

# STATE OF DELAWARE



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## ***DELAWARE HEALTH AND SOCIAL SERVICES***

DIVISION OF MANAGEMENT SERVICES

*"DMS - Serving Those Who Serve Delaware"*

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### **SPECIFICATIONS AND CONTRACT DOCUMENTS NO. 7246**

**FOR**

**Ion Chromatograph System with an Autosampler**

**Required for Use By**

**Division of Public Health Laboratory  
30 Sunnyside Road  
Smyrna, DE 19977**

<b>Deposit</b>	WAIVED
<b>Performance Bond</b>	WAIVED
<b>Date Due:</b>	<b>August 18, 2008</b> <b>11:00 A.M. Local Time</b>

An **Examination of Site** will be on **Thursday, July 24, 2008** from **9:00 to 9:30 A.M.** No alternate date or time will be available. Directions to the Public Health Laboratory are as follows: <http://www.dhss.delaware.gov/dhss/main/maps/labs/dphlab.htm>

**Vendor questions** concerning specifications will be accepted only via e-mail to [sylvia.adams@state.de.us](mailto:sylvia.adams@state.de.us) no later than **July 28, 2008 at 11:00 A.M.** Written responses will be binding and included in the contract as an addendum. The addendum will be posted on the DHSS website no later than August 6, 2008.

Delaware Health and Social Services  
Main Administration Building – South Loop  
Division of Management Services  
Procurement Branch  
1901 N. DuPont Highway  
New Castle, Delaware 19720

## INVITATION TO BID # 7246

Sealed bids for an Ion Chromatograph System are requested by the Division of Public Health Laboratory, 30 Sunnyside Road, Smyrna, DE 19977.

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Sealed bids will be accepted at:

Delaware Health & Social Services  
Main Administration Building - South Loop  
Division of Management Services, Procurement (Second Floor) - Room # 262  
1901 N. DuPont Highway  
New Castle, Delaware 19720

until **11:00 A.M. local time on August 18, 2008** at which time they will be opened and recorded.

Please review the General Rules and Conditions and the General Requirements, which appear on the DHSS website.

The following forms must be included with your bid:

- 1.) Bidder Signature Form
- 2.) Vendor Certification Form
- 3.) Office of Minority and Women Business Enterprise Form

All of these documents can be accessed on the DHSS website:

<http://www.dhss.delaware.gov/dhss/rfp/dhssrfp.htm>

**PLEASE NOTE:** The following paragraphs from the General Requirements hereby become part of the General Terms and Conditions of this bid.

**1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20a, 21, 23, 24, and 25.**

## NOTE TO VENDORS

- Only one bid will be accepted by a bidder.
- Your bid **must be signed** and all information on the signature page completed. If you do not intend to submit a bid, send an e-mail to the buyer stating that you do not intend to bid on this contract and would like to remain on the mailing list.
- Include a detailed response to the specifications.
- Bid totals must include delivery, installation, warranty, service agreement, training, and/or upgrades or **your bid will not be accepted.**
- Agency will review all bid proposals and evaluate same.
- This bid may be renewed up to three (3) years.

## DELIVERY INSTRUCTIONS

- Your bid must have on the outside envelope the DHSS four (4) digit ITB contract number. IF THIS IS OMITTED YOUR BID WILL IMMEDIATELY BE REJECTED.
- Under no circumstances will a bid be accepted that is late, delivered to the wrong building, signed for by a person other than a member of the procurement staff. To ensure that your bid is in the procurement office on the date and time specified, there are three (3) recommended methods of delivering bid proposals:
  - Hand Delivered
  - Federal Express
  - UPS

## FOR FURTHER BID INFORMATION PLEASE CONTACT:

Buyer: Sylvia T. Adams  
Delaware Health and Social Services  
DMS – Procurement Branch  
Main Bldg., 2nd Floor, Room 262  
1901 N. DuPont Highway  
New Castle, DE 19720  
(302) 255-9297  
sylvia.adams@state.de.us

## **ADDITIONAL TERMS AND CONDITIONS**

### Ordering Procedure:

Successful contractors are required to have either a local telephone number within the (302) area code, a toll free (800) number, or agree to accept collect calls. Each Agency is responsible for placing their orders. This may be accomplished by written purchase order, telephone, fax or computer on-line systems.

