

**INVITATION TO BID**

Bid Invitation Number: #111-2012

Date of Issue: 8/02/2012

Sealed bids will be received in the office of the Division of Central Purchasing, 200 East Main Street, Lexington, Kentucky, until **2:00 PM**, prevailing local time on **8/16/2012**. Bids must be received by the above-mentioned date and time. Mailed bids should be sent to:

Division of Central Purchasing  
200 East Main Street, Rm 338  
Lexington, KY 40507, (859) 258-3320

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

All bids must have the company name and address, bid invitation number, and the commodity/service on the outside of the envelope.

Bids are to include all shipping costs to the point of delivery located at: 469 Parkway Drive, Lexington, KY 40504


Bid Security Required: \_\_\_ Yes X No      Performance Bond Required: \_\_\_ Yes X No  
*Cashier Check, Certified Check, Bid Bond (Personal checks and company checks will not be acceptable).*

<b>Commodity/Service</b>
<b>Picadome Pump Station Air Scrubber Media Removal, Disposal &amp; Replacement</b>
See specifications

<p align="center"><b>Check One:</b></p> <p>___ Bid Specifications Met</p> <p><u>✓</u> Exceptions to Bid Specifications. <i>Exceptions shall be itemized and attached to bid proposal submitted.</i></p>	<p align="center"><b>Proposed Delivery:</b></p> <p><u>14</u> days after acceptance of bid.</p>
<p align="center"><b>Procurement Card Usage</b></p> <p>___ Yes The Lexington-Fayette Urban County Government will be using Procurement Cards to purchase goods and services and also to make payments. Will you accept Procurement Cards?</p> <p><u>✓</u> No</p>	

Submitted by: Prominent Systems, Inc  
Firm  
13095 E. Temple Av  
Address  
City of Industry, CA 91746  
City, State & Zip

**Bid must be signed:  
(original signature)**

 / Manager  
**Signature of Authorized Company Representative – Title**  
Dan Indrasena  
Representative's Name (Typed or printed)

832-538-0922      832-553-2584  
Area Code - Phone - Extension      Fax #

dan@prominentinc.com  
E-Mail Address

**The Affidavit in this bid must be completed before your firm can be considered for award of this contract.**

**AFFIDAVIT**

Comes the Affiant, Thilan D. Indrasena, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Thilan D. Indrasena and he/she is the individual submitting the bid or is the authorized representative of Prominent Systems, Inc

the entity submitting the bid (hereinafter referred to as "Bidder").

2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.

3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.

4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.

5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.

6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

Thilan D. Indrasena

August 16, 2012

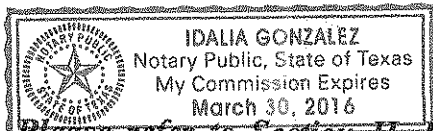
STATE OF TEXAS

COUNTY OF HARRIS

The foregoing instrument was subscribed, sworn to and acknowledged before me

by IDALIA GONZALEZ on this the 15<sup>th</sup> day of August, 2012.

My Commission expires: MARCH 30, 2016



Idalia Gonzalez  
NOTARY PUBLIC, STATE AT LARGE

~~Please refer to Section II. Bid Conditions, Item "U" prior to completing this form.~~

## **I. GREEN PROCUREMENT**

### **A. ENERGY**

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to [www.Energystar.gov](http://www.Energystar.gov)). If these products are available, but not submitted in your pricing, your bid will be rejected as non-compliant.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

#### Key Benefits

These products use 25 to 50% less energy  
Reduced energy costs without compromising quality or performance  
Reduced air pollution because fewer fossil fuels are burned  
Significant return on investment  
Extended product life and decreased maintenance

### **B. GREEN SEAL CERTIFIED PRODUCTS**

The Lexington-Fayette Urban County Government is also committed to using other environmentally friendly products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to [www.Greenseal.org](http://www.Greenseal.org) to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be pre-approved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

### **C. GREEN COMMUNITY**

The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.

