



**ADDENDUM #1**

Bid Number: **#23-2025**

Date: February 18, 2025

Subject: **Sewer Collection System Odor Control Chemical Pilot Testing**

Address inquiries to:  
Brian Marcum  
(859) 258-3320

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following clarifications to the above referenced Bid:

1. The electronic bid opening date has been extended to March 11, 2025, at 2:00 PM EST in lonwave.
2. **The non-mandatory prebid meeting is in person and has been changed to February 26, 2025 at 10:00 AM EST 301 Jimmie Campbell Drive Lexington, Kentucky, due to impending weather.**

Todd Slatin, Director  
Division of Procurement

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: \_\_\_\_\_





**ADDENDUM #2**

Bid Number: **#23-2025**

Date: February 28, 2025

Subject: **Sewer Collection System Odor Control Chemical Pilot Testing**

Address inquiries to:  
Brian Marcum  
(859) 258-3320

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following clarifications to the above referenced Bid:

1. The electronic bid opening date has been extended to March 18, 2025, at 2:00 PM EST in lonwave.

Attached Prebid Powerpoint  
Attached Prebid Sign in Sheet

Todd Slatin, Director  
Division of Procurement

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: John K Butler





**LEXINGTON**

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# **Lexington-Fayette Urban County Government**

**Invitation to Bid #23-2025  
Sewer Collection System Odor Control Chemical Pilot Testing**

**Pre-Bid Meeting 02/26/2025**





## Introductions

- Rick Bowman, Odor Control Manager, City of Lexington
- Sharon Worley, Senior Engineer, Webster Environmental Associates
- Brian Marcum, Procurement Officer Sr., Division of Procurement
- Sherita Miller, Minority Business Enterprise Liaison, Division of Procurement





## General Explanation: What and Why

- Lexington has long sewage force mains that promote the formation of odor causing compounds.
- Lexington currently feeds a nitrate-based chemical at nine pump stations – results are a “mixed bag”.
- Lexington wants to evaluate a variety of products to determine the most cost-effective approach in the reduction of odor/corrosion causing compounds.
- Lexington wants to evaluate feeding chemicals at different locations, including on long force mains using multiple feed locations.





## Expected Outcome From This Advertisement

- All viable proposals will be accepted as a pre-qualified chemical (meaning that chemicals can be tested without further procurement paperwork).
- Viable chemical applications will be considered for pilot testing, with testing to begin in 2025 and continue indefinitely.
- Peak odor season is July 1 to November 1 - pilot testing likely limited to that timeframe.
- Given the limited testing timeframe and potential number of responders, there is no guarantee that your product will be tested in 2025 or in the future.





## What Makes a Proposal “Viable”?

- Documented experience in the municipal or industrial wastewater odor control sector.
- References in the municipal or industrial wastewater odor control sector that can be verified by Lexington.
- Verification that chemical applications proposed will not upset the treatment biological processes.
- NOTE: A separate proposal is required for each product.





## Proposed Plan for Pilot Testing

2025 Goal - Pilot test at least four different proposer's applications. Tentative plan:

### South Elkhorn force main

- Test One - 7/1/25 to 7/30/25
- Test Two - 8/15/25 to 9/15/25
- Test Three - 10/1/25 to 10/30/25

### Lower Cane Run force main

- Test One - 7/1/25 to 7/30/25
- Test Two - 8/15/25 to 9/15/25
- Test Three - 10/1/25 to 10/30/25

PS Name	PS Address	FM Material	FM Length	FM Diameter	No. of ARVs	PS Ave Daily Flow	Ave Detention Time
			feet	inches		gpd	hours
South Elkhorn	2500 Bowman Mill Rd	DI	33,730	36	24	4,000,000	11
Lower Cane Run	1760 Mc Grathiana Pkwy	DI	24,260	30	9	1,100,000	19





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## Scope of Work for Pilot Tests

### LFUCG expects to provide:

- Flat gravel area (approximately 13' x 18')
- At Pump Stations:
  - Power at SE and LCR PSs: two 115V circuits (one 15-20 AMP, one 20-25 AMP)
  - Power at other PSs: 115 VAC, 60Hz, 1 phase
  - Access to wet wells
- At Midpoint on SE FM:
  - Two SS 1" diameter taps into the force main each with a shutoff valve and a check valve

### Vendor to provide:

- Chemical delivery to feed site
- Equipment/materials for safe chemical storage, handling, feeding, & control
- Labor to include mob/demob, maintenance, sampling and monitoring
- Reports





## Division of Procurement Comments

### SCHEDULE

**Bid Close Date: 3/11/2025 2:00 PM (ET)**

**Questions Cut Off: 3/3/2025 4:00 PM (ET)**

**ALL questions must be submitted via Ionwave**

- Award Notices Issued Upon Evaluation Completion & Council Approval
- Pilot Testing Begins – see prior slide
- All submittals and all required information must be submitted electronically in Ionwave, please include all DBE forms completed, and Good Faith Efforts documented.





# QUESTIONS




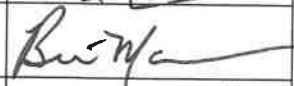
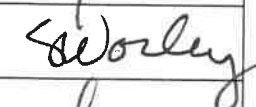



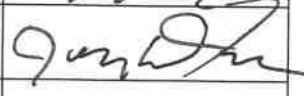


# LEXINGTON

Division of Water Quality  
125 Lisle Industrial Ave., Suite 180  
Lexington, KY 40511

## PRE-BID MEETING FORM

Bid Number	23-2025
Bid Title	Odor Control Chemicals Pilot Study
Date of Pre-Bid	2/26/2025
Time	10:00am

	Name	Contact Info	Signature
Procurement Representative			
DWQ Representative	Rick Bowman	<a href="mailto:rbowman@lexingtonky.gov">rbowman@lexingtonky.gov</a>	
Procurement Representative	Brian Marcum	<a href="mailto:brianm@lexingtonky.gov">brianm@lexingtonky.gov</a>	
WEA – Consultant	Sharon Worley	<a href="mailto:sharon.worley@odor.net">sharon.worley@odor.net</a>	
Xylem/Evoqua	Kenneth Lowery	<a href="mailto:kenneth.lowery@xylem.com">kenneth.lowery@xylem.com</a> 502-480-6704	
USP Technologies	Sammy Stahl	<a href="mailto:stahl@usp-technologies.com">stahl@usp-technologies.com</a>	
SourceE Tech.	MARCUS BULLOCK	<a href="mailto:mbullocc@sourceetech.com">mbullocc@sourceetech.com</a>	
Source Technologies	Jeff Dombroskas	<a href="mailto:jeffd@sourcetechnologiesllc.com">jeffd@sourcetechnologiesllc.com</a>	



**ADDENDUM No. 3**

Bid Number: **#23-2025**

Date: March 10, 2025

Subject: Sewer Collection System Odor Control Chemical  
Pilot Testing

Address inquiries to:

Q&A Module on Ion Wave

Brian Marcum  
[brianm@lexingtonky.gov](mailto:brianm@lexingtonky.gov)  
(859) 258-3325

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following modifications to the above referenced Bid:

**Please see the attached questions and answers.**

Todd Slatin, Director  
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: John K Butler





**LEXINGTON**

Division of Water Quality  
125 Lisle Industrial Ave., Suite 180  
Lexington, KY 40511

**Bid #23-2025 ODOR CONTROL CHEMICALS PILOT STUDY**

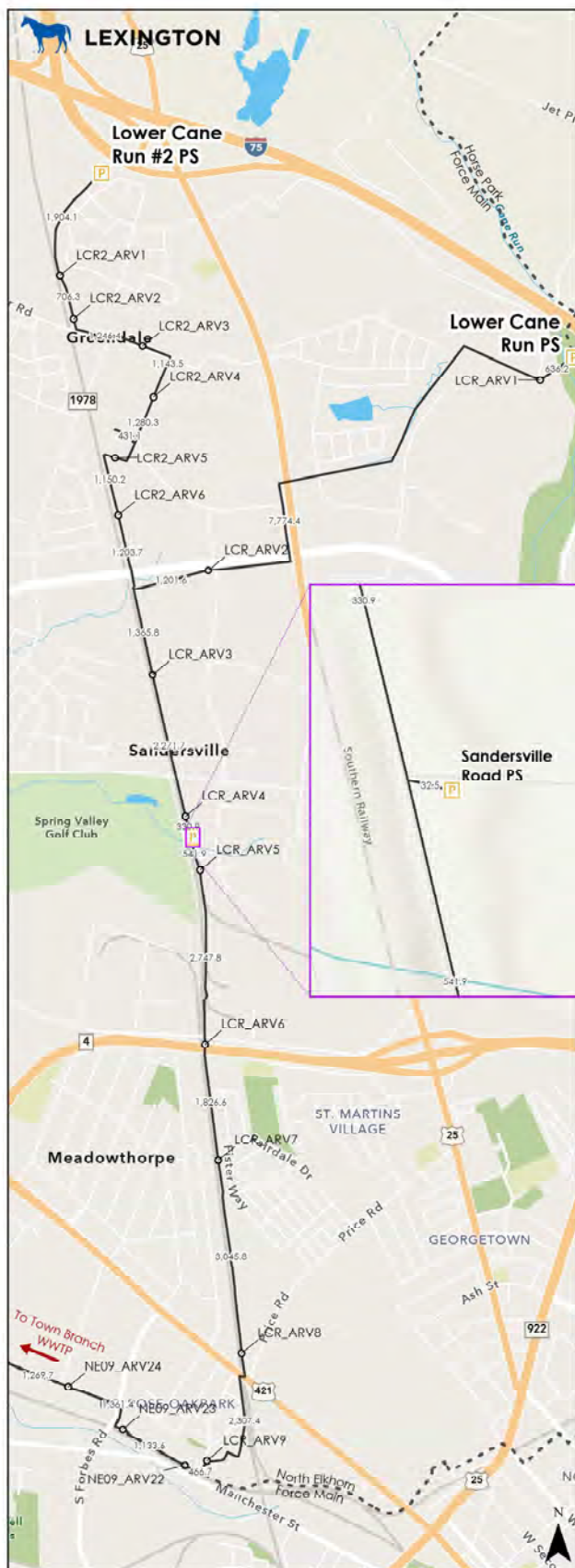
#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
1	<ul style="list-style-type: none"><li>Is the odor control required AT the two sites mentioned OR downstream from them?</li><li>If needed at the two sites, are there stations just ahead that flow into each?</li></ul>	<ul style="list-style-type: none"><li>The chemical would be fed at the PS and may also be fed at the midpoint.</li><li>A schematic of the two FMs is provided in <a href="#">Appendix A</a>.</li></ul>
2	<ul style="list-style-type: none"><li>Are Lower Cane Run and South Elkhorn in series with each other?</li></ul>	<ul style="list-style-type: none"><li>No, they are not in series with each other. See <a href="#">Appendix A</a>.</li></ul>
3	<ul style="list-style-type: none"><li>Will the City use the chemical unit trial price stated here for the trial to be the permanent application price used to award for trial? Less than bulk deliveries affect delivery costs, the trial price is typically higher than a permanent application bulk delivered price.</li></ul>	<ul style="list-style-type: none"><li>Chemical unit trial price would apply only to the specified pilot testing. If any odor control chemicals are to be used by LFUCG for long term solutions, those chemicals would be procured under a separate contract.</li></ul>
4	<ul style="list-style-type: none"><li>How soon must the trials start, after award?</li></ul>	<ul style="list-style-type: none"><li>Proposed schedule for pilot testing was included in Addendum 1.</li></ul>
5	<ul style="list-style-type: none"><li>What is the procedure to get subcontractor approval?</li></ul>	<ul style="list-style-type: none"><li>Preapproval of subcontractors is not done prior to submittal</li></ul>
6	<ul style="list-style-type: none"><li>Is there regular FOG control done (mechanical or chemical), due to blankets forming at the stations or at the plant?</li><li>If so, is it much more at these stations, and downstream of them, than the rest of the collection system?</li></ul>	<ul style="list-style-type: none"><li>Wet Wells are scheduled to be cleaned at LCR-monthly, SELK-Quarterly, Sandersville-Bi-yearly.</li><li>Lexington's FOG control in pump station wet wells is handled mechanically, no chemical methods are used.</li></ul>
7	<ul style="list-style-type: none"><li>How much of the total flow to the WWTP does the flow at South Elkhorn represent?</li></ul>	<ul style="list-style-type: none"><li>The SE PS contributes roughly 20% of the flow to the West Hickman WWTP.</li></ul>
8	<ul style="list-style-type: none"><li>Is there alkalinity addition or caustic trimming at the effluent of the plant?</li></ul>	<ul style="list-style-type: none"><li>No, there is not.</li></ul>

#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
9	<ul style="list-style-type: none"> <li>Are you, WWTP dosing chemicals for supplemental carbon?</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>
10	<ul style="list-style-type: none"> <li>What was the monthly Nitra-NOx feed rate at South Elkhorn PS and Lower Cane PS?</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
11	<ul style="list-style-type: none"> <li>May we have access to H<sub>2</sub>S data (liquid and vapor) at current control points?</li> <li>If not, what are the annual ranges and averages of vapor H<sub>2</sub>S and aqueous sulfide loadings at the control points</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
12	<ul style="list-style-type: none"> <li>What is your current price for Nitra Nox?</li> </ul>	<ul style="list-style-type: none"> <li>This information is not needed for vendors to respond to this RFP.</li> </ul>
13	<ul style="list-style-type: none"> <li>What was the 2024 annual treatment spend on both lines in question?</li> </ul>	<ul style="list-style-type: none"> <li>This information is not needed for vendors to respond to this RFP.</li> </ul>
14	<ul style="list-style-type: none"> <li>Bid Conditions II, L requires a bid bond. What is the percent of the bid price required? Document states "XX percent".</li> </ul>	<ul style="list-style-type: none"> <li>A bid bond is not required for this Bid.</li> </ul>
15	<ul style="list-style-type: none"> <li>Lower Cane Run: Can you provide a map of the LCR forcemain as well as the ARV locations and discharge point?</li> </ul>	<ul style="list-style-type: none"> <li>A schematic of the two FM's is provided in <a href="#">Appendix A</a>.</li> </ul>
16	<ul style="list-style-type: none"> <li>LCR: Is there odor control coming into this Class A station?</li> <li>What chemical(s) are being used?</li> <li>What is the average daily feed rate?</li> </ul>	<ul style="list-style-type: none"> <li>Odor control chemical is fed at the LCR PS and also at the upstream Horse Park PS.</li> <li>Nitrates.</li> <li>See <a href="#">Appendix B</a></li> </ul>
17	<ul style="list-style-type: none"> <li>LCR: Are there historical sulfide readings from the influent wetwell that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> </ul>	<ul style="list-style-type: none"> <li>No, LFUCG does not have historical sulfide, Residual Nitrate, and/or pH readings from the influent wetwell for LCR</li> </ul>
18	<ul style="list-style-type: none"> <li>LCR: Are there historical sulfide readings from the discharge point or ARV's that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> <li>Hydrogen sulfide graphs?</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
19	<ul style="list-style-type: none"> <li>Could you provide a system schematic for both Force mains to be treated showing any potential sidestream flow contributors?</li> </ul>	<ul style="list-style-type: none"> <li>Please refer to <b><u>Appendix A</u></b> included with this Addendum.</li> </ul>
20	<ul style="list-style-type: none"> <li>LCR: Are there any odor complaints coming from this Force main?</li> <li>If Yes, where are the main pain points?</li> <li>Are there other contributing force mains to consider for odor complaints nearby?</li> </ul>	<ul style="list-style-type: none"> <li>Yes.</li> <li>LCR_ARV 8 has been a source of odor complaints.</li> <li>A schematic of the two FMs (including contributing FMs) is provided in <b><u>Appendix A</u></b>.</li> </ul>
21	<ul style="list-style-type: none"> <li>What type of pump operation do SE, LCR, and Sandersville employ? (ON/OFF or more constant flow on VFDs)</li> </ul>	<ul style="list-style-type: none"> <li><b>SELK:</b> Has VFD's. During the day it consistently runs and alternates pumps every 4 hours. During Low flows (overnight) Pumps cycle ON &amp; off, <b><u>see Appendix C</u></b>.</li> <li><b>LCR:</b> Has 2 large constant speed pumps for wet weather events and 2 smaller pumps that run on VFD's. Normal operation VFD's running always and switching pumps every 8 hours, <b><u>see Appendix D</u></b>.</li> <li><b>Sandersville:</b> Has 2 pumps running off across the line starters. Runs ON/OFF depending on flow, <b><u>see Appendix E</u></b>.</li> </ul>
22	<ul style="list-style-type: none"> <li>Is there detailed flow information available to view hourly variability in flows from the prospective dosing locations?</li> </ul>	<ul style="list-style-type: none"> <li>Addressed in response to item #21.</li> </ul>
23	<ul style="list-style-type: none"> <li>Sandersville PS: What is the Average daily flow?</li> </ul>	<ul style="list-style-type: none"> <li>Avg 60 mins of run time, Avg 615 gpm, Avg gpd 36,900.</li> </ul>
24	<ul style="list-style-type: none"> <li>Could you provide flow data for Sandersville Pump Station?</li> <li>Could you provide pipe distance/diameter information?</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #23.</li> <li>6" FM from Sandersville PS to LCR FM Tie in, 32FT</li> </ul>
25	<ul style="list-style-type: none"> <li>Sandersville: What are the forcemain dimensions? (Length, diameter)</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #24.</li> </ul>
26	<ul style="list-style-type: none"> <li>Will there be an analog sewage flow signal available to connect to feed systems installed at pump stations?</li> </ul>	<ul style="list-style-type: none"> <li>LFUCG does not believe it is necessary to tie in to "flow signal" to do chemical pilot as we are dripping chemical at all three sites in well (Sandersville) or first incoming manhole into station (LCR, SELK) . There is a 4-20ma signal Loop at SELK and LCR for Level and to turn pumps on and off. SELK and LCR have OUT going Strap on flow meters but as of now, service is spotty at best. Sandersville has nothing.</li> </ul>
27	<ul style="list-style-type: none"> <li>Will there be specified monitoring locations (control points) Discharge locations, i.e., manhole, wet well?</li> </ul>	<ul style="list-style-type: none"> <li>Yes, the discharge MH and intermediate ARVs.</li> </ul>

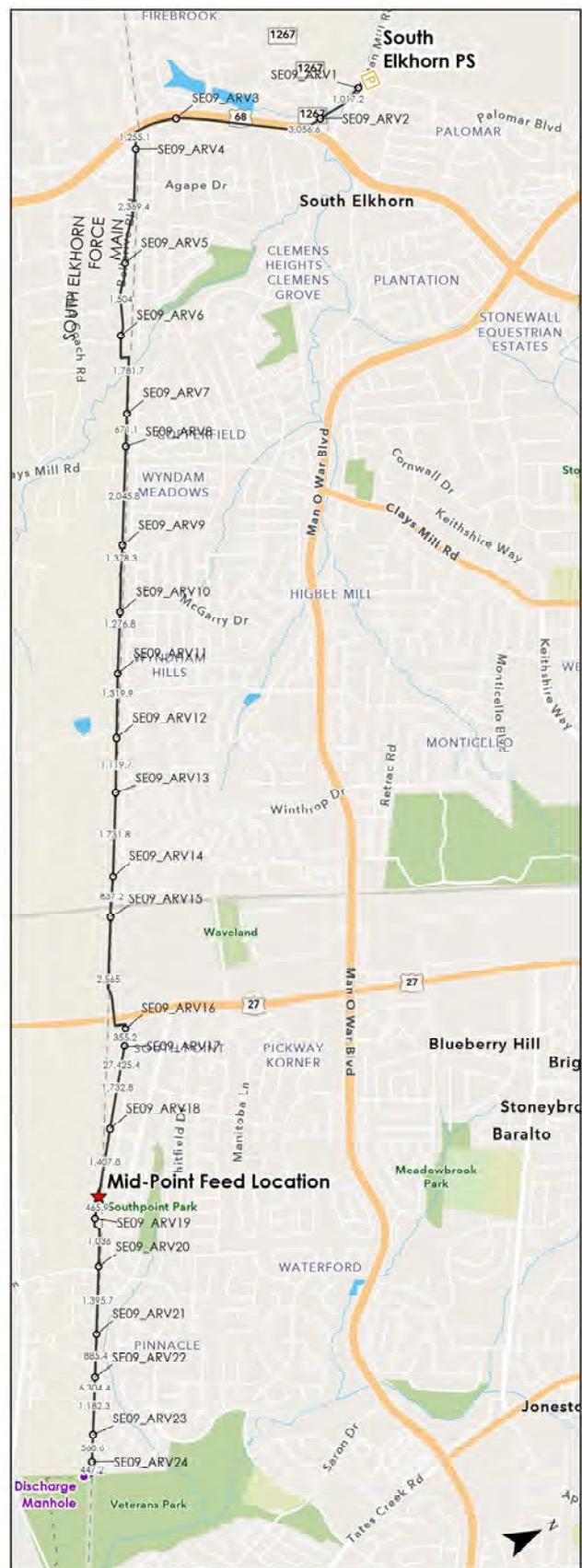
#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
28	<ul style="list-style-type: none"> <li>Sandersville: What are the pump run times (starts and draw down times)?</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #23 and <u>see Appendix E and Appendix F</u></li> </ul>
29	<ul style="list-style-type: none"> <li>What are the treatment goals for performance on these lines?</li> <li>Will there be both liquid phase sulfide treatment goals in addition to vapor phase treatment goals?</li> </ul>	<ul style="list-style-type: none"> <li>Specific goals have not yet been established but looking for most effective means of controlling odors and corrosion.</li> <li>Yes.</li> </ul>
30	<ul style="list-style-type: none"> <li>Sandersville: Are there odor complaints near where this ties into the LCR forcemain?</li> </ul>	<ul style="list-style-type: none"> <li>None documented.</li> </ul>
31	<ul style="list-style-type: none"> <li>Sandersville: Are there historical sulfide readings from the influent wetwell that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> </ul>	<ul style="list-style-type: none"> <li>No, LFUCG does not have historical sulfide, Residual Nitrate, and/or pH readings from the influent wetwell for the Sandersville Pump Station</li> </ul>
32	<ul style="list-style-type: none"> <li>Will products that are considered "hazardous materials" be considered for treatment in these pilots?</li> <li>Will temporary safety water supply setups be acceptable at locations where there is not currently access to water?</li> </ul>	<ul style="list-style-type: none"> <li>Yes, but as stated in the RFP: "Services shall be provided in a safe, secure, effective, and efficient manner and in accordance with all applicable laws, rules, and regulations."</li> <li>Yes as long as the water supply meets the safety requirements for the product.</li> </ul>
33	<ul style="list-style-type: none"> <li>Is LFUCG mostly concerned with Odor Complaints or is there also a concern for corrosion control to protect infrastructure?</li> </ul>	<ul style="list-style-type: none"> <li>RFP states: "The work consists of providing all necessary materials, chemicals, personnel, equipment, and services for pilot testing of <u>odor and corrosion control</u> chemicals in LFUCG's wastewater collection system."</li> </ul>
34	<ul style="list-style-type: none"> <li>Will LFUCG be available to make the physical chemical discharge connection on the force main injection connection(s)?</li> </ul>	<ul style="list-style-type: none"> <li>LFUCG will provide the "tap," each selected Vendor/Bidder will be required to make the physical chemical discharge connection of their equipment to the provided tap</li> </ul>
35	<ul style="list-style-type: none"> <li>Will LFUCG be sharing RFP results with other vendors?</li> <li>Will LFUCG be sharing Pilot Data Reports with other vendors?</li> </ul>	<ul style="list-style-type: none"> <li>Results to be posted on ionwave.</li> <li>No.</li> </ul>
36	<ul style="list-style-type: none"> <li>How will efficacy of different treatments be evaluated over the time frame of the testing? Meaning different pilot periods may experience drastically different weather conditions and wastewater temperatures, resulting in differing demand in the system.</li> </ul>	<ul style="list-style-type: none"> <li>Differing conditions will be taken into account in the evaluation.</li> </ul>

**APPENDIX A**  
**LOWER CANE RUN and SOUTH ELKHORN FORCE MAIN**  
**SCHEMATICS**



**Lower Cane Run Force Main**

Pipe Segment	Length (ft)
LCR Pump Station To Sandersville Tie in	13,580.7
Sandersville to LCR ARV08	8,162.1
LCR ARV08 to Town Branch WWTP	6,538.7
Sandersville PS to LCR Force Main	32.5