### Billing:

The successful vendor is required to "Bill as Shipped" to the respective ordering agency(s). Ordering agencies shall provide at a minimum the contract number, ship to and bill to address, contract name and phone number.

### Payment:

The agencies or school districts involved will authorize and process for payment each invoice within thirty (30) days after the date of receipt. The contractor or vendor must accept full payment by procurement (credit) card and/or conventional check and/or other electronic means at the State's option, without imposing any additional fees, costs or conditions.

### Product Substitution:

All items delivered during the life of the contract shall be of the same type and manufacture as specified unless specific approval is given by DHSS-DMS-Procurement to do otherwise. Substitutions may require the submission of written specifications and product evaluation prior to any approvals being granted.

### Hold Harmless:

The contractor agrees that it shall indemnify and hold the State of Delaware and all its agencies harmless from and against all claims for injury, loss of life or damage to or loss of use of property cause or alleged to be caused by acts or omissions of the contractor, its employees and invitees on or about the premises and which arise out of the contractor's performance or failure to perform as specified in the Agreement.

### Force Majeure:

Neither the contractor nor the ordering Agency shall be held liable for non-performance under the terms and conditions of this contract due, but not limited to, government restriction, strike, flood, fire or unforeseen catastrophe beyond either party's control.

Each party shall notify the other in writing of any situation that may prevent performance under the terms and conditions of this contract.

Licensing and Permits

The awarded vendor acknowledges and accepts full responsibility for securing and maintaining all licenses and permits, including the Delaware business license, as applicable and required by law, to engage in business and provide the goods and/or services to be acquired under the terms of this contract. The vendor acknowledges and is aware that Delaware law provides for significant penalties associated with the conduct of business without the appropriate license.

To obtain a license to perform work in the State of Delaware, call (302) 744-1085 and request an application. Include a copy of your current business license with your proposal. Non-profits agencies must include a copy of form 501C.

Vendor Emergency Response Point of Contact

The awarded vendor(s) shall provide the contact person's name, address, telephone number and/or cell phone number of those individual(s) who can be contacted twenty-four (24) hours a day, seven (7) days a week where there is a critical need for commodities or services when the Governor of the State of Delaware declares a State of Emergency under the Delaware Emergency Operations Plan of April 2005. Failure to provide this information could render the bid as non-responsive.

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

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

Cell Phone Number: \_\_\_\_\_

**ITEM DESCRIPTION:** An Ion Chromatograph System with an Autosampler

Listed below are the specifications and special criteria necessary for an ion chromatograph system with an autosampler system. Provide a detailed written response for each item in your proposal, including list of equipment needed to run the tests proposed, including but not limited to, instruments, processors, software, and uninterrupted power supply (UPS) hardware needs.

When determining costs, indicate which components are included in the total cost. For each section, cost should be based on the individual components, including training estimates for on-site and vendor site training programs. All bids must include software and hardware interface and a three (3) year service contract for two (2) day or less response. Vendors may only bid on the whole system, that is, the ion chromatograph system with an autosampler. Only one (1) written bid including a detailed response to each item per vendor will be accepted.

Responses should be detailed and written and address how the system and/or component will meet or exceed each item in the proposal, including training, service contracts, maintenance agreements and warranty. If the proposed system is unable to meet an item specification, note "Unable to Meet Specification" with the appropriate item number. Incomplete or omitted items will be considered grounds for rejection of a bid. Each item of each section must be addressed including the component number, instrument ability denoted (range, statement, or numeration) to meet the specification requirement, and cost.

**I. DESCRIPTION:**

The Environmental Chemistry Drinking Water program identifies and quantitates contaminants in drinking water samples from the public and private drinking water supply. Routine testing of Delaware's drinking water supply is a vital issue for DPHL. Analysis of anion levels in the public drinking water supply is mandated by the US EPA Safe Drinking Water Act (SDWA). DPHL has the capability to monitor anions in drinking water.

The methodology of ion chromatography has been developed to detect and quantitate regulated and unregulated anions in environmental samples. This analytical system and methodology has been validated for the detection and quantification of anions. The Delaware Public Health Laboratory seeks to acquire the instrumentation necessary to perform these analyses in drinking water samples.