**If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?**

Yes  No

## II. Bid Conditions

- A. No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Central Purchasing may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Central Purchasing.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject any and all bids for either fiscal or technical reasons, and to award each part of the bid separately or all parts to one vendor.
- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Central Purchasing. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- I. Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time will not be considered.
- J. All bids mailed must be marked on the face of the envelope:

**"Bid on #111-2012 Picadome Pump Station Air Scrubber Media Removal, Disposal & Replacement"**

and addressed to:      Division of Central Purchasing  
   200 East Main Street, Room 338  
   Lexington, Kentucky 40507

**The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.**

- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified check or Bid Bond in the amount of XX percent of the bid price must be attached hereto. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth in this bid, it is agreed the certified check may be cashed and the funds retained by the Lexington-Fayette Urban County Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.
- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.
- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.
- S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.
- T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*

- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

**KRS 45.610. Hiring minorities - Information required**

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

**KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor**

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

*Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.*

KRS 45.640 Minimum skills

*Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.*

It is recommended that all of the provisions above quoted to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

- U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

- (1) *Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341 (unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and*
- (2) *Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.*

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

- V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.



Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

EQUAL OPPORTUNITY AGREEMENT

The Law

Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.

Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.

Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.

Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

\*\*\*\*\*

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.

[Signature]
Signature

Prominent Systems, Inc
Name of Business

WORKFORCE ANALYSIS FORM

Name of Organization: Prominent Systems, Inc Date: 8/15/12

Categories	Total	White		Latino		Black		Other		Total	
		M	F	M	F	M	F	M	F	M	F
Administrators	3	-	-	-	-	-	-	3	-	3	-
Professionals											
Superintendents											
Supervisors	3	1	-	1	-	-	-	2	-	5	-
Foremen	1	-	-	-	-	-	-	1	-	1	-
Technicians	5	4	-	2	-	-	-	2	-	5	-
Protective Service											
Para-Professionals											
Office/Clerical	2	-	-	-	-	-	-	1	1	2	
Skilled Craft											
Service/Maintenance											
Total:											

Prepared by: Dan Andrasena / Manager  
 Name & Title

**DIRECTOR, DIVISION OF CENTRAL PURCHASING  
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
200 EAST MAIN STREET  
LEXINGTON, KENTUCKY 40507**

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION**

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this contract be subcontracted to MBE/WBE's. The goal for the utilization of certified MBE/WBE's as subcontractors are recommended goals. Contractors who fail to meet such goals will be expected to provide written explanations to the Director of the Division of Central Purchasing of efforts they have made to accomplish the recommended goals and the extent to which they are successful in accomplishing the recommended goals will be a consideration in the procurement process.

For assistance in locating MBE/WBE Subcontractors contact Marilyn Clark at 859/258-3320 or by writing the address listed below:

Marilyn Clark, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street – Room 338  
Lexington, Kentucky 40507

**Lexington-Fayette Urban County Government  
MBE/WBE Participation Goals**

**PART 1 - GENERAL**

- 1.1 The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE) and Woman-Owned (WBE) Business Enterprises as subcontractors or suppliers in their bids.
- 1.2 Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned and Woman-Owned Businesses on this contract.
- 1.3 **It is therefore a request of each Bidder to include in its bid, the same goal (10%) or for MBE/WBE participation and other requirements as outlined in this section.**

**PART 2 - PROCEDURES**

- 2.1 The successful bidder will be required to report to the LFUCG, the dollar amounts of all purchase orders submitted to Minority-Owned or Woman-Owned subcontractors and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report)
- 2.2 Replacement of a Minority-Owned or Woman-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MBE/WBE Firm; this is subject to approval by the LFUCG. (See LFUCG MBE/WBE Substitution Form)
- 2.3 For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
  - A. The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 2.4 The LFUCG will make every effort to notify interested MBE/WBE subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

**PART 3 - DEFINITIONS**

- 3.1 A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned and operated by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.
- 3.2 A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned and operated by one or more Non-Minority Females.

#### PART 4 - OBLIGATION OF BIDDER

- 4.1 **The bidder shall make a Good Faith Effort to achieve the Participation Goal for MBE/WBE subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.**
- 4.2 Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 4.3 The Form of Proposal includes a section entitled "MBE/WBE Participation Form". The applicable information must be completed and submitted as outlined below.
- 4.4 **Failure to submit this information as requested may be cause for rejection of bid.**