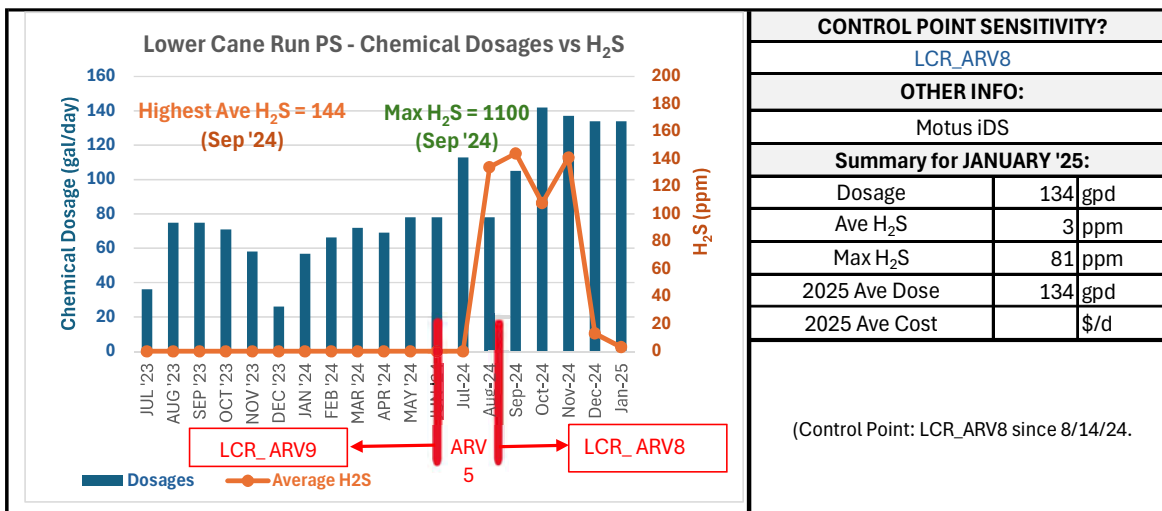
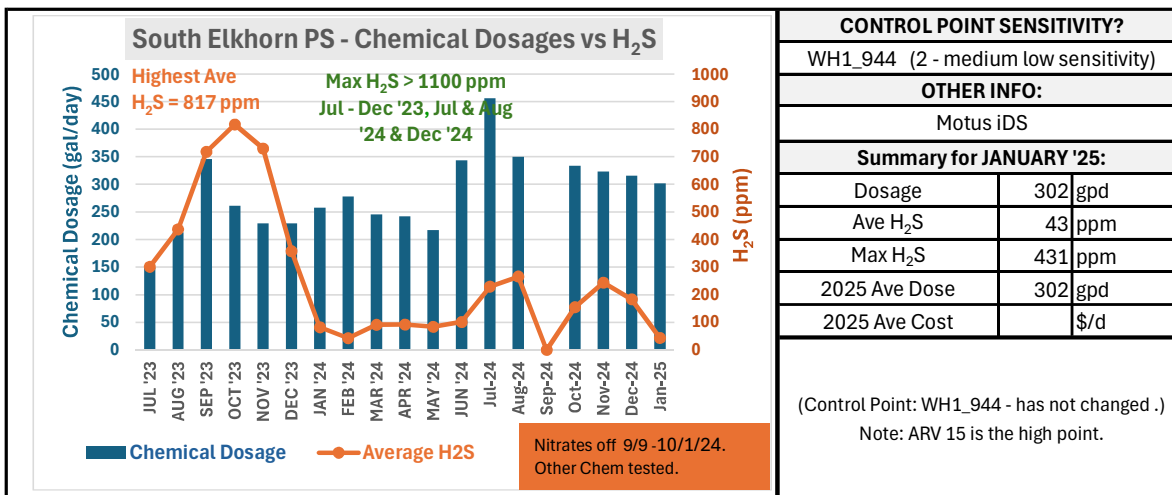


**South Elkhorn Force Main**

Size	Segment	Length (ft)
36	South Elkhorn PS to Feed Loc.	27,425.4
36	Feed Loc. to Discharge MH	6,304.4

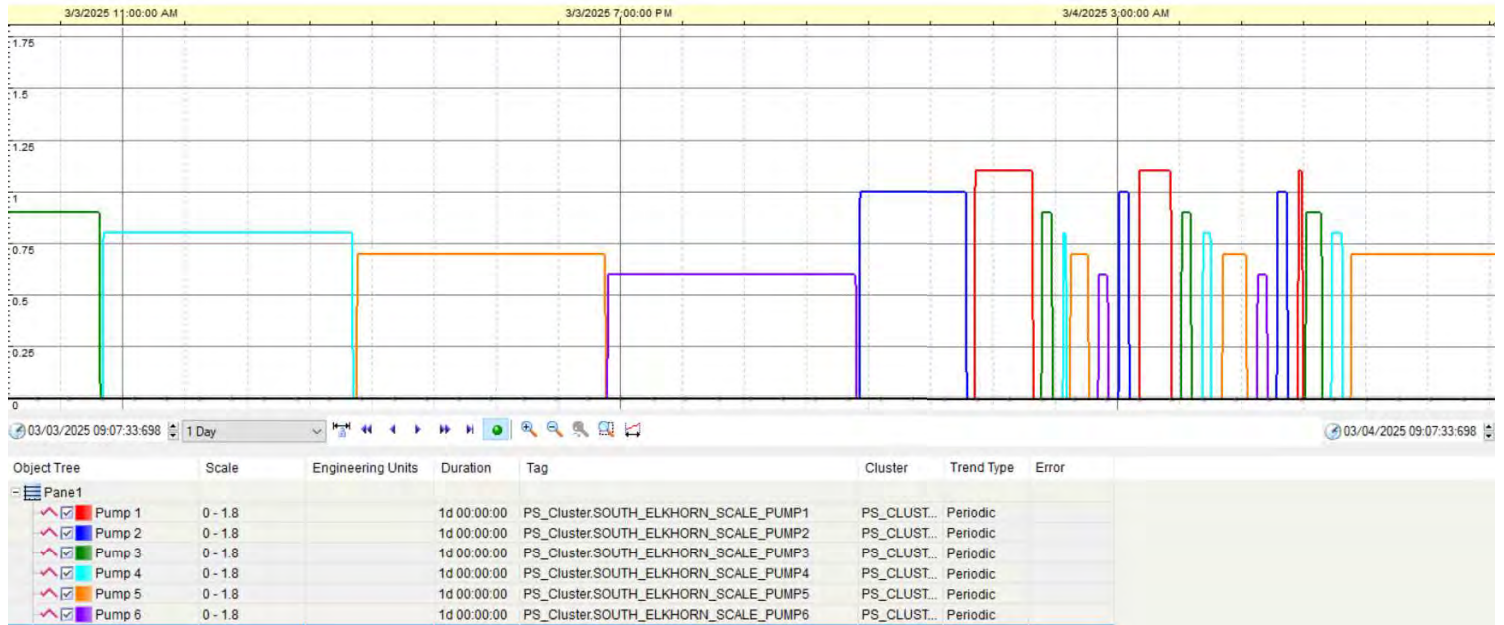
**APPENDIX B**  
**SOUTH ELKHORN and LOWER CANE RUN MONITORING DATA**

## SOUTH ELKHORN and LOWER CANE RUN MONITORING DATA



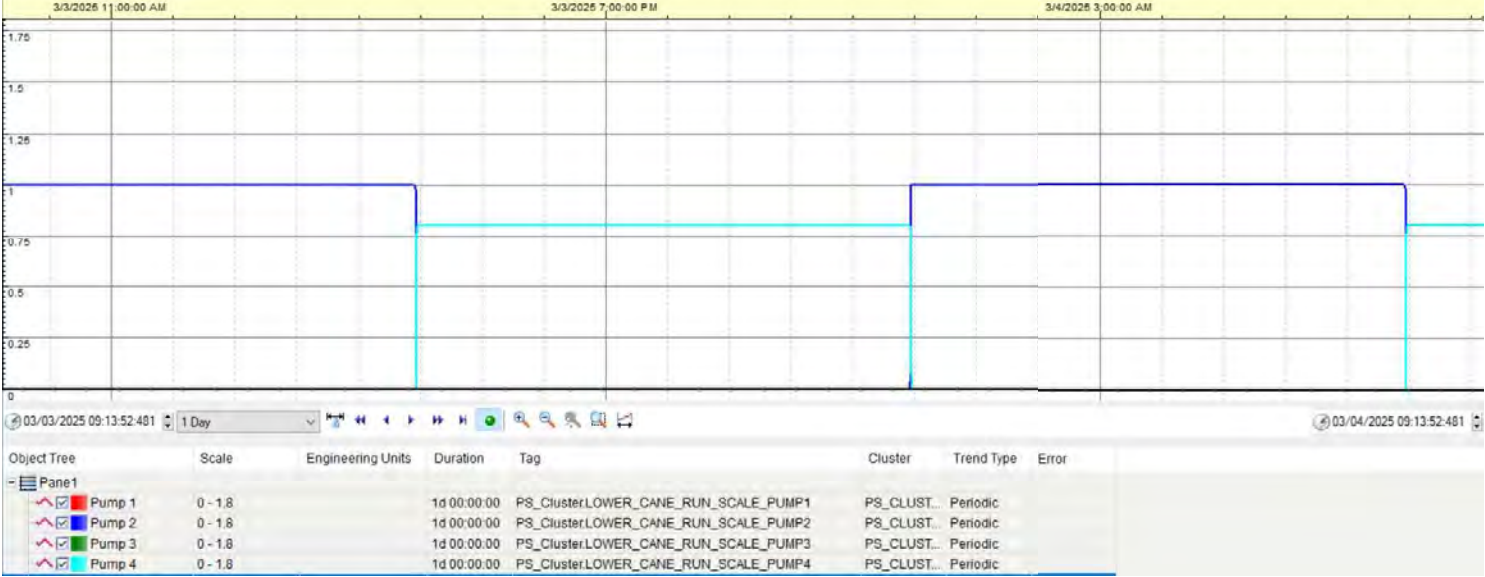
**APPENDIX C**  
**SOUTH ELKHORN PS PUMP RUN CYCLES**

## SOUTH ELKHORN PS PUMP RUN CYCLES



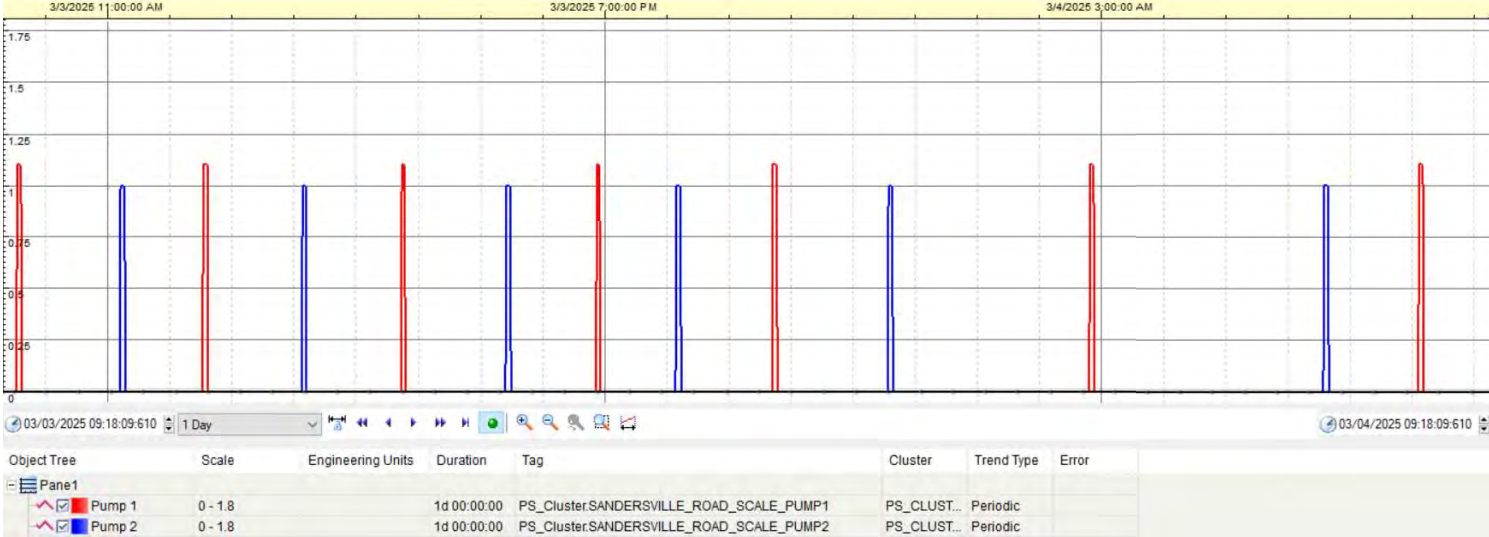
**APPENDIX D**  
**LOWER CANE RUN PS PUMP RUN CYCLES**

LOWER CANE RUN PS PUMP RUN CYCLES



**APPENDIX E**  
**SANDERSVILLE PS PUMP RUN CYCLES**

SANDERSVILLE PS PUMP RUN CYCLES



**APPENDIX F**  
**SANDERSVILLE PS DRAW DOWN DATA**

### SANDERSVILLE PS DRAW DOWN DATA

Station:	Sandersville Road	Mechanic(s):	Dallas
Address:	1673 Jaggie Fox Way	Date:	07/07/2021

Inflow Time (Sec)		Station Design		Run Time / Starts	
1	1136.00	GPM	500.00	P1 RT	25
2	1120.00	HD FT	46.00	P1 Starts	6
3	1180.00	PSI	19.92	P2 RT	29
Average	1145.33			P2 Starts	7

#### Pump 1

Sec / DD		GPM	Head Pressure / Amps	
1	59.00	621.03	PSI	9
2	59.00		Amps L1	22.40
3	61.00		Amps L2	22.60
Average	59.67		Amps L3	23.30

#### Pump 2

Sec / DD		GPM	Head Pressure / Amps	
1	59.00	611.30	PSI	9
2	60.00		Amps L1	20.80
3	63.00		Amps L2	22.40
Average	60.67		Amps L3	22.80

#### Pumps 1 and 2

Sec / DD		GPM	Head Pressure (PSI)
1	30.00	1191.85	9
2	29.00		
3	32.00		
Average	30.33		



# LEXINGTON

## **Bid 23-2025 Addendum 3**

### **USP Technologies**

### **Supplier Response**

#### **Event Information**

Number: Bid 23-2025 Addendum 3  
Title: Sewer Collection System Odor Control Chemical Pilot Testing  
Type: Competitive Bid  
Issue Date: 2/11/2025  
Deadline: 3/18/2025 02:00 PM (ET)

#### **Contact Information**

Contact: Brian Marcum  
Address: Central Purchasing  
Government Center Building  
200 East Main Street  
Lexington, KY 40507  
Phone: (859) 2583320  
Fax: (859) 2583322  
Email: [brianm@lexingtonky.gov](mailto:brianm@lexingtonky.gov)

## USP Technologies Information

Contact: Moneke Gibbs  
Address: 1375 Peachtree Street NE  
Suite 300N  
Atlanta  
Atlanta, GA 30309  
Phone: (470) 583-1100  
Email: mgibbs@usptechnologies.com

ONLY ONLINE BIDS WILL BE ACCEPTED! By submitting your response, you certify that you are authorized to represent and bind your company and that you agree to all bid terms and conditions as stated in the attached bid/RFP/RFQ/Quote/Auction documents.

Moneke Gibbs

Signature

Submitted at 3/18/2025 12:22:33 PM (ET)

mgibbs@usptechnologies.com

Email

## Response Attachments

### USP Technologies Response IFB# 23-2025.pdf

USP Technologies Response

### Addendum#1 - USP Signed.pdf

Acknowledge Addenda 1

### Addendum#2 - USP Signed.pdf

Acknowledge Addenda 2

### Addendum#3 - USP Signed.pdf

Acknowledge Addenda 3

## Bid Lines

1	Equipment plus Mobilization / Demobilization Price (\$/site)  Quantity: <u>1</u> UOM: <u>Lump Sum</u> Price: <u>\$10,000.00</u> Total: <u>\$10,000.00</u> Supplier Notes: <u>All Proposed USP chemical trials will have a \$10,000/site mobilization fee</u>
2	Chemical Solution Unit Price Per Gallon  Quantity: <u>1</u> UOM: <u>Gallon</u> Price: <u>\$3.98</u> Total: <u>\$3.98</u> Supplier Notes: <u>The portal will not allow us to submit multiple chemistries. For clarity: Ferrous Chloride - \$3.98/gallon Sulfelox - \$7.97/gallon</u>
3	Chemical Solution Unit Price Per Pound  Quantity: <u>1</u> UOM: <u>Pounds</u> <b>No Bid</b>

**Response Total: \$10,003.98**

# Lexington-Fayette Urban County Government

IFB#: 23-2025

Sewer Collection System Odor Control Chemical Pilot Testing



**March 18, 2025**

Contact: Sammy Kohl

Voice: 202-768-0851

Email: [skohl@usptechnologies.com](mailto:skohl@usptechnologies.com)

**USP Technologies**

5640 Cox Road Glen Allen, VA 23060

Phone: 804-935-2542

**[usptechnologies.com](http://usptechnologies.com)**  
[info@usptechnologies.com](mailto:info@usptechnologies.com)

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**LEXINGTON**

## Lexington-Fayette Urban County Government

Lexington, Kentucky  
Horse Capital of the World

Division of Procurement

Date of Issue: February 11, 2025

### INVITATION TO BID #23-2025 Sewer Collection System Odor Control Chemical Pilot Testing

**Bid Opening Date:** March 4, 2025

**Bid Opening Time:** 2:00 PM

**Address:** All bids must be submitted on line at <https://lexingtonky.ionwave.net/>

**Type of Bid:** Price Contract

**Pre Bid Meeting:** February 19, 2025 (Non mandatory)

**Pre Bid Time:** 10:00 AM EST

**Address:** 301 Jimmie Campbell Drive Lexington, Ky. 40504

Sealed bids will ONLY be received online at <https://lexingtonky.ionwave.net/> until **2:00 PM**, prevailing local time on **03/04/2025**. Bids must be submitted/uploaded by the above-mentioned date and time.

Bids are to include all shipping, handling and associated fees to the point of delivery (unless otherwise specified in the bid documents below) located at: Various Locations, Lexington, KY

<b>Check One:</b> _____ Bid Specifications Met <input checked="" type="checkbox"/> Exceptions to Bid Specifications. <i>Exceptions shall be itemized and attached to bid proposal submitted.</i>	<b>Proposed Delivery:</b> _____ 7 days after acceptance of bid.
<b>Procurement Card Usage</b> —The Lexington-Fayette Urban County Government may be using Procurement Cards to purchase goods and services and also to make payments. Will you accept Procurement Cards? <input checked="" type="checkbox"/> Yes _____ No	

**To expedite award, the forms in this document should be completed and uploaded with your bid.**

Submitted by: \_\_\_\_\_ USP Technologies \_\_\_\_\_

Firm Name

\_\_\_\_\_ 5640 Cox Road \_\_\_\_\_

Address

\_\_\_\_\_ Glen Allen, VA, 23060 \_\_\_\_\_

City, State & Zip

**Bid must be signed:**

  
**Signature of Authorized Company Representative – Title**

\_\_\_\_\_ Jordan Butler VP & GM, USP Technologies \_\_\_\_\_  
**Representative's Name (Typed or printed)**

\_\_\_\_\_ 970-214-5276 \_\_\_\_\_

\_\_\_\_\_ Area Code - Phone – Extension \_\_\_\_\_ Fax # \_\_\_\_\_

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

**AFFIDAVIT**

Comes the Affiant, Moneke Gibbs, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Moneke Gibbs and he/she is the individual submitting the bid or is the authorized representative of USP TECHNOLOGIES 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 Procurement 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.



STATE OF

Georgia

COUNTY OF

Gwinnett

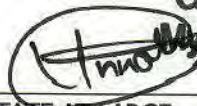
The foregoing instrument was subscribed, sworn to and acknowledged before me

by Moneke Gibbs on this the 14<sup>th</sup> day  
of March, 2025

My Commission expires: 01-22-2028

**Unnati Patel Thakkar**  
**NOTARY PUBLIC**

**GWINNETT COUNTY, GEORGIA**  
**Commission Expires 01/22/2028**



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 ☒X\_\_\_\_\_ 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 Procurement may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Procurement.
- 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, all parts to one vendor or all parts to multiple vendors.

- 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 Procurement. 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 submitted in the Ion Wave online portal at <https://lexingtonky.ionwave.net/>
- 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, religion, sex (including pregnancy, sexual orientation or gender identity), national origin, disability, age, genetic information, political affiliation, or veteran status, 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 Procurement 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 Procurement or (2) submitting a written request for a meeting with the Director of Procurement 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 Procurement 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 Procurement 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 Procurement or (2) submitting a written request for a meeting with the Director of Procurement 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 Procurement shall in writing, affirm or withdraw the recommendation.

### **III. Procurement Contract Bid Conditions**

- A. The terms of this agreement shall be for **1** year(s) from the date of acceptance of this contract by the Lexington-Fayette Urban County Government. This agreement may be automatically extended for an additional **1-1** year(s) renewal. This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.
- B. Price Changes **(Space Checked Applies)**
  - (XXX)1. Prices quoted in response to the Invitation shall be firm prices for the first 365 days of the Procurement Contract. After 365 days, prices may be subject to revision and such changes shall be based on general industry changes. Revision may be either increases or decreases and may be requested by either party. There will be no more than one (1) price adjustment per year. Requests for price changes shall be received in writing at least twenty (20) days prior to the effective date and are subject to written acceptance before becoming effective. Proof of the validity of a request for revision shall be responsibility of the requesting party. The Lexington-Fayette Urban County Government shall receive the benefit of any decline that the seller shall offer his other accounts.
  - ( ) 2. No provision for price change is made herein. Prices are to be firm for the term of this contract.
  - ( ) 3. See bid specifications.
- C. If any contract item is not available from the vendor, the Lexington-Fayette Urban County Government, at its option, may permit the item to be back-ordered or may procure the item on the open market.
- D. All invoices must bear reference to the Lexington-Fayette Urban County Government Purchasing document numbers which are being billed.
- E. This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.
- F. No substitutions for articles specified herein may be made without prior approval of the Division of Procurement.

## EQUAL OPPORTUNITY AGREEMENT

### Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

### 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 disability.*
- 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, veteran status, disability and age.*

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
USP Technologies  
Name of Business

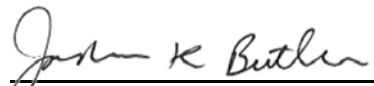
## **GENERAL PROVISIONS OF BID CONTRACT**

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good. All applicable state laws, ordinances and resolutions (including but not limited to Section 2-33 (Discrimination due to sexual orientation or gender identity) and Chapter 13 (Licenses and Regulations) of the Lexington-Fayette Urban County Government Code of Ordinances, and Resolution No. 484-17 (Minority, Women, and Veteran-Owned Businesses)) and the regulations of all authorities having jurisdiction over the project shall apply to the contract, and shall be deemed to be incorporated herein by reference.
2. Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
3. Addenda: All addenda and IonWave Q&A, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
8. Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice

period is negotiated prior to contract approval. Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. Assignment of Contract: The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
15. Authority to do Business: Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
16. Governing Law: This bid request and bid contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.
17. Ability to Meet Obligations: Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
18. Price Discrepancy: When applicable, in case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.
19. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.
21. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

  
Signature

March 18, 2025  
Date

**Name of Organization:** USP Technologies

**Prepared by: Ashley Bell, HR Business Partner      Date: 03 / 10 / 2025**

Revised 2015-Dec-15

**DIRECTOR, DIVISION OF PROCUREMENT  
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 a Certified Minority and Women Business Enterprise seventeen percent (17%) minimum goal including minimum subgoals of five percent (5%) for Minority Business Enterprises (MBE) and a subgoal of twelve percent (12%) for Women Business Enterprises (WBE); a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and/or Certified Service- Disabled Veteran Owned Businesses; and a goal of utilizing Disadvantaged Business Enterprises (DBE), where applicable, for government contracts.

For assistance in locating certified DBEs, MBEs, WBEs, VOSBs and/or VOSBs, contact Sherita Miller at 859/258-3320 or by writing the address listed below:

Sherita Miller, MPA, CPSD  
Minority Business Enterprise Liaison  
Division of Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)  
859-258-3323



# LEXINGTON

## MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA, CPSD  
Minority Business Enterprise Liaison  
Division of Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, KY 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)  
859-258-3323

**OUR MISSION:** The mission of the Minority Business Enterprise Program (MBEP) 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 urban county council adopted and implemented Resolution 272-2024 – a Certified Minority and Women Business Enterprise seventeen percent (17%) minimum goal including minimum subgoals of five percent (5%) for Minority Business Enterprises (MBE) and a subgoal of twelve percent (12%) for Women Business Enterprises (WBE); a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and/or Certified Service- Disabled Veteran Owned Businesses; and a goal of utilizing Disadvantaged Business Enterprises (DBE), where applicable, for government contracts.

The resolution states the following definitions shall be used for the purposes of reaching these goals:

***Certified Disadvantaged Business Enterprise (DBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a person(s) who is socially and economically disadvantaged as define by 49 CFR subpart 26.

***Certified Minority Business Enterprise (MBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by an ethnic minority (i.e. Black American, Asian American, Hispanic American, Native American)

***Certified Women Business Enterprise (WBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a woman.

***Certified Veteran-Owned Small Business (VOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

***Certified Service -Disabled Veteran Owned Small Business (SDVOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

The term “Certified” shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Procurement as having the appropriate credentials to make a determination as to the status of the business.

