

MAR 15 2006

By The  
Office of The City Clerk



# CITY OF SACRAMENTO

## PROCUREMENT SERVICES DIVISION

**Bid Number: B061181079**

### INVITATION FOR BID And Contract Specifications

**FOR: Liquid Chlorine in 1-ton and 150 lb. Cylinders**

***Bids Must Be Received Prior To 2:00 P.M. on March 15, 2006***

**Submit Bids To:** City Clerk's Office  
915 "I" Street, First Floor  
Sacramento, CA 95814

Pre-Bid Conference: Not Applicable  
Mandatory:  Yes  
 No

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### NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID: (Bidder to complete the following information)

Name of Bidder: Pioneer Americas, LLC

Address: 700 Ygnacio Valley Road, Suite 250

City, State, Zip Code: Walnut Creek, CA 94596

Phone Number: (925) 280-2600

Email Address: John.Schabacker@piona.com

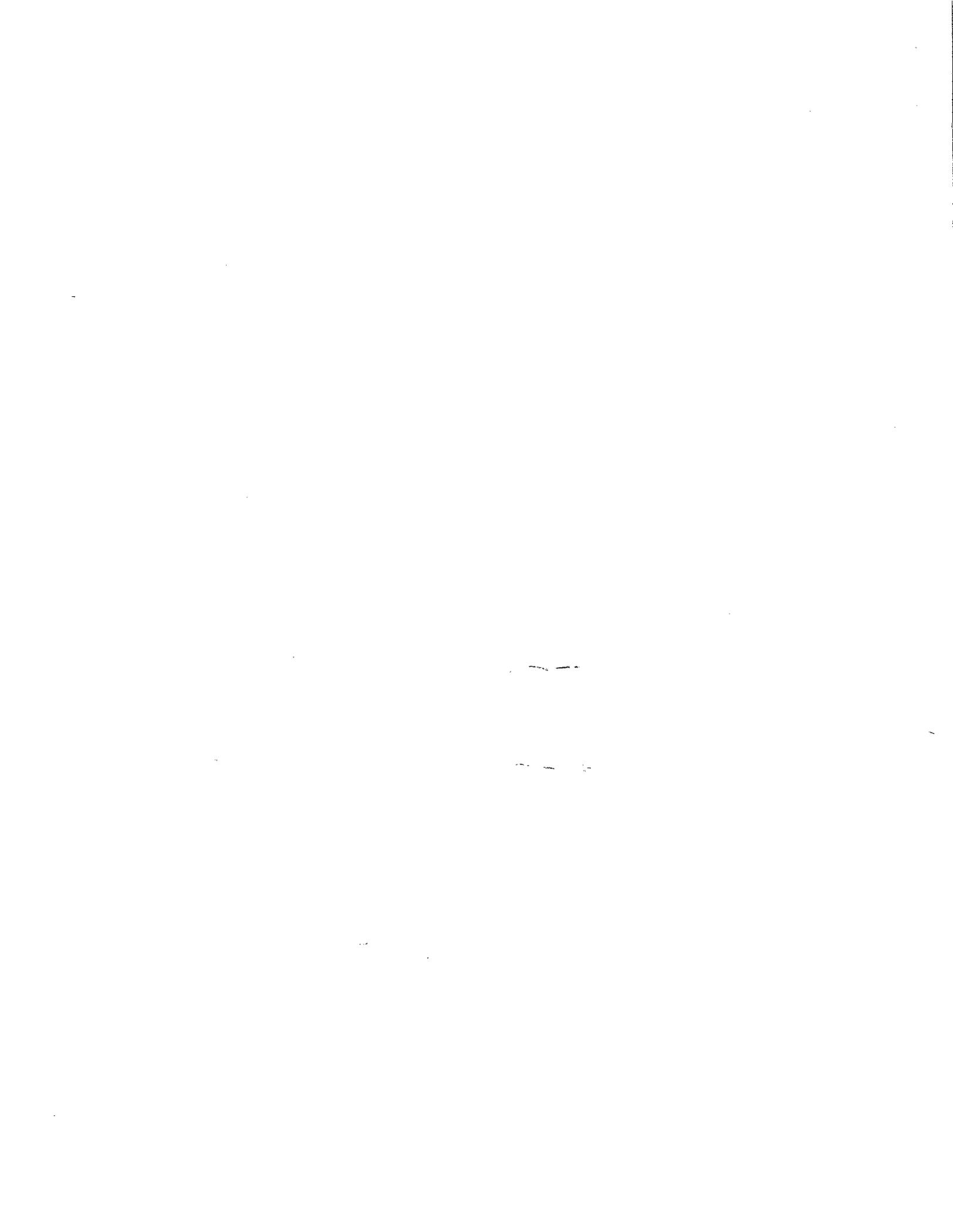


**CITY OF SACRAMENTO  
PROCUREMENT SERVICES DIVISION**

**Bid No. B061181079**

**Table of Contents**

<u>Item</u>	<u>Page</u>
"No Bid" Response Form.....	3
Bid Instructions and Requirements.....	5
Bid Signature Page.....	8
Pricing Schedule.....	10
Items Requiring Bidder Response.....	11
Required Submittals.....	13
General Conditions.....	14
Special Provisions.....	21
Technical Specifications.....	24
Equal Benefits Ordinance (EBO).....	Exhibit 1



CITY OF SACRAMENTO  
PROCUREMENT SERVICES DIVISION  
**"NO BID" RESPONSE FORM**

Bid No. B06118079  
Buyer MR

**NOTE: COMPLETE AND RETURN THIS FORM**

**ONLY IF YOU DO NOT WANT TO SUBMIT A BID**

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If you do not want to submit a bid for this requirement, we are interested in knowing why. Please remove this form, complete the requested information, and return it to the Procurement Services Division. The reverse side of the form is pre-addressed, so that it can be folded in thirds, sealed with tape, and mailed. **If you would rather FAX your response to our office, the FAX number is (916) 808-5747.** If you have questions, please call the Purchasing Office at (916) 808-6240. Thank you for your cooperation.

**"NO BID" QUESTIONNAIRE**

(Please complete all items that apply)

- We do not sell the products/services called for in this invitation for bid, but **we want to stay on the City's Bid List.** Please send necessary information so that the products/services we do provide can be updated on the City's Bid List.
- We are not interested in doing business with the City of Sacramento, because \_\_\_\_\_  
\_\_\_\_\_
- Other reasons/comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Please send application forms for certification as an emerging and/or small business enterprise (E/SBE): **(Note: Application forms and information about becoming certified as an emerging and/or small business can also be obtained via the Internet at: <http://www.cityofsacramento.org/esbd>).**

\_\_\_\_\_  
(Business Name)

\_\_\_\_\_  
(Street Address/P. O. Box)

\_\_\_\_\_  
(City, State, Zip)

\_\_\_\_\_  
(E-mail address)

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

Phone: \_\_\_\_\_

Contact: \_\_\_\_\_

(Fold Here Second - Then Seal With Tape)

City of Sacramento  
Procurement Services Division  
915 I Street, 2nd Floor  
Sacramento, CA 95814-2714

Place  
Stamp  
Here

City of Sacramento  
Procurement Services Division  
915 I Street, 2nd Floor  
Sacramento, CA 95814-2714

(Fold Here First)

## **BID INSTRUCTIONS AND REQUIREMENTS**

No Bid Is In Legal Form Unless the Following Instructions Are Fully Complied With

1. **Additional Copies.** VENDORS ARE REQUIRED TO SUBMIT AN ORIGINAL BID AND 2 ADDITIONAL COPIES OF THIS BID, INCLUDING ALL REQUIRED ATTACHMENTS SUCH AS BROCHURES AND CATALOGS, TO THE CITY CLERK ON THE DATE AND AT THE TIME AND LOCATION SPECIFIED ON THE COVER SHEET. FAILURE TO DO SO MAY CAUSE YOUR BID TO BE REJECTED.
2. **Bid Forms.** Bid must be submitted on these printed forms and sealed in an appropriate envelope or package.
  - a To obtain an electronic version of this bid go to Procurement's website at [www.pwsacramento.com/bids](http://www.pwsacramento.com/bids)
  - b All bids shall be delivered to designated recipient not later than the time specified on the Invitation for Bids
  - c Bids will be opened, in public, in the City Clerk's Hearing Room, 915 "I" Street, Second Floor, Sacramento, CA, at or after 2:00 P M , March 15, 2006

**(Note: Bids must be submitted prior to 2:00 P.M. on the above date)**

- d All bids shall be clearly and distinctly written without erasure or modification, and properly signed by an authorized party, who shall indicate the capacity in which the signature is executed.
3. **Alternate Bids.** Alternate bids are invalid unless invited and covered by the specifications
4. **Bid Security.** Bid Security is:         Required                     Not Required
 

If required, bid security approved by the City must accompany the bid, in the amount of \_\_\_ % of the total amount of the bid. Bid security can be in the form of a cashier's check, certified check, or a bid bond from a surety company authorized to do business in the State of California. Bid securities will be returned to all except the three lowest Bidders within ten days after the opening of bids. The bid security of the two unsuccessful Contractors will be returned after the successful Contractor has executed the contract. Bid security of the successful Contractor will be returned when the contract is signed and all other contract award requirements have been met.
5. **Interest in More Than One Bid.** No bidder shall be interested in more than one bid as provided by City Code Section 3 56 130(D)
6. **Rejection of Bids.** The right to reject any and all bids is reserved by the City, in its absolute discretion
7. **Right to Waive.** The City reserves the right to waive any informalities or minor irregularities, as determined in its sole discretion, in connection with bids received
8. **City Code.** All provisions of Chapter 3 56 of the City Code are applicable to any bid submitted or contract awarded.
9. **Equipment.** If equipment is bid, it shall be the newest and latest model in current production. Used, re-manufactured, shopworn, demonstrator, prototype or discontinued models are not acceptable unless otherwise stipulated by the City
10. **Faithful Performance Bond** A faithful performance bond is:  Required                     Not Required
 

If required, the successful bidder must submit a faithful performance bond in a form approved by the City Attorney, in the amount of \_\_\_\_\_

- 11 **Payment Discounts.** Payment discounts offered for payment in less than twenty (20) days will not be considered as a basis of award. Payment discounts offered for payment in twenty (20) or more days will be subtracted from the total bid price for the purposes of bid evaluation. Any payment discount offered by the successful bidder will be accepted by the City of Sacramento, whether or not it was considered as a basis of award.
- 12 **Pre-Bid Conference.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, all bidders are required to attend the conference. Failure to attend this conference will result in rejection of your bid. If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, bid packages will be made available only through the time and date of the conference. Subsequent addenda, if applicable, will be furnished only to those bidders who attended the Pre-Bid Conference.
- 13 **Bid Inquiries.** Questions regarding this bid should be referred to:

General Questions:

Procurement Services Division  
915 I Street, 2nd Floor  
Sacramento, CA 95814  
Attention: Marc Robles  
(916) 808-6240

Technical Questions:

Water Production Operations  
1 Water Street  
Sacramento, CA 95814  
Attention: Roland Pang  
(916) 808-3119

These inquiries must be submitted at least 10 days prior to the bid opening date. Any interpretations by the City will be made in the form of a written amendment. The receipt of such an amendment must be acknowledged in accordance with the directions on the amendment. Oral explanations or instructions given before the award of the contract will not be binding.