#### PART 5 - DOCUMENTATION REQUIRED

- 5.1 Bidders reaching the Goal are required to submit only the "MBE/WBE Participation Form." The form must be fully completed including names and telephone number of participating MBE/WBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 5.2 Bidders not reaching the Goal must submit the "MBE/WBE Participation Form", the "MBE Quote Summary Form" and a written statement documenting their Good Faith Effort to do so (If bid includes no MBE/WBE participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder may submit the following as proof of Good Faith Efforts to meet the Participation Goal:
  - A. Advertisement by the bidder of MBE/WBE Contracting opportunities associated with this bid in at least two (2) of the following:
    1. A periodical in general circulation throughout the region
    2. A Minority-Focused periodical in general circulation throughout the region
    3. A Trade periodical aimed at the MBE/WBE community in general circulation throughout the region
    4. Bidder shall include copies of dated advertisement with his submittal
  - B. Evidence of written notice of contracting opportunities to at least five (5) MBE/WBE firms serving the construction industry at least seven (7) days prior to the bid opening date.
  - C. Copies of quotations submitted by MBE/WBE firms which were not used due to uncompetitive pricing or other factors and/or copies of responses from firms that were contacted indicating that they would not be submitting a bid.

- D. Documentation of Bidder's utilization of the agencies identified to help locate potential MBE/WBE firms for inclusion on the contract including responses from agencies.
- E. Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement. "Record of MBE/WBE Solicitation" and other required documentation of Good Faith Efforts are to be submitted with the bid, if participation Goal is not met.



## MINORITY BUSINESS ENTERPRISE PROGRAM

Marilyn Clark  
Minority Business Enterprise Liaison  
Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, KY 40507  
[mclark@lexingtonky.gov](mailto:mclark@lexingtonky.gov)  
859-258-3323

**OUR MISSION:** The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented resolution 167-91—Disadvantaged Business Enterprise (DBE) 10% Goal Plan in July of 1991. The resolution states in part (a full copy is available in Central Purchasing):

*"A Resolution supporting adoption of the administrative plan for a ten percent (10%) Minimum goal for disadvantaged business enterprise participation in Lexington-Fayette Urban County Government construction and professional services contracts; Providing that as part of their bids on LFUCG construction contracts, general Contractors shall make a good faith effort to award at least ten percent (10%) of All subcontracts to disadvantaged business enterprises; providing that divisions of LFUCG shall make a good faith effort to award at least ten percent of their Professional services and other contracts to disadvantaged business enterprises..."*

A Disadvantaged Business Enterprise is defined as a business at least 51% owned, operated and managed by a U.S. Citizen of the following groups:

- African-American
- Hispanic-American
- Asian/Pacific Islander
- Native American/Native Alaskan
- Non-Minority Female

We are very happy that you have decided to bid for a contract, request for proposal, submitted a quote or are interested in learning more about how to do business with Lexington-Fayette Urban County Government. We have compiled the list below to help you locate certified minority vendors.



**LFUCG—Economic Engine Listings**

Marilyn Clark  
[mclark@lexingtonky.gov](mailto:mclark@lexingtonky.gov)  
859-258-3323

**Commerce Lexington—**

Tyrone Tyra, Minority Business Development  
[tyra@commercelexington.com](mailto:tyra@commercelexington.com)  
859-226-1625

**Tri-State Minority Supplier Diversity Council**

Sonya Brown  
[sbrown@tsmsdc.com](mailto:sbrown@tsmsdc.com)  
502-625-0137

**Small Business Development Council**

Dee Dee Harbut /UK SBDC  
[ddharbut@uky.edu](mailto:ddharbut@uky.edu)

Shawn Rogers, UK SBDC  
[Shawn.rogers@uky.edu](mailto:Shawn.rogers@uky.edu)

Shiree Mack  
[smack@uky.edu](mailto:smack@uky.edu)

**Community Ventures Corporation**

James Coles  
[jcoles@cvcky.org](mailto:jcoles@cvcky.org)  
859-231-0054

**Kentucky Department of Transportation**

Shella Jarvis  
[Shella.Jarvis@ky.gov](mailto:Shella.Jarvis@ky.gov)  
502-564-3601

**KPAP**

Debbie McKnight  
[Debbie.McKnight@ky.gov](mailto:Debbie.McKnight@ky.gov)  
800-838-3266 or 502-564-4252

Bobbie Carlton  
[Bobbie.Carlton@ky.gov](mailto:Bobbie.Carlton@ky.gov)

**Ohio River Valley Women's Business Council**

Rea Waldon  
[rwaldon@ecul.org](mailto:rwaldon@ecul.org)  
513-487-6534

**Kentucky Small Business Connect**

Tom Back  
800-626-2250 or 502-564-2064  
<https://secure.kentucky.gov//sbc>

**National Minority Supplier Development Council, Inc.  
(NMSDC)**

[www.nmsdc.org](http://www.nmsdc.org)



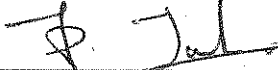
**LFUCG MBE/WBE PARTICIPATION FORM**

Bid/RFP/Quote Reference # 111-2012

The MBE/WBE subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately

MBE/WBE Company, Name, Address, Phone, Email	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. NA (No subcontractors on site work)			
2.			
3.			
4.			