The following certifications are recognized and accepted by the MBEP:

Kentucky Transportation Cabinet (KYTC), Disadvantaged Business Enterprise (DBE)  
Kentucky Minority and Women Business Enterprise (MWBE)  
Women's Business Enterprise National Council (WBENC)  
National Women Business Owners Corporation (NWBOC)  
National Minority Supplier Development Council (NMSDC)  
Tri-State Minority Supplier Development Council (TSMSSDC)  
U.S. Small Business Administration Veteran Small Business Certification (VetCert)  
Kentucky Service- Disabled Veteran Owned Small Business (SDVOSB)

To comply with Resolution 272-2024, prime contractors, minority and women business enterprises, veteran owned small businesses, and service-disabled veteran owned small businesses must complete monthly contract compliance audits in the Diverse Business Management Compliance system, <https://lexingtonky.diversitycompliance.com/>

A list of organizations that certify and/or maintain lists of certified businesses (i.e. DBE, MBE, WBE, VOSB and/or SDVOSB) is available upon request by emailing, Sherita Miller, [smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov).



# LEXINGTON

## LFUCG MWDBE PARTICIPATION FORM

**Bid/RFP/Quote Reference**

# 23-2025

The MWDBE and/or veteran 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 the Division of Procurement for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWBE Company, Name, Address, Phone, Email	DBE/MBE WBE/VOSB/SDVOSB	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.  Couldn't secure MWDBE	N/A	N/A	N/A	N/A
2.				
3.				
4.				

The undersigned company representative submits the above list of MDWBE and veteran 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.

USP Technologies  
**Company**

March 18, 2025  
**Date**

Sammy Kohl  
**Company Representative**  
Mid Atlantic Territory Manager  
**Title**



# LEXINGTON

## LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # 23-2025

The substituted MWDBE and/or veteran 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 the Division of Procurement 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. **Note: Form required if a subcontractor is being substituted on a contract.**

SUBSTITUTED DBE/MBE/WBE/VOSB Company Name, Address, Phone, Email	DBE/MBE/WBE/VOSB/SDVOSB 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.  Couldn't secure MWDBE	N/A	N/A	N/A	N/A	N/A
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.

USP Technologies  
**Company**

March 18, 2025  
**Date**

Sammy Kohl  
**Company Representative**  
Mid Atlantic Territory Manager  
**Title**



## DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS AND OUTREACH PLANS

As affirmed in Resolution Number 272-2024, the Urban County Council has adopted an annual aspirational goal of utilizing at least seventeen percent (17%) of public funds spend from certain discretionary agreements with certified Minority Business Enterprises (MBEs) and certified Woman Business Enterprises (WBEs); utilizing at least three percent (3%) of public funds from certain discretionary agreements with Certified Veteran-Owned Small Business and Certified Service-Disabled Veteran-Owned Small Businesses (VOSBs); and utilizing Disadvantaged Business Enterprises (DBEs) where applicable. Bidders should make every effort to achieve these goals.

Therefore, as an element of the responsiveness of the bid, all Bidders are required to submit documentation of their good faith and outreach efforts to ensure all businesses, including small and disadvantaged businesses such as minority-, woman-, and veteran-owned businesses, have an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement. Examples of good faith and outreach efforts that satisfy this requirement to encourage the participation of, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs include:

1. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women, and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to participate.
2. Attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year to meet new small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to partner with on LFUCG contracts and procurements.
3. Attended pre-bid/pre-proposal meetings that were scheduled by LFUCG to inform small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs of subcontracting opportunities.
4. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs.
5. Requested a list of certified small, DBE, MBE, WBE, VOSB and/or SDVOSB subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
6. Contacted organizations that work with small, DBE, MBE, WBE, and VOSB companies for assistance in finding certified DBEs, MBEs, WBEs, VOSB and/or SDVOSBs to work on this project. Those contacted and their responses must be a part of the bidder's outreach efforts documentation.
7. Sent written notices, by certified mail, email, or facsimile, to qualified, certified small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
8. Followed up initial solicitations by contacting small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs via tailored communications to determine their level of interest.

9. Provided the interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs with adequate and timely information about the plans, specifications, and requirements of the contract.
10. Selected portions of the work to be performed by small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs in order to increase the likelihood of subcontracting participation. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate small, DBE, MBE, WBE, VOSB and/or SDVOSB participation, even when the prime contractor may otherwise perform these work items with its own workforce.
11. Negotiated in good faith with interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection must be so noted in writing with a description as to why an agreement could not be reached.
12. Included documentation of quotations received from interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs that were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
  - a. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a small business', DBE's MBE's, WBE's, VOSB's and/or SDVOSB's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy the participation goals.
13. Made an effort to offer assistance to or refer interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal.
14. Made efforts to expand the search for small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs beyond the usual geographic boundaries.
15. Other – any other evidence that the bidder submits that may demonstrate that the bidder has made reasonable efforts to include small, DBE, MBE, WBE, VOSB and/or SDVOSB participation.

Bidder must document, with specificity, each of the efforts it made to include small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs as subcontractors in the procurement, including the date on which each effort was made, the medium through which each effort was made, and the outcome of each effort.

**Note: Failure to submit the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the Bid, regardless of the proposed level of small, DBE, MBE, WBE, VOSB and/or SDVOSB participation in the procurement. If the Good Faith and Outreach Effort documentation is not submitted with the bid response, the bid may be rejected.**

#### OUTREACH EFFORTS EVALUATION

Outreach efforts demonstrated by the bidder or respondent will be evaluated on a pass/fail basis.

# ATTACHMENT A – SMALL AND DISADVANTAGED, MINORITY-, WOMEN-, AND VETERAN-OWNED BUSINESS OUTREACH PLAN

<b>Proposer Name:</b>	USP Technologies	<b>Date:</b>	March 18, 2025
<b>Project Name:</b>	Sewer Collection System Odor Control Chemical Pilot Testing	<b>Project Number:</b>	23-2025
<b>Contact Name:</b>	Samuel Kohl	<b>Telephone:</b>	202-768-0851
<b>Email:</b>	skohl@usptechnologies.com		

The mission of the Minority Business Enterprise Program is to facilitate the full participation of disadvantaged businesses, minority-, women-, veteran-, and service-disabled veteran-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, small and disadvantaged businesses, including minority-, woman-, veteran-, and service-disabled veteran-owned businesses, must have an equal opportunity to be utilized in the performance of contracts with public funds spent from certain discretionary agreements. By submitting its offer, Bidder/Proposer certifies that it has taken, and if there are further opportunities will take, reasonable steps to ensure that small and disadvantaged businesses, including minority-, woman-, veteran-, and service-disabled veteran-owned businesses, are provided an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement.

The information submitted in response to this clause will not be considered in any scored evaluation. Failure to submit this form may cause the bid or proposal to be rejected.

**Is the Bidder/ Proposer a certified firm?** Yes ☐ No ☒

If yes, indicate all certification type(s):

DBE ☐

MBE ☐

WBE ☐

SBE ☐

VOSB/SDVOSB ☐

and supply a copy of the certificate and/or certification letter if not currently listed on the city's Minority Business Enterprise Program's (MBEP) certified list.

**1. Include a list of firms that Bidder/ Proposer has had a contractual relationship with within the last two years that are minority-owned, woman-owned, veteran-owned or small businesses, regardless of their certification status.**

 Sole Engineering 

**2. Does Bidder/Proposer foresee any subcontracting opportunities for this procurement?**

Yes ☒ No

If no, please explain why in the field below. Do not complete the rest of this form and submit this first page with your bid and/or proposal.

If yes, please complete the following pages and submit all pages with your bid and/or proposal.

**Describe the steps Bidder/Proposer took to solicit small and disadvantaged businesses, including MBEs, WBEs, VOSBs, and SDVOSBs, for subcontracting opportunities for this procurement.**

See our response in Appendix A

**3. Check the good faith and outreach efforts the Bidder/Proposer used to encourage the participation of small and disadvantaged businesses including, MBEs, WBEs, VOSBs and SDVOSBs:**

- ☐ Bidder placed advertisements in search of prospective small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs for the solicitation.
- ☐ Bidder attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year.
- ☒ Bidder attended pre-bid and/or pre-proposal meetings for this solicitation.
- ☐ Bidder sponsored an Economic Inclusion Outreach event.
- ☐ Bidder requested a list of certified small, DBE, MBE, WBE, VOSB and/or SDVOSB subcontractors or suppliers from LFUCG.
- ☐ Bidder contacted organizations that work with small, DBE, MBE, WBE, VOSB and/or SDVOSB companies.
- ☒ Bidder sent written notices to certified small, DBE, MBE, WBE, VOSB and SDVOSB businesses.
- ☐ Bidder followed up to initial solicitations with interested small, DBE, MBE, WBE, VOSB and/or SDVOSB.
- ☐ Bidder provided small, DBE, MBE, WBE, VOSB and/or SDVOSB businesses interested in performing the solicited work with prompt access to the plans, specifications, scope of work, and requirements of the solicitation.
- ☒ Bidder made efforts to segment portions of the work to be performed by small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, including dividing sub-bid/partnership opportunities into economically feasible units/parcels, to facilitate participation.

- ☒ Bidder negotiated in good faith with interested small, DBE, MBE, WBE, VOSB and/or SDVOSB businesses.
- ☐ Bidder provided adequate rationale for rejecting any small business', DBEs, MBEs, WBEs, VOSBs or SDVOSBs for lack of qualifications.
- ☐ Bidder offered assistance in obtaining bonding, insurance, financial, equipment, or other resources to small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, in an effort to assist them in meeting project requirements.
- ☐ Bidder made efforts to expand the search for small businesses, DBEs MBEs, WBEs, VOSBs and/or SDVOSBs beyond the usual geographic boundaries.
- ☐ Bidder made other reasonable efforts to include small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs participation.

**4. Bidder/Proposer must include documentation, including the date each effort was made, the medium through which each effort was made, and the outcome of each effort with this form, regardless of the level of small, DBE, MBE, WBE, VOSB and/or SDVOSB participation. Examples of required documentation include copies of email communications, copies of newspaper advertisements, or copies of quotations received from interested small businesses, DBEs, MBEs, WBEs, VOSBs or SDVOSBs.**

« Appendix B-Good Faith Efforts »»

**For detailed information regarding outreach efforts that satisfy the MBE Program's requirements, please see "Documentation Required for Good Faith Efforts and Outreach Plans" page.**

**Note: The Bidder/Proposer must be willing to report the identity of each subcontractor and the value of each subcontract to MBEP if awarded a contract from this procurement.**

**Failure to submit the documentation requested may be cause for rejection of the bid. Bidders may include any other documentation deemed relevant to this requirement, which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the bid, regardless of the proposed level of SBEs, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs participation in the procurement. If the Good Faith and Outreach Effort Form and associated documentation is not submitted with the bid response, the bid may be rejected.**

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

\_\_\_\_ USP Technologies \_\_\_\_\_  
**Company**  
March 18, 2025  
\_\_\_\_\_  
**Date**

Samuel Kohl  
\_\_\_\_\_  
**Company Representative**  
Mid Atlantic Territory Manager  
\_\_\_\_\_  
**Title**

4870-1925-6809, v. 1

## **RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION**

### **INDEMNIFICATION AND HOLD HARMLESS PROVISION**

(1) It is understood and agreed by the parties that Contractor 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 Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") 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) CONTRACTOR 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 CONTRACTOR'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 CONTRACTOR; 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, CONTRACTOR 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.

(5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

### **FINANCIAL RESPONSIBILITY**

BIDDER/CONTRACTOR 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**

BIDDER/CONTRACTOR 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 CONTRACTOR. The cost of such insurance shall be included in any bid:

<b><u>Coverage</u></b>	<b><u>Limits</u></b>
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	\$100,000.00
Excess/Umbrella Liability	\$1 million per occurrence

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 (DOI). 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 and Completed Operations endorsement or Premises and Operations Liability endorsement unless it is deemed not to apply by LFUCG.
- 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 BIDDER/CONTRACTOR'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 BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR 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.

#### Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

#### Verification of Coverage

BIDDER/CONTRACTOR 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

CONTRACTOR 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

BIDDER/CONTRACTOR 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 BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

00357187

**Lexington Fayette Urban County Government (LFUCG)**  
**Bid Specifications**  
**Sewer Collection System Odor Control Chemical Pilot Testing**

The LFUCG has issued this Bid for the sole purpose of obtaining responsive proposals and price quotes from responsible Bidders (Vendors). The work consists of providing all necessary materials, chemicals, personnel, equipment, and services for pilot testing of odor and corrosion control chemicals in LFUCG's wastewater collection system. The primary goal of this Work is to benchmark effective treatment options and associated costs that can be used by LFUCG to control odors and corrosion from hydrogen sulfide (H<sub>2</sub>S) in the pumped sewer system. Additionally, pilot testing will allow the LFUCG to assess compatibility of proposed chemicals with existing infrastructure and processes.

The intent of this Bid is to prequalify multiple viable Vendors so that they have the opportunity to demonstrate their product(s) and ability to be a cost effective solution to sewer odor and corrosion. Bidders must be regularly engaged in supplying these products/services and have significant experience providing liquid phase odor control for municipal wastewater collection systems. Bidder(s) must be able to demonstrate its experience of providing similar Odor and Corrosion Control products/services **successfully** to at least three (3) other municipal clients. *LFUCG will only consider proposals from Bidders who demonstrate similar experience with satisfactory reference verifications.*

If selected to perform pilot testing, it can be assumed that pilot testing would last a minimum of 30 days and a maximum of 90 days. It is intended that pilot testing will likely occur in a long force main (with greater than 10 hours detention time) with two chemical feed sites available (at pump station and at a midpoint location). It would be up to the Vendor(s) selected to perform pilot testing if chemical would be fed at one or both

It should not be assumed that a prequalified vendor will be selected to perform pilot testing.

LFUCG requires that the selected bidder(s) perform the activities associated with the provision of the odor/corrosion control services of LFUCG's collection system in accordance with this agreement. Services shall be provided in a safe, secure, effective, and efficient manner and in accordance with all applicable laws, rules, and regulations. All costs for services provided shall be paid in accordance with the payment provisions as described in Bid.

**SCOPE OF WORK**

LFUCG will designate specific locations for pilot test applications. In designating those specific locations, LFUCG will provide both a power supply, (115 VAC, 60Hz, 1 phase), for Vendor's pumping equipment and a connection point (manhole, tap, etc.) for dosing into the collection system.

**Vendor Responsibilities:**

**A. CHEMICAL**

Provide Chemical to reduce and control odors/corrosion caused by hydrogen sulfide. The chemical shall:

- be free of any objectionable odor-producing compounds.
- be provided with quality control procedures to ensure a consistent and reliable concentration of active ingredient is supplied.

**B. EQUIPMENT**

Provide the following equipment for each of the two (2) feed sites:

- Suitable storage for the chemical. The chemical may be stored on the back of a flatbed truck or sitting on the ground but must be stored in a method which meets all applicable safety regulations. Storage shall be provided without making modifications to the sites.
- Chemical feed and control equipment. Vendor is responsible for mobilization and demobilization of equipment from the two sites, operation and maintenance of the chemical feed systems and adjustment of chemical dosages as approved by LFUCG.
- Equipment for continuous H<sub>2</sub>S monitoring.

The cost for equipment (including mobilization/demobilization of equipment) shall be provided in the Mobilization Cost on the price proposal form; the cost for chemical shall be included in the Volumetric price.

### **C. CHEMICAL DELIVERY**

1. Providing chemical will include delivery of the chemical to the designated test site(s) and maintaining sufficient volume to meet the needs of the pilot study. LFUCG employees may or may not be present during deliveries, but assistance from LFUCG should not be assumed.
2. The Vendor shall provide prompt clean-up, in accordance with Vendor provided Safety Data Sheet, of any spills made during delivery or during the test.
3. Vendor is responsible for providing the appropriate size of truck to meet the site conditions without modifications to the sites.
4. Trucks shall comply with all local, state, and federal road and highway weight restrictions and other applicable shipping regulations. All deliveries shall be accompanied by a U.S. Department of Labor Safety Data Sheet (OSHA Form 28) for the product. A Certificate of Analysis shall accompany all shipments.
5. If chemical is to be delivered into storage tanks, all hoses and fittings required to unload the truck and fill the tanks shall be provided by the Vendor.
6. Each load must be accompanied by a Bill of Lading, a certified weight ticket, and a Certificate of Analysis listing the specific gravity of the product.

### **D. MAINTENANCE OF EQUIPMENT**

Provide all parts, tools, labor, and equipment required to keep the feed system in operation throughout the pilot study.

### **E. SAMPLING AND MONITORING**

Provide knowledgeable, trained representatives to collect/analyze liquid samples (sulfides, pH and temperature) and monitor for H<sub>2</sub>S. H<sub>2</sub>S monitoring shall be provided during the Pilot study plus at least 1 week prior to and 1 week after the study. It can be assumed that H<sub>2</sub>S monitoring will be required at a minimum of two (2) locations.

All sampling and monitoring data as well as dosage adjustments shall be documented by the Vendor and submitted to LFUCG.

### **F. REPORTS**

Prepare a report to include all data collected prior to and during the pilot study including documentation of dosage adjustments. Provide the report summarizing results, cost analysis, and recommendations to LFUCG following the completion of the pilot study.



**ADDENDUM #1**

Bid Number: **#23-2025**

Date: February 18, 2025

Subject: **Sewer Collection System Odor Control Chemical Pilot Testing**

Address inquiries to:  
Brian Marcum  
(859) 258-3320

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following clarifications to the above referenced Bid:

1. The electronic bid opening date has been extended to March 11, 2025, at 2:00 PM EST in lonwave.
2. **The non-mandatory prebid meeting is in person and has been changed to February 26, 2025 at 10:00 AM EST 301 Jimmie Campbell Drive Lexington, Kentucky, due to impending weather.**

Todd Slatin, Director  
Division of Procurement

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: \_\_\_\_\_





**ADDENDUM #2**

Bid Number: **#23-2025**

Date: February 28, 2025

Subject: **Sewer Collection System Odor Control Chemical Pilot Testing**

Address inquiries to:  
Brian Marcum  
(859) 258-3320

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following clarifications to the above referenced Bid:

1. The electronic bid opening date has been extended to March 18, 2025, at 2:00 PM EST in lonwave.

Attached Prebid Powerpoint  
Attached Prebid Sign in Sheet

Todd Slatin, Director  
Division of Procurement

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: John K Butler





**LEXINGTON**

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# **Lexington-Fayette Urban County Government**

**Invitation to Bid #23-2025  
Sewer Collection System Odor Control Chemical Pilot Testing**

**Pre-Bid Meeting 02/26/2025**





## Introductions

- Rick Bowman, Odor Control Manager, City of Lexington
- Sharon Worley, Senior Engineer, Webster Environmental Associates
- Brian Marcum, Procurement Officer Sr., Division of Procurement
- Sherita Miller, Minority Business Enterprise Liaison, Division of Procurement





## **General Explanation: What and Why**

- Lexington has long sewage force mains that promote the formation of odor causing compounds.
- Lexington currently feeds a nitrate-based chemical at nine pump stations – results are a “mixed bag”.
- Lexington wants to evaluate a variety of products to determine the most cost-effective approach in the reduction of odor/corrosion causing compounds.
- Lexington wants to evaluate feeding chemicals at different locations, including on long force mains using multiple feed locations.





## Expected Outcome From This Advertisement

- All viable proposals will be accepted as a pre-qualified chemical (meaning that chemicals can be tested without further procurement paperwork).
- Viable chemical applications will be considered for pilot testing, with testing to begin in 2025 and continue indefinitely.
- Peak odor season is July 1 to November 1 - pilot testing likely limited to that timeframe.
- Given the limited testing timeframe and potential number of responders, there is no guarantee that your product will be tested in 2025 or in the future.





## What Makes a Proposal “Viable”?

- Documented experience in the municipal or industrial wastewater odor control sector.
- References in the municipal or industrial wastewater odor control sector that can be verified by Lexington.
- Verification that chemical applications proposed will not upset the treatment biological processes.
- NOTE: A separate proposal is required for each product.





## Proposed Plan for Pilot Testing

2025 Goal - Pilot test at least four different proposer's applications. Tentative plan:

### South Elkhorn force main

- Test One - 7/1/25 to 7/30/25
- Test Two - 8/15/25 to 9/15/25
- Test Three - 10/1/25 to 10/30/25

### Lower Cane Run force main

- Test One - 7/1/25 to 7/30/25
- Test Two - 8/15/25 to 9/15/25
- Test Three - 10/1/25 to 10/30/25

PS Name	PS Address	FM Material	FM Length	FM Diameter	No. of ARVs	PS Ave Daily Flow	Ave Detention Time
			feet	inches		gpd	hours
South Elkhorn	2500 Bowman Mill Rd	DI	33,730	36	24	4,000,000	11
Lower Cane Run	1760 Mc Grathiana Pkwy	DI	24,260	30	9	1,100,000	19





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## Scope of Work for Pilot Tests

### LFUCG expects to provide:

- Flat gravel area (approximately 13' x 18')
- At Pump Stations:
  - Power at SE and LCR PSs: two 115V circuits (one 15-20 AMP, one 20-25 AMP)
  - Power at other PSs: 115 VAC, 60Hz, 1 phase
  - Access to wet wells
- At Midpoint on SE FM:
  - Two SS 1" diameter taps into the force main each with a shutoff valve and a check valve

### Vendor to provide:

- Chemical delivery to feed site
- Equipment/materials for safe chemical storage, handling, feeding, & control
- Labor to include mob/demob, maintenance, sampling and monitoring
- Reports





## Division of Procurement Comments

### SCHEDULE

**Bid Close Date: 3/11/2025 2:00 PM (ET)**

**Questions Cut Off: 3/3/2025 4:00 PM (ET)**

**ALL questions must be submitted via Ionwave**

- Award Notices Issued Upon Evaluation Completion & Council Approval
- Pilot Testing Begins – see prior slide
- All submittals and all required information must be submitted electronically in Ionwave, please include all DBE forms completed, and Good Faith Efforts documented.