- 14 **Bid Evaluation.** In determining the amount bid by each bidder, the City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Bid. When such a mathematical error appears on the face of the Bid, the City shall have the right to correct such error and to compute the total amount bid by the bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Bid, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the City's estimate of the quantity to be provided or performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the intent of the bid process. The total paid for each such item of work shall be based upon the item price and not the total price.

Should the Bid contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by City's estimate of the estimated quantities to be provided or performed.

If the Bid contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Bid shall be disregarded.

- 15 **Determination of Lowest Responsible Bidder.** Sacramento City Code §3.56.020 provides that the lowest responsible bidder shall be determined as follows:
- a. In determining whether a bidder is responsible, consideration shall be given to: (i) the quality and performance of the supplies to be provided by the bidder; (ii) the ability, capacity and skill of the bidder to perform the contract or effectuate the transaction; (iii) the ability of the bidder to perform the contract or effectuate the transaction within the time specified, without delay; (iv) the character, integrity, reputation, judgment, experience and efficiency of the bidder; (v) the quality of the bidder's performance on previous purchases by, or contracts with, the City; (vi) the ability of the bidder to provide future maintenance, repair parts and services for the supplies provided.
  - b. Based on the information provided in the bids, the City Council or the City Manager, as the case may be, shall identify those bids that are subject at the time of bid opening to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. This deduction shall be in addition to the application of any bid price preferences authorized by subsection c, below.

- c. The City Council may by resolution, from time to time, adopt programs or procedures for providing bid price preferences, including but not limited to, preferences to promote the participation and utilization of small and emerging business enterprises in the City's contracting for supplies and nonprofessional services. The lowest responsible bidder shall be the responsible bidder whose bid price is the lowest after all bid prices are calculated to include any such preferences. The calculation of such preferences shall be in addition to any deduction of sales or use tax required by subsection b, above.
- 16. **Pre-Award Conference.** The apparent lowest responsible bidder may be required to attend a pre-award conference at a mutually acceptable time at which requirements of the Contract will be reviewed. At that time, samples of forms, reports etc , will be submitted by the Contractor for final approval.
- 17. **Award by Item or Group.** The City reserves the right to make separate awards for any item or category/group of items to the lowest responsible bidders for such items or category/groups of items.
- 18. **Multiple Awards.** The City reserves the right to make multiple awards in order to provide for back-up, to insure continuity of supply if meeting the City's requirements within an acceptable time period exceeds the capacity or capability of the primary contractor(s).
- 19. **Contract Award.** Within thirty (30) days after the bid opening a contract will be awarded by the City to the lowest responsible bidder, subject to the right of the City to reject all bids or waive informalities or minor irregularities, as it may deem proper. The time for awarding a contract may be extended in the sole discretion of the City, if required to evaluate bids or for such other purposes as the City may determine, unless the Bidder objects to such extension in writing with his/her bid.

**SUBJECT TO PARAGRAPH 7 ABOVE, THE CITY CANNOT ACCEPT A  
BID FAILING TO COMPLY WITH ANY OF THE ABOVE REQUIREMENTS.**

BID

BID NO. B061181079

FOR SERVICES/SUPPLIES: Liquid Chlorine in 1-ton and 150 lb. Cylinders

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the "bidder" or the "Contractor") submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefor, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents, referred to herein as the "Contract Documents," are fully incorporated herein by this reference and are collectively referred to as the "Contract". By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

To Be Filled Out By Bidder

NAME OF CONTRACTOR: Pioneer Americas, LLC

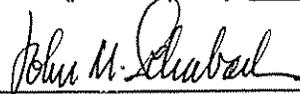
ADDRESS: 700 Ygnacio Valley Road, Suite 250, Walnut Creek, CA 94596

PHONE #: (925) 280-2600 FAX #: (925) 280-4465

STATE TAX I.D. #: 359-5333-0 FED. TAX I.D. #: 06-1420850

City of Sacramento Business Operation Tax Certificate #: 101182  
(Contract award will not be processed if Certificate Number is missing)

TYPE OF BUSINESS ENTITY (check one):  Individual/Sole Proprietor  Partnership  
 Corporation  Limited Liability Company  
 Other (please specify: \_\_\_\_\_)

BY: (signature of authorized person) 

PRINT NAME: John M. Schabacker

TITLE: Region Manager

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information

**FOR CITY USE ONLY**

The Bid was opened on 3/15/06

Bid Bond Required:  No;  Yes - Amount: \$ \_\_\_\_\_

Received:  Cashiers or Certified Check drawn on a California bank;  Surety Bond

\_\_\_\_\_  
City Clerk/Procurement Services Manager

**CONTRACT AWARD**

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: \_\_\_\_\_

Contract Not-to-Exceed Amount: \$ \_\_\_\_\_

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

**CONTRACT APPROVAL**

Approved as to Form:

Approved:

Attest:

*Paul A. Hall*

City Attorney 3-2006

*PH*

\_\_\_\_\_  
City Manager  
(Or Authorized Designee)

\_\_\_\_\_  
City Clerk

**PRICING SCHEDULE**

For furnishing to the City of Sacramento prices in accordance with the provisions and specifications contained herein:

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
01	700 Tons	Liquid chlorine, in 1-ton cylinders	\$ <u>434.49</u>	\$ <u>304,143.00</u>
02	240 Cylinders	Liquid chlorine, 150-pound cylinders	\$ <u>82.90</u>	\$ <u>19,896.00</u>
Total				\$ <u>324,039.00</u>

Manufacturer: Item No. 1 Pioneer  
 Item No. 2 Pioneer

**FILED**  
 MAR 15 2006

Sales Tax  
 Sales Tax is not applicable to those products used in the production and purification of potable water for resale, reference California State Resale Permit No. SYKH98-021076. Subsequent purchase orders will denote whether or not the product is subject to 7 3/4 percent Sales Tax.  
 By The Office of The City Clerk

DEMURRAGE, LOST OR DAMAGED AND DEPOSIT CHARGES

1-ton cylinders 365 days of free use before start of demurrage  
 \$ N/A demurrage per — after free use period  
 \$ 2,000.00 for replacement of lost or damaged cylinders  
 \$ 1,000.00 for deposit on each cylinder

150-pound cylinders:  
365 days of free use before start of demurrage  
 \$ N/A demurrage per — after free use period  
 \$ 200.00 for replacement of lost of damaged cylinders  
 \$ 150.00 for deposit on each cylinder

**ITEMS REQUIRING BIDDER RESPONSE**

**NOTE: Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.**

**1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE**

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by either the State of California or the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Office of Small Business Development at (916) 808-6747.

**A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION**

Is the firm submitting the bid certified by the State of California and/or the City of Sacramento as a small business enterprise? Check the appropriate block below:

- YES** - the firm submitting the bid is certified by the State of California and/or the City of Sacramento as a small business enterprise.
- NO** - the firm submitting the bid is not certified by the State of California or the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the State of California and/or City of Sacramento Certification Number \_\_\_\_\_.

**B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION**

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise? Check the appropriate block below:

- YES** - the firm submitting the bid is certified by the City of Sacramento as an emerging business enterprise.
- NO** - the firm submitting the bid is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number: \_\_\_\_\_.

**2. LOCAL BUSINESS SALES/USE TAX DEDUCTION**

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

1) Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? \_\_\_ Yes; or X No

2) If the answer to Question #1 is "Yes":

a) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

\_\_\_\_\_  
\_\_\_\_\_

b) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number:

\_\_\_\_\_

**3. PAYMENT DISCOUNT**

Will you offer a prompt payment discount? Yes [ ] or No X (Net 30 days)

If Yes, the Payment Discount is \_\_\_\_\_% for payment within \_\_\_\_\_ calendar days, which will be computed from the date delivery is made and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

**ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL  
BIDDER PRIOR TO START OF CONTRACT**

The following documents are required to be completed and submitted by the successful bidder prior to the start of the contract:

**1. CERTIFICATE OF INSURANCE**

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

**2. BUSINESS OPERATIONS TAX CERTIFICATE**

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

GENERAL CONDITIONS

**1. Independent Contractor.**

- A. It is understood and agreed that Contractor (including Contractor's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither Contractor nor Contractor's assigned personnel shall be entitled to any benefits payable to employees of City. City is not required to make any deductions or withholdings from the compensation payable to Contractor under the provisions of this Contract, and Contractor shall be issued a Form 1099 for its services hereunder. As an independent contractor, Contractor hereby agrees to indemnify and hold City harmless from any and all claims that may be made against City based upon any contention by any of Contractor's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefore exists for any purpose whatsoever by reason of this Contract or by reason of the nature and/or performance of any work and/or the furnishing of any materials under this Contract.
- B. It is further understood and agreed by the parties hereto that Contractor, in the performance of its obligations hereunder, is subject to the control and direction of City as to the designation of tasks to be performed and the results to be accomplished, but not as to the means, methods, or sequence used by Contractor for accomplishing such results. To the extent that Contractor obtains permission to, and does, use City facilities, space, equipment or support services in the performance of this Contract, this use shall be at the Contractor's sole discretion based on the Contractor's determination that such use will promote Contractor's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Contract, the City does not require that Contractor use City facilities, equipment or support services or work in City locations in the performance of this Contract.
- C. If, in the performance of this Contract, any third persons are employed by Contractor, such persons shall be entirely and exclusively under the direction, supervision, and control of Contractor. Except as may be specifically provided elsewhere in this Contract, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by Contractor. It is further understood and agreed that Contractor shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of Contractor's assigned personnel and subcontractors.
- D. The provisions of this Section 1 shall survive any expiration or termination of this Contract. Nothing in this Contract shall be construed as to create an exclusive relationship between City and Contractor.