The undersigned company representative submits the above list of MBE/WBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

  
\_\_\_\_\_  
Company  
8/15/12  
\_\_\_\_\_  
Date

Dan Indresens  
\_\_\_\_\_  
By  
Manager  
\_\_\_\_\_  
Title



**LFUCG MBE/WBE SUBSTITUTION FORM**

Bid/RFP/Quote Reference # \_\_\_\_\_

The substituted MBE/WBE subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project.

SUBSTITUTED MBE/WBE Company Name, Address, Phone, Email	MBE/WBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.  NA					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Title



**MBE QUOTE SUMMARY FORM**

Bid/RFP/Quote Reference # 111-2012

The undersigned acknowledges that the minority subcontractors listed on this form did submit a quote to participate on this project.

Company Name <u>Prominent Systems</u>	Contact Person <u>Dan Indrasen</u>
Address/Phone/Email <u>8910 Lawndale St Unit E Houston, TX 77012</u>	Bid Package / Bid Date <u>111-2012</u> <u>8/16/12</u>

MBE/WBE Company Address	Contact Person	Contact Information (work phone, Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female
<u>NA</u>	<u>NA</u>	<u>NA</u>					

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Prominent Systems Inc  
Company  
8/15/12  
Date

Dan Indrasen  
Company Representative  
Manager  
Title



## LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MBE/WBE vendors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Bid/RFP/Quote # 111 - 2012  
 Total Contract Amount Awarded to Prime Contractor for this Project \_\_\_\_\_

Project Name/ Contract #	Work Period/ From: _____ To: _____
Company Name:	Address:
Federal Tax ID:	Contact Person:

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date
NA	NA						

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

NA

\_\_\_\_\_  
 Company Company Representative

\_\_\_\_\_  
 Date Title



**LFUCG STATEMENT OF GOOD FAITH EFFORTS**

Bid/RFP/Quote # \_\_\_\_\_

By the signature below of an authorized company representative, we certify that we have utilized the following methods to obtain the maximum practicable participation by minority and women owned business enterprises on the project. Please indicate which methods you used by placing an X in the appropriate place.

- \_\_\_\_\_  Attended LFUCG Central Purchasing Economic Inclusion Outreach Event
- \_\_\_\_\_  Sponsored Economic Inclusion event to provide networking opportunities
- \_\_\_\_\_  Requested a list of MBE/WBE subcontractors or suppliers from LFUCG Economic Engine
- \_\_\_\_\_  Advertised for MBE/WBE subcontractors or suppliers in local or regional newspapers
- \_\_\_\_\_  Showed evidence of written notice of contracting and/or supplier opportunities to MBE/WBE firms at least seven days prior to the bid opening date
- \_\_\_\_\_  Provided copies of quotations submitted by MBE/WBE firms which were not used and/or responses from firms indicating they would not be submitting a quote
- \_\_\_\_\_  Provided plans, specifications, and requirements to interested MBE/WBE subcontractors
- \_\_\_\_\_  Other  
Please list any other methods utilized that aren't covered above.

No subcontractors used on project for  
on site activities

The undersigned acknowledges that all information is accurate. Any misrepresentations may result termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

**RISK MANAGEMENT PROVISIONS  
INSURANCE AND INDEMNIFICATION**

**Bid #111-2012 --- Picadome Pump Station Air Scrubber Media Removal, Disposal and Replacement**

**INDEMNIFICATION AND HOLD HARMLESS PROVISION**

- (1) It is understood and agreed by the parties that Vendor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Vendor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "Vendor") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) Vendor shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by Vendor's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the Vendor; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, Vendor shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.

