liquid with no characteristic odor		

II. HAZARDOUS INGREDIENTS

MATERIAL	HAZARD	% (wt.)	ACGIH TLV (Units)	OSHA PEL
Sodium Hydroxide CAS# 1310-73-2	Corrosive	25 min.	Air: CL 2 mg./cu.m.	Air: CL 2 mg./cu.m.
All chemicals contained in this product are listed on the Toxic Substance Control Act (TSCA) Inventory.				
N/A = Not Applicable NDA = No Data Available				

EMERGENCY PHONE NUMBERS

Great Western Chemical Company 808 S.W. 15th Avenue Portland, Oregon 97205 Phone: (503) 228-2600	800/424-9300 CHEMTREC
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III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method(s))	N/A	AUTOIGNITION TEMPERATURE	N/A
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	N/A
		UPPER	N/A
EXTINGUISHING MEDIA	Water, foam, carbon dioxide and dry chemicals		
UNUSUAL FIRE AND EXPLOSION HAZARDS	<p>May produce hazardous fumes or hazardous decomposition products.</p> <p>Water solutions are corrosive.</p> <p>Contact with some soft metals (i.e. aluminum, magnesium, etc.) will generate flammable/explosive hydrogen gas.</p>		
SPECIAL FIRE FIGHTING PROCEDURES	When fire fighting, wear full protective equipment, including self-contained breathing apparatus.		

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Not established on this product.		
ROUTE OF EXPOSURE	EYE CONTACT	SKIN CONTACT	SKIN ABSORPTION
	"Danger" Corrosive	"Danger" Corrosive	No data published
	INHALATION	INGESTION	
	Harmful if inhaled	Harmful if swallowed	
EFFECTS OF OVEREXPOSURE	Causes severe eye and skin irritation or burns. harmful if swallowed.		
EMERGENCY AND FIRST AID PROCEDURES	<p>EYES: Immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Call a physician immediately.</p> <p>EXTERNAL: In case of contact, immediately flush skin with plenty of clean running water for at least 15 minutes, while removing contaminated clothing and shoes. If burn or irritation occurs, call a physician.</p> <p>INTERNAL: If swallowed, DO NOT induce vomiting. Immediately drink a large quantity of milk or water and call a physician. Never give anything by mouth to an unconscious person.</p>		

CHRONIC EXPOSURE EFFECTS	Repeated exposure can cause dermatitis with possible destruction of tissue; otherwise, same as for overexposure.
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V. REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID	None
UNSTABLE	<input type="checkbox"/>	STABLE		
INCOMPATIBILITY (materials to avoid)			Acids, halogenated hydrocarbons, aluminum, magnesium, zinc, and nitro-organic compounds.	
HAZARDOUS DECOMPOSITION PRODUCTS			When heated to decomposition, it emits toxic sodium oxide (Na ₂ O).	
HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID	None
MAY OCCUR	<input type="checkbox"/>	WILL NOT OCCUR		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Contain spill. (For small spills, add dry material to contain). Wearing recommended protective equipment, pick up bulk of liquid. Flush area with plenty of water; collect rinsates for disposal or sewer, as appropriate.
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WASTE DISPOSAL METHOD	<p>This product, if disposed as shipped, meets EPA criteria of a hazardous waste as specified in 40 CFR 261 on the basis of its corrosivity. Dispose of product in a licensed hazardous waste disposal facility in accordance with all applicable laws.</p> <p>When empty, thoroughly rinse container with water before disposal, return to manufacturer or any other industrial use.</p>
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VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)		If OSHA-PEL is exceeded, a NIOSH-approved respirator is required.		
VENTILATION	LOCAL EXHAUST	Preferable	SPECIAL	None
	MECHANICAL (general)	OK	OTHER	N/A
PROTECTIVE GLOVES		Rubber or synthetic rubber		
EYE PROTECTION		Chemical goggles (recommended by ANSI Z87.1-1979)		
OTHER PROTECTIVE EQUIPMENT		Rubber apron, rubber boots, eyewash, safety shower		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	<p>FOR INDUSTRIAL USE ONLY.</p> <p>Keep out of reach of children.</p> <p>Do not get in eyes, on skin, or on clothing.</p> <p>Keep container tightly closed when not in use.</p> <p>Wash thoroughly after handling.</p> <p>Deadly carbon monoxide gas can form when Caustic Soda Liquid 25% contacts food soil containing sugars. After cleaning operations are completed, thoroughly ventilate enclosed areas before entering. Always monitor oxygen and carbon monoxide levels when personnel are in enclosed areas. For proper tank entry procedures, see ANSI Z-117.1-1977.</p> <p>This product is not manufactured to contain a known carcinogen or reproductive toxin. Extremely small amounts of these materials may be present in this product from general environmental sources.</p>
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OTHER HANDLING AND STORAGE CONDITIONS	Store in a cool, dry area, but protect against freezing.
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PREPARED BY	Mike Hoefler	DATE	July 16, 1991
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This Material Safety Data Sheet is provided as an information resource only. It should not be taken as a warranty or representation for which Great Western Chemical Company assumes legal responsibility. While Great Western Chemical Company believes the information contained herein is accurate and compiled from sources believed to be reliable, it is the responsibility of the user to investigate and verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with applicable federal, state, and local regulations.

