

**Summary of City of Flint (City) Actions  
In Response to the  
EPA Emergency Administrative Order  
Updated: August 19, 2016**

Chapters 52, 57, 59a & 59b: Weekly Conference Call Regarding Flint Water Plant Operations August 18, 2016.

EPA Order Due Date: Weekly

MDEQ and the Flint Water Treatment Plant staff held the weekly call on August 17<sup>th</sup> to review and discuss the summary of water quality and corrosion control parameters reported on the City's August operation report completed to date, a summary of water quality parameters collected the week of August 14<sup>th</sup> 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 2.26 and 2.29 milligrams per liter (mg/l). The phosphate residuals measured at the plant tap ranged from 3.22 to 3.51 mg/l entering the distribution system.
- All but one of the established weekly distribution system sites reported a phosphate residual above 3.1 mg/l, ranging between 3.1 and 3.3 mg/l of phosphate. The one site (#6) below 3.1 was 2.9 mg/l.
- 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 7.31 to 7.47 in the water received from Great Lakes Water Authority (GLWA) and from 7.40 to 7.48 at the 10 distribution system sites.
- We again discussed the need for appropriate response activities when water quality parameters are not within acceptable ranges, such as low pH values or low phosphate residuals. Guidance in the form of standard operating procedures needs to be developed with input from all involved parties that will establish appropriate response protocols.
- Iron levels at EWQM sites ranged from 0.01 to 0.06 mg/l. Plant tap iron concentrations were all measured at 0.01 mg/l in the last week.
- Lead samples taken at the EWQM sites during the week of August 9<sup>th</sup> all reported no lead detected.
- The supplemental chlorine feed at Control Station #2 ranged from 0.85 to 1.04 mg/l and the plant tap free chlorine residuals ranged from 1.4 to 1.5 mg/l.
- The free chlorine residuals at the 10 EWQM sites in the distribution system ranged from 0.28 to 1.27 mg/l. The low residuals are always at site #6, Salem Housing. The free chlorine levels at the other 9 EWQM sites range from 0.76 to 1.27 mg/l.
- The Flint WTP is assessing the laboratory equipment and staff training necessary to initiate additional corrosion control monitoring as recommended by Jon Bloemker.
- WTP staff continues to work with DEQ staff to improve data evaluation and inform operational decisions.

The following information was provided through daily operation summary reports prepared by DEQ staff during the week of August 15<sup>th</sup> and in discussions with Flint staff.

- Chemical dosages at the Flint WTP were well-controlled. The operators' routine rounds (taking readings, adjusting rates if necessary, etc.) seemed to be completed without any issues.
- Work was started on the SOP for the sodium hypochlorite feed system at CS-2. As draft SOPs are near completion, they will be discussed with the Operations Supervisor and Plant Superintendent prior to being finalized.
- The Constant Chlor system at Cedar Street reservoir was still experiencing operational problems. The City staff were able to augment the incoming chlorine level from 1.15 to 1.6 mg/l. However, it took a great effort from the operations staff on duty to make this happen. DEQ staff continue to discuss these concerns with City WTP Superintendent and the City continues to work on getting all the supplies to convert to the Sodium Hypochlorite feed system at these remote locations.
- The City WTP Superintendent is working with SCADA controls staff to install flow meters on chemical feed pumps and tie these meters' readings into the existing SCADA system. Hopefully, the City staff will get all these items to come together by next week early the following week...so we can transition to the sodium hypochlorite feed system still this month.
- A copy of the EPA's 5th edition of the Drinking Water Laboratory Certification Manual was given to the lab staff. An unofficial audit was conducted on the microbiological portion of the lab. Only a few minor issues were found.