**FINANCIAL RESPONSIBILITY**

VENDOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

**INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

**Required Insurance Coverage**

Vendor shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain

similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by Vendor. The cost of such insurance shall be included in any bid:

<u>Coverage</u>	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky. LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products Liability, Environmental Casualty and Pollution Liability endorsements unless deemed not to apply by OWNER.
- d. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- e. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

#### Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

#### Deductibles and Self-Insured Programs

**IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE.** Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of VENDOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be



afforded by first-dollar insurance coverage. If VENDOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, VENDOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

#### Verification of Coverage

VENDOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

#### Right to Review, Audit and Inspect

VENDOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

#### DEFAULT

VENDOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging VENDOR for any such insurance premiums purchased, or suspending or terminating the work.

00353446

## **Picadome Pump Station Air Scrubber Media Removal, Disposal and Replacement**

### **GENERAL**

The LFUCG Division of Water Quality is seeking bids from interested contractors to remove and replace the media from the air scrubber at the Picadome Pump Station. The existing media is to be removed and disposed of and then replaced with an approved odor control media.

The Picadome Odor Control System consists of a Waterlink Barnebey Sutcliffe Odor Control Carbon Adsorption System Model No. OCS-2000-12/24, Serial Number 747199, Carbon Panel Type AT.ST-IX, Flow 2000 cfm.

Media data sheets and specifications must be supplied with bid.

The pump station and air scrubber may be inspected by appointment only. Call Steve Farmer, 859-425-2404 to arrange an inspection.

### **SCOPE OF SERVICES:**

Assess operation of the air scrubber

- Determine efficiency of hydrogen sulfide removal
- Measure airflow and pressure drop across the vessel
- Prepare a short written report of findings

Preventative Maintenance

- Determine integrity of the vessel and ducting
- Inspect media bed for fouling, channeling and/or clogging.

Remove Existing Material

Dispose of Existing Material

- Disposal method and means must be approved by the Division of Water.

Replace Media

- Contractor shall adhere to current OSHA standards when handling odor adsorption media.
- Contractor must submit media specifications along with bid.
- Expect media life must be specified.

- The odor control carbon adsorbed vessel is designed to fill and drain through the top manway/vessel access.
- The vessel was supplied with an initial charge of activated carbon type ST I-X and type AT. The unit was designed to contain a 12" deep bottom bed of activated carbon type AT and a 24" deep top bed of activated carbon type ST I-X.
- The bottom carbon bed consists of approximately 900 pound of type AT activated carbon. To ensure proper distribution, the carbon media must be leveled after each 200 pounds of type AT activated carbon has been charged into the vessel. A long handled broom or wooden hoe must be used to carefully level the carbon and tamp the bed to breakup and possible bridging that may occur.
- Alternative media may be considered if the contractor provides sufficient evidence that their proposal meets current standards. Alternative media bid must be noted in the submittal and media specifications and proposed installation methodology must also be supplied with the bid.
- Once the entire charge of activated carbon type AT has been installed and leveled, the contractor will check the bed depth to ensure that the 12" AT carbon has been properly leveled for the odor control system to perform as designed. When the desired depth and leveling is accomplished, a split polypropylene screen shall be installed. The use of RTV type caulking shall be applied to make certain the two different types of carbon remain separate.
- Next using the same method described above, the top carbon bed of activated carbon type ST I-X will be installed. The top carbon bed consists of approximately 2000 pounds of type ST I-X activated carbon. Once the entire charge of activated carbon type ST I-X is installed and properly leveled, the bed depth will be check to ensure the top bed is 24" deep and properly leveled for the OCS system to perform as designed.
- After installation, the contractor will clean up and remove any residue around the unit and dispose of properly.
- After approximately one week of continuous operation, the contractor will return and conduct an inspection of the carbon bed to ensure the unit is operating correctly. Should any settling occur, the contractor shall level off with new media.

Contractor should only complete one (1) of the bid schedules below:

ACTIVATED CARBON MEDIA

ITEM	BID QUANTITY	UNIT	UNIT PRICE	EXTENSION
Inspect Vessel	1	LS		
Remove Media	1	LS		
Activate Carbon Type ST I-X	2000	LBS		
Activate Carbon Type AT	900	LBS		
<b>TOTAL BID PRICE</b>				

ALTERNATE MEDIA

ITEM	BID QUANTITY	UNIT	UNIT PRICE	EXTENSION
Inspect Vessel	1	LS	\$ 1,500.00	\$ 1,500.00
Remove Media	1	LS	\$ 5,915.00	\$ 5,915.00
Alternate Media 1		LBS	\$ 2.95/lb	\$ 2,655.00
Alternative Media 2 (If needed)		LBS	\$ 2.95/lb	\$ 5,900.00
<b>TOTAL BID PRICE</b>				\$ 15,970.00

The proposed media is equivalent of what's specified. The media has  $H_2S$  removal capacity of 0.2 or greater. Please see the product data sheets.