# QUESTIONS




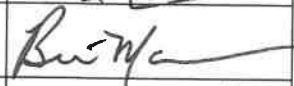
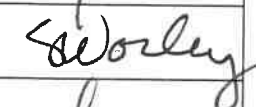



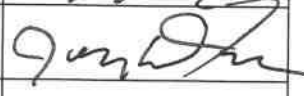


# LEXINGTON

Division of Water Quality  
125 Lisle Industrial Ave., Suite 180  
Lexington, KY 40511

## PRE-BID MEETING FORM

Bid Number	23-2025
Bid Title	Odor Control Chemicals Pilot Study
Date of Pre-Bid	2/26/2025
Time	10:00am

	Name	Contact Info	Signature
Procurement Representative			
DWQ Representative	Rick Bowman	<a href="mailto:rbowman@lexingtonky.gov">rbowman@lexingtonky.gov</a>	
Procurement Representative	Brian Marcum	<a href="mailto:brianm@lexingtonky.gov">brianm@lexingtonky.gov</a>	
WEA – Consultant	Sharon Worley	<a href="mailto:sharon.worley@odor.net">sharon.worley@odor.net</a>	
Xylem/Evoqua	Kenneth Lowery	<a href="mailto:kenneth.lowery@xylem.com">kenneth.lowery@xylem.com</a> 502-480-6704	
USP Technologies	Sammy Stahl	<a href="mailto:stahl@usp-technologies.com">stahl@usp-technologies.com</a>	
SourceE Tech.	MARCUS BULLOCK	<a href="mailto:mbullocc@sourceetech.com">mbullocc@sourceetech.com</a>	
Source Technologies	Jeff Dombroskas	<a href="mailto:jeffd@sourcetechnologiesllc.com">jeffd@sourcetechnologiesllc.com</a>	



**ADDENDUM No. 3**

Bid Number: **#23-2025**

Date: March 10, 2025

Subject: Sewer Collection System Odor Control Chemical  
Pilot Testing

Address inquiries to:

Q&A Module on Ion Wave

Brian Marcum  
[brianm@lexingtonky.gov](mailto:brianm@lexingtonky.gov)  
(859) 258-3325

**TO ALL PROSPECTIVE SUBMITTERS:**

Please be advised of the following modifications to the above referenced Bid:

**Please see the attached questions and answers.**

Todd Slatin, Director  
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.  
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: USP Technologies

ADDRESS: 5640 Cox Road Glen Allen, VA 23060

SIGNATURE OF BIDDER: John K Butler





**LEXINGTON**

Division of Water Quality  
125 Lisle Industrial Ave., Suite 180  
Lexington, KY 40511

**Bid #23-2025 ODOR CONTROL CHEMICALS PILOT STUDY**

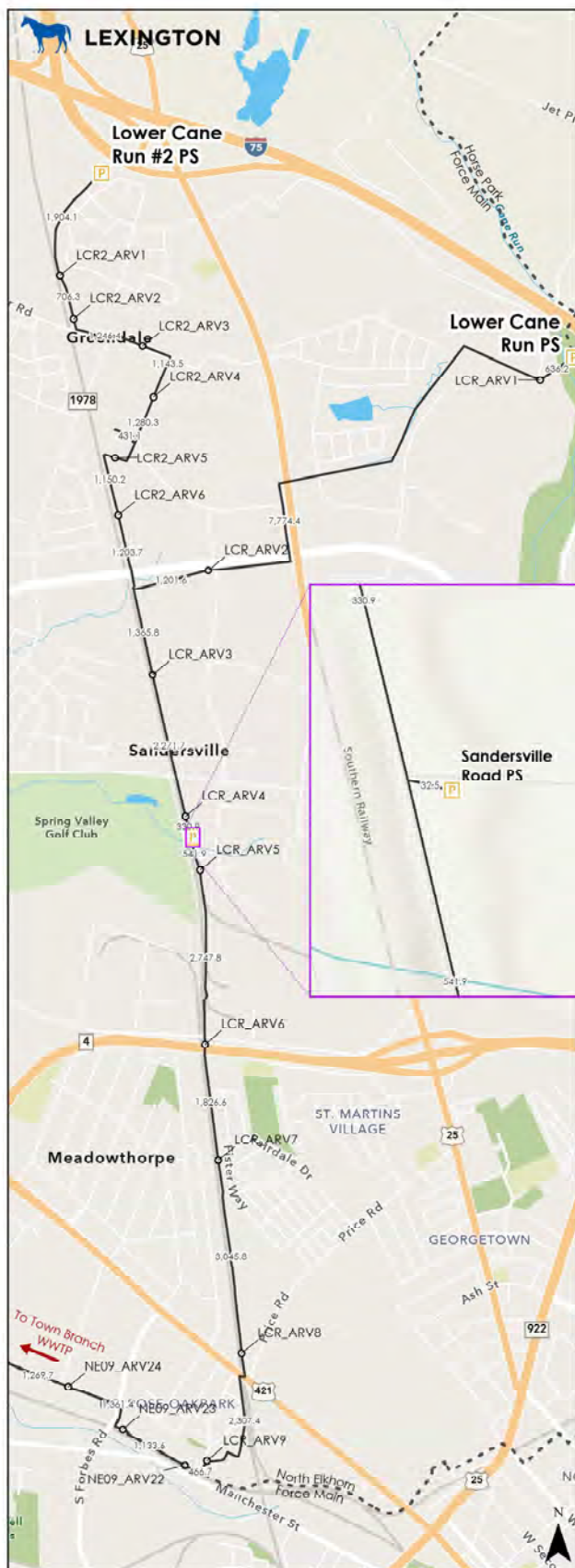
#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
1	<ul style="list-style-type: none"><li>Is the odor control required AT the two sites mentioned OR downstream from them?</li><li>If needed at the two sites, are there stations just ahead that flow into each?</li></ul>	<ul style="list-style-type: none"><li>The chemical would be fed at the PS and may also be fed at the midpoint.</li><li>A schematic of the two FMs is provided in <a href="#">Appendix A</a>.</li></ul>
2	<ul style="list-style-type: none"><li>Are Lower Cane Run and South Elkhorn in series with each other?</li></ul>	<ul style="list-style-type: none"><li>No, they are not in series with each other. See <a href="#">Appendix A</a>.</li></ul>
3	<ul style="list-style-type: none"><li>Will the City use the chemical unit trial price stated here for the trial to be the permanent application price used to award for trial? Less than bulk deliveries affect delivery costs, the trial price is typically higher than a permanent application bulk delivered price.</li></ul>	<ul style="list-style-type: none"><li>Chemical unit trial price would apply only to the specified pilot testing. If any odor control chemicals are to be used by LFUCG for long term solutions, those chemicals would be procured under a separate contract.</li></ul>
4	<ul style="list-style-type: none"><li>How soon must the trials start, after award?</li></ul>	<ul style="list-style-type: none"><li>Proposed schedule for pilot testing was included in Addendum 1.</li></ul>
5	<ul style="list-style-type: none"><li>What is the procedure to get subcontractor approval?</li></ul>	<ul style="list-style-type: none"><li>Preapproval of subcontractors is not done prior to submittal</li></ul>
6	<ul style="list-style-type: none"><li>Is there regular FOG control done (mechanical or chemical), due to blankets forming at the stations or at the plant?</li><li>If so, is it much more at these stations, and downstream of them, than the rest of the collection system?</li></ul>	<ul style="list-style-type: none"><li>Wet Wells are scheduled to be cleaned at LCR-monthly, SELK-Quarterly, Sandersville-Bi-yearly.</li><li>Lexington's FOG control in pump station wet wells is handled mechanically, no chemical methods are used.</li></ul>
7	<ul style="list-style-type: none"><li>How much of the total flow to the WWTP does the flow at South Elkhorn represent?</li></ul>	<ul style="list-style-type: none"><li>The SE PS contributes roughly 20% of the flow to the West Hickman WWTP.</li></ul>
8	<ul style="list-style-type: none"><li>Is there alkalinity addition or caustic trimming at the effluent of the plant?</li></ul>	<ul style="list-style-type: none"><li>No, there is not.</li></ul>

#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
9	<ul style="list-style-type: none"> <li>Are you, WWTP dosing chemicals for supplemental carbon?</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>
10	<ul style="list-style-type: none"> <li>What was the monthly Nitra-NOx feed rate at South Elkhorn PS and Lower Cane PS?</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
11	<ul style="list-style-type: none"> <li>May we have access to H<sub>2</sub>S data (liquid and vapor) at current control points?</li> <li>If not, what are the annual ranges and averages of vapor H<sub>2</sub>S and aqueous sulfide loadings at the control points</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
12	<ul style="list-style-type: none"> <li>What is your current price for Nitra Nox?</li> </ul>	<ul style="list-style-type: none"> <li>This information is not needed for vendors to respond to this RFP.</li> </ul>
13	<ul style="list-style-type: none"> <li>What was the 2024 annual treatment spend on both lines in question?</li> </ul>	<ul style="list-style-type: none"> <li>This information is not needed for vendors to respond to this RFP.</li> </ul>
14	<ul style="list-style-type: none"> <li>Bid Conditions II, L requires a bid bond. What is the percent of the bid price required? Document states "XX percent".</li> </ul>	<ul style="list-style-type: none"> <li>A bid bond is not required for this Bid.</li> </ul>
15	<ul style="list-style-type: none"> <li>Lower Cane Run: Can you provide a map of the LCR forcemain as well as the ARV locations and discharge point?</li> </ul>	<ul style="list-style-type: none"> <li>A schematic of the two FM's is provided in <a href="#">Appendix A</a>.</li> </ul>
16	<ul style="list-style-type: none"> <li>LCR: Is there odor control coming into this Class A station?</li> <li>What chemical(s) are being used?</li> <li>What is the average daily feed rate?</li> </ul>	<ul style="list-style-type: none"> <li>Odor control chemical is fed at the LCR PS and also at the upstream Horse Park PS.</li> <li>Nitrates.</li> <li>See <a href="#">Appendix B</a></li> </ul>
17	<ul style="list-style-type: none"> <li>LCR: Are there historical sulfide readings from the influent wetwell that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> </ul>	<ul style="list-style-type: none"> <li>No, LFUCG does not have historical sulfide, Residual Nitrate, and/or pH readings from the influent wetwell for LCR</li> </ul>
18	<ul style="list-style-type: none"> <li>LCR: Are there historical sulfide readings from the discharge point or ARV's that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> <li>Hydrogen sulfide graphs?</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="#">Appendix B</a></li> </ul>
	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
19	<ul style="list-style-type: none"> <li>Could you provide a system schematic for both Force mains to be treated showing any potential sidestream flow contributors?</li> </ul>	<ul style="list-style-type: none"> <li>Please refer to <b><u>Appendix A</u></b> included with this Addendum.</li> </ul>
20	<ul style="list-style-type: none"> <li>LCR: Are there any odor complaints coming from this Force main?</li> <li>If Yes, where are the main pain points?</li> <li>Are there other contributing force mains to consider for odor complaints nearby?</li> </ul>	<ul style="list-style-type: none"> <li>Yes.</li> <li>LCR_ARV 8 has been a source of odor complaints.</li> <li>A schematic of the two FMs (including contributing FMs) is provided in <b><u>Appendix A</u></b>.</li> </ul>
21	<ul style="list-style-type: none"> <li>What type of pump operation do SE, LCR, and Sandersville employ? (ON/OFF or more constant flow on VFDs)</li> </ul>	<ul style="list-style-type: none"> <li><b>SELK:</b> Has VFD's. During the day it consistently runs and alternates pumps every 4 hours. During Low flows (overnight) Pumps cycle ON &amp; off, <b><u>see Appendix C</u></b>.</li> <li><b>LCR:</b> Has 2 large constant speed pumps for wet weather events and 2 smaller pumps that run on VFD's. Normal operation VFD's running always and switching pumps every 8 hours, <b><u>see Appendix D</u></b>.</li> <li><b>Sandersville:</b> Has 2 pumps running off across the line starters. Runs ON/OFF depending on flow, <b><u>see Appendix E</u></b>.</li> </ul>
22	<ul style="list-style-type: none"> <li>Is there detailed flow information available to view hourly variability in flows from the prospective dosing locations?</li> </ul>	<ul style="list-style-type: none"> <li>Addressed in response to item #21.</li> </ul>
23	<ul style="list-style-type: none"> <li>Sandersville PS: What is the Average daily flow?</li> </ul>	<ul style="list-style-type: none"> <li>Avg 60 mins of run time, Avg 615 gpm, Avg gpd 36,900.</li> </ul>
24	<ul style="list-style-type: none"> <li>Could you provide flow data for Sandersville Pump Station?</li> <li>Could you provide pipe distance/diameter information?</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #23.</li> <li>6" FM from Sandersville PS to LCR FM Tie in, 32FT</li> </ul>
25	<ul style="list-style-type: none"> <li>Sandersville: What are the forcemain dimensions? (Length, diameter)</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #24.</li> </ul>
26	<ul style="list-style-type: none"> <li>Will there be an analog sewage flow signal available to connect to feed systems installed at pump stations?</li> </ul>	<ul style="list-style-type: none"> <li>LFUCG does not believe it is necessary to tie in to "flow signal" to do chemical pilot as we are dripping chemical at all three sites in well (Sandersville) or first incoming manhole into station (LCR, SELK) . There is a 4-20ma signal Loop at SELK and LCR for Level and to turn pumps on and off. SELK and LCR have OUT going Strap on flow meters but as of now, service is spotty at best. Sandersville has nothing.</li> </ul>
27	<ul style="list-style-type: none"> <li>Will there be specified monitoring locations (control points) Discharge locations, i.e., manhole, wet well?</li> </ul>	<ul style="list-style-type: none"> <li>Yes, the discharge MH and intermediate ARVs.</li> </ul>

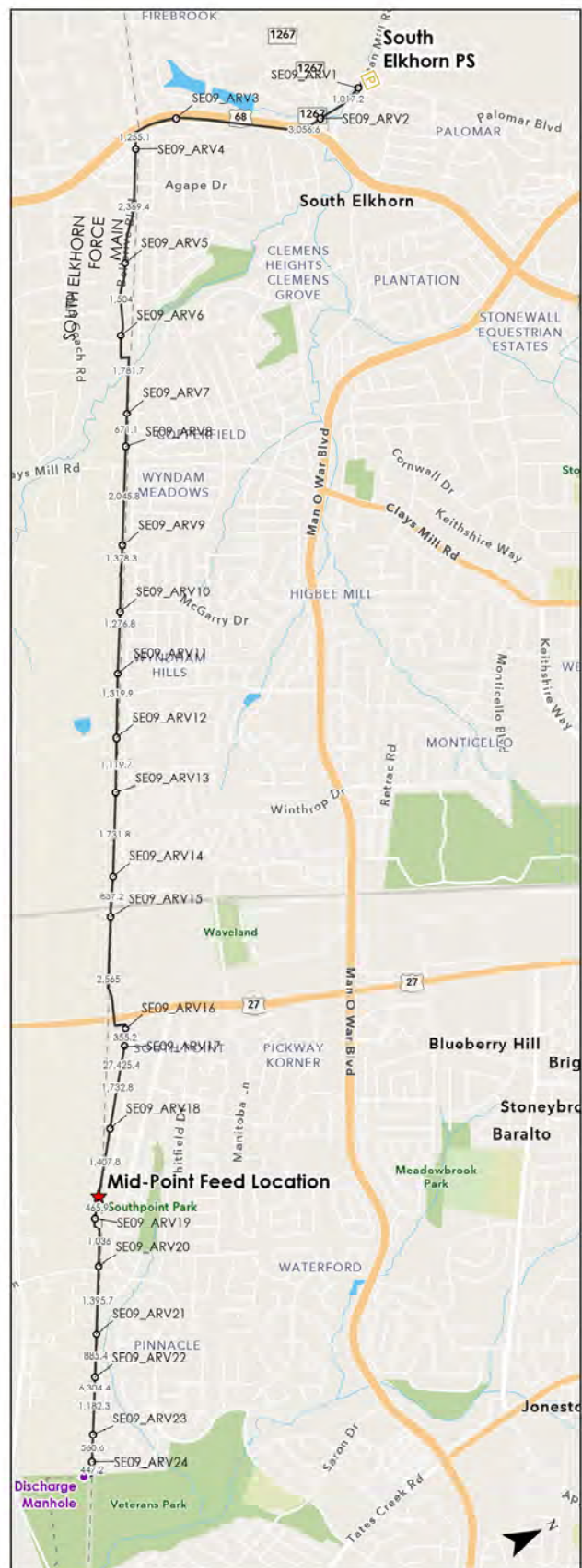
#	SUPPLIER SUBMITTED QUESTIONS	LFUCG RESPONSE
28	<ul style="list-style-type: none"> <li>Sandersville: What are the pump run times (starts and draw down times)?</li> </ul>	<ul style="list-style-type: none"> <li>See response to item #23 and <u>see Appendix E and Appendix F</u></li> </ul>
29	<ul style="list-style-type: none"> <li>What are the treatment goals for performance on these lines?</li> <li>Will there be both liquid phase sulfide treatment goals in addition to vapor phase treatment goals?</li> </ul>	<ul style="list-style-type: none"> <li>Specific goals have not yet been established but looking for most effective means of controlling odors and corrosion.</li> <li>Yes.</li> </ul>
30	<ul style="list-style-type: none"> <li>Sandersville: Are there odor complaints near where this ties into the LCR forcemain?</li> </ul>	<ul style="list-style-type: none"> <li>None documented.</li> </ul>
31	<ul style="list-style-type: none"> <li>Sandersville: Are there historical sulfide readings from the influent wetwell that can be provided?</li> <li>Residual Nitrate?</li> <li>pH?</li> </ul>	<ul style="list-style-type: none"> <li>No, LFUCG does not have historical sulfide, Residual Nitrate, and/or pH readings from the influent wetwell for the Sandersville Pump Station</li> </ul>
32	<ul style="list-style-type: none"> <li>Will products that are considered "hazardous materials" be considered for treatment in these pilots?</li> <li>Will temporary safety water supply setups be acceptable at locations where there is not currently access to water?</li> </ul>	<ul style="list-style-type: none"> <li>Yes, but as stated in the RFP: "Services shall be provided in a safe, secure, effective, and efficient manner and in accordance with all applicable laws, rules, and regulations."</li> <li>Yes as long as the water supply meets the safety requirements for the product.</li> </ul>
33	<ul style="list-style-type: none"> <li>Is LFUCG mostly concerned with Odor Complaints or is there also a concern for corrosion control to protect infrastructure?</li> </ul>	<ul style="list-style-type: none"> <li>RFP states: "The work consists of providing all necessary materials, chemicals, personnel, equipment, and services for pilot testing of <u>odor and corrosion control</u> chemicals in LFUCG's wastewater collection system."</li> </ul>
34	<ul style="list-style-type: none"> <li>Will LFUCG be available to make the physical chemical discharge connection on the force main injection connection(s)?</li> </ul>	<ul style="list-style-type: none"> <li>LFUCG will provide the "tap," each selected Vendor/Bidder will be required to make the physical chemical discharge connection of their equipment to the provided tap</li> </ul>
35	<ul style="list-style-type: none"> <li>Will LFUCG be sharing RFP results with other vendors?</li> <li>Will LFUCG be sharing Pilot Data Reports with other vendors?</li> </ul>	<ul style="list-style-type: none"> <li>Results to be posted on ionwave.</li> <li>No.</li> </ul>
36	<ul style="list-style-type: none"> <li>How will efficacy of different treatments be evaluated over the time frame of the testing? Meaning different pilot periods may experience drastically different weather conditions and wastewater temperatures, resulting in differing demand in the system.</li> </ul>	<ul style="list-style-type: none"> <li>Differing conditions will be taken into account in the evaluation.</li> </ul>

**APPENDIX A**  
**LOWER CANE RUN and SOUTH ELKHORN FORCE MAIN**  
**SCHEMATICS**



**Lower Cane Run Force Main**

Pipe Segment	Length (ft)
LCR Pump Station To Sandersville Tie in	13,580.7
Sandersville to LCR ARV08	8,162.1
LCR ARV08 to Town Branch WWTP	6,538.7
Sandersville PS to LCR Force Main	32.5

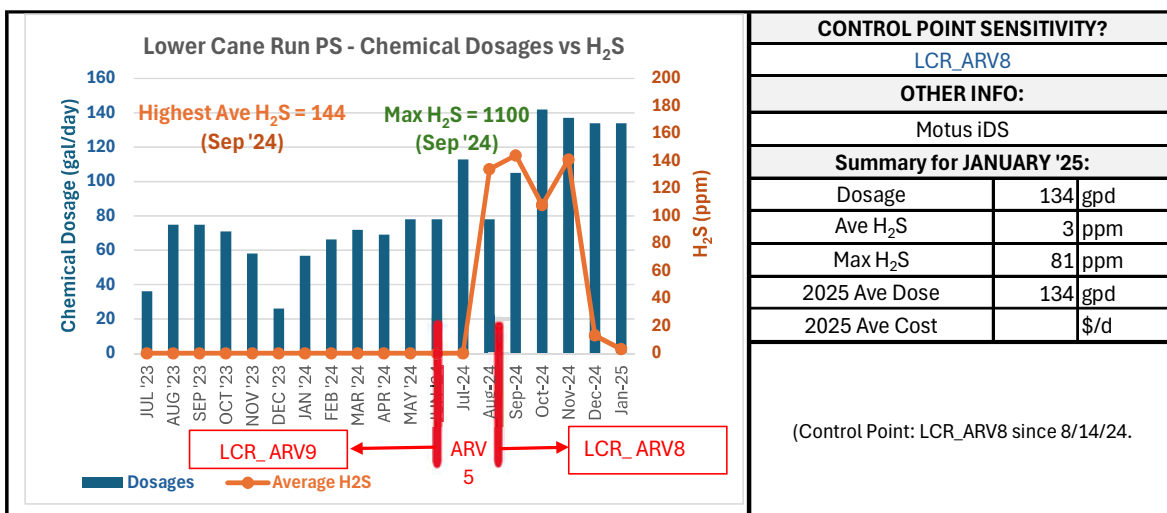
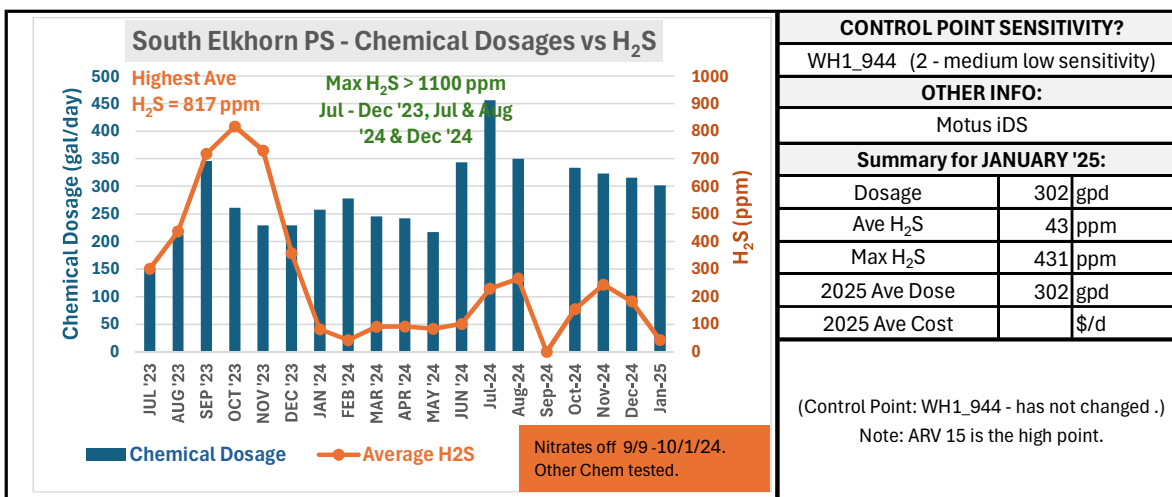


**South Elkhorn Force Main**

Size	Segment	Length (ft)
36	South Elkhorn PS to Feed Loc.	27,425.4
36	Feed Loc. to Discharge MH	6,304.4

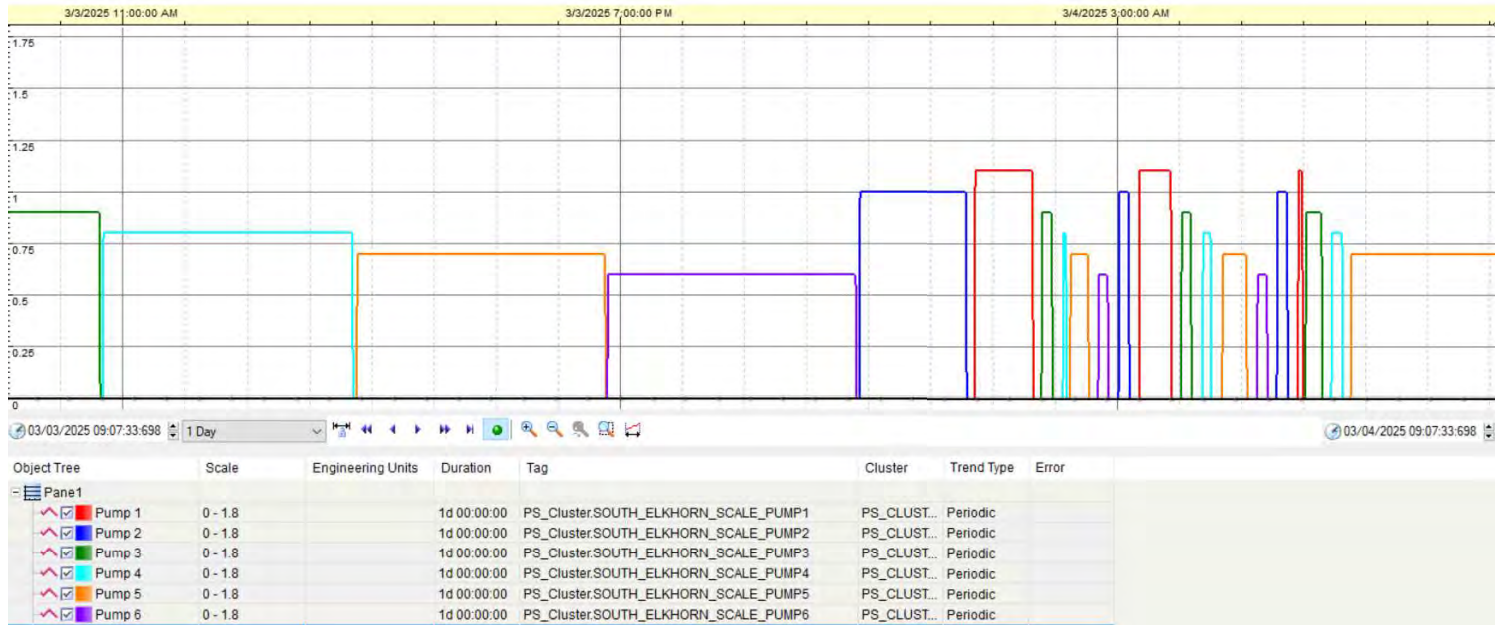
**APPENDIX B**  
**SOUTH ELKHORN and LOWER CANE RUN MONITORING DATA**

## SOUTH ELKHORN and LOWER CANE RUN MONITORING DATA



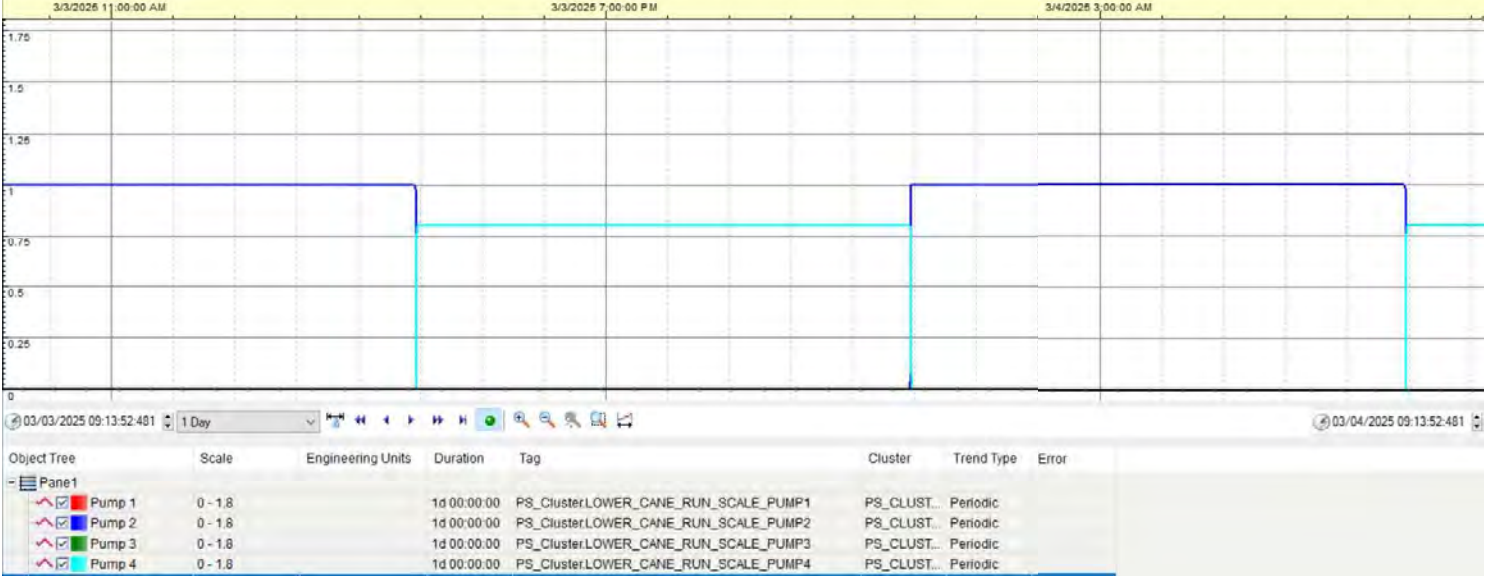
**APPENDIX C**  
**SOUTH ELKHORN PS PUMP RUN CYCLES**

