

**Summary of City of Flint Actions
In Response to the
United States Environmental Protection Agency
Emergency Administrative Order
Updated: November 22, 2019**

Chapters 52, 57, 59a & 59b: Weekly Report Regarding Flint Water Plant Operations
November 22, 2019.

United States Environmental Protection Agency Order Due Date: Weekly

The Michigan Department of Environment, Great Lakes, and Energy contacted Flint Water Treatment Plant Staff on November 22, 2019, to review and discuss the summary of water quality and corrosion control parameters reported on the city of Flint's (City) November 2019 operation reports completed to date, and a summary of water quality parameters collected for the seven-day period from Thursday, November 14, 2019, to Wednesday, November 20, 2019, from the ten sites monitored weekly. Data review (from the MOR) and enhanced weekly distribution system data is summarized below.

The following observations were noted:

- The supplemental phosphate dosage ranged between 2.29 and 2.48 milligrams per liter. The phosphate residuals measured at the plant tap ranged from 3.5 to 3.7 milligrams per liter entering the distribution system.
- All pH measurements were greater than or equal to 7.43 at all ten of the Enhanced Water Quality Monitoring (EWQM) sites and the Point of Entry (Plant tap) to the system. The pH levels ranged from 7.11 to 7.38 in the water received from Great Lakes Water Authority (GLWA); from 7.43 to 7.87 at Plant tap; and from 7.51 to 7.84 at the ten distribution system sites.
- The City's Sodium Hydroxide feed for pH control ranged from 5.1 to 5.4 milligrams per liter at Control Station #2.
- The phosphate residual at the ten established, weekly distribution system sites ranged between 3.36 to 3.71 milligrams per liter.
- Iron levels at EWQM sites ranged from 0.01 to 0.08 milligrams per liter. Plant tap iron concentrations measured ranged from 0.00 to 0.03 milligrams per liter in the last week.
- The supplemental chlorine feed at Control Station #2 ranged from 1.09 to 1.26 milligrams per liter and the plant tap free chlorine residual was 1.7 milligrams per liter.
- The free chlorine residuals at the City's 30 monitoring sites in the distribution system ranged from 0.60 to 1.73 milligrams per liter. The low residual occurred at Cedar Street and the high residual was at Martin Luther King Boulevard.