# NORIT Americas Inc.

The Purification Company



ISO 9001:2000  
FM 36335

## DATASHEET

No. 1230

Jul 2005

### DARCO® H<sub>2</sub>S

GRANULAR ACTIVATED CARBON

DARCO H<sub>2</sub>S is manufactured for vapor phase odor control. It is produced with a proprietary activation process which does not involve impregnants of any kind. DARCO H<sub>2</sub>S is a 4X10 mesh granular carbon.

#### Typical Properties\*

H <sub>2</sub> S Capacity (ASTM D6646-03), g/mL	0.18-0.22
Moisture, % as packed	3
Apparent density, vibrating feed, g/mL	0.37-0.45
lb/ft <sup>3</sup>	23-28
Mesh size (U.S. Sieve Series)	
Greater than 4 mesh (4.76 mm), %	5
Less than 10 mesh (2.00 mm), %	5

\*For general information only, not to be used as purchasing specifications.

#### Packaging/Transportation

Standard package is 40 lb bags, 30 bags per pallet for a net pallet weight of 1200 lbs. An alternate package is a 1000 lb bulk bag.

Activated carbon (NOT REGULATED)

Exempt from DOT, IATA, and IMDG regulations

Import/Export classification: 3802.10.0000 (HS Tariff Classification)

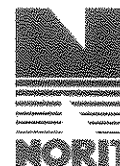
Domestic Freight Classification: NMFC 040560

CAS # 7440-44-0

#### Safety

Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas should be followed. Appropriate protective equipment should be worn. Avoid inhalation of excessive carbon dust. No problems are known to be associated in handling this material. However, the product may contain up to 12% silica (quartz). Long-term inhalation of high dust concentrations can lead to respiratory impairment. Use forced ventilation or a dust mask when necessary for protection against airborne dust exposure (see Code of Federal Regulations - Title 29, Subpart Z, par. 1910.1000, Table Z-3).

(continued on reverse side)



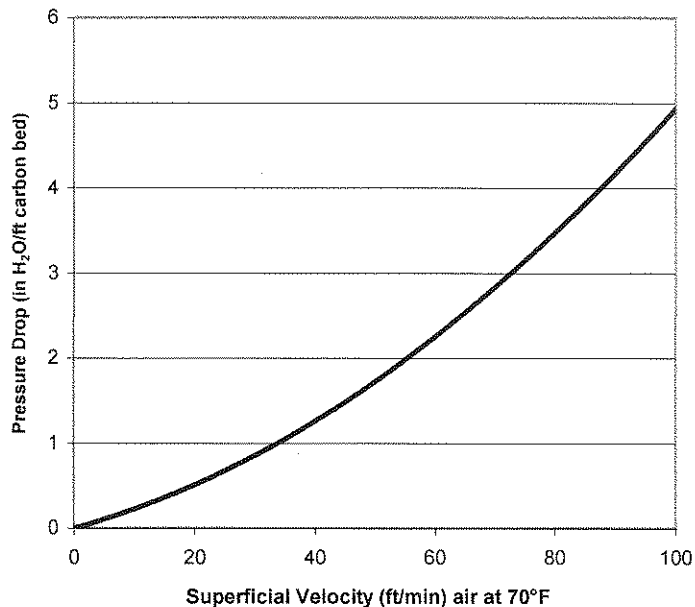
# DATASHEET

No. 1230  
Jul 2005

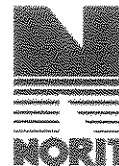
## DARCO® H<sub>2</sub>S (continued)

### Engineering Data

Typical Pressure Drop Chart  
for DARCO H<sub>2</sub>S



Note: Any specification given was valid at time of issuance of the publication. However, we maintain a policy of continuous development and reserve the right to amend any specification without notice.



