

Summary of City of Flint (City) Actions In Response to the EPA Emergency Administrative Order Updated: July 7, 2016

Chapters 52, 57, 59a & 59b: Weekly Conference Call Regarding Flint Water Plant Operations July 7, 2016.

EPA Order Due Date: Weekly

MDEQ and the Flint Water Treatment Plant staff held the weekly call on July 6th to review and discuss the summary of water quality and corrosion control parameters reported on the City's June and July operation reports completed to date, a summary of water quality parameters collected on July 3rd in the distribution system, and some other matters pertaining to operation of the City's water supply.

The following observations were noted:

- The supplemental phosphate dosage was consistent and ranged between 2.18 and 2.26 milligrams per liter (mg/l). The phosphate residuals measured at the plant tap ranged from 3.23 to 4.11 mg/l entering the distribution system. The 4.11 mg/l is a higher value than expected. Other than this one reading, the range is between 3.23 and 3.36 mg/l for the past week. The City may want to review the laboratory sheets to determine if the reading on July 2nd of 4.11 mg/l at the plant tap is accurate.
- Several of the weekly distribution system sites were listed as having residuals between 3.06 and 3.09 mg/l, but when applying the rules of significant figures, these measurements could/should be reported as 3.1 mg/l. The remaining weekly sites ranged between 3.12 and 4.10 mg/l of phosphate.
- The one weekly site reporting phosphate residuals below 3.1 mg/l was at MLK Boulevard, where the phosphate residual was 2.86 mg/l. This site has historically reported the lowest phosphate residual.
- Based on the results of phosphate monitoring at the weekly sites during the last 3 weeks and the 15 additional sites conducted quarterly, the City needs to determine the best course of action in response to low residuals. They can increase the phosphate dosage, increase system flushing in the vicinity of these sites, or implement a combination of the two to achieve the acceptable residuals throughout the system.
- All pH measurements were greater than 7.0 at the Enhanced Water Quality Monitoring (EWQM) sites and the Point of Entry (Control Station #2) to the system. The pH levels ranged from 7.41 to 7.48 in the water received from Great Lakes Water Authority (GLWA) and from 7.32 to 7.44 at the 10 distribution system sites.
- When the final Monthly Operation Report for June is submitted, a determination will be made as to whether the City has experienced a treatment technique violation by having too many water quality parameter results fall outside the established range, such as a maintaining a minimum phosphate residual of 3.1 mg/l and a pH greater than 7.0 throughout the system. If a violation has occurred, it will be necessary to provide a Tier 2 public notification within 30 days.
- Iron levels at EWQM sites ranged from 0.01 to 0.08 mg/l. Plant tap iron concentrations ranged from 0.01 to 0.03 mg/l in the last week.
- There were no lead results reported from the EWQM sites last week, but the City indicated they have results and will be submitting them.

- The chlorine feed at Control Station #2 was increased from ~0.3 mg/l to ~0.70 mg/l on July 2nd. The chlorine residuals at the 10 EWQM sites ranged from 0.38 to 1.38 mg/l.
- The City is continuing their plans for installation of a caustic soda feed system for pH adjustment, although recent monitoring has shown increasing pH levels in the distribution system without applying any chemicals, perhaps due in part to the addition of sodium hypochlorite.
- The City continues to work with NAME to prepare an up-to-date disinfection byproducts monitoring plan.
- The Flint WTP is assessing the laboratory equipment and staff training necessary to initiate additional corrosion control monitoring as recommended by NAME.
- The annual Consumer Confidence Report has been made available online for city customers, and a copy of the final version will be mailed to each customer in the upcoming weeks.

The corrosion control treatment has improved from last week when quarterly monitoring indicated low phosphate residuals in approximately one-third of the 25 sites. While the phosphate residuals are still low at a number of the 10 weekly sites, they are acceptable in all but one site. The pH levels are also acceptable system wide and seem to be improving as well. These water quality parameters are demonstrating the City's corrosion control efforts.