## SOUTH ELKHORN PS PUMP RUN CYCLES



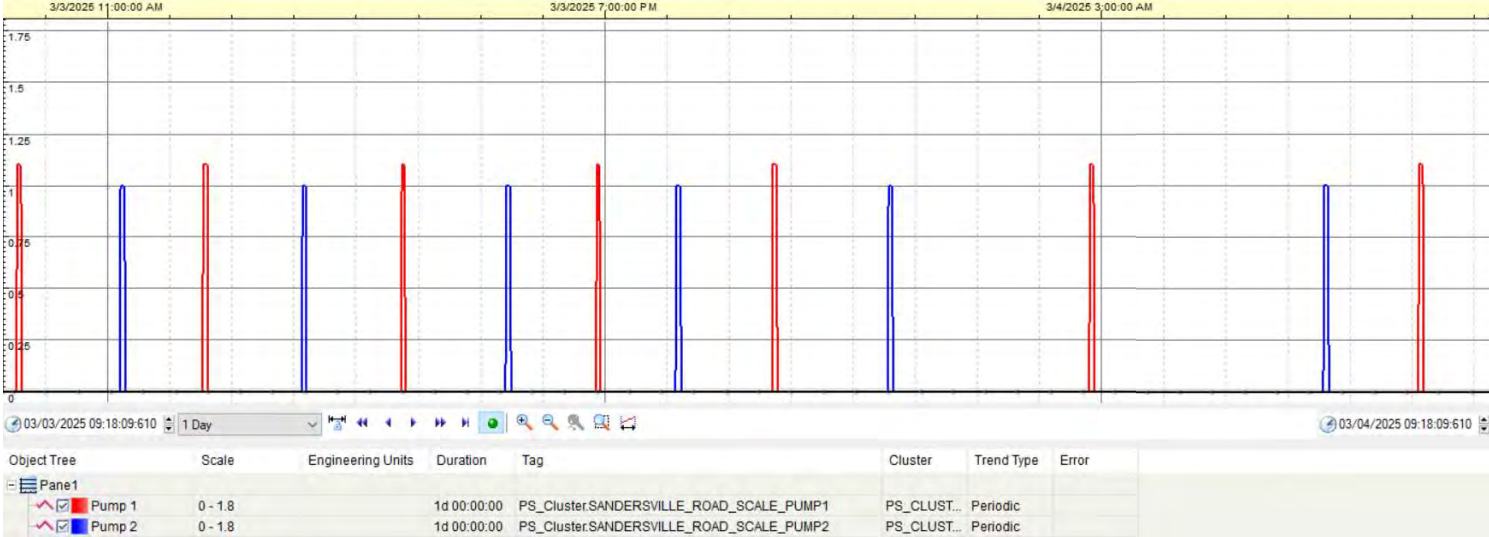
**APPENDIX D**  
**LOWER CANE RUN PS PUMP RUN CYCLES**

LOWER CANE RUN PS PUMP RUN CYCLES



**APPENDIX E**  
**SANDERSVILLE PS PUMP RUN CYCLES**

SANDERSVILLE PS PUMP RUN CYCLES



**APPENDIX F**  
**SANDERSVILLE PS DRAW DOWN DATA**

### SANDERSVILLE PS DRAW DOWN DATA

Station:	Sandersville Road	Mechanic(s):	Dallas
Address:	1673 Jaggie Fox Way	Date:	07/07/2021

Inflow Time (Sec)		Station Design		Run Time / Starts	
1	1136.00	GPM	500.00	P1 RT	25
2	1120.00	HD FT	46.00	P1 Starts	6
3	1180.00	PSI	19.92	P2 RT	29
Average	1145.33			P2 Starts	7

#### Pump 1

Sec / DD		GPM	Head Pressure / Amps	
1	59.00	621.03	PSI	9
2	59.00		Amps L1	22.40
3	61.00		Amps L2	22.60
Average	59.67		Amps L3	23.30

#### Pump 2

Sec / DD		GPM	Head Pressure / Amps	
1	59.00	611.30	PSI	9
2	60.00		Amps L1	20.80
3	63.00		Amps L2	22.40
Average	60.67		Amps L3	22.80

#### Pumps 1 and 2

Sec / DD		GPM	Head Pressure (PSI)
1	30.00	1191.85	9
2	29.00		
3	32.00		
Average	30.33		

## **BID SUBMITTAL REQUIREMENTS**

The following items must be submitted in response to this Bid. NOTE: If Vendor proposes more than one product, a separate Bid response must be submitted for each product.

Information to be provided in this order:

**1. Company Information:**

- Name of Company
- Brief narrative description of company
- Contact information for company representative

**2. Product Description:**

- Name and narrative description of proposed chemical

**3. Safety Documentation:**

- Safety Data Sheet (SDS) for proposed chemical
- Description of safe handling and storage methods

**4. References:**

- Contact information (name, phone number and email address) from three (3) municipal wastewater clients demonstrating your company's experience in Liquid Phase Odor Control using the proposed chemical under contract for at least two (2) years.
- Brief description of services provided to each of the three clients.

**5. Pricing:**

- Pricing listed as specified in the Price Proposal Form below:

<b>Price Proposal Form</b>			
<b>Name of Product</b>	<b>Equipment plus Mobilization / Demobilization Price (\$/site)</b>	<b>Chemical Solution Unit Price (\$/unit)</b>	<b>Specify Price Units (\$/Gallon or \$/Pound)</b>
See in the attached response			

- Questions must be submitted in Ionwave

## USP History and Qualifications

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USP Technologies was founded as US Peroxide in 1992 and has been an industry leader of full service odor and corrosion control programs for nearly 30 years. We solve challenging odor and corrosion control issues in collection systems of various sizes, at pump stations, headworks, primary clarifiers and sludge storage and handling processes. Our treatment philosophy is “technology agnostic” with a focus on finding the best fit technologies for our customers. Our experienced odor control experts work closely with our customers on taking a holistic look at their treatment system to develop the most cost-effective solutions.

USP employs over 70 full time professionals that exclusively focus on solving odor, corrosion and wastewater treatment problems. Our highly specialized experts act as an extension to your team, providing you access to a local territory manager, who is supported by field technicians and lab personnel, chemists, engineers, application specialists, logistics managers, as well as an R&D department that is working closely with multiple university partners on consistently developing new technologies that will further drive future cost savings and improved treatment performance. USP currently manages over 350 chemical applications, treating billions of gallons of water per day.

USP does not manufacture chemicals, nor are we tied to one technology of choice. Our name was changed from US Peroxide to USP Technologies to reflect our wider chemical offering, which includes nitrates, iron salts, SulFeLox®, H<sub>2</sub>O<sub>2</sub>, PRI-TECH™ (Peroxide regenerated iron technologies), chlorite oxidizers, biofilm removal services and peracetic acid for disinfection. Over the years we have developed excellent relationships with multiple chemical suppliers and our customers benefit directly from our buying power and strong supply position in the market. Our multi-technology approach often gives customers a lever to switch between technologies and protect themselves from rate hikes of individual chemicals.

USP is part of the ChemTreat Group operating within Veralto Corporation’s Water Quality Platform. Veralto itself is an \$5B company, traded on the NYSE under VLTO, and includes industry leading water technology companies Hach, McCrometer, and Trojan Technologies, among others. Being part of the Veralto Family gives USP the stability and financial backing to put millions of dollars of high quality capital equipment into the field for the direct benefit and use of our customers.



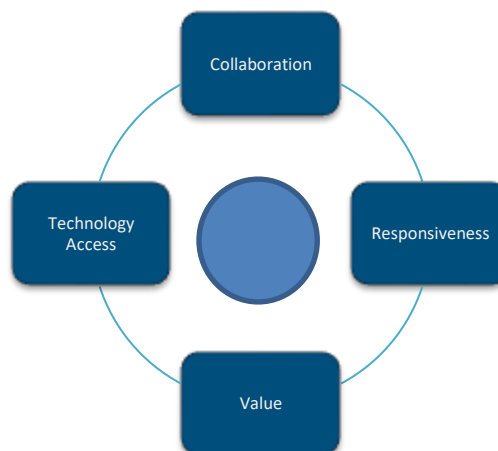
Overall, USP provides the highest degree of experience, technology and operations capability available in the industry for delivering a reliable and cost effective supply of specialty chemistries, engineered equipment storage and dosing systems and applications assistance. Our robust toolbox of treatment technologies sets us apart in the industry and allows our application experts to custom-tailor best-fit solutions to meet our customers’ needs and budgets.

We have assembled an experienced service team for this program. Our full-service program includes all of the necessary equipment and will be managed with a high level of transparency to ensure complete satisfaction for the Lexington-Fayette.

## USP Core Values

When you work with USP you will be part of our team and experience our dedication to our core values.

- **Collaboration** – We believe that “The Best Team Wins”, which is why we put the most skilled and engaged team in the field to execute your programs. However, the definition of “team” does not end with USP. We build teams with our customers for an open flow of information, where we provide timely and accurate field data that enables our customer to make the right decisions regarding program direction and setting and achieving their budget and performance goals.
- **Responsiveness** – Our teams’ most important responsibility is to listen to our customers. Our strong customer focus helps us create innovative solutions to address our customers’ needs. Our access to and expertise in multiple technologies, as well as planned investment in stock equipment systems, provides our customers with expedient access to resources needed to address collection system or plant treatment challenges.
- **Value** – USP’s depth of knowledge of odor & corrosion control issues and general wastewater treatment problems along with our access to multiple technologies allows us to apply “best fit” technologies to ensure our programs deliver better performance at equal or lower cost than current options. Our drive for continuous improvement keeps us ahead of our competitors, creating lasting value for our customers.
- **Technology Access** – One of the most important ways we drive continuous improvement is through innovation that makes a difference. USP is the recognized leader in the application of a broad range of wastewater treatment technologies and has proven to be an innovator and market channel for new technologies. A partnership with USP provides access to currently proven technologies while also being positioned to partner on leading edge “new to market” technologies as well.



USP focuses on chemical applications, specifically for the treatment of water, wastewater, soil and air. Over the past 20 years, USP has emerged as the industry leader in providing performance-driven, full-service odor, corrosion, and nutrient control programs for municipal and industrial customers across the US and Canada. In total, we presently manage about 200 chemical applications that treat close to 1.0 BGD.

## Logistics

USP is the largest hydrogen peroxide supplier for environmental applications in the North America. Our Supply Chain sources, manages inventories, and delivers a wide range of proprietary and program products including hydrogen peroxide, iron salts, nitrates, chlorite oxidants, peracetic acid, and biofilm removal services. The USP Supply Chain manages >7000 deliveries annually through our proprietary tank level monitoring and chemical order management system. The USP Supply Chain also supports USP's Emergency Rapid Response applications for supplemental D.O., odor control, remediation and various other municipal and industrial applications by sourcing and delivering various chemistries within 72 hours.

USP Technologies Supply Chain will manage all local / national terminal and delivery truck requirements including monitoring tank levels, automated replenishment, and the additional operational services otherwise necessary to deliver the program safely and reliably and in a manner that will satisfy and comply with the management requirements, equipment and service specifications and treatment goals as set forth and outlined in the RFP.

USP successfully delivers a worry free supply chain solution to small, medium, and large scale customers offering a range of single to multi-technology based programs to municipalities throughout the country including other similar customers to the Lexington-Fayette such as ***City of Baton Rouge, LA; JEA (Jacksonville, FL); City of Bakerfield, CA; and City of Phoenix.***

## Engineering Services

USP Technologies (USP) Engineering & Equipment Services (EES) specializes in the design and installation of bulk and mini-bulk chemical handling systems to serve the municipal, industrial, remediation and drinking water markets. Our ability to provide proven, value-added, comprehensive full-service solutions is unique within the industry. Our project managers and engineers work closely with our customers and our application experts to provide efficient, cost-effective and high quality turn-key chemical management solutions, whether the requirement is fewer than 5 gallons per day or 5,000 gallons per day. Engineers are available for design support and consultation for all chemical handling requirements:

- Turn-key Systems • Installation, Startup and Maintenance • Custom Design and Fabrication • Safety Compliance • Bulk & Mini-Bulk Solutions

USP's turn-key programs include installation, testing, start-up and all equipment system maintenance. At start-up, all metering pumps are calibrated and calibration curves are provided for easy reference. As part of the full-service program, each system is regularly inspected and checked throughout the contract period. USP develops customized preventive maintenance programs for all systems provided by USP. Highly skilled and trained Field Service Technicians perform required preventive or routine maintenance

and keep documentation of completion. USP also performs annual system inspections and annual refresher safety training. Our field service personnel can respond within 24 hours to address equipment issues and many times are considered integral "embedded" members of our customer organizations.

#### Corporate Office Information

5640 Cox Road

Glen Allen, VA 23060

Telephone: 404.352.6070

Number of Employees: 65

Number of Customers: 300 including 600 discrete delivery locations

Annual Sales: \$60 Million

## Organization Chart

### USP Staff Roles for Lexington-Fayette

In support of the program, USP Technologies is committed to providing a highly qualified and experienced team of individuals with a proven track record of success in working together at programs of similar size and scope and that is dedicated to the safe, reliable and cost-effective operation and management of the program to meet the stated specifications and performance objectives.

The team that would specifically serve Lexington-Fayette consists of a qualified and experienced group of individuals with a proven track record of success in working together on similar programs and projects.

The table below presents the contact information, roles, experience, and responsibilities of the team leaders. A larger regional support team will also be made available to Lexington-Fayette throughout the duration of the program.

TITLE	EXPERIENCE
Eastern Regional Business  Manager Dan Kile	<ul style="list-style-type: none"> <li>The Business Manager has primary responsibility for ensuring resources (manpower, technical skills and equipment investment) are available to meet SDCCS program needs</li> <li>Provides interface and access to cross-functional teams for quick and efficient identification and evaluation of equipment or programs that might benefit SDCCS</li> <li>Chemical Engineer, +15 years in wastewater</li> </ul>
Program Manager  Samuel Kohl	<ul style="list-style-type: none"> <li>Primary customer reporting responsibility and overall program management during ongoing operations</li> <li>Oversee and direct the execution of all application and technical needs</li> <li>Oversee and monitor program performance and compliance (QA/QC auditing)</li> <li>Advise alternative solutions to existing problems, incl. troubleshooting applications</li> <li>8 years in wastewater</li> </ul>
Business Development/Technical Advisor  Ian Watson	<ul style="list-style-type: none"> <li>Manage all commercial issues during initial program implementation</li> <li>Make technical application recommendations</li> <li>Oversee full service program and coordinate commercial elements during initial program implementation</li> <li>Resource for additional treatment needs</li> <li>BS Chemical Engineering, over 20 years in wastewater</li> </ul>

Engineering & HSE Manager Greg Kubik	<ul style="list-style-type: none"> <li>• Oversees safe system implementation &amp; commissioning</li> <li>• Site safety analysis</li> <li>• Manager &amp; administrator of USP's Health, Safety &amp; Environmental program</li> <li>• System design, compliance &amp; security issues management Certified Construction Management, 17 years in wastewater</li> </ul>
Logistic Manager Ricardo Joseph	<ul style="list-style-type: none"> <li>• Assist the Program Manager in manage daily tank levels, monitor chemical dosage</li> <li>• Place orders as required to meet program dosing targets and performance objectives</li> <li>• Monitors &amp; documents equipment performance Troubleshoots existing system functions</li> <li>• Emergency Response Monitoring and sampling of vapor phase treatment equipment for performance</li> </ul>
Field Service Technician - Equipment and Maintenance  John Kenny	<ul style="list-style-type: none"> <li>• Periodic system maintenance during or in addition to routine site inspections</li> <li>• Executes preventative maintenance on equipment.</li> <li>• Monitors and documents equipment performance and facility information.</li> <li>• Troubleshoots existing system functions</li> <li>• Maintains site cleanliness and site safety Emergency Response</li> </ul>
Service Manager Justin Goyette	<ul style="list-style-type: none"> <li>• Project management for new installations or larger equipment upgrades or system modifications</li> <li>• System pre-installation inspection</li> <li>• Lead system installation team on site</li> <li>• Equipment maintenance, quality and safety control</li> </ul>
Applications Specialist Michael Ratley	<ul style="list-style-type: none"> <li>• Provides regular and frequent interface with chemical supplier – partners to ensure reliable chemical inventory</li> <li>• Daily inventory monitoring and delivery scheduling</li> <li>• Monitor systems and provide advance notification of out of spec situations</li> <li>• Communicate delivery variances in schedule</li> </ul>

TITLE	EXPERIENCE
Manager, Supply Chain & Quality  Michael Engram	<ul style="list-style-type: none"> <li>Monitors and manages USP distribution fleet service and terminal performance</li> <li>Manages ChemWatch Control Center employees and supports logistics activities</li> <li>Primary resource for invoicing and chemical delivery reconciliation</li> <li>Integrates program with commercial objectives and customer invoicing</li> <li>Leads chemical supply QA/QC program</li> <li>BS Mechanical Engineering, 25 years in wastewater</li> </ul>
VP of Technology and Program Development  John Walton	<b>Technical Advisory Committee</b> <ul style="list-style-type: none"> <li>Ensure the corporate level commitment of resources required to successfully operate the program, meet contractual obligations, and satisfy customer needs</li> <li>Provide high level program and project management and oversight</li> <li>Provide commercial support and response to account and contractual issues</li> <li>Ensure technology selection is optimized and current</li> <li>Provide oversight and regular review of treatment and operational performance and compliance goals</li> <li>30+ combined years in wastewater</li> </ul>
East Regional Business Manager  Dan Kile	
Territory Manager  Samuel Kohl	
Manager, Engineering & Equipment Services  Leo DoCarmo	
General Manager  Jordan Butler	

## USP-Proposed Chemical

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Ferrous Chloride – Iron salts have been used in collection system odor control since the adoption of the clean water act. It is the most efficient treatment for large, high flow lines. It operates by creating the FeS bond to render sulfide inert within the force main. They have also historically provided better performance vs other treatment options in long retention time scenarios.

SulFelix®– USP Technologies buffered iron salt solution. Operates in a similar manner to ferrous chloride but maintains a low hazard rating per NFP diamond. Additionally, SulFelix® maintains a pH above 4 which improves binding efficiency and decreases the possibility for pH suppression.

### Program Narratives:

Case Studies (provided upon request) have proven that SulFelix® buffered iron salt can be used to replace calcium nitrate at a volume ratio of 3:1 with equal or improved performance controlling hydrogen sulfide. However, with the South Elkhorn PS specifically, the current nitrate feed has not been able to control sulfide to a level that USP would be comfortable making assumptions based on. All dose rate estimates for this program are based around controlling the totality of sulfide reaching the discharge point each day, which the current program is failing to do. Based on the configuration of this force main, an Iron salt solution is better suited to provide H<sub>2</sub>S control downstream and will be more efficient in its treatment. USP is leaning on predictive sulfide modelling and is basing our dose rate estimates based on approximately 300lbs of H<sub>2</sub>S per day at the discharge manhole. This is very likely a conservative estimate and after the initial conditioning period we would expect the dose rate to decrease significantly for the second half of the trial.

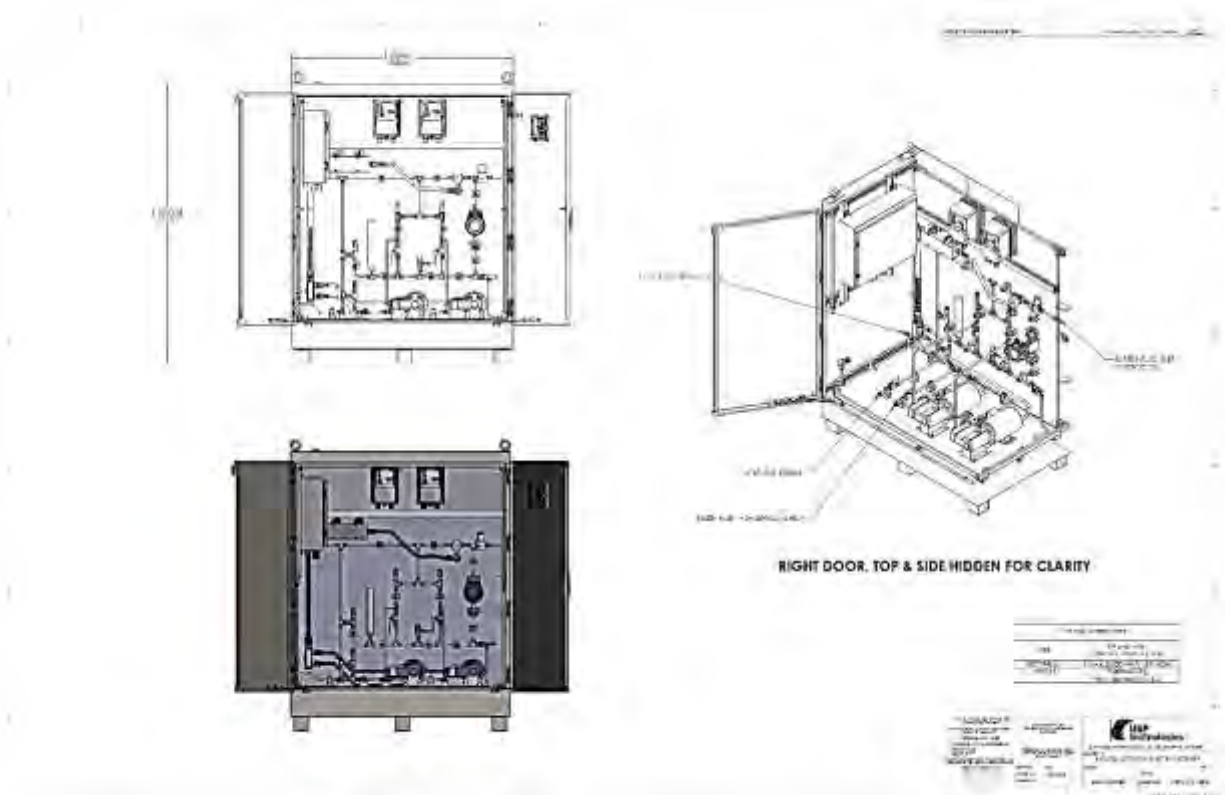
	South Elkhorn (GPD)	Lower Cane Run PS (GPD)
SulFelix®	400	50
Ferrous Chloride	450	60