## TECHNICAL BULLETIN

73-005-TB  
Aug 2007

### Grapevine, TX Case Study Hydrogen Sulfide, Ammonia, and Mercaptan Removal from Air Using DARCO® H<sub>2</sub>S

#### Introduction

Nuisance odors occur in many plant operations. In processes such as wastewater treatment plants (WWTP) and lift stations, where biological activity is present, hydrogen sulfide (H<sub>2</sub>S), ammonia (NH<sub>3</sub>), and mercaptans cause the majority of the odor. Usually, the H<sub>2</sub>S and mercaptans are present in the air stream at about a 9:1 ratio respectively. Human olfactory organs are sensitive to ppb levels of H<sub>2</sub>S and therefore, the removal of the H<sub>2</sub>S generally results in a large decrease in the odor level.

#### Grapevine, TX—A Case Study

The City of Grapevine, TX Waste Water Treatment Plant (WWTP) has fugitive H<sub>2</sub>S odor at its headworks, which is typical for most WWTPs. Initial H<sub>2</sub>S measurements were made at various points at the headworks and these are reflected below. The highest concentration was seen after the headworks at the grit removal system where turbulent mixing occurs.

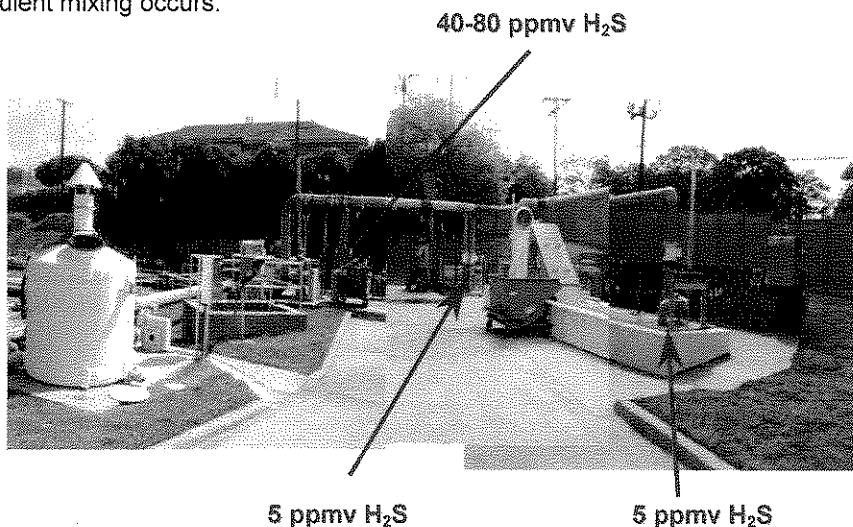


Figure 1. Odor control system located at the Grapevine, TX WWTP.  
H<sub>2</sub>S concentrations measured at various points with the odor control system turned off

Application engineers from Norit Americas Inc. evaluated the plant and concluded that DARCO H<sub>2</sub>S manufactured by Norit Americas Inc. would eliminate the malodor. In early 2005, 1000 lbs of DARCO H<sub>2</sub>S, (approximately half the design bed depth) was installed in the existing odor control unit located near the headworks. At start-up the airflow was approximately 1100 cfm with an inlet H<sub>2</sub>S concentration measured at 20 ppmv, the discharged effluent air from scrubber contained no detectable H<sub>2</sub>S or other odors.

# TECHNICAL BULLETIN

73-005-TB  
Aug 2007

## Operating Conditions and Measurement Equipment

The operating conditions for the Grapevine WWTP odor control unit are summarized in Table 1. The method of measurement is also listed with each of the parameters.

Parameter	Value and Units	Identification/Measurement
Odor Control Product	DARCO H <sub>2</sub> S	Lot 821355
H <sub>2</sub> S Break Through Capacity	0.22 g/cc	ASTM D-6646-03
Media Type	Activated Carbon	Non-Impregnated
Quantity	1000 lbs	
Temperature	20-40 C	DFW Airport
Relative Humidity	30-95%	DFW Airport
Flow Rate	~1100 ACFM	Major Tech MT947 Vane Anemometer
H <sub>2</sub> S Concentration	ppmv	Industrial Scientific 4 Gas Monitor P/N 1705-949
Ammonia Concentration	ppmv	GV-100S & GASTEC NO. 3L
Mercaptans Concentration	ppmv	GV-100S & GASTEC NO. 70L
EBCT	~2 s	Calculated
Bed Diameter	6 ft	P&ID of Equipment
Bed Depth	1.2 ft	Measured

Table 1. Grapevine, TX WWTP odor control system operating conditions

## Results and Discussion

For several months after startup, Grapevine WWTP personnel measured the H<sub>2</sub>S concentration in the influent and effluent of the odor control unit. The data is shown in Figure 2.