~~detectors are not operational or are out of calibration the system will not respond appropriately to a vapor leak.~~

~~While we believe the information contained in this manual to be complete, accurate, and up-to-date, USFilter makes no warranty of any kind with regard to the material contained in this manual, including, but not limited to, implied warranties or fitness for a particular purpose. USFilter shall not be liable for errors contained herein, omissions, or for incidental or consequential damages in connection with the content or use of this material.~~

~~This manual contains certain proprietary information, ideas and designs that are provided for the sole use of plant personnel in operating and servicing this equipment. This manual shall not be reprinted in whole or in part without the expressed written consent of USFilter.~~

1.2 SAFETY

The Pre-packaged Emergency Vapor Scrubber System is a potentially dangerous process system. It contains a highly corrosive solution of 20% sodium hydroxide (caustic) at approximately 17 psig. It operates on 110 to 480 volt power. It starts automatically and suddenly when an emergency leak occurs. It includes powerful rotating equipment (pumps and fans), as well as sensitive and critical electronic components and gauges. No one should attempt to operate or perform maintenance on the Emergency Vapor Scrubber System equipment unless they have been specifically trained to do so, and have read and understood this Operation and Maintenance Manual. Failure to take appropriate safety precautions or improper operation of the scrubber system can result in serious injury to personnel, and damage to the equipment and environment.

Operations and maintenance personnel must wear appropriate personal protection whenever working on or operating the scrubber system. Sodium hydroxide is highly corrosive. Contact with skin can cause severe burns and deep ulceration, contact with eyes can cause severe tissue destruction and blindness. Ingestion can cause severe burning of skin, throat and stomach, and potentially can result in death. Please read carefully and completely Section 5 (Material Safety Data Sheets) and Section 1.2.2 (Caustic Handling) for detailed information on storage, handling precautions, personal protection, and proper spill, leak, and disposal practices. The MSDS provided are for general

information only: information provided by your chemical supplier may be different and should be followed.

USFilter engineers should be consulted before making any modifications to the system installation, controls or other components. Improper modifications may be dangerous to the operators and could inhibit the system from responding effectively in an emergency.

1.2.1 SAFETY PRECAUTIONS

The following list of safety precautions should be treated as a starting place. The list should be reviewed and updated by plant personnel so that it is consistent with the plant health and safety program and all applicable codes and regulations.

1. **Keep work areas clean.** Spills and leaks should be cleaned up immediately to prevent accidental contact with corrosive chemicals. A clean work area is a much safer area.
2. **Keep all equipment guards in place.** If removed to service the equipment, make sure the guards are replaced properly.
3. **Read and understand thoroughly the Material Safety Data Sheets** for caustic and any other hazardous chemicals used in the system (see Section 5).
4. **Locate and test the nearest emergency shower and eyewash stations** prior to operating or working on any equipment.
5. **Wear eye and face protection, rubber gloves and protective clothing** whenever the system is operating, or when working around or handling chemicals. Be especially cautious of splashing when disconnecting piping, valves and fittings.
6. **Wear ear protection** as necessary.
7. **Do not wear loose clothing or jewelry** that could be caught in machinery.
8. **Wear rubber boots** when there is a possibility of contact with caustic. Caustic disintegrates leather rapidly.