**2. Licenses; Permits, Etc.** Contractor represents and warrants that Contractor has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature which are legally required for Contractor to perform any work or furnish any materials under the Contract. Contractor represents and warrants that Contractor shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Contract any legally required licenses, permits and approvals. Without limiting the generality of the foregoing, if Contractor is an out-of-state corporation, Contractor warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.

**3. Contractor Not Agent.** Except as City may specify in writing, Contractor and Contractor's personnel shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor and Contractor's personnel shall have no authority, express or implied, to bind City to any obligations whatsoever.

**4. Confidentiality of City Information.** During performance of this Contract, Contractor may gain access to and use City information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") which are valuable, special and unique assets of the City. Contractor agrees to protect all City Information and treat it as strictly confidential, and further agrees that Contractor shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of City. A violation by Contractor of this Section 4 shall be a material violation of this Contract and shall justify legal and/or equitable relief.

**5. Contractor Information.**

- A. Contractor shall fully defend, indemnify and hold harmless City, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by Contractor pursuant to this Contract infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. City shall make reasonable efforts to notify Contractor not later than ten (10) days after City is served with any such claim, action, lawsuit or other proceeding, provided that City's failure to provide such notice within such time period shall not relieve Contractor of its obligations hereunder, which shall survive any termination or expiration of this Contract. In this Contract, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostating, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. Contractor shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by City.
- B. All proprietary and other information received from Contractor by City, whether received in connection with Contractor's bid to City or in connection with any Services performed by Contractor, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to City, City shall give notice to Contractor of any request for the disclosure of such information. The Contractor shall then have five (5) days from the date it receives such notice to enter into an agreement with the City, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by City in any legal action to compel the disclosure of such information under the California Public Records Act. The Contractor shall have sole responsibility for defense of the actual "trade secret" designation of such information.
- C. The parties understand and agree that any failure by Contractor to respond to the notice provided by City and/or to enter into an agreement with City, in accordance with the provisions of subsection B, above, shall constitute a complete waiver by Contractor of any rights regarding the information designated "trade secret" by Contractor, and such information shall be disclosed by City pursuant to applicable procedures required by the Public Records Act.

**6. Indemnity.**

- A. Indemnity: Contractor shall fully indemnify and save harmless, City, its officers and employees, and each and every one of them, from and against all actions, damages, costs, liability, claims, losses, judgments, penalties and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), to which any or all of them may be subjected, to the extent such Liabilities are caused by or result from any negligent act or omission or willful misconduct of Contractor, its subcontractors or agents, and their respective officers and employees, in connection with the performance or nonperformance of this Contract, whether or not the City, its officers or employees reviewed, accepted or approved any work performed or materials provided by the Contractor, and whether or not such Liabilities are litigated, settled or reduced to judgement.
- B. Obligation to Defend: Contractor shall, upon City's request, defend at Contractor's sole cost any action, claim, suit, cause of action or portion thereof which asserts or alleges Liabilities to the extent such Liabilities are caused by or result from any negligent act or omission or willful misconduct of Contractor, its subcontractors or agents, and their respective officers and employees, in connection with the performance or nonperformance of this Contract, whether such action, claim, suit, cause of action or portion thereof is well founded or not.
- C. Insurance Policies; Intellectual Property Claims: Except as may be expressly provided in this Section 6, the existence or acceptance by City of any of the insurance policies or coverages described in this Contract shall not affect or limit any of City's rights under this Section 6, nor shall the limits of such insurance limit the liability of Contractor hereunder. This Section 6 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 5.A., above. The provisions of this Section 6 shall survive any expiration or termination of this Contract.

7. **Insurance Requirements.** During the entire term of this Contract, Contractor shall maintain the following insurance.

A. Minimum Scope of Insurance: Coverage should be at least as broad as:

1. Insurance Services Office Form No. CG 0001 (Commercial General Liability);
2. Insurance Services Office Form No.: CA 0001 (Ed. 1/87) (Automobile Liability, Code "any auto");
3. Workers' Compensation as required by the Labor Code of the State of California, and Employers' Liability Insurance:

B. Minimum Limits of Insurance: Contractor shall maintain limits no less than:

1. Commercial General Liability; \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage.
3. Workers' Compensation and Employers' Liability: Workers' compensation limits as required by the Labor Code of the State of California and Employers' Liability limits of \$1,000,000 per accident.

C. Deductibles and Self-Insured Retentions: Any deductibles or self-insured retentions must be declared to and approved by the City.

D. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverages:

- a. City, its officials, employees and volunteers shall be covered as insured as respects: liability arising out of activities performed by or on behalf of Contractor; products and completed operations of Contractor; premises owned, leased or used by Contractor. The coverage shall contain no special limitations on the scope of the protection afforded to City, its officials, employees or volunteers.
- b. Contractor's insurance coverage shall be primary insurance as respects City, its officials, employees and volunteers. Any insurance or self-insurance maintained by City, its officials, employees or volunteers shall be in excess of Contractor's insurance and shall not contribute with it.
- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officials, employees or volunteers. *Underwriter unable to amend this in policy.*
- d. Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. All Coverages: *Pioneer, not underwriter shall notify the City.*

Each insurance policy require by this Contract shall be endorsed to state that coverages shall not be canceled except after thirty (30) days prior written notice has been given to City. In addition, Contractor agrees that it shall not reduce its coverage or limits on any such policy except after thirty (30) days prior written notice has been give to City and City approves the reduction in coverage or limits. Contractor further agrees that it shall not increase any deductibles or self-insured retentions on any such policy except after thirty (30) days prior written notice has been given to City and City approves such increase.

E. Acceptability of Insurers: Insurance shall be placed with insurers with a Bests' rating of no less than A:VII. This requirement may, however, be waived in individual cases for Errors and Omissions Coverages only; provided, however, that in no event shall a carrier with a rating below B:IX be acceptable.

- F. Verification of Coverage: Contractor shall furnish City with certificates of insurance showing compliance with the above requirements and with original endorsements effecting all coverages required by this Contract. The certificates and/or endorsements shall set forth a valid policy number for City, and shall indicate the Issue Date, Effective Date and Expiration Date. The certificates and endorsements for each insurance policy shall be signed by a person authorized by the insurer to bind coverage on its behalf. The certificates and endorsements shall be forwarded to the City contract representative.
- G. Payment Withhold: City shall withhold payments to Contractor if the certificates of insurance and endorsements required in subsection F, above, are canceled or Contractor otherwise ceases to be insured as required herein.

**8. Equal Employment Opportunity.** During the performance of this Contract, Contractor, for itself, its assignees and successors in interest, agrees as follows:

- A. Compliance With Regulations: Contractor shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment", as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), hereinafter collectively referred to as the "Regulations".
- B. Nondiscrimination: Contractor, with regards to the work performed by it after award and prior to completion of the work pursuant to this Contract, shall not discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. Contractor shall not participate either directly or indirectly in discrimination prohibited by the Regulations.
- C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by Contractor for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by Contractor of Contractor's obligation under this Contract and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.
- D. Information and Reports: Contractor shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the City to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of Contractor is in the exclusive possession of another who fails or refuses to furnish this information, Contractor shall so certify to the City, and shall set forth what efforts it has made to obtain the information.
- E. Sanctions for Noncompliance: In the event of noncompliance by Contractor with the nondiscrimination provisions of this Contract, the City shall impose such sanctions as it may determine to be appropriate including, but not limited to:
  - 1. Withholding of payments to Contractor under this Contract until Contractor complies;
  - 2. Cancellation, termination, or suspension of the Contract, in whole or in part.
- F. Incorporation of Provisions: Contractor shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. Contractor shall take such action with respect to any subcontract or procurement as the City may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, Contractor may request City to enter such litigation to protect the interests of City.

**9. Compliance with Laws.** The Contractor shall be responsible for strict compliance with all applicable laws, regulations, court orders and other legal requirements applicable to the work to be accomplished pursuant to the Contract, including without limitation the California Occupational Safety and Health Act and all applicable safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations, State of

California, and all applicable requirements of Underwriters Laboratories and the Federal Communication Commission.

- 10. Inspection.** Merchandise will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of the Contract. If deficiencies are found, it shall be the responsibility of the Contractor to pick up the merchandise, make necessary correction and redeliver the merchandise for reinspection and acceptance. Payment and/or commencement of discount period (if applicable) will not be made until corrective action has been made.
- 11. Funding Availability.**

  - A. The Contract is subject to the budget and fiscal provisions of the Charter and City Code of the City of Sacramento.
  - B. The City's payment obligation under the Contract shall not at any time exceed the amount of funds appropriated and approved for such purpose by the Sacramento City Council.
  - C. The Contract shall terminate without penalty at the end of the fiscal year in the event funds to make payment under the Contract are not appropriated and approved for such purpose by the City Council for the succeeding fiscal year. If such funds are appropriated for only a portion of the fiscal year this Contract shall terminate, without penalty, at the end of the term for which funds have been appropriated. In the event of such termination, the Contractor shall not be entitled to recover any costs incurred after termination, subject, further, to the limitation in subsection 11 B. of these General Conditions.
  - D. Notwithstanding any provision of the Contract Documents to the contrary, this section shall govern over any other provision of the Contract.
- 12. Inspection of Facilities.** If requested by the City, the Contractor shall provide City with an inspection tour of Contractor's facilities at the location where the work under the Contract will be accomplished.
- 13. Material Safety Data Sheets (MSDS).** It is mandatory for a manufacturer, Contractor or distributor to supply a MSDS with the first shipment of any hazardous material. Also at any time the content of an MSDS is revised, the Contractor shall provide new information relevant to the specific material.
- 14. Notification of Material Changes in Business.** Contractor agrees that if it experiences any material changes in its business including, without limitation, a reorganization, refinancing, restructuring, leveraged buyout, bankruptcy, loss of key personnel, etc., it will immediately notify the City of the changes. Contractor also agrees to immediately notify the City of any condition which may jeopardize the scheduled delivery or fulfillment of Contractor's contractual obligations to the City. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Procurement Services Division reserves the right at its sole discretion to terminate the Contract either for cause or for convenience as provided in Section 17 of these General Conditions.
- 15. Payment and Invoicing.** Unless otherwise specified in the Contract Documents, payment for services rendered or materials provided and accepted by City will be made monthly, in arrears, after receipt of a proper invoice.
- 16. Protection of Existing Facilities.** Contractor shall take every precaution to protect all public and private property during the performance of the Contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.
- 17. Termination.**

  - A. Termination for Cause. If the Procurement Services Manager determines that the Contractor's performance is not satisfactory, and notifies the Contractor of such determination in writing, the Contractor shall correct the unsatisfactory condition(s) within 5 days after receiving such notification. If the Contractor fails to correct the unsatisfactory condition(s) within 5 days, the Procurement Services Manager may declare the Contract terminated upon 30 days written notice and may, in the Procurement Services Manager's sole discretion,

demand performance by the Contractor's surety, if any, or contract for performance of all or part of the remainder of Contract with another contractor. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that Contractor shall again fail to satisfactorily perform pursuant to the Contract, City may thereupon terminate the Contract immediately, with no prior notice. In the event of termination hereunder, the Contractor and/or its surety shall be liable and assessed for any and all costs for re-procurement and completion of the Contract.