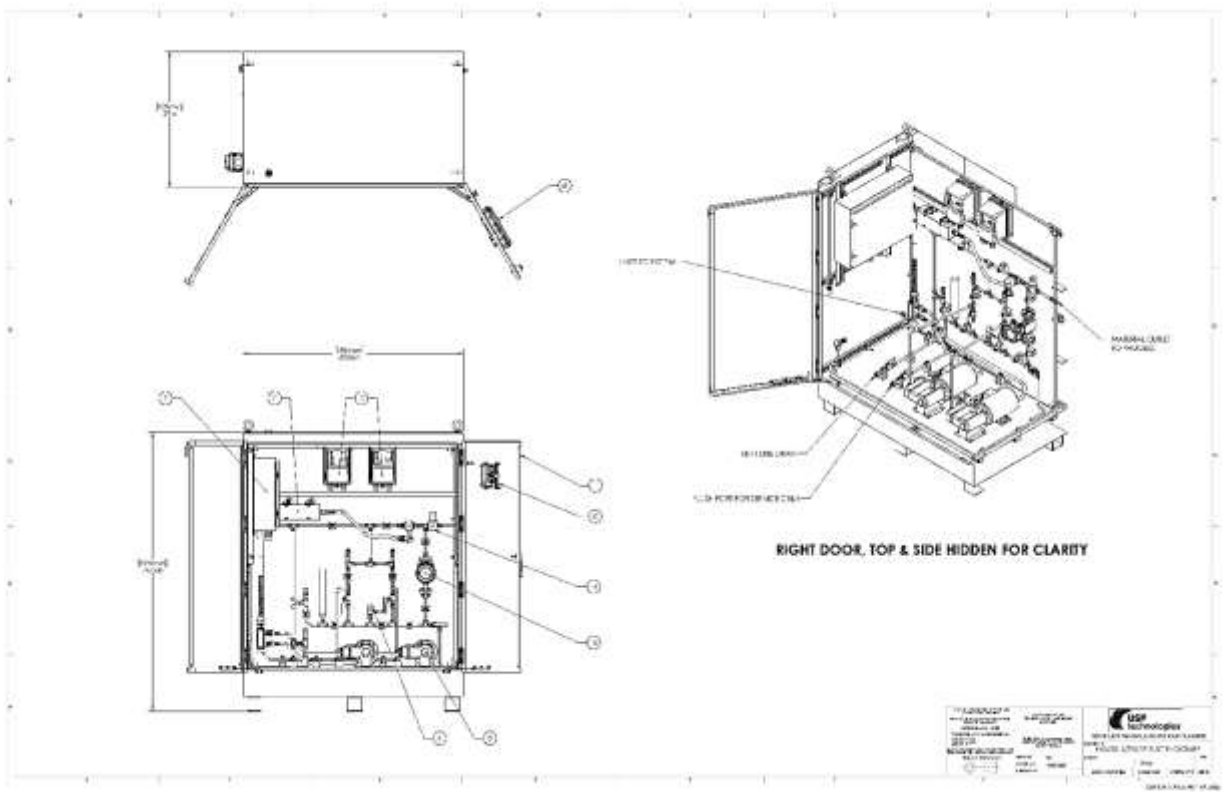
## USP Technologies-Proposed Equipment

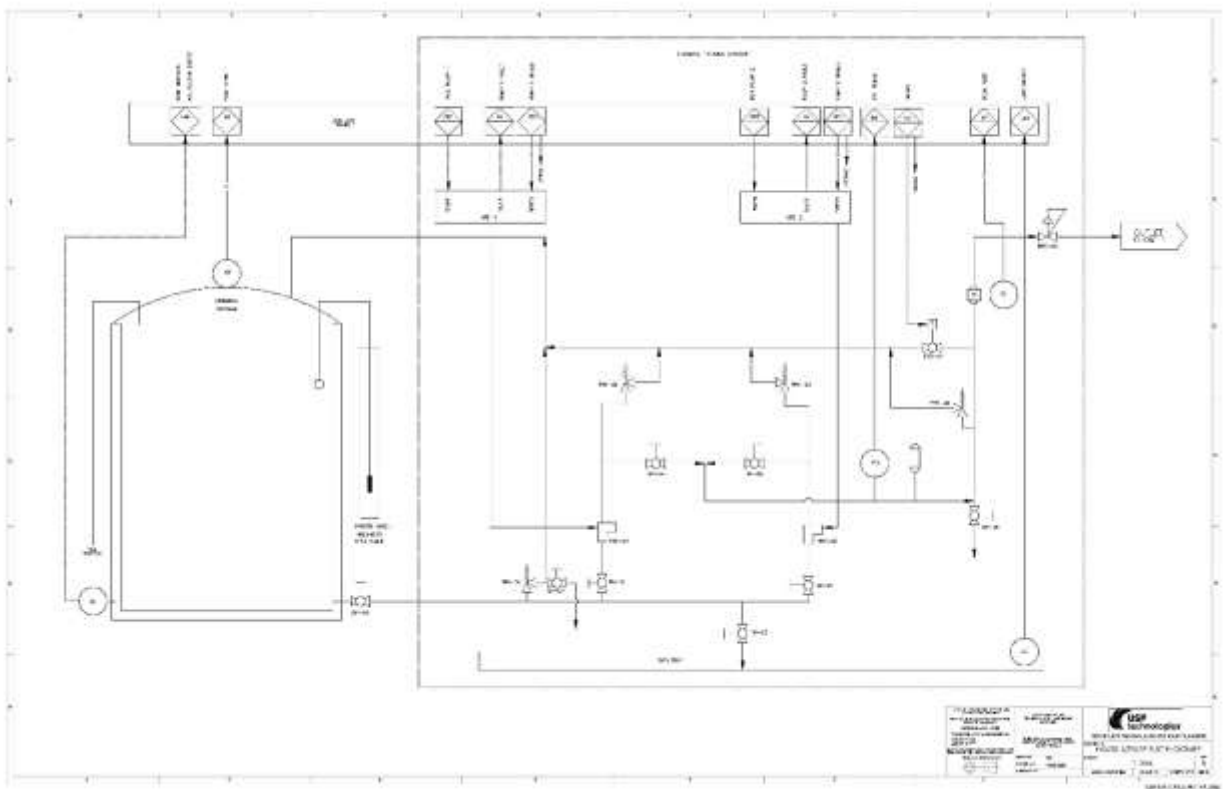
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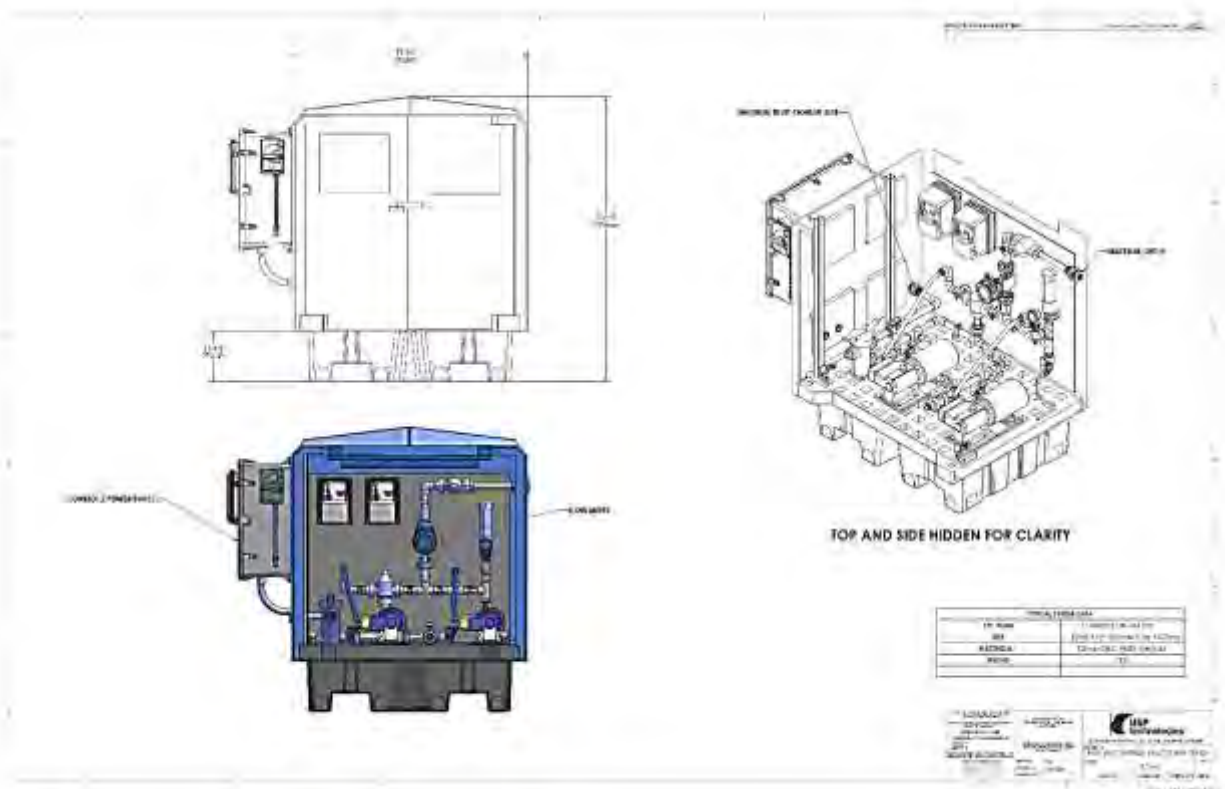
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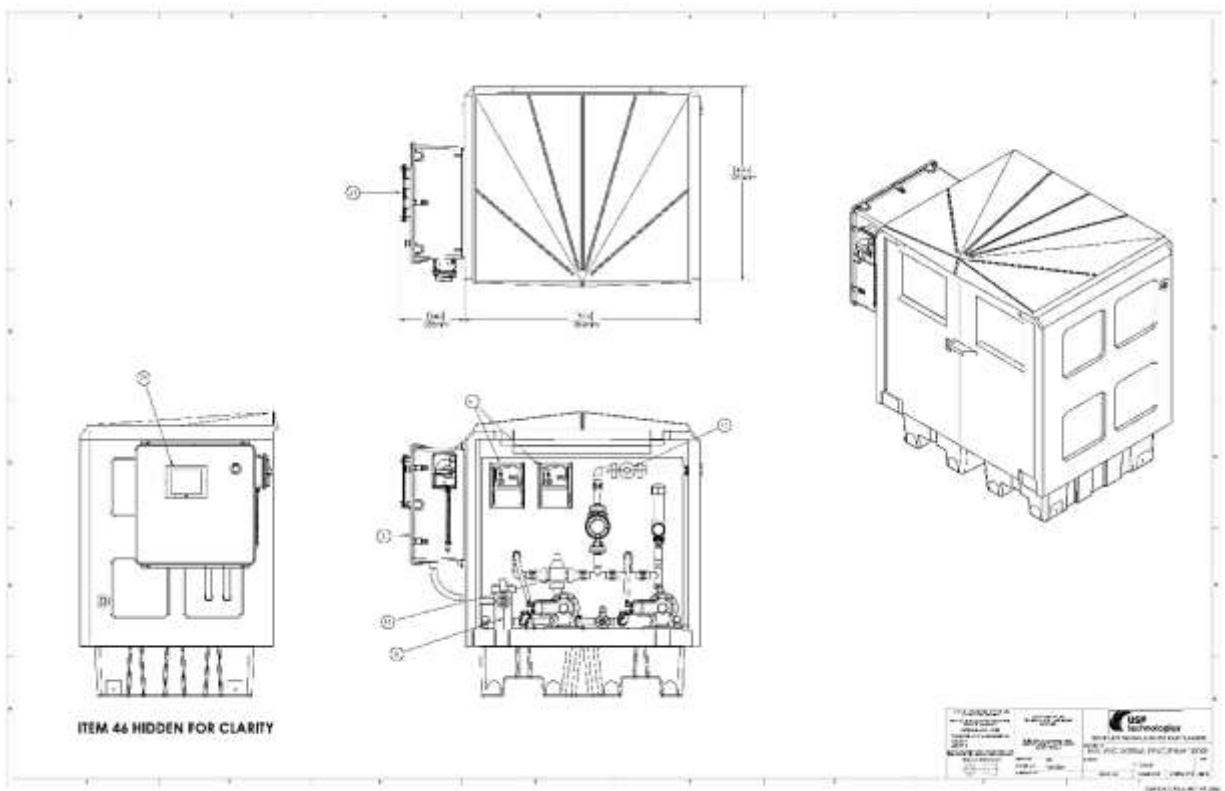
- Turn-key Systems
- ChemWatch <sup>™</sup> ACS
- Installation, Startup and Maintenance
- Custom Design and Fabrication
- Safety Compliance
- Bulk & Mini-Bulk Solutions