9. **Wear an appropriate respirator** for the chemicals expected to be present when working in areas that are enclosed or known to contain toxic vapors or gases. **Caustic vapors will be present inside the scrubber vessels and tanks** and inhalation can cause severe burns and tissue damage to the respiratory tract and lungs.
10. **Shut down and lockout the system prior to initiating repairs** of any kind. Adhere to all electrical lockout (tagging) procedures to avoid accidental starting of equipment.
11. After working on equipment, **make certain that tools and supplies have been put away** before energizing the system.
12. **Gaskets must be used in all flanged joints.** Inspect and clean or replace gaskets as necessary, and tighten securely to assure proper seal.
13. **Follow all applicable OSHA standards** relating to working in confined spaces, working with 480 volt electrical power, working around rotating machinery, and working with hazardous chemicals.

1.2.2 CAUSTIC HANDLING

The Emergency Vapor Scrubber System uses liquid sodium hydroxide solution to absorb toxic vapors in the event of a leak or spill. Sodium hydroxide (NaOH) is commonly known as caustic. Caustic has a markedly corrosive action on body tissue. Contact with skin can cause severe burns and deep ulceration, contact with eyes can cause severe tissue destruction and blindness. Inhalation of mists or vapors can cause severe burning and tissue damage in the respiratory tract and lungs. Ingestion can cause severe burning of skin, throat and stomach, and potentially can result in death. It is vital that all people who handle caustic be aware of its highly reactive and corrosive properties and know what precautions to take and appropriate first aid measures.

The following is a list of suggested practices and first-aid measures in case of accidental exposure. This list is meant to emphasize certain key points, and does not replace the detailed information in Section 5. Read this section carefully. The MSDS provided are for general information only: information provided by your chemical supplier may be different and should be followed.

SAFETY PRECAUTIONS:

- a) **Wear proper protective equipment.** OSHA requires employers to supply suitable protective equipment for employees. When handling caustic, the following protective equipment is recommended:
- **Splash-proof goggles for eye protection.** The goggles should be close-fitting and equipped with side shields.
 - **Gloves** coated with rubber, synthetic elastomer, PVC, or other plastics. Gloves should come well above the wrist, up to elbow level. Sleeves of cotton jackets or shirts should be **buttoned over the glove wrists.**
 - **Rubber boots.** Caustic attacks leather quite rapidly. The bottoms of trouser legs should be worn outside the boots. **Do not tuck in.**
 - **Long sleeve shirt or jacket** with the collar tightly fastened.
 - **Long pants.**
 - NIOSH approved **respirator** for mists and vapors.
- b) **Avoid breathing mist** or vapors of caustic. Caustic vapors will be present inside scrubber vessels and some piping.
- c) **Keep all equipment clean-- wash off any accumulation or spillage of caustic.**
- d) When disconnecting equipment for repairs, make certain that there is no internal pressure on the equipment and that the equipment has been drained.
- e) **When adding caustic solution, ALWAYS ADD THE CAUSTIC TO WATER SLOWLY WITH CONSTANT STIRRING. NEVER ADD WATER TO CAUSTIC SOLUTION.** If caustic becomes concentrated in one area, or if added too rapidly, or if added to hot or cold liquids, a rapid temperature increase can result in **dangerous boiling** and/or spattering which may cause an immediate **violent eruption.**

FIRST-AID MEASURES:

- a) **If caustic comes in contact with eyes:**
- i) Immediately flood and flush eyes with plenty of water for at least 30 minutes.
 - ii) Keep eyelids apart to ensure flushing of entire eye surface.
 - iii) Seek medical attention immediately.

- b) **If caustic comes in contact with skin or clothing:**
- i) Immediately flush with plenty of water for at least 15 minutes.
 - ii) Remove and decontaminate affected clothing and footwear.
 - iii) Seek medical attention immediately.
- c) **If overcome due to inhalation of caustic fumes:**
- i) Move to fresh air.
 - ii) Provide artificial breathing if breathing has stopped. Administer oxygen.
 - iii) Seek medical attention immediately.
- d) **If caustic is ingested or swallowed:**
- i) DO NOT induce vomiting.
 - ii) Give large quantity of water, or if available several glasses of milk.
 - iii) If vomiting occurs, position individual's head to keep airway clear.
 - iv) Never give anything by mouth to an unconscious person.
 - v) Seek medical attention immediately.

- Drains and containment area are clear and free of debris.
9. Proceed to the control panel. Move the MAIN DISCONNECT SWITCH into the **OFF** position. **Inspect the inside of the control panel** to verify that it is clean and dry, and that fuses and/or circuit breakers are in place. Close the door and secure it with the latches.