- B. Termination for Convenience. The City may terminate the Contract, in whole or in part, for its convenience and without cause upon giving written notice to the Contractor. The City shall pay all reasonable costs associated with the Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with such termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits which have not been earned, or any other costs which have not been incurred, as of the date of termination.
- C. Termination After Completion Date. If the Contractor fails to complete its performance of the Contract within the time specified in the Contract (including any approved extension of such time), if any, the Contract may be terminated and, in the event of such termination, the Contractor shall not be paid or allowed any further compensation for any costs incurred after such termination. The City may thereafter proceed to complete the Contract either by rebidding or otherwise, and the Contractor and its surety, if any, shall be liable to the City for all loss or damage that the City may suffer on account of the Contractor's failure to complete the Contract on time.

**18. Guarantee.** By submitting its bid, the Contractor guarantees that all merchandise delivered and/or work or services performed under the Contract shall meet the minimum requirements set forth herein. If it is determined by the City that the merchandise delivered or work or services performed does not meet the minimum requirements of the Contract, the Contractor shall be required to correct the same at Contractor's sole expense.

**19. Entire Agreement; Order of Precedence.** The Contract Documents contain the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Contract. No alteration to the terms of this Contract shall be valid unless approved in writing by Contractor, and by City, in accordance with applicable provisions of the Sacramento City Code. In the event of any conflict among the provisions of different Contract Documents, the conflict shall be resolved by giving precedence to the Contract Documents in the following order:

- A. Post-Award Amendments.
- B. Pricing Schedule(s), as corrected by City, if applicable.
- C. Pre-Award Addenda.
- D. Special Provisions.
- E. Bid Instructions and Requirements.
- F. General Conditions
- G. Technical Specifications and/or Plans

**20. Waiver.** Neither City acceptance of, or payment for, any work performed or material supplied by Contractor, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Contract, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

**21. Enforcement of Contract.** This Contract shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Contract shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

**22. Assignment Prohibited.** The expertise and experience of Contractor are material considerations for this Contract. City has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on Contractor under this Contract. In recognition of this interest, Contractor shall not assign any right or obligation pursuant to this Contract without the written consent of the City. Any attempted or purported assignment without City's written consent shall be void and of no effect.

**23. Binding Effect.** This Contract shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 22, above.

**SPECIAL PROVISIONS**

QUANTITIES (ESTIMATED)

The quantities stated in the pricing schedule are estimates only of the City's requirements. Contractor agrees to furnish more or less than the estimates at the unit prices quoted in accordance with availability of funds and actual needs as they occur throughout the contract period.

PRICE ADJUSTMENT

No price changes are permitted during the first year of the contract. If the contract extends beyond one year, prices quoted may be made subject to adjustment.

PRICING

The prices quoted to the City shall be as low or lower than those charged the Contractor's most favored customer for comparable quantities under similar terms and conditions, in addition to any discounts for prompt payment.

CONTRACT PERIOD

Any contract(s) resulting from this bid shall be effective from April 1, 2006 or date of award, whichever is later, through March 31, 2007.

CONTRACT EXTENSION

If mutually agreeable to both parties, any resultant contract may be extended on a year to year basis under the same terms and conditions. However, in no case shall the renewal extend beyond 3 years from the date of award of the original contract.

QUANTITIES UNRESTRICTED

The City is not limited to purchase all of its requirements from any contract resulting from this bid.

DELIVERY GUARANTEE

Contractor shall guarantee delivery within three (3) working days after receipt of order (ARO).

F.O.B.

Prices shall be submitted F.O.B. destination, freight prepaid and allowed, as follows:

1. E A. Fairbairn Water Treatment Plant  
7501 College Town Drive  
Sacramento, CA 95826
2. Sacramento River Water Treatment Plant  
1 Water Street  
Sacramento, CA 95814

SAMPLES

Prior to the award of the contract, the City may require that samples be submitted for evaluation and/or testing. The samples provided by the Contractor shall represent the exact items and/or products bid and to be supplied. The City may perform selected inspections and tests to verify that the items and/or products proposed meet the requirements of this specification.

Samples must be received within five (5) working days of the request for pre-award samples. Failure to satisfy any of the City's requirements and/or specifications may result in the rejection of the bid.

DEFAULT BY CONTRACTOR

In case of default by Contractor, the City reserves the right to procure the articles or services from other sources and to hold the Contractor responsible for any excess costs occasioned to the City thereby.

SAFETY REQUIREMENTS

All services and merchandise must comply with current California State Division of Industrial Safety Orders and O.S.H.A.

PAYMENT AND INVOICING

Invoices, in triplicate, shall be mailed or delivered to City of Sacramento, 915 I Street, 4<sup>TH</sup> Floor, Sacramento, CA 95814, Attention: Accounts Payable.

PURCHASE ORDER

1. A Purchase Order will be issued to the Contractor on behalf of the City organization(s) who will be ordering items/services covered in the contract. The Purchase Order will be enclosed with the resulting contract or will be issued shortly thereafter, and will become an integral part of the resulting contract. Each Purchase Order will cite a specific dollar value to cover a particular item or specified period of time. If a contract is for a specific period of time and extends beyond the close of the City's fiscal year of June 30th, a second purchase order may be issued.
2. The Purchase Order does not supersede any provision of the resulting contract. Performance time and dates are determined solely by the contract, and any modification thereto.
3. Delivery of material and/or services are not to begin until receipt of the Purchase Order and/or other notification by the City Procurement Services Manager.

PROTECTION OF EXISTING FACILITIES

Contractor shall take every precaution to protect all public and private property during the performance of this contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

DISMISSAL OF UNSATISFACTORY EMPLOYEES

The Contractor shall only furnish employees who are competent and skilled for work under this contract. If, in the opinion of the City, an employee of the Contractor is incompetent or disorderly, refuses to perform in accordance with the terms and conditions of the contract, threatens or uses abusive language while on City property, or is otherwise unsatisfactory, that employee shall be removed from all work under this contract.

DRUG-FREE WORKPLACE POLICY

The City of Sacramento is committed to providing a safe workplace for its employees and citizens alike. An essential part of this commitment is keeping the work environment free from drugs. In 1989, to assist in the achievement of this end, the City established a Drug-Free Workplace Policy.

As a contractor doing business with the City, it is expected that your firm will also implement a drug-free policy that informs your employees of the dangers and prohibition of drug abuse and that you will join with the City in maintaining a drug-free workplace.

If, in the performance of work under this contract, any employee of the Contractor exhibits unacceptable behavior that may be related to use of drugs or alcohol, the City reserves the right to discuss the employee's behavior with the Contractor. If the unacceptable behavior persists, the City may require that the employee be removed from all work under this contract.

**COOPERATIVE PURCHASING**

If mutually agreeable to both parties, the use of any resultant contract may be extended to other governmental agencies. It shall be understood that all terms and conditions as specified herein shall apply.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS FOR LIQUID CHLORINE IN 1-TON AND 150 LB. CYLINDERS

Liquid Chlorine furnished shall comply with ANSI/AWWA Standard B301 latest edition for Liquid Chlorine, and the following:

Chlorine, by volume not less than .....	99.5%
Water, by weight not more than .....	0.015%
Residue, including a highly complex chlorinated compound, with a high percentage of hexachlorethane (chlorine taffy), by weight not more than.....	0.015%

The liquid chlorine furnished shall contain nothing which will affect the Sacramento public water supply or be injurious to the chlorine handling equipment. The supplier shall provide an affidavit stating that the liquid chlorine and containers furnished under the purchase order, at the time of container loading, complies with all applicable requirements of this standard. Also, this material shall be certified as suitable for contact with or treatment of drinking water by an accredited certification organization with ANSI/NSF Standard 60, Drinking Water Chemicals-Health Effects.

BASIS OF REJECTION

If the material or its container does not meet the chemical, physical or safety requirements of this standard and the City's specifications, notice shall be given to the supplier immediately after observing said non-compliance; but in any case, within 30 days of receipt of shipment. In this event, supplier shall remove the unsuitable product or container from the premises of the purchaser at the City's request and replace it with a like amount of satisfactory liquid chlorine in an acceptable container; or, if there is an appropriate and safe solution for the problem, a price adjustment may be agreed on between the supplier of the City.

It is the responsibility of the supplier to inform the City of Sacramento that NSF or UL certification has been revoked or lapsed within 24 hours of the time the supplier receives verbal or written notification. Loss of certification shall constitute sufficient grounds for immediate termination of the contract between City of Sacramento and Contractor.

DELIVERIES

Deliveries are to made within three (3) working days following a confirmed request for delivery. Deliveries of 1-ton containers and 150 lb. Cylinders shall be made between 8:00 am and 3:00 pm. Due to space constraints, no equipment or trailers shall be left at the plant sites by chlorine delivery personnel. Deliveries will be required at the following locations:

- |   |  |
|---|--|
| 1. E.A. Fairbairn Water Treatment Plant<br>7501 College Town Drive<br>Sacramento, CA 95826<br>(1-ton container storage) | 2. Sacramento River Water Treatment Plant<br>1 Water Street<br>Sacramento, CA 95814<br>(1-ton container storage and 150 lb. Cylinders) |
|---|--|

COMPLIANCE WITH REGULATIONS

1. Transportation – All delivery transportation must comply with any and all U.S. Department of Transportation (DOT) Regulation 49, covering transport of chlorine.
2. Cylinders – The liquid chlorine shall be packed in containers which are in compliance in every respect with the current Hazardous Materials Regulations of the Department of Transportation, Code of Federal Regulations for shipment of chlorine. The containers shall be inspected, reconditioned, cleaned, maintained, and loaded in strict accordance with the Packaging Plant Safety and Operational Guidelines – Revision 1, Pamphlet No. 017 of the Chlorine Institute, Inc.

