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February 7, 2018

Mr. Jeremy Harris Safe Drinking Water Program LDH/OPH Engineering Services Bienville Building PO Box 4489 Baton Rouge LA 70821

RE: City Of Jennings (LA 1053003) Lead and Copper Rule - Improving Transparency and Public Information Distribution System Materials Inventory

Dear Mr. Harris

In an effort to comply with the request outlined in your letter dated February 1, 2018, I am enclosing a copy of our Lead and Copper Monitoring Program for your review. This letter includes elements of our Lead and Copper program such as protocol used for identifying and selecting sample locations, a materials inventory, and a description of our sample collection procedure, our historical Lead and Copper results, and an explanation of action levels. We are confident that this information complies with your requests.

If you have any questions or need further information, feel free to contact myself or Phillip Deshotel, Water Plant Supervisor, at 337-821-5522.

Sincerely,

Ira Bertrand City of Jennings Director

# **Lead and Copper Monitoring Program**

City of Jennings PWS # 1053003 February 7, 2018

#### 1. Purpose

The City of Jennings Lead and Copper Monitoring Program was implemented in 1992 in order to comply with the requirements of EPA'S Lead and Copper Rule (LCR). The primary objective of this rule was for water systems to identify high risk areas within their distribution systems and to determine the Lead and Copper concentrations in those locations. Base on the concentrations found EPA would notify the system if any corrective actions were needed and would assign a frequency for future monitoring. Systems with higher lead and copper concentrations would be required to sample more frequently than those with lower concentrations.

### 2. Identifying Sample Locations

The LCR indicates that water systems monitor lead and copper concentrations at Tier I (high risk) locations throughout their water systems. In order to identify those Tier I sample sites, each system had to perform a materials inventory evaluation of its distribution system. Once the materials inventory evaluation was complete, the system would identify numerous sites that met Tier I selection criteria. From those locations, 60 sample sites were selected to create the initial Tier I sampling pool. Participants from the pool would be used for the initial round of Lead and Copper monitoring and for all subsequent monitoring.

### A. <u>Distribution Materials Inventory</u>

Materials inventory information was gathered from various resources including distribution system maps, meter records, meter inventory reports, old paperwork on file, and also from our parts salesman. In some cases the figures provided below are estimates due to the limited availability of specific records. However, collectively, the resources used support the accuracy of this information to the best of our knowledge. The City of Jennings materials inventory evaluation revealed the following.

## I. <u>Distribution System Piping</u>:

As of February 2018, The City of Jennings has an estimated 85 miles of water lines in its distribution system. Most of those lines are ductile iron or polyvinyl chloride (PVC). Together these two pipe materials account for approximately 100 % of the total piping in our system. We have the following amounts of each pipe material in use. We have 43 miles of ductile iron pipe and 42 miles of polyvinyl chloride (PVC). These materials make up our main lines in our distribution system.

#### II. Service Lines:

The City of Jennings has Polyethylene (plastic) and Copper service lines throughout its distribution system. Although our distribution maps do not provide specific information regarding service lines, we were able to estimate the percentage of each based on the quantities of those materials purchased. Additional resources such as past meter applications, materials and past quotes from our parts suppliers and conversations with senior personnel were used to confirm the data provided.

- a. <u>Polyethylene (Plastic) Service Lines</u> From past materials and supplies bid documents, we've established that approximately 60% of the service tubing material was polyethylene (plastic). Since 2000 plastic has been used exclusively for all new and replaced services.
- b. <u>Copper Service Lines</u> Again using our historical materials and supplies bid documents, we've established that the remaining 40% of service tubing material consisted of Type K Copper. In addition, our research indicated that the use of copper service tubing was discontinued in 2000.
- c. <u>Lead Service Lines</u> There are <u>**ZERO LEAD SERVICE LINES**</u> in The City of Jennings distribution system.

### III. Water Meters:

As of February 2018, The City of Jennings had approximately 4500 water meters in its distribution system constructed of either plastic or brass. Information found in meter inventory reports revealed the following:

- a. <u>Plastic Meters</u> Our meter inventory records indicate that the majority of our meters are plastic. We estimate that there are about 1800 plastic water meters in our distribution system and they account for roughly 40% of our total meter inventory. We are currently looking into converting all water meters to plastic electronic meters.
- b. <u>Brass Meters</u> Using the same meter inventory records, we estimate that there are 2700 brass water meters in our distribution system. This figure equates to approximately 60% of the total meters in our service area. Of those meters, approximately 1000 were purchased after January 1, 2013, and comply with the standards of House Bill 471 of the State of Louisiana regarding Lead free materials used in the drinking water systems. All new or replaced brass meters installed after January 1, 2013, carry this low lead certification. Although the remaining 1700 brass meters conformed to the industry standards of their time, they do not meet the low level guidelines of House Bill 471.