The instrument proposed shall include the necessary instrumentation, software, hardware, controls, training, maintenance and support to provide a fully functional, semi-automated testing instrumentation for determination of anions in water samples

The ion chromatograph (IC) system should have an approach combining hardware, advanced component control and data analysis software, performance validation tools and high sensitivity into a single integrated unit for bench top usage. Bids will be accepted for an ion chromatograph with an autosampler only. The IC system should provide the source hardware, software, method development service, maintenance and support our laboratory needs to maintain our laboratory productivity and rapid, accurate assessment and reporting. Delaware Public Health Laboratory is expected to participate in a minimum of one proficiency test per year as well as routine samples from both the private and public drinking water supply with an estimated minimum sample load of 3500 individual samples.

The instrument proposed shall include the necessary training, and support to provide a fully functional, semi-automated testing instrumentation. This instrument will utilize standardized methods generated by Environmental Protection Agency (EPA) and other related agencies or programs. These methods are not available outside governmental partners without formal, written consent of the governing agency.

## **II. SPECIFICATIONS:**

Below are descriptions of the components of the instrument for laboratory testing required. Each section will be awarded from a single vendor if the unit meets all specifications.

Definitions:

System = the combination of equipment, computers, printers, and software, programming, needed to perform desired testing, independent of state network.

IC = Ion Chromatograph

The IC system should provide ion chromatography and have an approach combining hardware, advanced component control and data analysis software, performance validation tools and high sensitivity into a single integrated unit for bench top usage. Bids will be accepted for the IC system only.

The IC system should provide the hardware, software, method development, service and support that our laboratory needs to maintain our laboratory quality, productivity, and, rapid, accurate assessment and reporting.

### **1. Ion Chromatograph (IC)**

- 1.1. The ion chromatograph system must be a totally integrated and preconfigured ion chromatograph consisting of a pump, conductivity detector, conductivity cell, column heater, electrolytic eluent generation, suppressor, injector, columns and data system (i.e., computer, software, printer). The system must include an autosampler and chromatography software used to generate data.

- 1.2. The system must have inert components throughout the system.
- 1.3. The pump must be controlled through a microprocessor; the pump must be variable speed.
- 1.4. The system must allow for the user to select high and low pressure limits to automatically stop the pump in the event of a leak, flow restrictions, blockages or empty reservoirs.
- 1.5. The system must have a microprocessor-controlled digital signal processor conductivity detector.
- 1.6. The system must have a heated and thermostated high performance conductivity detection cell which permits conductivity measurements that are unaffected by temperature variation for improved reproducibility. The cell temperature must be settable in 1°C increments from ambient +7 °C to 55 °C and have a stability of ≤0.01 °C.
- 1.7. The system must have a column heater. The column heater should provide day to day consistency that should ensure reproducibility and stability.
- 1.8. Must provide for electrolytic isocratic and gradient eluent generation. Electrolytic eluent generation converts deionized water into high purity eluents on-line. Electrolytic eluent generation is capable of delivering hydroxide eluents for anion separations and methanesulfonic acid eluents for cation separations. Electrolytic eluent generation minimizes time, labor, operation costs, and eluent preparation errors.
- 1.9. Must have a continuously regenerated trap column to reduce lower baseline drift.
- 1.10. Must have built in controls for the electrolytic suppressors.
- 1.11. Suppressor device must not cause retention time shifts due to suppressor becoming expended during normal operation
- 1.12. Suppressor must not require the use of extra pumps, valves or solid phase reagents to achieve eluent suppression.
- 1.13. The system must be user friendly and have an easy access door to chromatography components.
- 1.14. The system must have preloaded application templates for all instrument parameters.
- 1.15. The system must have an electronic logbook, which provides monitoring of operator-selectable key operational parameters.
- 1.16. The system must utilize optical leak detection and management to allow fast response to system leaks.
- 1.17. The system must be able to operate in stand-alone mode.
- 1.18. The system must have an LCD touch-pad front panel, which provides clear identification of key operating parameters permitting “at instrument” control and monitoring.
- 1.19. Must have an eluent valve to provide positive shut-off of eluent flow prior to the pump for easy servicing.
- 1.20. The system must have the capacity for informative self-diagnostics and error messages.