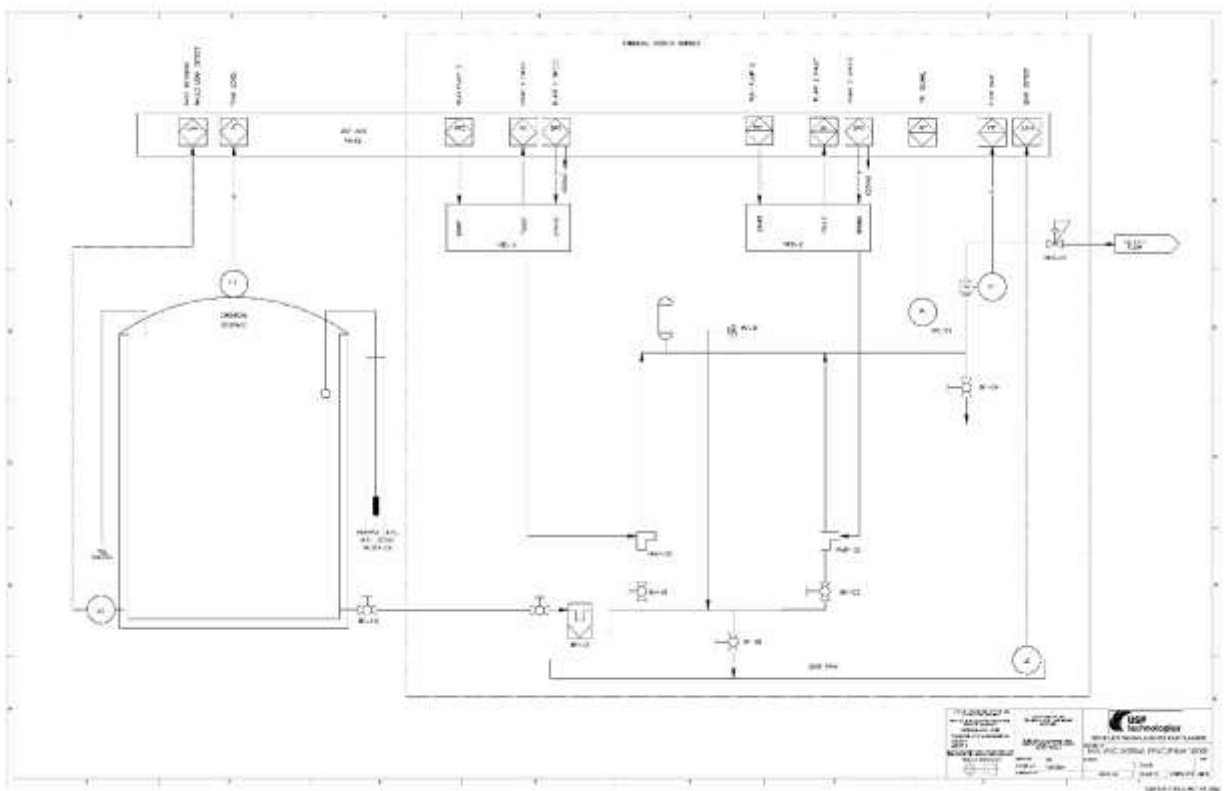




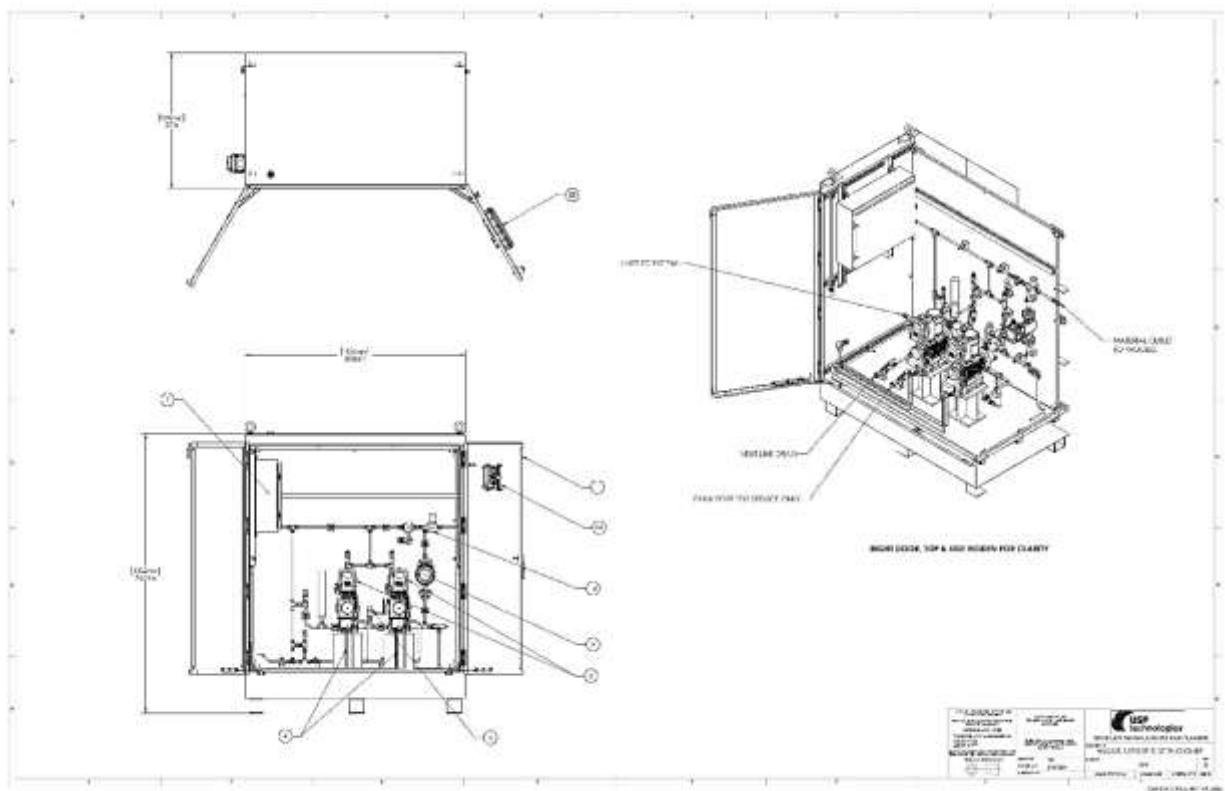


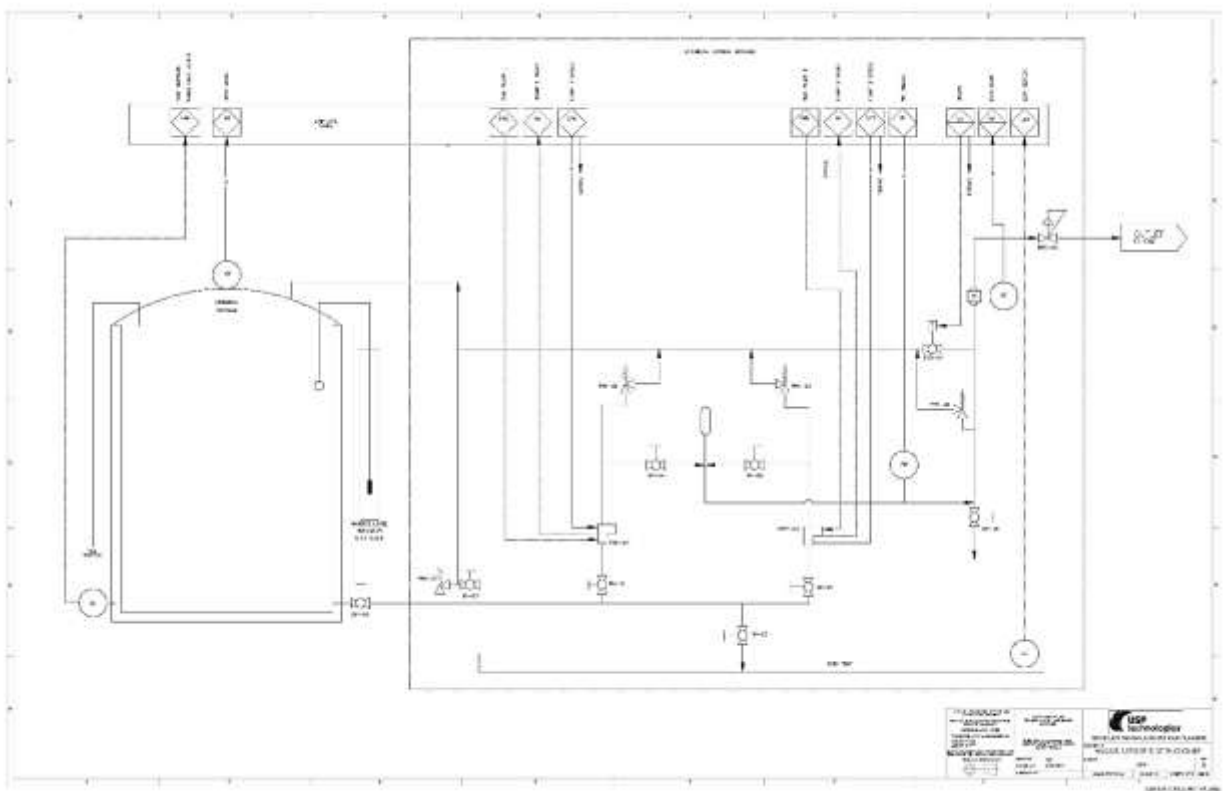


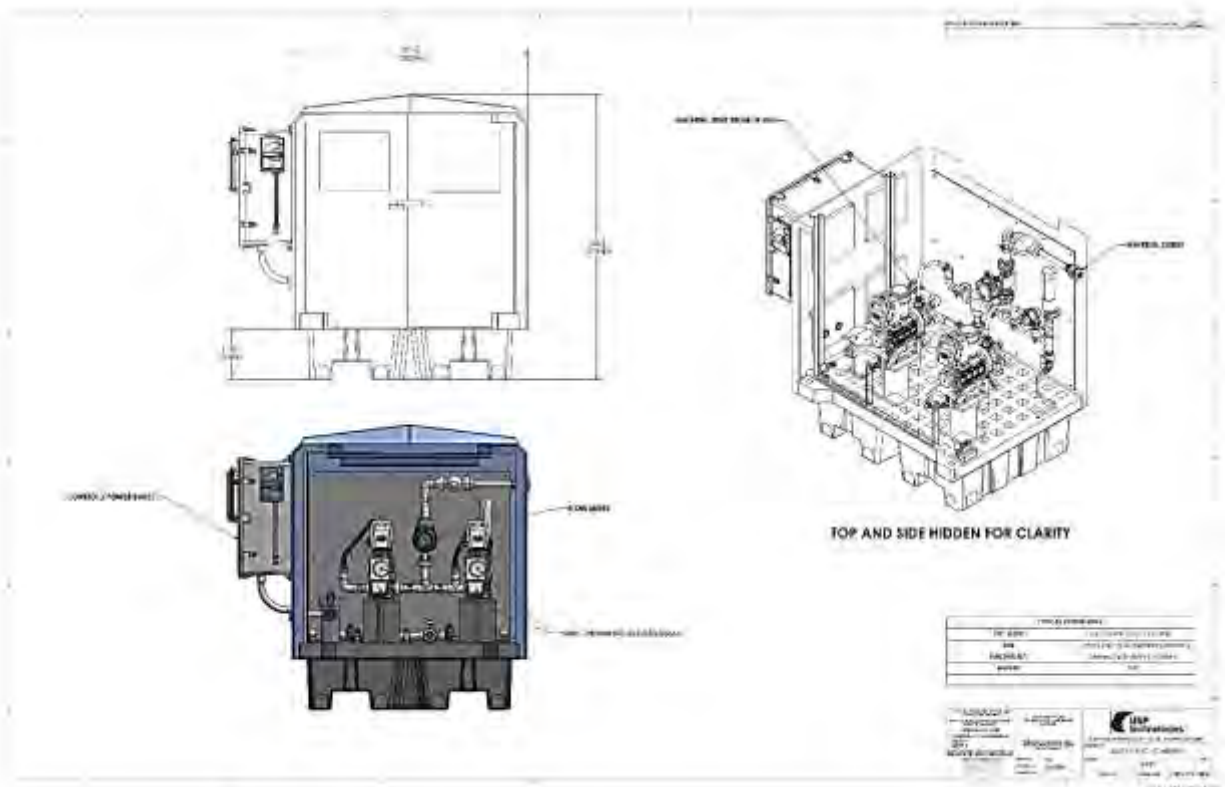


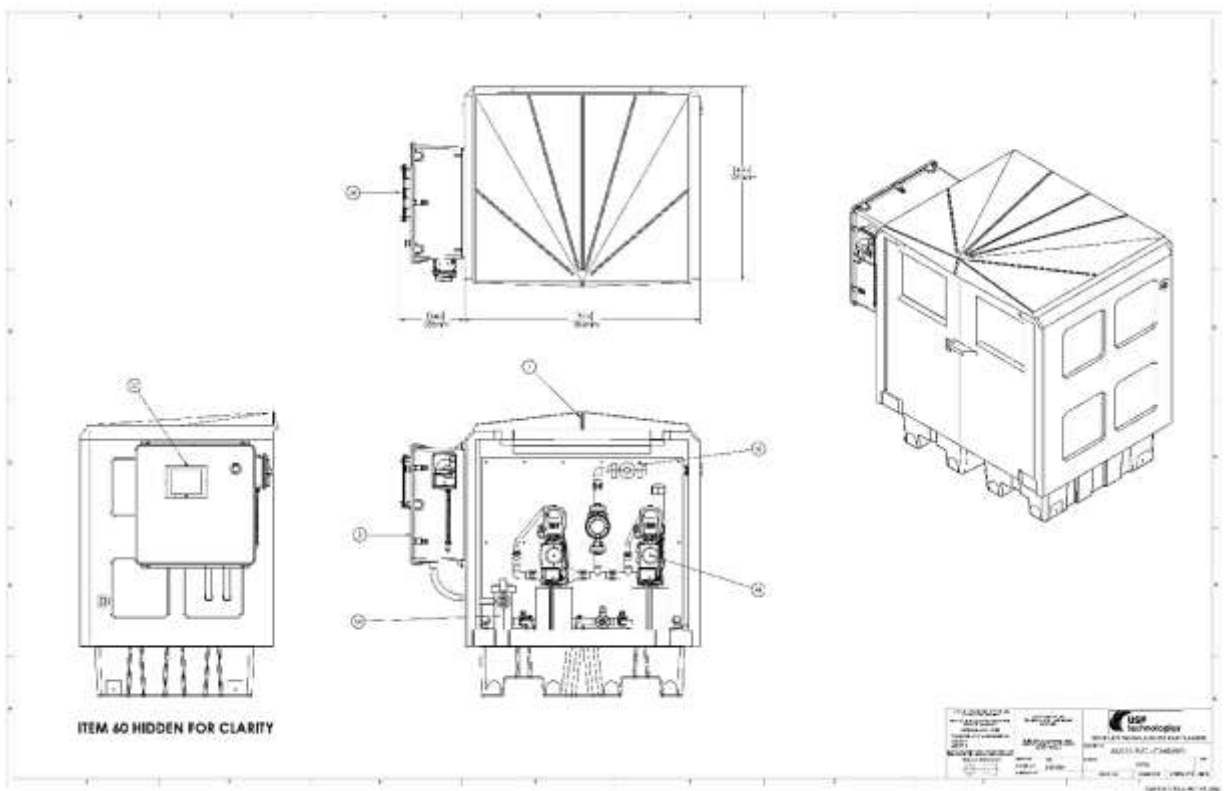


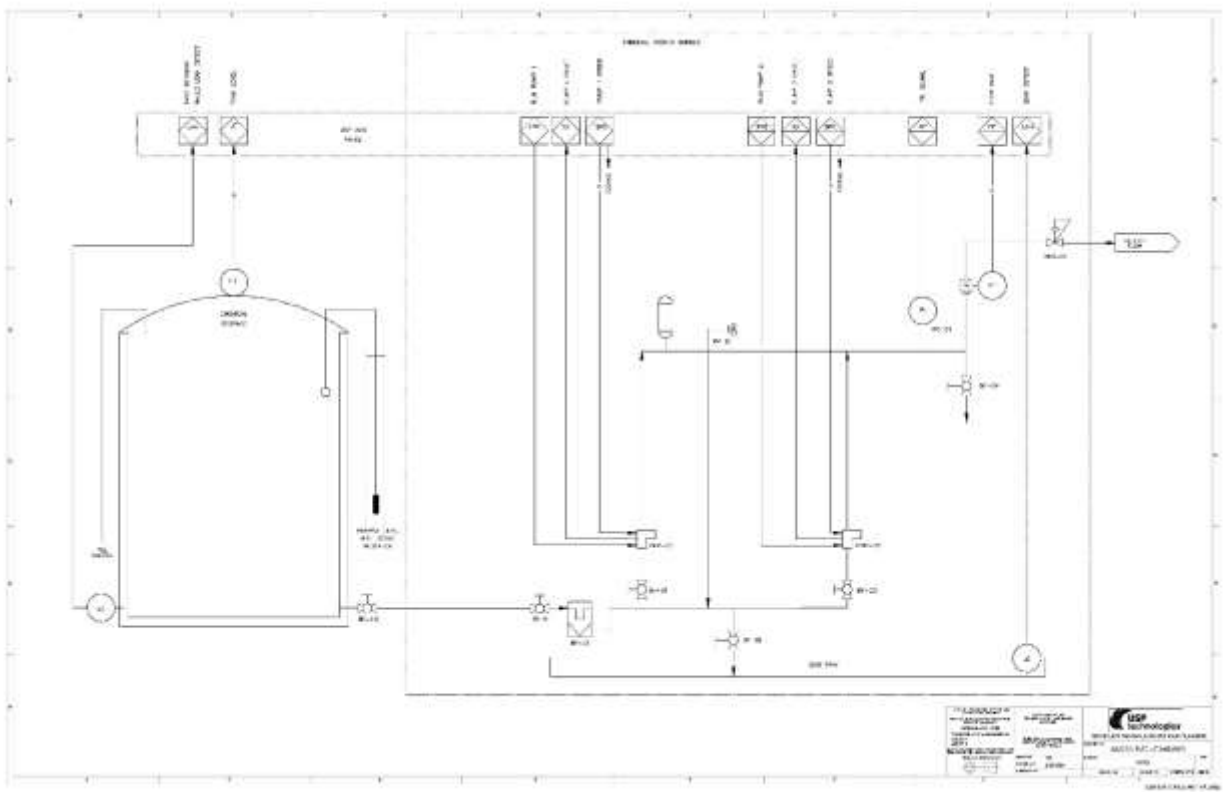


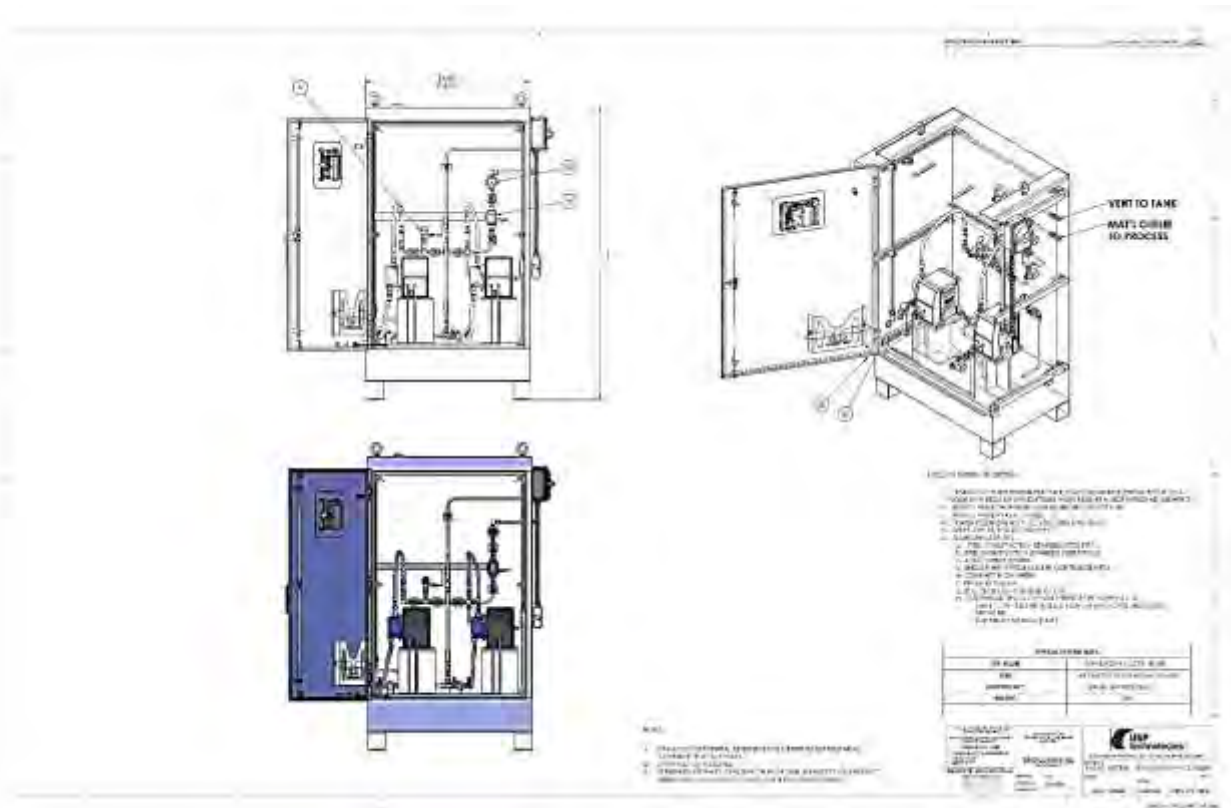


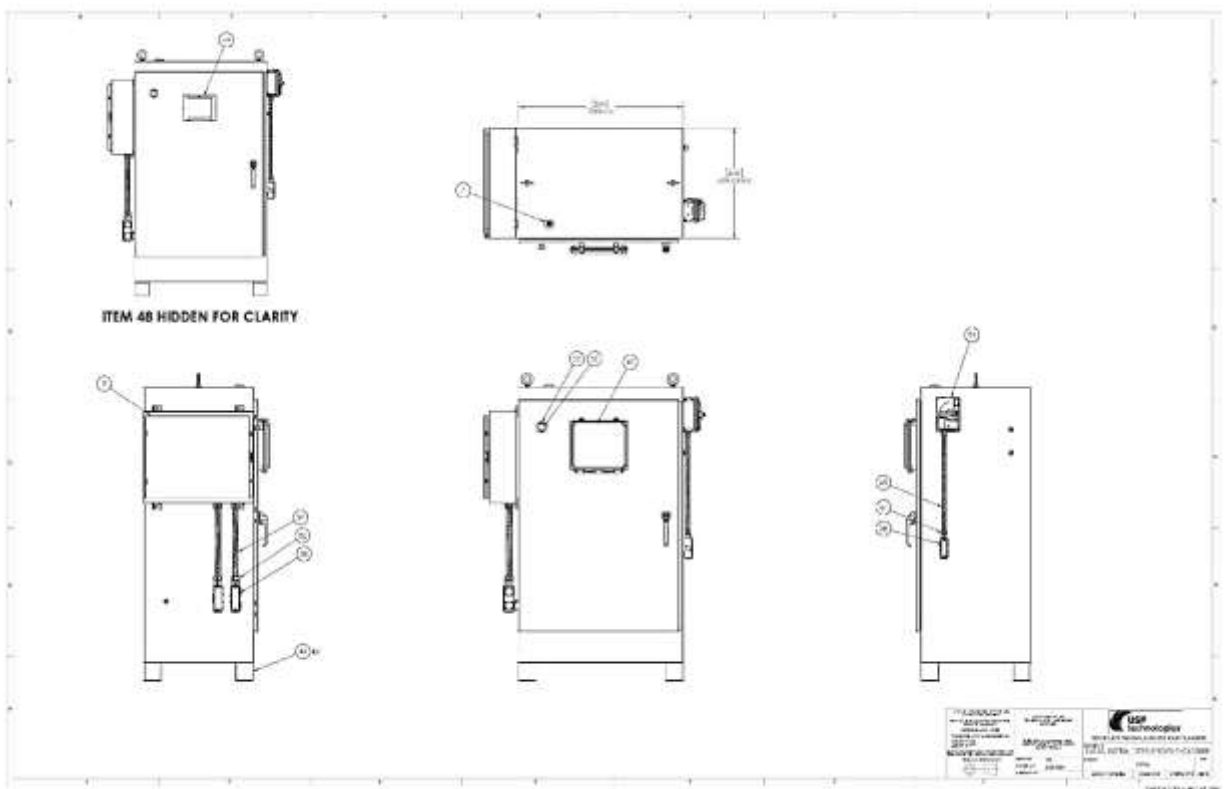


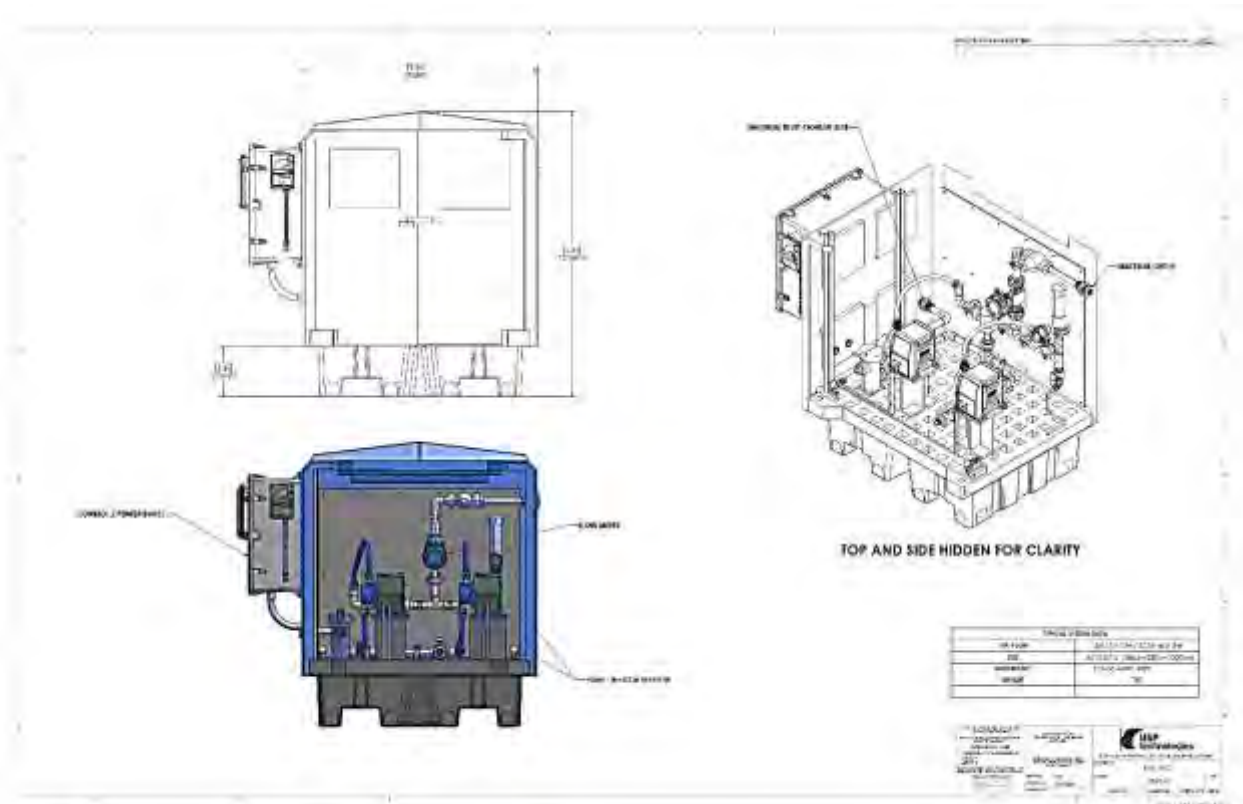


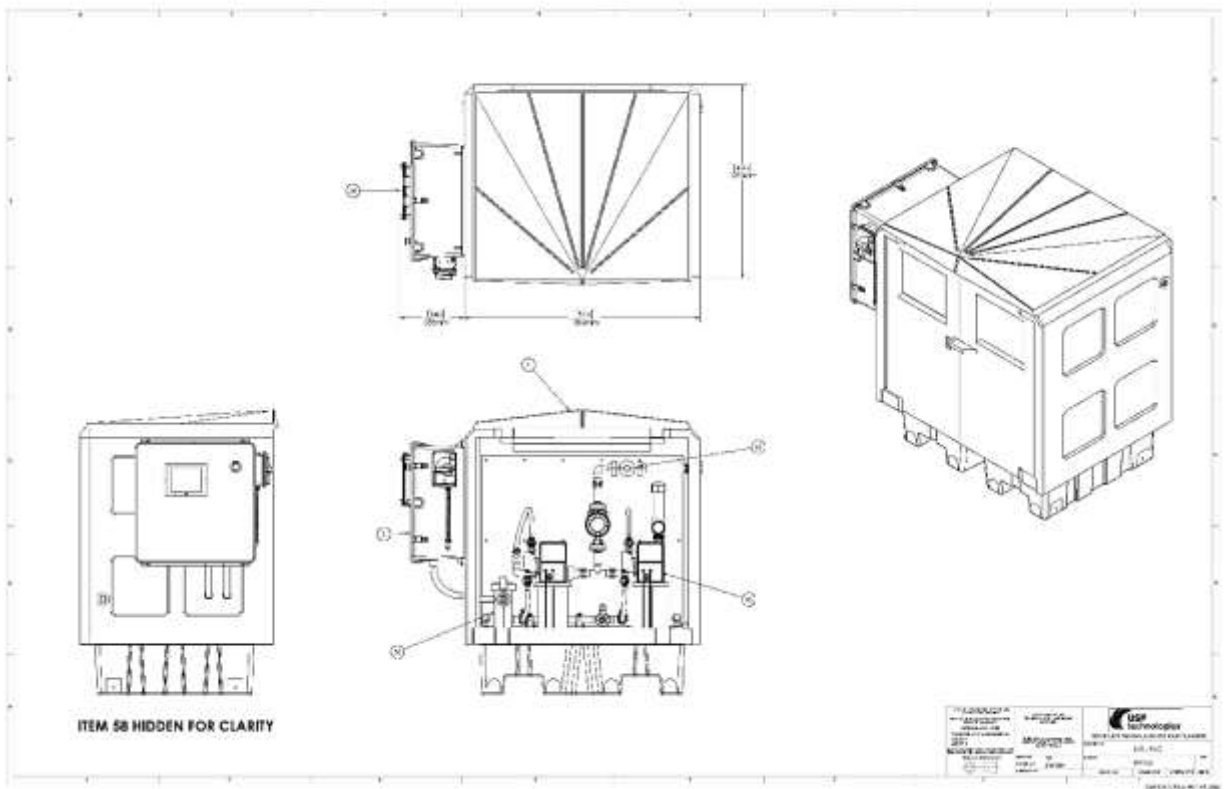


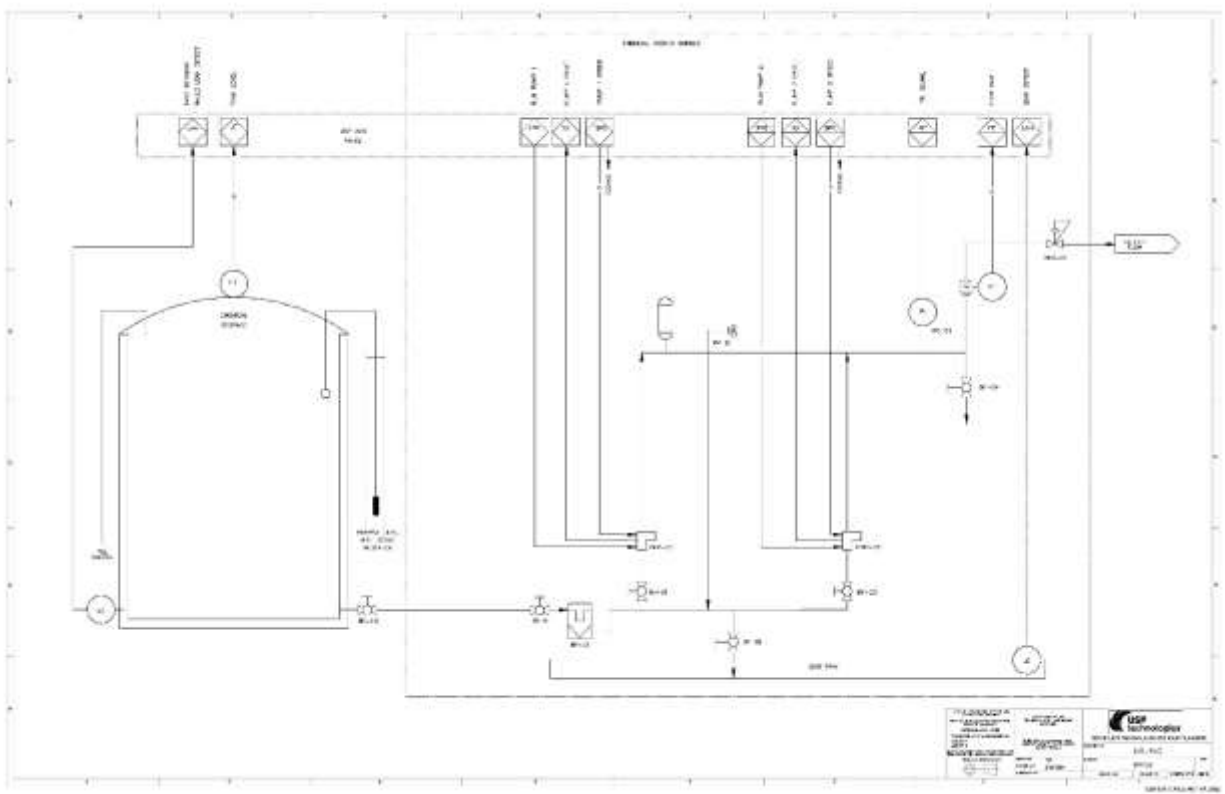












# Safety Data Sheet



Revision Date May 26/2015

Item # 10248/11055

Safety Data Sheet 3743

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Ferrous Chloride Solution  
**UNID No.** NA1760  
**Synonyms** Iron (II) Chloride  
**Recommended Use** Water treatment chemical, Industrial wastewater treatment, Municipal wastewater treatment, Chrome reduction  
**Uses advised against** Consumer uses, Private households (= general public = consumers)

**Company Name**  
 PVS Technologies, Inc.  
 10900 Harper Ave  
 Detroit, MI 48213  
 (313) 571-1100

**24 Hour Emergency Phone Number** CHEMTREC 1-800-424-8300

## 2. HAZARDS IDENTIFICATION

### Classification

Acute toxicity – Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
May be corrosive to metals	Category 1

### Emergency Overview

#### DANGER

##### Hazard statements

Causes serious eye damage  
 Causes severe skin burns and eye damage  
 Harmful if swallowed

##### Physical hazards

Corrosive  
 Corrosive to metals



### Precautionary statements

#### Prevention

- Wear eyes/face protection
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapour/spray
- Do not eat, drink or smoke when using this product
- Wash face, hands and any exposed skin thoroughly after handling

**Item # 10248/11055 Ferrous Chloride Solution**

<b>Response</b>	<ul style="list-style-type: none"> <li>• Immediately call a POISON CENTER or doctor/physician</li> <li>• Specific treatment (see section 4 on this Safety Data Sheet)</li> <li>• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>• IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower</li> <li>• IF SWALLOWED: Rinse mouth. DO NOT induce vomiting</li> <li>• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing</li> <li>• Wash contaminated clothing before reuse</li> </ul>
<b>Storage</b>	• Store in a secure area
<b>Disposal</b>	• Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)** None known

**Other Information**
**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	EC No.	Weight-%
Water	7732-18-5	231-791-2	70-84
Ferrous chloride	7758-94-3	231-843-4	16-30
Hydrogen chloride	7647-01-0	231-595-7	0.6

\*The exact percentage (concentration) of composition has been withheld as a trade secret

**4. FIRST AID MEASURES**

<b>General advice</b>	Immediate medical attention is required
<b>Eye contact</b>	<ul style="list-style-type: none"> <li>• Immediate medical attention is required</li> <li>• Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes</li> <li>• Do not rub affected area</li> </ul>
<b>Skin Contact</b>	<ul style="list-style-type: none"> <li>• Immediate medical attention is required</li> <li>• Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes</li> <li>• Wash contaminated clothing before reuse</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>• Remove to fresh air</li> <li>• Call a physician or poison control center immediately</li> <li>• If not breathing, give artificial respiration</li> <li>• If breathing is difficult, give oxygen</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>• Immediate medical attention is required</li> <li>• Do NOT induce vomiting</li> <li>• Rinse mouth</li> <li>• Drink 4 to 8 ounces (120-240 ml) of water or milk as soon as possible after ingestion</li> <li>• Never give anything by mouth to an unconscious person</li> <li>• Call a physician or poison control center immediately</li> </ul>
<b>Note to physician</b>	<p>Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.</p>
<b>Self-protection for first aid personnel</b>	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Item # 10248/11055 Ferrous Chloride Solution

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	<ul style="list-style-type: none"> <li>• Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray</li> <li>• Use extinguishing measures that are appropriate to local circumstances and the surrounding environment</li> </ul>
<b>Unsuitable extinguishing media</b>	<ul style="list-style-type: none"> <li>• No information available</li> </ul>
<b>Specific hazards arising from the chemical</b>	<ul style="list-style-type: none"> <li>• The product causes burns of eyes, skin and mucous membranes</li> <li>• Thermal decomposition can lead to release of irritating and toxic gases and vapors</li> <li>• In the event of fire and/or explosion, do not breathe fumes</li> </ul>
<b>Protective equipment and precautions for firefighters</b>	<ul style="list-style-type: none"> <li>• Wear a self-contained breathing apparatus and chemical protective clothing</li> </ul>
<b>Flammable properties</b>	<ul style="list-style-type: none"> <li>• Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes</li> </ul>
<b>Explosive properties</b>	<ul style="list-style-type: none"> <li>• Contact with metals may evolve flammable hydrogen gas</li> <li>• No information available</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	<ul style="list-style-type: none"> <li>• Evacuate personnel to safe areas</li> <li>• Use personal protective equipment as required</li> <li>• Avoid contact with skin, eyes or clothing</li> </ul>
<b>Environmental precautions</b>	<ul style="list-style-type: none"> <li>• Keep people away from and upwind of spill/leak</li> <li>• For small spills absorb material on dry rags, cat litter or similar absorbent material and dispose of in the trash</li> <li>• For large spills, contain the material using barriers of absorbent pigs, clay absorbent or earth dams.</li> <li>• US regulations require reporting spills of this material that could reach any surface waters. The toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802</li> </ul>
<b>Methods for cleaning up</b>	<ul style="list-style-type: none"> <li>• Dike far ahead of liquid spill for later disposal</li> <li>• Neutralize with soda ash or lime</li> <li>• Soak up with inert absorbent material</li> <li>• Take up mechanically, placing in appropriate containers for disposal</li> <li>• Clean contaminated surface thoroughly</li> <li>• Prevent product from entering drains</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>• Spills exceeding the Reportable Quantity (RQ) of 100 pounds or more must be reported to the National Response Center, (800) 424-8802.</li> </ul>