SUPPLIERS ASSISTANCE

For tank truck deliveries, the carrier or the supplier's driver, must make all line connections from the tank truck to the City's chlorine feed system and must be trained for emergency repairs to or shut offs of leaks at the tank truck. During the transfer of the chlorine from the tank truck to the City storage tank, the driver must be present at all times until the transfer is complete. The driver must then disconnect all lines from the City system.

WEIGHT MEASUREMENT SYSTEM

Supplier or carrier's truck must be equipped with a weight measurement system that will show the number of pounds of chlorine in the truck at any time which could, by calculation, show the number of pounds of chlorine that had been transferred to the City storage tank.

REQUIRED REPORTS AND OTHER INFORMATION

Delivery Reports:

A certified report from the manufacturer shall be submitted for each liquid chlorine delivery to the City of Sacramento.

The report shall contain the following data:

- Date and Time of Manufacture
- Percent by Weight
  - Sodium Hypochlorine
  - Excess Sodium Hydroxide
- Specific Gravity (Referenced to a temperature)
- Suspended Solids Test Time

No deliveries will be accepted by the City of Sacramento unless accompanied by said certified laboratory report for the specific batch of liquid chlorine delivered showing the above data and that it conforms to the required specifications.

As part of its Emergency Preparedness Planning and Spill Response Plan, the successful bidder, upon award, shall submit a list with 24-hour access phone numbers of at least two degreed engineers (preferably Chemical Engineers) listing their degree, college or university and year of graduation, experienced in liquid chlorine operations to provide emergency support services on a 24/7 basis in the event of a spill, equipment failure or other emergency. Failure to submit this list including all the requirements of the list or to adhere to these requirements may result in the bid being found non-responsive.

The Contractor shall be responsible for any spills resulting from the failure of its or its subcontractor's delivery equipment or from failure of attendant delivery personnel in the proper performance of their duties. Proper performance shall require attendant delivery personnel's constant inspection and observation of unloading operations and knowledgeable response to problems or emergencies, which would most commonly be expected to occur. The City of Sacramento reserves the right to refuse any and all deliveries made with equipment that is poorly maintained and/or leaking liquid chlorine.

The tanks or trailers shall be cleaned and free of residue that may contaminate the Contractor's product or impede the unloading process. It is the Contractor's responsibility to verify the cleanliness of the transporting equipment before loading. All appurtenant valves, pumps, and discharge hoses used for the delivery of liquid chlorine shall be supplied by the Contractor and shall be cleaned and free from contaminating material. The City of Sacramento may reject a load if the equipment is not properly cleaned. The Contractor shall furnish the City of Sacramento approved, leak-free connection device between the trailer and the City site and shall immediately report any spills caused during the filling operations. The Contractor shall take immediate and appropriate actions to clean up any spilled liquid chlorine. If the spill is not cleaned up, the City of Sacramento will hire a certified hazardous material handling company to clean up the spill, and the cost of such service will be charged to the Contractor and deducted from the amount due to the Contractor. If the City of Sacramento's unloading equipment such as pipe, valves or level indication and alarms should fail and the spillage is not the fault of the Contractor or its subcontractor, the Contractor shall be relieved of cleanup of the spill.

Because of security and safety concerns, all delivery vehicle drivers shall be U.S. citizens and have a proper commercial driver's license with a Hazardous Material endorsement. Contractor's drivers shall display its driver's license whenever challenged by City of Sacramento during the delivery. In addition, Contractor shall supply the City of Sacramento a "CD" with digital photographs of all of its delivery drivers with names imposed and shall send out an updated CD within 24 hours of any changes to its drivers. The City of Sacramento shall use the CD to verify whether driver is actually an employee of the Contractor. Failure to show proper license or failure of driver to be listed on the CD provided to the City of Sacramento may result in rejection of delivery and could result in termination of the contract.

# EXHIBIT 1

## REQUIREMENTS FOR THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

### INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits By City Contractors Ordinance (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

### APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed. The provisions apply only to those employee(s) actually working on the City contract and only for the actual amount of time the employee(s) spend working on such contract.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

### DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

## EXHIBIT 1

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

### **CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION**

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

### **EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS**

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form (attachment "A"), signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as attachment "B."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as attachment "C."

# EXHIBIT 1

Attachment A

## DECLARATION OF COMPLIANCE Equal Benefits Ordinance

Pioneer Americas, LLC  
Name of Contractor

700 Ygnacio Valley Road, Suite 250, Walnut Creek, CA 94596  
Address

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Non-Discrimination In Employee Benefits By City Contractors Ordinance ("Ordinance") provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitations for the performance of services, or for the provision of commodities, under a City contract or agreement ("Contract").
2. As a condition of receiving the City Contract, I agree to fully comply with the requirements of the Ordinance, codified as Chapter 3. 54 of the Sacramento City Code.
3. If the face amount of this City Contract is less than \$25,000, as a condition of receiving this Contract, I agree to notify the City in writing if the aggregate value of the City Contract referenced herein, after changes, modifications, or similar actions, equals or exceeds \$25,000 in total value.
4. I understand, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance, are any of the following:
  - a. Bereavement Leave
  - b. Disability, life, and other types of insurance
  - c. Family medical leave
  - d. Health benefits
  - e. Membership or membership discounts
  - f. Moving expenses
  - g. Pension and retirement benefits
  - h. Vacation
  - i. Travel benefits
  - j. Any other benefit offered to employees

I agree that should I offer any of the above listed employee benefits, that I will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

# EXHIBIT 1

## Attachment A

### DECLARATION OF COMPLIANCE Equal Benefits Ordinance

5. I understand that I will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
- a. In the event that the actual cost of providing a benefit to a domestic partner or spouse, exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, I will not be required to provide the benefit, nor shall it be deemed discriminatory, if I require the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
  - b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.
  - c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.
  - d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.
  - e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the first effective date after the first open enrollment process following the date the Contract is executed with the City.  
  
I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.
  - f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits  
  
The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.
  - g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).
  - h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).

# EXHIBIT 1

## Attachment A

### DECLARATION OF COMPLIANCE Equal Benefits Ordinance

- i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.

Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.

6. I understand that failure to comply with the provisions of Section 5. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
7. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the City. I also agree to prominently display a poster informing each employee of these rights.
8. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.

I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance, when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the EBO requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.

9. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the City's Equal Benefits Requirements or of the Ordinance by me.

# EXHIBIT 1

Attachment A

## DECLARATION OF COMPLIANCE Equal Benefits Ordinance

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

John M. Schabacker  
Signature of Authorized Representative

3/10/06  
Date

John M. Schabacker  
Print Name

Region Manager  
Title

# EXHIBIT 1

## Attachment B



### **YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE**

On ..... (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for ..... (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits By City Contractors Ordinance (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

# EXHIBIT 1

## Attachment B

### You May . . .

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:  
  
City of Sacramento  
Contract Services Unit  
915 I St., 2<sup>nd</sup> Floor  
Sacramento, CA 95814
  
- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
  - Reinstatement, injunctive relief, compensatory damages and punitive damages
  
  - Reasonable attorney's fees and costs

# EXHIBIT 1

## Attachment C



### YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

#### **You May . . .**

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento  
Contract Services Unit  
915 I St., 2<sup>nd</sup> Floor  
Sacramento, CA 95814

- Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

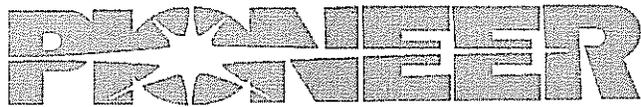
#### **Discrimination and Retaliation Prohibited.**

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

#### **You May Also . . .**

Submit a written complaint to the City of Sacramento, Contract Services Unit, at the same address, containing the details of the alleged violation.





ISO 9001:2000

# WESTERN REGION LIQUID CHLORINE Technical Grade



USA  
Tel: (713) 570-3200  
Canada  
Tel: (514) 397-6100

<b>SALES SPECIFICATIONS</b>	<b>INDEX :</b>	Cl2 Technical Grade – Western Region
	<b>ISSUED :</b>	January 6, 2006
<b>APPLICABILITY : GENERAL</b>	<b>SUPERSEDES :</b>	Nil

Assay, Purity (% by volume)	%	99.5	min
Moisture (H <sub>2</sub> O)	%	0.005	max
Nonvolatile Matter (NVM)	%	0.005	max
 <b>Note 1:</b> All % values are expressed on a weight basis, except for purity			
<b>Note 2:</b> This grade of chlorine meets the following standards:			
<ul style="list-style-type: none"> <li>• American Water Works Association (ANSI / AWWA B-301-04)</li> <li>• Food Chemical Codex (FCC-V-2004)</li> <li>• Water Chemicals Codex (WCC - 1982)</li> <li>• Certified to NSF/ANSI Standard 60, Drinking Water Treatment Chemicals – Health Effects – 2002</li> </ul>			
 <b>Contact PIONEER for additional technical information</b>			
<i>In the United States, call (713) 570-3200 and in Canada, call (514) 397-6100</i>			
<b>Our Quality System is ISO 9001:2000 registered</b>			

The product information presented herein, while not guaranteed, is true and accurate to the best of our knowledge. No warranty or guarantee, express or implied, is made regarding performance, stability or otherwise or regarding accuracy or sufficiency of such product information. Buyer accepts the foregoing product information at Buyer's own risk. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the Buyer. The cited product uses are for informational purposes only and Buyer should investigate and establish to Buyer's satisfaction the suitability of each such use for Buyer's own purposes. No suggestions for use are intended as and nothing herein shall be construed as a recommendation to infringe any existing patents or to violate any applicable law.