- 1.21. The system must have an autosensing power supply.
- 1.22. The system must be a benchtop IC capable of running 60 samples of each analyte upon notification with minimal startup time and hands-on processing by one (1) Chemist.
- 1.23. The IC system must be capable of performing routine analysis of anions as per EPA method 300.0. The system will be set-up on site to separate, detect and quantitate at least seven anions analyzed by the lab.
- 1.24. IC system must be programmable.
- 1.25. IC system must meet all analytical specifications for testing drinking water samples as per EPA method 300.0 and must be controlled by a microprocessor.
- 1.26. IC system must be capable of detecting and quantitating routinely 0.1 ppm or less of the primary anions (i.e., nitrate, nitrite and fluoride) analyzed by the laboratory. Vendor must supply the method detection limits for these anions.
- 1.27. The system should be able to print and electronically store calibration and validation reports for use in QA/QC documentation.
- 1.28. Included must be a validation kit to check precision, accuracy, slope, linearity, and dynamic range. The vendor must indicate resolution and sensitivity for the proposed instrument.
- 1.29. Included should be a calibration kit to perform daily automatic calibration procedures permitting the standardization from day-to-day and instrument-to-instrument runs.
- 1.30. IC system should be able to track kit controls, in-house controls, and EPA controls.
- 1.31. IC system should provide the user the ability to produce daily, weekly and periodic reports by lot number, date or other parameter.
- 1.32. IC system must provide rapid and simple export of data in multiple formats (including comma delimited) for records and reporting of results on a variety of platforms.
- 1.33. Onsite installation, including system verification must be included.
- 1.34. Vendor must address the system's capability to satisfactorily produce acceptable data as per EPA method 300.0 during periods of ambient temperature fluctuations.
- 1.35. Vendor must provide all upgrades to equipment, hardware and reagents for period of the contract.

## **2. IC System Manager Software**

- 2.1. The IC manager software must be able to simplify sample and method template setup, to acquire the method/sample data, and to perform data analysis without having to transfer data into add-on software applications. Data processing will include simultaneous calculation of concentrations and correlation coefficient for all analytes. Standard curves will be generated using a variety of curve fitting routines to

accommodate all types of data.

- 2.2. The software must be programmable to adapt and operate EPA method 300.0. The software must have the capability to print out a batch schedule and to convert data to Laboratory Information Management Systems (LIMS).
- 2.3. LIMS component to the ion chromatograph system and manager software:
  - 2.3.a. The instrument must be able to be interfaced with the laboratory's LIMS system such that data will be automatically uploaded to the LIMS system from the instrument.
  - 2.3.b. The preferred method to interface the instrument to the LIMS system is with ASTM method 1381 and ASTM method 1394.
  - 2.3.c. The less preferred method to interface the instrument to the LIMS system is to export data in a format with sample ID, test ID and result in one record for each analyte.
- 2.4. The vendor must provide specifications on how they will accomplish this at least 6 weeks prior to delivery of instrument.
- 2.5. The IC manager software must be designed to make acquisitions, to process and to report the data.
- 2.6. Software must automatically generate reports at the conclusion of a run showing concentrations in parts per million. The reports and chromatograms must be printed and exported in a common comma-delimited format.
- 2.7. The software should have the ability to allow ready transfer of data to a variety of formats.
- 2.8. The IC manager software should display real-time data as it is generated as a display.
- 2.9. The IC manager software should perform instrument calibration and validation. The analysis should be able to discriminate between potential instrumentation and sample problems.
- 2.10. The IC manager software should be able to monitor instrument

functionality.

- 2.11. The manager software should function properly in stand alone mode as well as when networked within the state system and able to transfer data via internet access for rapid upload and download of data and be compatible with the laboratory's LIMS as part of day to day reporting and functioning.
- 2.12. The printer, software, and computer provided by the company should all be compatible and function properly stand alone as well as when networked within the state system and internet environment. This unit must be capable of utilizing Windows XP as an operating system and compatible with anti-virus software.
- 2.13. The IC unit must provide common functions automatically including startup, run, shutdown, calibration and rinses between samples, end of run, etc.
- 2.14. The software of the IC unit should provide a quick guide and user friendly method and sample setup for method protocol files.
- 2.15. The IC unit must provide the user the ability to develop new methods and an easy troubleshooting interface.

### **3. Autosampler**

- 3.1. The autosampler must have at least 60 sample capacity
- 3.2. The autosampler must have the ability to inject the sample.
- 3.3. The autosampler must be controlled by manager software.