## 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	<ul style="list-style-type: none"> <li>• Use personal protective equipment as required</li> <li>• Avoid contact with skin, eyes or clothing</li> <li>• Ensure adequate ventilation, especially in confined areas</li> <li>• In case of insufficient ventilation, wear suitable respiratory equipment</li> <li>• Use only with adequate ventilation and in closed systems</li> </ul>
<b>Storage Conditions</b>	<ul style="list-style-type: none"> <li>• Keep container tightly closed in a dry and well-ventilated place</li> <li>• Keep out of the reach of children</li> <li>• Keep containers tightly closed in a dry, cool and well-ventilated place</li> <li>• Keep in properly labeled containers</li> </ul>
<b>Incompatible materials</b>	<p>Contact with metals may evolve flammable hydrogen gas, Oxidizers, Strong bases, Reducing agents, Alcohols, Sulfides, Styrene, Incompatible with strong acids and bases, Incompatible with oxidizing agents</p>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Item # 10248/11055 Ferrous Chloride Solution**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrous chloride 7758-94-3	TWA: 1 mg/m <sup>3</sup> Fe	(vacated) TWA: 1 mg/m <sup>3</sup> Fe	TWA: 1 mg/m <sup>3</sup> Fe
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>

**Exposure Guidelines**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas

**Individual protection measures, such as personal protective equipment**

- Respiratory protection** + A respiratory protection program that meets OSHA 1910.134 and ANSI Z89.2 requirements must be followed whenever workplace conditions warrant the use of a respirator
- Eye/Face protection** + Tight sealing safety goggles  
+ Face protection shield
- Skin and body protection** + Wear suitable protective clothing  
+ Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact
- General Hygiene Considerations** + When using do not eat, drink or smoke  
+ Wash contaminated clothing before reuse  
+ Keep away from food, drink and animal feeding stuffs  
+ Contaminated work clothing should not be allowed out of the workplace  
+ Regular cleaning of equipment, work area and clothing is recommended  
+ Avoid contact with skin, eyes or clothing  
+ Take off all contaminated clothing and wash it before reuse  
+ Wear suitable gloves and eye/face protection

**9. PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	
<b>Appearance</b>	aqueous solution	
<b>Color</b>	green to yellow	
<b>Odor</b>	iron Slight acidic	
<b>Odor threshold</b>	No information available	
<b>Property</b>	<b>Values</b>	<b>Remarks + Method</b>
pH	<2.0	
Melting point/Freezing Point	-50 °C / -58 °F	solution (20 %)
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit (%)	No information available	
Lower flammability limit (%)	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.20	20% Solution @17.5°C
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	

**Item # 10248/11055 Ferrous Chloride Solution**

Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

<u>Other information</u>	
Softening point °C	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	10.00 Pounds per gallon (lb/gal)

**10. STABILITY AND REACTIVITY**

Stability	+ Stable under recommended storage conditions
Conditions to avoid	+ Elevated temperature + Exposure to air or moisture over prolonged periods
Incompatible materials	+ Contact with metals may evolve flammable hydrogen gas + Oxidizers + Strong bases + Reducing agents + Alcohols + Sulfides + Styrene + Incompatible with strong acids and bases + Incompatible with oxidizing agents

**Hazardous Decomposition Products** + Thermal decomposition can lead to release of irritating and toxic gases and vapors

**Possibility of Hazardous Reactions** + None under normal processing and storage

**11. TOXICOLOGICAL INFORMATION**
Information on likely routes of exposure

<b>Principle Routes of Exposure</b>	Inhalation, Skin Contact, Eye contact
Inhalation	May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Ingestion	May be harmful if swallowed.
Skin Contact	May cause skin irritation and/or dermatitis.
Eye contact	Contact with eyes may cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ferrous chloride 7758-94-3	450 mg/kg (Rat)	-	-
Hydrogen chloride 7847-01-0	= 700 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 3124 ppm ( Rat ) 1 h

Information on toxicological effects

<b>Symptoms</b>	No information available
<b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b>	

<b>Sensitization</b>	No information available
<b>Germ cell mutagenicity</b>	No information available
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA
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**Item # 10248/11055 Ferrous Chloride Solution**

Hydrogen chloride 7647-01-0	-	Group 3	-	-
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*IARC (International Agency for Research on Cancer)  
Not classifiable as a human carcinogen*

<b>Reproductive toxicity</b>	No information available
<b>STOT - single exposure</b>	No information available
<b>STOT - repeated exposure</b>	No information available
<b>Chronic toxicity</b>	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects. May cause adverse liver effects.
<b>Target Organ Effects</b>	Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin
<b>Aspiration hazard</b>	No information available

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

**12. ECOLOGICAL INFORMATION**
**Ecotoxicity**

16-30% of the mixture consists of component(s) of unknown hazards to the aquatic environment

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulation</b>	No information available
<b>Other adverse effects</b>	No information available

**13. DISPOSAL CONSIDERATIONS**

<b>Disposal of wastes</b>	• Dispose of in accordance with federal, state and local regulations
<b>Contaminated packaging</b>	• Dispose of hazardous waste in a RCRA licensed facility
<b>US EPA Waste Number</b>	• Do not reuse container • D002

**14. TRANSPORT INFORMATION**
**DOT**

<b>Proper shipping name</b>	FERROUS CHLORIDE SOLUTION
<b>Hazard Class</b>	8
<b>UN/ID No.</b>	NA1760
<b>Packing Group</b>	II
<b>RQ (lbs)(dry)</b>	100
<b>RQ as is (lbs)(wet)</b>	333 (30% Ferrous Chloride)
<b>Technical Name Description</b>	Ferrous Chloride
<b>Description</b>	NA1760, Ferrous chloride, solution, 8, II
<b>Emergency Response Guide Number</b>	154

**15. REGULATORY INFORMATION**
**US Federal Regulations**
**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**Item # 10248/11055 Ferrous Chloride Solution**
**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	SARA 313 - Threshold Values %
Hydrogen chloride - 7647-01-0	1.0

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ferrous chloride 7758-94-3	100 lb	-	-	X
Hydrogen chloride 7647-01-0	5000 lb	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ (lbs)(dry)
Ferrous chloride 7758-94-3	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**
**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ferrous chloride 7758-94-3	X	X	X
Hydrogen chloride 7647-01-0	X	X	X

**DEA List I, List II**

Chemical Name	U.S. - DEA - List I or Precursor Chemicals	U.S. - DEA - List II or Essential Chemicals
Hydrogen chloride 7647-01-0	-	50 gallon, Export Volume 27 kg, Export Weight 0 kg, Domestic Sales Weight

**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 6(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korea Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

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## 16. OTHER INFORMATION

<b>NFPA</b>	Health hazards 3	Flammability 0	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection 0

Item # 10248/11055  
 Safety Data Sheet 3743  
 Revision Date May-28-2015  
 Issue Date May-28-2015  
 Version 1  
 Revision Note \*\*\* Updated value on SDS

### Disclaimer

All information, statements, data, advice, and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping, and transportation (collectively referred to herein as "Information") are believed to be accurate, reliable, and based on reliable industry and regulatory references. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. The Company providing this SDS is not engaged in the business of providing technical, operational, engineering, or safety information for a fee, and therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill, and experience in the chemical industry. The Company providing this SDS shall not be responsible or liable for the use, application, or implementation of the information provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion of such persons, their employees, advisors, and agents. This safety data sheet (SDS) is offered for your information, consideration, and investigation as required by federal hazardous products act and related legislation.

End of Safety Data Sheet



## SAFETY DATA SHEET

### 1. Identification

Product identifier	SulFeLox
Other means of identification	
Product code	SulFeLox
Recommended use	Sulfur Binding Chemical, Water Treatment Chemical
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	USP Technologies
Address	1375 Peachtree Street NE Atlanta, GA 30309
Telephone	1-877-346-4262
E-mail	Not available.
Emergency phone number	855-877-4262

### 2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Not classified.	
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

#### Label elements



Signal word	Warning
Hazard statement	May be corrosive to metals
Precautionary statement	
Prevention	Keep only in original container.
Response	Absorb spillage to prevent material damage.
Storage	Store in corrosive resistant container with a resistant inner liner.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Buffered Iron Solution		Trade Secret	10 - < 20
Other components below reportable levels			80 - < 90

### 4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.

Material name: SulFeLox  
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<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, Foam, Dry chemical powder, Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Not flammable. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Prevent entry into waterways, sewer, basements or confined areas.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

#### 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	Not applicable.
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

<b>Eyeface protection</b>	Wear safety glasses with side shields (or goggles)
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves
<b>Other</b>	Wear suitable protective clothing
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants

**9. Physical and chemical properties**

<b>Appearance</b>	Cloudy
<b>Physical state</b>	Liquid
<b>Form</b>	Liquid
<b>Color</b>	Light green to Dark green
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not available
<b>pH</b>	3.5 - 4.5
<b>Melting point/freezing point</b>	Not available
<b>Initial boiling point and boiling range</b>	Not available
<b>Flash point</b>	≥ 212.0 °F (≥ 100.0 °C)
<b>Evaporation rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available
<b>Flammability limit - upper (%)</b>	Not available
<b>Explosive limit - lower (%)</b>	Not available
<b>Explosive limit - upper (%)</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Relative density</b>	Not available
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Other information</b>	
<b>Density</b>	11.10 lbs/gal
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	Not oxidizing
<b>Specific gravity</b>	1.3 - 1.4 @ 20C, 100%

## 10. Stability and reactivity

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Metals.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics  
 Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Residual: Hydrochloric acid (CAS 7647-01-0)	3 Not classifiable as to carcinogenicity to humans
Residual: Nickel Dichloride (CAS 7718-54-9)	1 Carcinogenic to humans. Concentration <147 ppm

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated

### US National Toxicology Program (NTP) Report on Carcinogens

Residual: Nickel Dichloride (CAS 7718-54-9)	Known To Be Human Carcinogen. Concentration >147 ppm
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Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

Material name: SulFeLow

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## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH $\leq 2$ or $\geq 12.5$ , or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

This product is exempted from DOT regulations under 49 CFR 173.154(d) when shipped by road or railway.

### IATA

<b>UN number</b>	UN1780
<b>UN proper shipping name</b>	CORROSIVE LIQUIDS, N.O.S. (Buffered Iron Solution)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<b>UN number</b>	UN1780
<b>UN proper shipping name</b>	CORROSIVE LIQUIDS, N.O.S. (Buffered Iron Solution)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
Marine pollutant	No
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.

IATA: IMDG



Material name: SulfFeLox

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## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

### Toxic Substances Control Act (TSCA)

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

### CERCLA Hazardous Substance List (40 CFR 302.4)

Hydrochloric acid (CAS 7647-01-0) Listed

Iron dichloride (CAS 7758-94-3) Listed

Nickel Dichloride (CAS 7718-54-9) Listed

### SARA 304 Emergency release notification

Hydrogen chloride (CAS 7647-01-0) 5000 LBS

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Hydrochloric acid	7647-01-0	5000	500		

#### SARA 311/312 Hazardous chemical

Yes

**Classified hazard categories** Corrosive to metals

#### SARA 313 (TRI reporting)

Not regulated

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hydrochloric acid (CAS 7647-01-0)

Nickel Dichloride (CAS 7718-54-9)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Hydrochloric acid (CAS 7647-01-0)

#### Safe Drinking Water Act (SDWA)

Not regulated

#### Drug Enforcement Administration (DEA), List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Hydrochloric acid (CAS 7647-01-0) 8545

#### Drug Enforcement Administration (DEA), List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Hydrochloric acid (CAS 7647-01-0) 20 %WV

#### DEA Exempt Chemical Mixtures Code Number

Hydrochloric acid (CAS 7647-01-0) 8545

Material name: Sulfuric Acid

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## US state regulations

### California Proposition 65



**WARNING:** This product can expose you to Nickel Dichloride, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California Proposition 65 - CRT: Listed date/Carcinogenic substance

Nickel Dichloride (CAS 7718-54-9) Listed: May 7, 2004

#### California Proposition 65 - CRT: Listed date/Developmental toxin

Nickel Dichloride (CAS 7718-54-9) Listed: October 26, 2018

#### California Proposition 65 - CRT: Listed date/Male reproductive toxin

Nickel Dichloride (CAS 7718-54-9) Listed: October 26, 2018

#### US, California, Candidate Chemicals List, Safer Consumer Products Regulations (Cal. Code Regs. tit. 22, 69502.3, subd. (a))

Hydrochloric acid (CAS 7647-01-0) < 586 ppm

Nickel Dichloride (CAS 7718-54-9) < 147 ppm

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date	10-06-2020
Revision date	03-13-2023
Version #	06
HMS® ratings	Health: 0 Flammability: 0 Physical hazard: 1 Personal protection: E
Disclaimer	USP Technologies cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.
Other information	Prepared by: Product Compliance Department, <a href="mailto:ProductCompliance@chemtreat.com">ProductCompliance@chemtreat.com</a>

## References

### **JEA (Jacksonville, FL)**

Contact Name	Katie Templeton
Contact Title	Collection System Manager
Location	21. W. Church Street, Jacksonville, FL 32202
Telephone	904-882-1815
Email	tempkl@jea.com
Servicing Date	Since 2018 \$10 mil
Service Provided	<ul style="list-style-type: none"> <li>• Chemical deliveries: Ordering, scheduling, delivery and receiving of chemicals to 32 chemical feed sites throughout the JEA system for the prevention of hydrogen sulfide-induced odors and corrosion.</li> <li>• Chemical feed systems: Supply of required equipment and maintenance of the systems to ensure proper dosing, including regularly scheduled preventative maintenance.</li> <li>• Safety Requirements: Supply of eyewash/shower modules for emergencies and wash-down purposes.</li> <li>• Hydrogen Sulfide Testing: Monitoring of 19 hydrogen sulfide control points to ensure sulfides are within parameters set by JEA. This includes monthly aqueous sulfide sampling and atmospheric (H<sub>2</sub>S) sessions recorded with OdaLog instruments that provide continuous recording of airborne sulfides.</li> <li>• Monthly Reports: Submittal of a detailed report each month, including delivery totals, maintenance performed, sulfide data and other activities performed by USP.</li> </ul>

### **City of Bakersfield**

Contact Name	Kevin Peoples
Contact Title	Operations Manager
Location	1501 Truxtun Avenue Bakersfield, CA 93301
Telephone	661-326-3767
Email	kpeoples@bakersfieldcity.us
Servicing Date	Since 2021
Service Provided	Full-service system-wide odor and corrosion program utilizing sulfelox® at four (4) pump stations. In 2021, USP converted eight (8) underperforming calcium nitrate sites to Sulfelox® at a cost savings over \$300k annually.

**City of Phoenix**

Contact Name	Rojelio Estrella
Contact Title	Water Services Superintendent, Wastewater Collection Division
Location	200 W. Washington Street Phoenix, AZ 85003
Telephone	602-262-1864
Email	Rojelio.estrella@phoenix.gov
Servicing Date	Since 2006
Service Provided	The full service hydrogen peroxide (H2O2) program for performing PRI-SC (peroxide regenerated iron sulfide control) on the Southern Avenue Interceptor (SAI) began in 2006, regenerating the iron flowing in from 2 locations in Mesa, one from Tempe and one from 23rd Ave & Southern. In May 2012 the Bioxide feed system at LS 40 was replaced with Ferrous Chloride, treating the flow into the SAI at 48th St and supplementing additional iron to improve odor control in the SAI. The USP Program includes chemicals, engineered storage and handling equipment and technical application expertise. USP personnel operates and maintains the equipment, providing performance reports and dosing recommendations to the customer.

## Pricing

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Price Proposal Form			
Name of Product	Equipment plus Mobilization / Demobilization Price (\$/site)	Chemical Solution Unit Price (\$/unit)	Specify Price Units (\$/Gallon or \$/Pound)
Ferrous Chloride	\$10,000	\$3.98	\$/gallon
SulFelix®	\$10,000	\$7.97	\$/gallon

## Exceptions

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U.S Peroxide appreciates the opportunity to conduct business with Lexington – Fayette. To help provide Lexington - Fayette with the best and most cost-effective products and services we can offer, we respectfully request the opportunity to negotiate reasonable terms and conditions prior to finalizing the contract.

## Appendix A-Good Faith Efforts-Response

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- 1) Please mention that in the list of bidder/proposer having a contractual relationship with in the last two years. We have a current contract with SOL engineering who is certified in the state of Tennessee.
- 2) Describe the steps Bidder/Proposer took to solicit small and disadvantaged businesses, including MBEs, WBEs, VOSBs, and SDVOSBs, for subcontracting opportunities for this procurement.
  - a. ***“USP Technologies reached out to multiple chemical providers on behalf of a project with Nashville MWS, however, made the request for support projects in the surrounding area specifically with Iron salts coming out of Louisville, KY. Additional requests have been made to these companies to support our efforts in Lexington, KY, however, due to the deadline we have not received any feedback, but would be happy to follow up with additional correspondence as it comes in. Also, USP Technologies anticipates the need for installation assistance and will reach out to companies for equipment supply and installation support upon pre-qualification of our services. We share Lexington’s view on commitment to the Minority Business Enterprise Program and will take additional steps to ensure there is inclusion.”***

## Appendix B- Good Faith Efforts-Documentation

**From:** [Engram, Michael](#)  
**To:** [Carla Johnson](#)  
**Subject:** Re: USP Technologies - Custom Transportation Request for Quote  
**Date:** Wednesday, March 5, 2025 4:14:22 PM  
**Attachments:** [image001.png](#)  
[image003.png](#)  
[image004.png](#)

Thank you Carla, I appreciate the quick response. I'm available for a call if you have questions about our request - Friday after 12 eastern is most flexible for me this week.

Thank you,  
 --Michael

Manager, Supply Chain & Quality (he/him)  
 USP Technologies  
 404.387.5066 (m)

**From:** Carla Johnson <Carla@ddanielsagency.com>  
**Sent:** Wednesday, March 5, 2025 4:09 PM  
**To:** Engram, Michael <mengram@usp technologies.com>  
**Subject:** RE: USP Technologies - Custom Transportation Request for Quote

### This Message Is From an External Sender

This message came from outside your organization. Use caution when opening attachments or clicking links.

Hi Michael,

I have received the data. Please give me some time to go through it and I will reach back out. I appreciate the opportunity and look forward to working with you.

untitled

Carla Johnson  
 Vice President  
 D. Daniels Agency, Inc.  
 Independent agent for Landstar Inway - BSK  
 Lexington, KY  
 (859) 309-2870 xt 208  
 Cell PH 859-983-9531



15' Pink Truck



Carla Johnson - Transportation Request

**From:** Engram, Michael <mengram@usp technologies.com>

**Sent:** Wednesday, March 5, 2025 2:26 PM

**To:** Carla Johnson <Carla@ddanielsagency.com>

**Subject:** USP Technologies - Custom Transportation Request for Quote

Good Afternoon -

My company and I are participating in the metro Nashville odor and corrosion control water treatment facility contract bids. As part of our bid, we need to develop some last mile delivery capabilities in the metro Nashville area. Your firm is certified to provide these services to Nashville and the Nashville contractors.

We have product movement needs outside Nashville, USP Technologies ([www.usptechnologies.com](http://www.usptechnologies.com)) is a leader in the municipal waste water odor and corrosion control market. We operate internationally and are based in Richmond, VA.

Can you develop a solution for the following transportation needs in both Nashville and the surrounding areas?

We will be building our solutions out one geographic region at a time but this is a national project. If we can find a solution here we can duplicate it in the midwest and northeast.

Calcium nitrate

1. Nashville, TN CSX / Transflo 37204
  - a. Distribution region: Metro Nashville, TN / Lexington, KY
  - b. 2-4 loads per week
  - c. Restricted access requires tank-on-chassis style truck

- d. Multiple stops per load
- 2. Elizabeth, NC Cape Fear Chemicals 28337
  - a. Distribution region: Metro Raleigh, NC
  - b. 2-4 loads per week
  - c. Restricted access requires tank-on-chassis style truck
  - d. Multiple stops per load

#### Iron Salts

- 1. Louisville, TN CSX / Transflo 40219
  - a. 1-2 loads per week
  - b. Acid corrosive – requires lined equipment, HAZMAT driver
  - c. Single stop deliveries
- 2. Scooba, MS Brainerd Chemical 39358
  - a. 1-2 loads per week
  - b. Acid corrosive – requires lined equipment, HAZMAT driver
  - c. Single stop deliveries
- 3. Augusta, GA PVS Technologies
  - a. 1-2 loads per week
  - b. Acid corrosive – requires lined equipment, HAZMAT driver
  - c. Single stop deliveries

Thank you,  
–Michael

**Michael J. Engram, PMP (he/him)**  
Manager, Supply Chain & Quality  
USP Technologies

(404) 387-5066 [mjengram@usptechnologies.com](mailto:mjengram@usptechnologies.com)  
[usptechnologies.com](http://usptechnologies.com)



*Please be advised that this email may contain confidential information. If you are not the intended recipient, please notify us by email by replying to the sender and delete this message. The sender disclaims that the content of this email constitutes an offer to enter into, or the acceptance of, any agreement; provided that the foregoing does not invalidate the binding effect of any digital or other electronic reproduction of a manual signature that is included in any attachment.*

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**From:** [Erasmus, Michael](mailto:Erasmus.Michael@robertsonhastingsconsulting.com)  
**To:** [robertsonhastingsconsulting.com](mailto:robertsonhastingsconsulting.com)  
**Subject:** USP Technologies - Custom Transportation Request for Quote  
**Date:** Wednesday, March 5, 2025 2:26:10 PM  
**Attachments:** PVS 25-32 SDS FERROUS CHLORIDE SOLUTION.pdf  
 The Andersons GEP 70 SDS.pdf  
 PVS 37-42 Ferric Chloride SDS.pdf  
 Outlook-394r5445.png

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  - c. Restricted access requires tank-on-chassis style truck
  - d. Multiple stops per load
2. Elizabeth, NC Cape Fear Chemicals 28337
  - a. Distribution region: Metro Raleigh, NC
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- 3. Augusta, GA PVS Technologies
  - a. 1-2 loads per week
  - b. Acid corrosive – requires lined equipment, HAZMAT driver
  - c. Single stop deliveries

Thank you,  
—Michael

**Michael J. Engram, PMP** (he/him)  
Manager, Supply Chain & Quality  
**USP Technologies**

(404) 387-5066 *mobile*  
[mengram@usptechnologies.com](mailto:mengram@usptechnologies.com)  
[usptechnologies.com](http://usptechnologies.com)



**From:** [Epyrami, Michael](mailto:pylenachewy7@gmail.com)  
**To:** [pylenachewy7@gmail.com](mailto:pylenachewy7@gmail.com)  
**Subject:** USP Technologies - Custom Transportation Request  
**Date:** Wednesday, March 5, 2025 2:26:04 PM  
**Attachments:** Outlook-beb06cc3.png

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2. Elizabeth, NC Cape Fear Chemicals 28337
  - a. Distribution region: Metro Raleigh, NC
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  - c. Restricted access requires tank-on-chassis style truck
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  - a. 1-2 loads per week
  - b. Acid corrosive - requires lined equipment, HAZMAT driver
  - c. Single stop deliveries

3. Augusta, GA PVS Technologies

- a. 1-2 loads per week
- b. Acid corrosive – requires lined equipment, HAZMAT driver
- c. Single stop deliveries

Thank you,  
—Michael

**Michael J. Engram, PMP** (he/him)  
Manager, Supply Chain & Quality  
**USP Technologies**

(404) 387-5066 *mobile*  
[mjengram@usptechnologies.com](mailto:mjengram@usptechnologies.com)  
[usptechnologies.com](http://usptechnologies.com)



**From:** [Exp@usp.com](mailto:Exp@usp.com)  
**To:** [wametransportation@usp.com](mailto:wametransportation@usp.com)  
**Subject:** USP Technologies - Custom Transportation Request  
**Date:** Wednesday, March 5, 2025 2:26:00 PM  
**Attachments:** Outlook-r2xwz3e.png

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  - a. 1-2 loads per week
  - b. Acid corrosive - requires lined equipment, HAZMAT driver
  - c. Single stop deliveries

3. Augusta, GA PVS Technologies
- a. 1-2 loads per week
  - b. Acid corrosive – requires lined equipment, HAZMAT driver
  - c. Single stop deliveries

Thank you,  
—Michael

**Michael J. Engram, PMP** (he/him)  
Manager, Supply Chain & Quality  
**USP Technologies**

(404) 387-5066 *mobile*  
[mjengram@usptechnologies.com](mailto:mjengram@usptechnologies.com)  
[usptechnologies.com](http://usptechnologies.com)



## What to Expect from USP Technologies

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USP provides solutions that lower your operating costs, preserve your assets, and maximize their value. We focus on these core areas in order to deliver the best service possible:

### **Service Excellence**

With our highly-trained, in-house workforce, you can trust that we'll provide you with services that increase efficiencies and lower your operating expenses—all while maintaining a standard of service excellence.

### **Breadth of Services**

We'll provide you with an unrivaled range of facilities solutions that will keep your properties safe, clean, comfortable, and odor free.

### **Deep Industry Expertise**

From our national office to our local branches, we've made sure our workforce understands your industry. After all, in over 20 years of service, we've developed the expertise to make our solutions work best for you.

### **Technology-Enabled Workforce**

Your facilities will be serviced with the support of innovative technology solutions that will simplify service delivery and allow for greater transparency.

***We Are Ready to Continue Building Value for Lexington – Fayette***