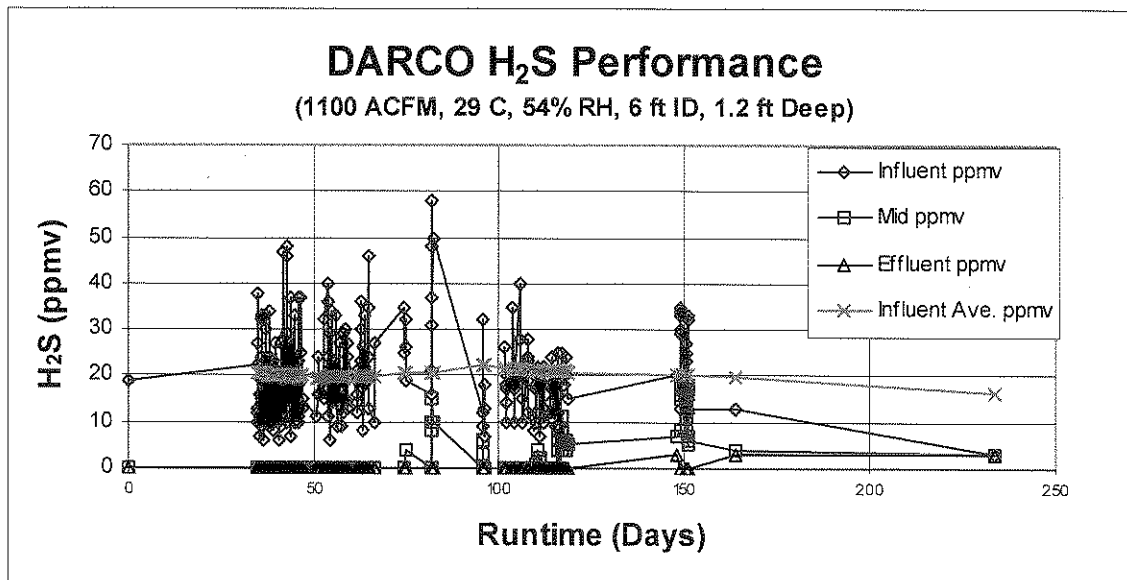


Figure 2. DARCO H<sub>2</sub>S performance data at the Grapevine, TX WWTP



# TECHNICAL BULLETIN

73-005-TB  
Aug 2007

## Ammonia and Mercaptans Measurements

Ammonia and mercaptans were measured several times during the test using GASTEC detector tubes and a GASTEC GV-100S hand operated tube pump. The GASTEC detector tubes indicated trace levels (<1 ppmv) of ammonia and mercaptans in the influent to the odor control unit. Ammonia and mercaptans were undetectable in the output airflow through roughly 170 days of operation. After 150 days of operation, there was no ammonia and only trace detection limit levels of mercaptans in the effluent.

## Conclusions

DARCO H<sub>2</sub>S eliminated the nuisance odor at the City of Grapevine, TX WWTP. Based on the H<sub>2</sub>S concentration in the influent, the airflow rate, and the service life of the carbon bed, the calculated H<sub>2</sub>S loading on the carbon in this plant test is 0.22 g/cc. This high removal efficiency was accomplished using DARCO H<sub>2</sub>S, which is manufactured without the use of any impregnant chemicals. As a result, this eliminates the risk of bed fires in the odor control systems, and the handling/disposal of hazardous spent materials.

The performance of DARCO H<sub>2</sub>S is described as follows by the City of Grapevine:

*"I just wanted to thank you for all...that you have done for my plant...the smell that is usually associated with the headworks area of my plant is completely gone. Even when the odor control system was first installed there was always an odor at the headworks. Even my operators have noticed the absence of the odor since the installation of your product."*

Karl Schlielig—Chief Plant Operator  
City of Grapevine, TX Waste Water Treatment Plant

## Acknowledgements

Norit Americas, Inc. would like to thank the personnel of the City of Grapevine WWTP plant for their tremendous assistance with the measurements and recordings made during this study.