#### IV. Private Plumbing Material:

The City of Jennings has no jurisdiction over private plumbing materials in its distribution system. Piping and fixtures inside the home are the responsibility of the homeowner. If you are concerned that your home is plumbed with lead materials, the following precautions can be taken:

- a. Use only cold water for cooking and drinking.
- b. Flush your taps by running the cold water for 30-60 seconds or until the water reaches a steady temperature to flush potential lead-containing water from your plumbing.
- c. Remove and clean the strainer/aerator screen on your faucet on a regular basis.

### **B.** Selecting Sample Locations

Since The City of Jennings does not have Lead Service Lines (LSLs) in its system, the LCR requires that the next highest risk Tier I locations are used to establish Lead and Copper monitoring sites (see Tier I description below). After identifying a number of Tier I locations in 1992, The City of Jennings contacted the owners of those residences and requested their participation in our Lead and Copper monitoring program. Once participants were secured, the ones that provided the best geographical coverage were included in our initial pool of 60 sample sites. Again, all of the sample locations selected met the criteria for Tier I sites as described on next page.

## I. Tier Site Description

<u>Tier I</u> sites are sites that are considered single family structures and contain either lead plumbing, serviced by a lead service line, or contain copper pipes with lead solder and were constructed after 1983.

<u>Tier II</u> sites are sites that include buildings and multiple family residences containing lead plumbing, serviced by a lead service line, or contain copper pipes with lead solder and were constructed after 1982.

<u>Tier III</u> sites are sites that are considered single family structures containing copper pipes with lead solder and were constructed prior to 1983.

### 3. Sample Collection Procedure

Lead and Copper tap sampling is performed in accordance with procedures established by EPA and LDH. Sample locations are selected from the initial pool of 60 sample sites and samples are collected by either water system personnel or by residents who are given collection instructions. Typically The City of Jennings requests that the owner collect the Lead and Copper sample. If they agree, each participant is provided a packet of instructions describing how to collect the sample, a 1 liter sample bottle, and a form to be completed once the sample has been collected. They are then asked to collect the sample from either a cold water kitchen tap or bathroom sink tap after the water has stood motionless in their plumbing system for at least 6 hours. They are also encouraged to collect the sample either upon waking up in the morning or after returning home from work. Once the samples are collected, a city employee picks up the sample and

packages them for shipping to LDH laboratory for analysis.

### 4. Initial L & C Monitoring

The City of Jennings performed Lead and Copper sampling in 2011, 2015, 2017. The monitoring involved collecting Lead and Copper samples from 30 out of 60 Tier I sample sites throughout the distribution system (as described above).s was done in 2011, 2015, 2017. Louisiana Department of Health evaluated the results and they were all below the action levels of Lead and Copper. Below were the results obtained during the round of sampling done in 2011.

## A. 2011 Monitoring Tier I Results:

<u>Date</u>	Lead 90th Percentile	Copper 90th Percentile
11/04/2011	0.004 mg/l	0.1  mg/l

## 5. Subsequent L & C Monitoring

## A. Subsequent Monitoring Tier I Levels

Year	Lead 90th Percentile	Copper 90th Percentile
2015	2 ppb	0.2 ppm
2017	1 ppb	0.1 ppm

### 6. Lead and Copper Action Levels

EPA set "action levels" at 0.015 mg/l for lead and 1.3 mg/l for copper. In accordance with the Lead and Copper Rule, corrective action must be taken if lead and copper concentrations exceed their action levels (0.015 mg/l Pb or 1.3 mg/l Cu) in more than 10% of the samples collected. In other words, if 10% of the concentrations (or the 90th Percentile value) obtained during any monitoring period exceeds the "AL", systems would be required to implement additional corrosion control, educate the public on how they can reduce their exposure to Lead, forfeit their reduced monitoring status (if applicable), and revert back to the standard monitoring frequency for Lead and Copper sampling.

#### 7. More Information

For more information, you can visit LDH website at www.dhh.la.gov or the EPA'S Website at www.epa.gov. As always, you can also call The City of Jennings Waterworks office at 337-821-5522.