



**Contract for the Elimination of Odor and  
Corrosion for the City of Kingsport at the Old  
Mill Pump Station.**

**Submitted by Drew Kirby  
Source Technologies, LLC**

**August 4, 2023**

*Technology for a cleaner environment*

## **Old Mill Pump Station**

### **Site Background**

The City of Kingsport's Old Mill Pump Station and Force main consists of 22,938 linear feet of 14 inch pipe. There is an estimated daily flow of 230,000 GPD and a detention time of approximately 19.1 hours.

### **Product Background**

Source Technologies, LLC (Source) proposes the ETX Process for the primary treatment of hydrogen sulfides in the Old Mill force main. The ETX Process, developed by Source Technologies is an efficient, cost-effective, advanced oxidation process for treatment of sulfonated organics in wastewater and bio-solids where detention times range from 4-36 hours.

The ETX Process can be employed in a variety of ways and is easily adaptable to existing treatment systems. Application of the ETX Process is very straightforward, requiring metering of the ETX catalyst with an Oxidant, in this case Hydrogen Peroxide ( $H_2O_2$ ) into the targeted wastewater with adequate mixing. The reaction occurs quickly thereafter.

Experience has demonstrated that the ETX Process is particularly efficient for treatment of sulfides in this detention time range for municipal and industrial applications. The cost of sulfide treatment using the ETX Process for this detention time range is the **lowest in the industry** as compared to all currently available technology.

## **Chemical Cost**

### **Daily Cost**

#### **Old Mill Pump Station #203**

**\$169.99/day**

**Feed rate ETX 17.8 GPD est. (\$6.30 per gal.)**

**Feed rate H<sub>2</sub>O<sub>2</sub> 8.90 GPD est. (\$6.50 per gal.)**

**The feed rates will fluctuate up and down throughout the year based on sulfide levels but should average out at approximately what is stated above. Source will inform the City of Kingsport if they see that feed rates need to be increased more than projected and will get approval first before increasing them. Maximum yearly expense not to exceed \$65,000 for Old Mill.**

### **Service Agreement**

Source will provide all service and maintenance on all the equipment they provide. This will include all chemical fills which are estimated to occur every 3-4 months. A pre-approved monthly report on performance will also be submitted.

### **Contract Agreement**

Source proposes a three-year contract as long as performance remains at the agreed upon specification. The City of Kingsport has the right to terminate this agreement with just cause of lack of performance by Source Technologies.

ETX and H<sub>2</sub>O<sub>2</sub> are blended using some commodity ingredients. As such, the price for each chemical can fluctuate somewhat depending on fluctuations in commodity prices and the cost of fuel. Source reserves the right to pass major cost increases to its customers. While we do not anticipate major fluctuations from the prices from the original quote, Source will notify the City of Kingsport in writing if a change in price is forthcoming. With any price increase the City of Kingsport maintains the right to end their contract with Source Technologies.

## Monthly Monitoring

As a part of Kingsport's odor control and H<sub>2</sub>S program, the city has requested monthly odor control monitoring. This monitoring will include hanging an oda log at two locations for 5-7 days per month and taking a water sample to test for sulfides in solution at both locations once per month. The oda log graphs, water sample results and any odor complaints will be included in the monthly report that is currently being summited. Sites will be selected based on odor complaints, sewer detention time, and manhole inspections.

## Monthly Cost

Two sites designated by the city staff	\$250 / site/ month
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Total	\$500 / month
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\*If the City of Kingsport decides to start treating monitored sites, the monitoring will be included at no additional charge.

Please feel free to contact me should you have any questions. We look forward to working with you on this project.

Respectfully,

Drew Kirby  
Project Manager

**Note: This proposal is valid for 60 days.**

**Approval to Proceed by the City of Kingsport of Kingsport, TN**

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**Print**

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**Signature of Authorized Agent**