## MATERIAL SAFETY DATA SHEET

### Chlorine

#### SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**HOUSTON OFFICE**  
700 Louisiana Street, Suite 4300  
Houston, Texas 77002  
U.S. • 1-800-423-4117

**MONTREAL OFFICE**  
630 Rene Levesque Blvd West, 31<sup>st</sup> Floor  
Montreal, Quebec H3B 1S6  
Canada • (514) 397-6100

**Product Name:** Chlorine  
**CAS#:** 7782-50-5  
**MSDS Code:** Cl2-e  
**Product Use:** Disinfection of water, plastics production, bleaching processes in pulp and paper, production of chlorinated compounds

**Major Update:** 11/11/05  
**Minor Revision:**

#### Emergency Contacts (24 hr.)

FOR INFORMATION REGARDING ON SITE CHEMICAL EMERGENCIES INVOLVING A SPILL OR LEAK, CALL

**U.S.: 1-800-424-9300 – CHEMTREC**  
**Canada: 1-613-996-6666 – CANUTEC**

#### SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% (w/w)	ACGIH	CAS NO.
Chlorine	99 – 100	TWA – 0.5 ppm STEL – 1 ppm	7782-50-5

#### SECTION 3 – HAZARD IDENTIFICATION

-----  
**Emergency Overview:** Greenish-yellow gas or clear amber liquid (under pressure) with a pungent suffocating odor. COMPRESSED GAS. STRONG OXIDIZER. Contact with combustible materials may cause fire or explosion. Reacts violently or explosively with many substances. Reacts with water to form corrosive hydrochloric and hypochlorous acids. Confined space hazard. VERY TOXIC. May be fatal if inhaled. Extremely irritating to the respiratory tract. Causes lung injury and effects may be delayed. CORROSIVE to the eyes and skin. Liquefied gas can cause frostbite and corrosive injury to the eyes and skin. Burns and permanent damage, including blindness may result. Very toxic to aquatic organisms. Can cause damage to vegetation. Read the entire MSDS for a more thorough evaluation of the hazards.  
-----

#### Potential Health Effects:

**General:** Chlorine normally exists as a gas at room temperature and the most important route of exposure is inhalation, followed by eye and skin exposures. Liquefied chlorine can freeze skin tissues.



**Inhalation:** Chlorine is a severe nose, throat and upper respiratory tract irritant. People exposed to chlorine, even for short periods of time, can develop a tolerance to its odor and irritating properties. In mild exposures, clinical signs include rhinorrhea, cough, headache, sore throat, chest pain, dyspnea, nausea and pulmonary function deficits. After more severe exposures, clinical signs include rhinorrhea, ulcerative tracheobronchitis, pulmonary edema, respiratory failure and death.

The following is a listing of chlorine exposure thresholds and estimated clinical effects:

- 0.2 – 0.4 ppm – odor threshold (with considerable variation among subjects) (decrease in odor perception occurs over time).
- 5 – 15 ppm – moderate irritation of the respiratory tract
- 30 ppm – immediate chest pain, vomiting, dyspnea, cough
- 40 – 60 ppm – toxic pneumonitis and pulmonary edema
- 430 ppm – lethal over 30 minutes
- 1000 ppm – fatal within a few minutes

**Skin Contact:** Airborne gas may irritate and burn the skin. Direct contact with the liquefied gas escaping from its pressurized cylinder can cause frostbite. Symptoms of mild frostbite include numbness, prickling and itching in the affected area. Symptoms of more severe frostbite include a burning sensation and stiffness of the affected area. The skin may become waxy white or yellow.

**Eye Contact:** Chlorine gas is a severe eye irritant. Stinging, a burning sensation, rapid blinking, redness and watering of the eyes have been observed at concentrations of 1 ppm and higher. Direct contact with liquefied chlorine escaping from its high pressure cylinder may cause frostbite. Burns and permanent damage, including blindness may result.

**Ingestion:** Ingestion is not an applicable route of exposure for gases.

**Existing Medical Conditions Possibly Aggravated by Exposure:** Asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus or throat, and cardiac conditions.

**Chronic Effects:** A small number of human population studies conducted have not shown significant respiratory system effects in workers with long-term, low-level (typically less than 1 ppm) chlorine exposure. One study examined 332 workers exposed to time-weighted average (TWA) concentrations of between 0.006 and 1.42 ppm (0.15 ppm average) for an average of 10.9 years. No relationship was found between exposure to chlorine and the occurrence of colds, breathing difficulties, and abnormal heartbeat or chest pain. Significant effects on lung function were not observed. Studies of workers who have had experienced one or more exposures to chlorine which produced short-term health effects tend to show long-term lung dysfunction.

**Carcinogenicity:** Chlorine is not classified as carcinogenic by ACGIH (American Conference of Governmental Industrial Hygienists) or IARC (International Agency for Research on Cancer), not regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and not listed as carcinogens by NTP (National Toxicology Program).

#### SECTION 4 – FIRST AID MEASURES

**Inhalation:** Take proper precautions to ensure your own safety before attempting rescue (e.g., wear appropriate protective equipment, use the buddy system). Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Apply artificial respiration if victim is not breathing. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give Cardiopulmonary Resuscitation (CPR) if there is no pulse AND no breathing. Obtain medical attention IMMEDIATELY.



**Skin Contact:** Quickly remove victim from source of contamination and flush with lukewarm, gently flowing water for a minimum of 20 minutes. **Liquefied Gas:** DO NOT attempt to rewarm the affected area on site. DO NOT rub area or apply dry heat. Gently remove clothing or jewelry that may restrict circulation. Carefully cut around clothing that sticks to the skin and remove the rest of the garment. Loosely cover the affected area with a sterile dressing. DO NOT allow victim to drink alcohol or smoke. Obtain medical attention IMMEDIATELY.

Δ **Eye Contact:** Immediately flush eyes with lukewarm running water for a minimum of 20 minutes. If a burn exists, cover both eyes with a sterile dressing. **Liquefied Gas:** DO NOT attempt to rewarm the affected area on site. DO NOT rub area or apply dry heat. Loosely cover the affected area with a sterile dressing. DO NOT allow victim to drink alcohol or smoke. Obtain medical attention IMMEDIATELY.

**Ingestion:** Ingestion is not an applicable route of exposure for gases.

**Note to Physicians:** Following exposure the patient should be kept under medical review for at least 48 hours as delayed pulmonary edema may occur.

**SECTION 5 – FIRE FIGHTING MEASURES**

Δ	<b>Flash Point</b>	Not applicable. Does not burn, but is a strong oxidizer and a serious fire risk.
	<b>Flammable Limits (Lower)</b>	Not applicable.
	<b>Flammable Limits (Upper)</b>	Not applicable.
	<b>Auto Ignition Temperature</b>	Not applicable.
	<b>Decomposition Temperature</b>	Not available.
	<b>Combustion and Thermal Decomposition Products</b>	Toxic chemicals are formed when combustible materials burn in chlorine. These may include corrosive hydrogen chloride gas, free chlorine gas, and other chlorine compounds.
	<b>Rate of Burning</b>	Not applicable.
	<b>Explosive Power</b>	Not applicable.
	<b>Sensitivity to Mechanical Impact</b>	Not sensitive.
Δ	<b>Sensitivity to Static Discharge</b>	Specific information is not available. Liquefied chlorine can accumulate static charge by flow or agitation, since it has a very low electrical conductivity.

**Fire and Explosion Hazards:** Chlorine does not burn. However, chlorine is a strong oxidizing agent and poses a serious fire and explosion risk because it promotes combustion, like oxygen. Most combustible materials will ignite and/or burn in chlorine atmospheres, forming irritating and toxic gases. Containers or cylinders may rupture violently due to over-pressurization, if exposed to fire or excessive heat for a sufficient period of time. Intense local heat (above 200°C) on the steel walls of chlorine cylinders can cause an iron/chlorine fire resulting in rupture of the container. Cylinder and ton containers will vent through fusible plugs at 71°C (160°F). Chlorine gas is heavier than air and will collect and persist in pits, hollows, depressions, and other confined or low-lying areas.

**Extinguishing Media:** Use extinguishing media appropriate to surrounding fire conditions, such as dry chemical powder, carbon dioxide, or foam.

**Fire Fighting Procedures:** Apply water from as far a distance as possible, in flooding quantities as a spray or fog to keep fire-exposed cylinders, containers or equipment cool and absorb heat, until well after the fire is out. If there is a chlorine leak, stop the flow of gas, if this can be done safely. A chlorine fire can be extinguished only by stopping the flow of chlorine gas. Use water spray to protect personnel attempting to shut off the flow. Remove all flammable and combustible materials from the vicinity, especially oil and grease. Use water with caution. Do not apply water directly to the liquefied or gaseous chlorine. Reverse flow into cylinder may cause rupture. Take care not to block pressure relief valves.



Stay away from ends of tanks (but realize that shrapnel may travel in any direction). In an advanced or massive fire, the area should be evacuated; use unmanned hoseholders or monitor nozzles.

**Fire Fighting Protective Equipment:** Use specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical resistant suit with positive pressure self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) may be necessary.

**Evacuation:** If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (½ mile) in all directions; also, consider initial evacuation for 800 meters (½ mile) in all directions.

**NOTE:** Also see « Section 10 - Stability and Reactivity »

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### Spills, Leaks, or Releases:

- Restrict access to area until completion of clean up. Ensure trained personnel conduct clean up.
- Wear adequate personal protective equipment including respiratory protection.
- Remove all combustible and flammable materials.
- Remove all ignition sources (no smoking, flares, sparks or flames). All equipment should be grounded. Ventilate area.
- Stop leak if possible without personal risk. Emergency kits are available for handling chlorine leaks in cylinders, tank cars and tank trailers. All personnel must be trained in their particular usage. This information is available from the Chlorine Institute.
- **Large leaks:** Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Prevent entry into sewers and confined areas. Vapor knock down water is corrosive and toxic, thus it should be diked for containment. Ensure compatible materials are used.
- **Leaking cylinder:** Only to be conducted by trained personnel. Emergency kits are available for handling leaking chlorine cylinders. Contents may also be disposed of to a safe out of doors area or a hood with forced ventilation. Attach appropriate control valve provided with a trap or check valve and a long piece of flexible hose connected to the valve outlet. Discharge the gas at a moderate rate into an adequate amount of about 15% aqueous sodium hydroxide or other alkali or reducing solution in suitable container. When all the gas is discharged, close the cylinder valve and tag the cylinder as defective. Dispose of waste according to local environmental regulations. Also, see "Section 7 - Handling and Storage"

**Deactivating Chemicals:** Sodium hydroxide; soda ash; hydrated lime - followed by a reducing agent. See Incompatibles in Section 10.