3.2 CAUSTIC FILLING PROCEDURE:

Prior to initial startup, the scrubber vessel must be filled with the proper concentration and quantity of caustic solution.

The Emergency Vapor Scrubber System must be loaded with a 20% \pm 1% rayon grade sodium hydroxide (caustic) solution³. It is strongly recommended that a pre-diluted caustic solution (20% NaOH) be purchased from a reputable supplier. A certificate of compliance should be requested from the supplier. The correct caustic level will be marked on the sight glass with tape or marker pen. USFilter should supervise initial filling of the system. Please call the Field Services Department to schedule the initial filling and startup of the scrubber system. The technical specifications for the required rayon grade caustic solution are presented in Section 4.8.

Warning: If the caustic concentration is too low, there may not be sufficient chemical present to control emissions from a major vapor release.

3.3 MANUAL START-UP PROCEDURE:

1. **Perform the Pre-Operation Checklist** (Section 3.1).
2. **Have two people present** during manual start up in case of emergency.
3. Turn the MAIN DISCONNECT SWITCH and all operating switches (**SYSTEM, FAN** and **PUMP**) on the control panel to their **OFF** positions.
4. **Check the arrow on the fan housing** to determine the correct rotational direction of the fan.
5. **Energize the Control Panel** by turning the MAIN DISCONNECT SWITCH to the **ON** position.

³ It is recommended that de-ionized water be used for dilution of caustic solution. See separate section for suggested caustic specification.

6. If this is the initial system start-up or if the power supply to the scrubber system has been changed in any way, the pump should be checked for proper rotation before starting. To check the pump rotation, first remove the coupling between the pump and motor to prevent internal damage to the pump. Jog the **PUMP** switch by turning the switch briefly to the **HAND** position and visually checking for correct rotation of the pump. When proper rotation has been established the pump is ready for operation.
7. Turn the **PUMP** switch to the **HAND** position. This will start the recirculation pump. The pump running light will come ON. Check the pump pressure gauge and confirm that pump pressure is approximately 17 psig. Record the pump pressure. A lack of discharge pressure may mean improper pump rotation⁴. Inspect for any unusual noise and/or vibration.
8. Turn the **FAN** switch to the **HAND** position. This will start the fan.
9. Confirm that the fan rotates in the proper direction.
10. Verify that fan operation is normal and free of unusual noise and vibration.
11. While the system is operating, **check carefully for leaks**. If leaks are found, the system should be shut down and the leaks repaired and cleaned up before proceeding.
12. The Emergency Vapor Scrubber System is now in manual operation. The system should be operated for five minutes to verify all components are working properly.

NOTE: If an EMERGENCY SHUTDOWN of the scrubber system is needed, turn the MAIN DISCONNECT SWITCH to OFF.

⁴ Reverse rotation of the pump could cause severe damage to the impeller and housing. If pump rotation is reversed, shut off the system immediately and consult USFilter personnel.

the **SYSTEM** switch is left in the **OFF** position the **SYSTEM READY** light will be off, and the scrubber system will not activate if there is an emergency vapor release.

NOTE: If an EMERGENCY SHUTDOWN of the scrubber system is needed, turn the MAIN DISCONNECT SWITCH to OFF.

3.5 LEAK SIMULATION TESTING PROCEDURE:

The USFilter Emergency Vapor Scrubber System may be tested by simulating a vapor leak at the vapor detector(s) in the gas storage room, or by manual operation of the scrubber control panel. To initiate a leak simulation with the vapor detector(s), follow the instructions provided by the vapor detector manufacturer.

The following sequence can be used to simulate a vapor leak at the scrubber control panel:

1. Turn the **FAN** and **PUMP** switches to **AUTO**.
2. Turn the **SYSTEM** switch to **HAND**.
3. The scrubber system will start as if the vapor detector(s) had sent a leak signal.
4. To end the simulation, turn the **SYSTEM** switch to **OFF** and then to **AUTO**.

3.6 SHUT-DOWN PROCEDURE

NOTE: If an EMERGENCY SHUTDOWN of the scrubber system is needed, turn the MAIN DISCONNECT SWITCH to OFF.

The scrubber system can be shut down by turning off each switch individually. We recommend the following shut-down procedure:

1. Turn the **SYSTEM** switch to the **OFF** position.
2. Turn the **FAN** and **PUMP** switches to the **OFF** position.
3. Turn **OFF** the MAIN DISCONNECT SWITCH.