### **III. SPECIAL CRITERIA:**

#### **A. MAINTENANCE AGREEMENT must include:**

- a. Telephone technical support for problem solving with availability within three (3) hours Monday – Friday 8:00 am – 6:00 pm EST
- b. If unsolvable by telephone, then on-site Technical Service available to correct the problem(s)

- c. On-site Technical Service response within two (2) to four (4) working days, Monday – Friday 8:00 am – 6:00 pm EST
- d. Three year maintenance agreement for all components of the system. This laboratory is required to be available 24/7; any downtime severely affects state and national response capabilities. Agreement on any optional term must be in writing from both the contractor(s) and the Division of Public Health.
- e. The maintenance agreement may be renewed for additional one-year periods under the same terms and conditions and must be initiated no later than ninety (90) days prior to the termination of the current agreement.

## B. WARRANTY

- a. The warranty must include all services necessary to maintain the instrument for the period of the CONTRACT. This includes all travel, parts, labor, and software updates. Hardware updates will be prorated based on the availability to market versus the application need.
- b. A factory-trained engineer must provide Service. Telephone response time must be within 3 working hours of contact and on-site response must be no greater than 2 to 4 working days including delivery of necessary repair parts.

## C. SERVICE AND SUPPORT

- a. All hardware must be modular so that repairs can be performed by modular replacement of major components (i.e., power supplies, optics, computer boards) rather than by individual component trouble shooting and repair in order to minimize repair time.
- b. Applications support must be provided in a timely manner with telephone call back within 3 working hours of initial contact.
- c. On-site technical support and repair must be available within two working days of notification.
- d. Instrument must be able to support multiple functional software platform needs (FDA methods, laboratory LIMS system, etc.)

## D. DELIVERY AND INSTALLATION

- a. Delivery of all necessary equipment must be guaranteed to occur no later than 90 days after submission of purchase order or earlier by specific arrangement. Installation must occur no later than 10 working days after notification of site readiness by the vendor.

- b. All extraneous cables, gauges, parts, accessories, including any and/or all accessories must be supplied such that the instrument is immediately operational upon installation.
- c. Installation must include the entire instrument set-up and introductory training of up to four Public Health Laboratory staff members. The introductory training must be sufficient to operate and maintain the instrument.
- d. Installation will not be considered complete until the IC is “ready to go” that is, after standards are run, chromatograms are generated and reports printed. This would include optimization of the application (EPA method 300.0).
- e. Onsite installation, including system verification, must be included.

#### E. TRAINING

- a. On site custom training focusing on EPA method 300.0 must be adequate to ensure that staff has a thorough understanding of the equipment, materials and processes to be used in the services provided under this agreement. Additional instrument training and theory must be available at either a vendor site or on site. The training must include advanced troubleshooting, maintenance, operation, software, data processing and manipulation should also be detailed and included.
- b. Vendor must provide Ion Chromatography Instrument Theory and Training Course(s) offered by vendor at vendor’s site, vendor related facility or our lab site for at least 2 DPHL staff. This is separate from on-site installation and familiarization.
- c. Vendor must detail integrated instrument troubleshooting, basic method development, instrument operations, and data analysis and reporting.
- d. The quotation price should include hands-on training on-site for a minimum of two (2) staff of DPHL, given by field application specialist of the company without further charge. It should include all extraneous cables, gauges, parts, accessories, including any and/or all accessories, at no charge to get the DPHL started on its first assays including detailed start-up procedures. These course(s) may be held at vendor facilities.

#### F. FINAL ACCEPTANCE BY PUBLIC HEALTH LABORATORY

**No payment for the materials will be processed until the Division of Public Health personnel is satisfied that the complete system is functioning**

according to these specifications and has the capability to process EPA method 300.0 to the expected performance.

**REMARK: PLEASE ADHERE TO THE ABOVE SPECIFICATIONS AS LISTED  
IN THIS COMPETITIVE SEALED BID. DEVIATIONS FROM THESE  
SPECIFICATIONS WILL NOT BE ACCEPTED.**

**TOTAL COST PAGE**  
(Must be all inclusive)

Bid # **7246**

Vendor Name: \_\_\_\_\_

Product(s) Cost	\$ _____
Delivery Cost:	\$ _____
Installation:	\$ _____
Service agreement:	\$ _____
Training:	\$ _____
Warranty:	\$ _____
Upgrades:	\$ _____
Other: _____	\$ _____
<b>Total Cost:</b>	<b>\$ _____</b>

All Bidders:

Please include 2 Originals and 4 Copies of each of your bids. This should include any pamphlets, or additional materials you want to be taken into consideration.