**Waste Disposal Methods:** Dispose of waste material at an approved waste treatment/disposal facility, in accordance with applicable regulations. Do not dispose of waste with normal garbage or to sewer systems.

Note - Clean-up material may be a RCRA Hazardous Waste on disposal  
- Releases are subject to CERCLA reporting requirements: RQ = 10 lb (4.54 kg)

## SECTION 7 – HANDLING AND STORAGE

**Handling:** Take all precautions to avoid personal contact. Prevent the release of gas into workplace air. Always ensure adequate ventilation in handling areas. Locate safety shower and eyewash station close to chemical handling area. Keep away from incompatibles, heat, sparks, flames and other ignition sources. Locate safety shower and eyewash station fairly close to chemical handling area. Only auxiliary valves and gauges designed solely for chlorine gas should be used. Do NOT use stainless steel equipment. Open and shut valves to cylinders at least once a day, while cylinder is in use to avoid valve freezing. Secure containers at all times. Leaks should be fixed promptly. Vapors are heavier than air.



Prevent liquid or vapor from entering sewers, sumps or pit areas. Vapors can create a toxic atmosphere, which may be fatal. Use self-contained breathing apparatus to avoid suffocation.

**Storage:** Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat, away from flammable materials, incompatibles and away from process and handling areas. Do not store near elevators, corridors or loading docks. Do not store below ground level or in confined spaces. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Post warning signs. Inspect periodically for damage or leaks. Keep quantities stored as small as possible. For large-scale storage of this material consider the installation of a leak detection system with an alarm. Facilities for the emergency disposal of chlorine from leaking containers should be provided in storage areas. Avoid storage of cylinders for more than six months. Use the oldest first. Compressed gas cylinders should be stored separately according to their chemical hazards. This material is highly reactive. Always store in original labeled cylinder, or in the type of container recommended by the manufacturer/supplier. Keep cylinders tightly closed when not in use and when empty. Cylinder valves should be tightly closed. Cylinder valve caps should be properly secured. Always check cylinder valve for evidence of damage, rust or dirt, which may inhibit operation. Always chain or otherwise securely restrain cylinders in an upright position to a wall, rack or other solid structure when they are stored. Store empty cylinders separate from full ones with valves shut off, cap secure and labeled EMPTY or "MT". Empty containers may contain hazardous residues.

Outdoor cylinder storage should be weatherproofed and have proper drainage. Have appropriate fire extinguishers and leak clean-up equipment in storage area.

**Storage Temperature:** Protect from temperature extremes. (Never expose cylinders to temperatures higher than 52°C (125°F) or below -29°C (-20°F) unless they are designed for this.

**Other Precautions:** Walls, floors, shelving, fittings, lighting and ventilation systems in storage area should be made from materials that do not react with chlorine. Below 121°C (250°F), iron, copper, steel, lead, nickel, platinum, silver and tantalum are resistant to dry chlorine gas or liquid. Storage facilities should be made of fire-resistant materials.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### PREVENTIVE MEASURES

Recommendations listed in this section indicate the type of equipment, which will provide protection against over exposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

**Engineering Controls:** Local exhaust ventilation should be applied wherever there is an incidence of point source emissions or dispersion of regulated contaminants in the work area. The most effective measures are the total enclosure of processes and the mechanization of handling procedures to prevent all personal contact with chlorine. Because of the high potential hazard associated with this substance, stringent control measures such as enclosure or isolation are recommended when dealing with large quantities. Systems must be kept "dry" to prevent metal corrosion.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye Protection:** Use full face-shield and chemical safety goggles when there is potential for contact. Maintain eye wash fountain and quick-drench facilities in work area.

**Skin Protection:** If contact with liquid or gas is possible, then use chemical protective gloves, coveralls, boots and/or other resistant protective clothing. Have a safety shower/eye-wash fountain readily available in the immediate work area. Some operations may require the use of a chemical protective full-body encapsulating suit and respiratory protection.



**Resistance of Materials for Protective Clothing:**

Guidelines for chlorine, liquid:

- RECOMMENDED (resistance to breakthrough longer than 8 hours): Responder™, Tychem 10000™

Guidelines for chlorine, gas:

- RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber, Neoprene, Teflon™, Viton™, Saranex™, Barricade™, CPF 3™, Responder™, Trelchem HPS™, Tychem 10 000™
- RECOMMENDED (resistance to breakthrough longer than 4 hours). Nitrile rubber, 4H™ (PE/EVAL)
- NOT RECOMMENDED for use (resistance to breakthrough less than 1 hour): Polyethylene, Polyvinyl Chloride

Recommendations are NOT valid for very thin Natural rubber, Neoprene, Nitrile and PVC gloves (0.3 mm or less)

Recommendations are valid for permeation rates reaching 0.1 ug/cm<sup>2</sup>/min or 1 mg/m<sup>2</sup>/min and over. Resistance of specific materials can vary from product to product. Breakthrough times are obtained under conditions of continuous contact, generally at room temperature. Evaluate resistance under conditions of use and maintain clothing carefully.

**Respiratory Protection: *NIOSH recommendations for chlorine concentrations in air:***

- UP TO 5 ppm: Chemical cartridge respirator with cartridge(s) to protect against chlorine; or supplied-air respirator (SAR).
- UP TO 10 ppm: SAR operated in a continuous flow mode\*; or powered air-purifying respirator with cartridge(s) to protect against chlorine; or full face-piece chemical cartridge respirator with cartridge(s) to protect against chlorine; or gas mask with canister to protect against chlorine; or full face-piece self-contained breathing apparatus (SCBA); or full face-piece SAR.
- Emergency or planned entry in unknown concentration or Immediately Dangerous to Life or Health (IDLH) conditions: Positive pressure, full face-piece SCBA; or positive pressure, full face-piece SAR with an auxiliary positive pressure SCBA.
- Escape: Mouth bit or cartridge respirator with approved chlorine cartridge; or gas mask with canister to protect against chlorine; or escape-type SCBA.

\* NOTE: may require eye protection.

**EXPOSURE GUIDELINES****PRODUCT: Chlorine**

ACGIH Time Weighted Average (TLV-TWA)	0.5 ppm (1.5 mg/m <sup>3</sup> )
ACGIH Short Term Exposure Limit (STEL)	1.0 ppm (3.0 mg/m <sup>3</sup> )
OSHA Time Weighted Average (PEL-TWA)	1.0 ppm (3.0 mg/m <sup>3</sup> )
Immediately Dangerous to Life and Health (IDLH):	10 ppm

**AIHA- Emergency Response Planning Guidelines (ERPGs)**

*ERPGs are for community emergency planning limits and not workplace exposure limits.*

- ERPG-1: 1 ppm
- ERPG-2: 3 ppm
- ERPG-3: 20 ppm

Δ

The **ERPG-1** is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hr without experiencing other than mild transient adverse health effects or perceiving a clearly defined, objectionable odor.

The **ERPG-2** is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hr without experiencing or developing irreversible or other serious health effects or symptoms, which could impair an individual's ability to take protective action.



The ERPG-3 is the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hr without experiencing or developing life-threatening health effects

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Alternate Name(s)	Molecular chlorine
Chemical Name	Chlorine
Chemical Family	Halogen
Molecular Formula	Cl <sub>2</sub>
Molecular Weight	70.9
Appearance	Yellowish-green gas or clear amber colored liquid when liquefied
Odor	Pungent odor
pH	1.5-2.0 (0.8% Aqueous Solution)
% Volatile by Volume	100
Vapor Pressure	673.1 kPa (6.64 atm) (97.6 psig) at (20°C); 1427 kPa (14.1 atm) (207 psig) 5830 mm Hg @ 25°C (77°F)
Vapor Density (Air = 1)	2.47
Boiling Point	-29°F (-34°C)
Freezing/Melting Point	-150°F (-101°C)
Solubility (Water) 68°F	0.7%
Specific Gravity	1.467 at 0°C (32°F) and 368.9 kPa (saturated liquefied gas); 0.0032 at 0°C (gas) (water = 1)
Critical Temperature	291.2°F (143.75°C)
Viscosity	Liquefied gas – 0.346 mPa s at 20°C (68°F)
Coefficient of Oil/Water distribution	Not Available

### SECTION 10 – STABILITY AND REACTIVITY

**Hazardous Decomposition Products:** Chlorine reacts with water to form a corrosive solution of hydrochloric acid and hypochlorous acid, which can decompose to chlorine, oxygen and chloric acid

**Chemical Stability:** Stable at room temperature

**Conditions to Avoid:** Temperatures greater than 121°C (250°F), and moisture

**Incompatibility with other Substances:** Chlorine gas can react explosively with alcohols, ammonia and compounds, hydrocarbon gases (e.g. acetylene and ethylene), hydrogen, antimony trichloride and tetramethylsilane, aziridine, bromine pentafluoride, dioxygen difluoride, oxygen difluoride, fluorine, diborane, dichloro(methyl)arsine, disilyl oxide, ethylphosphine, strong reducing agents, aqueous sulfamic acid, stibine, synthetic rubber, tetraselenium tetranitride and white phosphorus

Chlorine gas ignites on contact with mono and di-alkali metal acetylides, copper acetylides, halocarbons (e.g. dichloromethane), metals (e.g. finely powdered aluminum, brass and copper foil, iron, potassium, sodium, tin and titanium), non-metals (e.g. boron, active carbon, phosphorous and silicon), iron, uranium and zirconium carbides, diethyl ether, diethyl zinc, metal and non-metal hydrides, phosphorus compounds, sulfides, tellurium, trialkyl boranes and tungsten dioxide

Liquefied chlorine can react violently, explosively or ignite on contact with carbon disulfide, iron, bismuth, dibutyl phthalate, drawing wax, gasoline, glycerol, linseed oil, white phosphorus, polydimethylsiloxane, silicones, sodium hydroxide, tin, titanium and vanadium powder







**SECTION 14 – TRANSPORT INFORMATION**

	TDG CLR *	DOT
Shipping Name	Chlorine	Chlorine
Hazard Class / Division	2 3 8	2 3 8
Identification No.	UN 1017	UN 1017
Reportable Quantity	Not Applicable	RQ: 10 lbs (4 54 Kg)
ERAP	500 L	Not Applicable

Note: \* TDG CLR (Clear Language Regulations) became effective August 15, 2002

TDG – Emergency Response Assistance Planning (ERAP) requirements of sections 7 must be met for quantities exceeding 500 liters in one means of containment

DOT– Other Classification: Marine pollutant This material is poisonous by inhalation in Hazard Zone B (SPECIAL LABEL/PLACARD REQUIRED)

IATA/ICAO Shipping Description: Chlorine, Class 2 3 (8), UN1017 is forbidden for air transport except with prior approval of Transport Canada or DOT

Δ CERCLA RQ = 10 lbs (4 54 Kg)

For Chemical Emergencies In Transportation Requiring Activation Of Pioneer 24 Hour Emergency Response Plan Call:  
U.S. 1-800-424-9300 – Chemtrec  
Canada 1-819-294-6633

**SECTION 15 – REGULATORY INFORMATION**

Δ CANADIAN CLASSIFICATION

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all the information required by the CPR.

Δ Controlled Products Regulations (WHMIS) Classification:

- A – Compressed gas
- D1A – Poisonous and infectious material – Immediate and serious effects – Very toxic
- D2A – Poisonous and infectious material – Other effects – Very toxic
- E – Corrosive material

WHMIS Health Effects:

- Acute lethality – very toxic – immediate
- TDG class 2 3 – very toxic – immediate
- Chronic toxicity – very toxic – other
- Corrosive to skin

CEPA / Canadian Domestic Substances List (DSL): On the Canadian Domestic Substances List (CEPA DSL)

Δ WHMIS Ingredient Disclosure List: Meets criteria for disclosure at 1% or greater.



**National Pollutant Release Inventory (NPRI) 2001:** It is listed on Part 1 of Schedule 1. Information about this substance must be reported to the Minister of the Environment in accordance with subsection 16(1) of the Canadian Environmental Protection Act.

Δ **USA CLASSIFICATION**

**OSHA Classification:** Meets Criteria for hazardous material 29CFR 1910.1200 and Highly Hazardous Chemicals, Code of Federal Regulations (CFR) v.29 Part 1910, Section 1910.119

Threshold Quantity = 1500 lbs

**TSCA Inventory Status:** Y

**SARA Regulations sections 313 and 40 CFR 372:** Y

**SARA Hazard Categories, SARA SECTIONS 311/312 (40CFR370.21):**

ACUTE: Y

CHRONIC: N

FIRE: Y

REACTIVE: N

SUDDEN RELEASE: Y

OSHA PROCESS SAFETY (29CFR1910.119): Y

**CERCLA Reportable Quantity:** RQ = 10 lbs.

Threshold Planning Limit = 100 lbs

This product does not contain nor is it manufactured with ozone depleting substances.

**Other Regulations/Legislation which apply to this product:**

Michigan Critical Materials Register: Y

**Right-To-Know:** Illinois, Massachusetts, New Jersey, Pennsylvania

**EEC Classification:** Toxic Irritant Dangerous for environment

**EINECS:** 231-959-5

**SECTION 16 – OTHER INFORMATION**

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and PIONEER will not be liable for any damages, losses, injuries or consequential damages that may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years.

**Revision Indicators:**

Δ In the left margin indicates a revision or addition of information since the previous issue

**National Fire Protection Association (NFPA) Rating**

**Hazardous Materials Identification System (HMIS) Rating**

	NFPA	HMIS
HEALTH	4	4
FIRE	0	0
REACTIVITY	0	0
SPECIAL	oxidizer	

4 = Extreme/Severe  
3 = High/Serious  
2 = Moderate  
1 = Slight  
0 = Minimum

Δ



## REFERENCE

1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS database, National Institute for Occupational Safety and Health, U S Dept. of Health and Human Services. Cincinnati, Entry Update/ May 2005
2. Transport Of Hazardous Materials (49CFR), Canadian Centre for Occupational Health and Safety, Issue : 2005
3. The Chlorine Institute, Inc., "Molecular Chlorine: Health and Environmental Effects", Pamphlet 90, Edition 2, November 1998
4. "CHEMINFO", CCOHS. Canadian Centre for Occupational Health and Safety, Hamilton. Ontario, Canada, (May, 2005)
5. Chemlist, STN Database, Chemical Abstract Service, 2005
6. Chemical Hazards Response Information System (CHRIS), CCOHS, May 2002.
7. HSDB-Hazardous Substances Data Bank , through "CCINFO disc", Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada, (May, 2002)
8. NFPA 49 Hazardous Chemicals Data 1994 Edition, National Fire Protection Association, Quincy, MA, 1994
9. NIOSH POCKET GUIDE TO CHEMICAL HAZARDS, U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health, June 1997
10. "2005 Threshold Limit Values and Biological Exposure Indices", American Conference of Government Industrial Hygienists, 2005
11. TRANSPORT OF DANGEROUS GOODS (TDG). Canadian Centre for Occupational Health and Safety, \* Issue : 2005

## LEGEND

ACGIH	- American Conference of Governmental Industrial Hygienists
AFFF	- Aqueous Film Forming Foam
CAS #	- Chemical Abstracts Service Registry Number
CERCLA	- Comprehensive Environmental Response, Compensation, and Liability Act
CFR	- Code of Federal Regulations
DOT	- Department of Transportation
EPA	- Environmental Protection Agency
LC50	- The concentration of material in air expected to kill 50% of a group of test animals
MSHA	- Mine Safety and Health Administration
NIOSH	- National Institute for Occupational Safety and Health
OSHA	- Occupational Safety & Health Administration
PEL	- Permissible Exposure Limit
PVC	- Polyvinyl chloride
RCRA	- Resource Conservation and Recovery Act
SARA	- Superfund Amendments and Reauthorization Act of the U S EPA
TDG	- Transportation of Dangerous Goods Act/Regulations
TLV	- Threshold Limit Value
TSCA	- Toxic Substances Control Act
TWA	- Time-Weighted Average





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## NSF Product and Service Listings

These Listings were Last Updated on **Tuesday, March 07, 2006** at 4:15 AM Eastern Time.  
Please contact NSF International to confirm the status of any Listing, report errors, or make suggestions

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## NSF/ANSI STANDARD 60 Drinking Water Treatment Chemicals - Health Effects

### PIONEER AMERICAS LLC

700 LOUISIANA STREET  
SUITE 4300  
HOUSTON, TX 77002  
713-570-3202

**Facility :** # 2 TACOMA, WA

#### **Chlorine[CL]**

*Trade Designation*  
Chlorine Gas

*Product Function*  
Disinfection & Oxidation  
Algicide

*Max Use*  
30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

#### **Sodium Hypochlorite[CL]**

*Trade Designation*  
Bacti-Chlor 11%

*Product Function*  
Disinfection & Oxidation  
Algicide

*Max Use*  
96 mg/L

Bacticide 12 5%

Disinfection & Oxidation  
Algicide

84 mg/L

L T Sanitizer 5 25%

Disinfection & Oxidation  
Algicide

200 mg/L

L T Sanitizer 9 2%

Disinfection & Oxidation

114 mg/L



Sodium Hypochlorite 12.5%	Algicide Disinfection & Oxidation Algicide	84 mg/L
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[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.

### Facility : DISTRIBUTION CENTER - RICHMOND, CA

#### Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L

### Facility : DISTRIBUTION CENTER - WILMINGTON, CA

#### Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Solution, 25% - All Grades	pH Adjustment Corrosion & Scale Control	200mg/L
Caustic Soda Solution, 50% - All Grades	pH Adjustment Corrosion & Scale Control	100mg/L
Sodium Hydroxide Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide Solution, 50% - All Grades	pH Adjustment Corrosion & Scale Control	100mg/L

### Facility : SANTA FE SPRINGS, CA

#### Chlorine[CL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine Gas	Disinfection & Oxidation Algicide	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine



dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda, Liquid - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide	Corrosion & Scale Control pH Adjustment	100mg/L

**Sodium Hypochlorite[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Bacti-Chlor 11%	Disinfection & Oxidation Algicide	96 mg/L
Bacticide 12.5%	Disinfection & Oxidation Algicide	84 mg/L
L.T. Sanitizer 5.25%	Disinfection & Oxidation Algicide	200 mg/L
L.T. Sanitizer 9.2%	Disinfection & Oxidation Algicide	114 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation Algicide	84 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.

**Facility : SOUTH GATE, CA****Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda, Liquid - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L

**Facility : TRACY, CA****Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine Gas	Disinfection & Oxidation Algicide	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.



**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Liquid - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide	Corrosion & Scale Control pH Adjustment	100mg/L

**Sodium Hypochlorite[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Bacti-Chlor 11%	Disinfection & Oxidation Algicide	96 mg/L
Bacticide 12 5%	Disinfection & Oxidation Algicide	84 mg/L
L T Sanitizer 5 25%	Disinfection & Oxidation Algicide	200 mg/L
L T Sanitizer 9 2%	Disinfection & Oxidation Algicide	114 mg/L
Sodium Hypochlorite 12 5%	Disinfection & Oxidation Algicide	84 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.

**Facility : DISTRIBUTION CENTER - ARGO, IL****Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L

**Facility : ST. GABRIEL, LA****Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquid - Technical Grade	Disinfection & Oxidation	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the



finished drinking water to ensure compliance to all applicable regulations.

### **Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda-Liquid, All Grades	Corrosion & Scale Control pH Adjustment	200 mg/L.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.

**Facility :** HENDERSON, NV

### **Chlorine[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Chlorine, Liquid - Technical Grade	Disinfection & Oxidation	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

### **Hydrochloric Acid**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid - All Grades	Corrosion & Scale Control pH Adjustment	40 mg/L

### **Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Liquid, All Grades	Corrosion & Scale Control pH Adjustment	100 mg/L

### **Sodium Hypochlorite[CL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Bacti-Chlor 11%	Disinfection & Oxidation Algicide	96 mg/L
Bacticide 12.5%	Disinfection & Oxidation Algicide	84 mg/L
L.T Sanitizer 5.25%	Disinfection & Oxidation Algicide	200 mg/L
L.T. Sanitizer 9.2%	Disinfection & Oxidation Algicide	114 mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation Algicide	84 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.



**Facility :** DISTRIBUTION CENTER - ELIZABETH, NJ**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda, Liquid - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L

**Facility :** DISTRIBUTION CENTER - PETERSBURG, VA**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Caustic Soda Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Caustic Soda Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L
Sodium Hydroxide Solution, 25% - All Grades	Corrosion & Scale Control pH Adjustment	200mg/L
Sodium Hydroxide Solution, 50% - All Grades	Corrosion & Scale Control pH Adjustment	100mg/L

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