



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

October 29, 2021

VIA EMAIL

Ms. Elizabeth W. Murphy, Chief, Section 3  
Water Enforcement & Compliance Assurance Branch  
United States Environmental Protection Agency  
77 West Jackson Boulevard  
Mail Code ECW-15J  
Chicago, Illinois 60604-3590

Dear Ms. Murphy:

**SUBJECT:** Referral of Benton Harbor Drinking Water Compliance Issues for Enforcement

In response to our September 21–22, 2021, joint inspection of the Benton Harbor Public Water Supply (Benton Harbor), the state of Michigan is referring the following items for enforcement to you under the provisions of Section 1414(g) of the Safe Drinking Water Act (SDWA), 42 U.S.C. §300g-3(g):

- 1. Requirements when making a significant change in disinfection practice. (40 C.F.R. 141.708)**
  - a. When the mussel control system was taken offline, the point of disinfection changed. This would require the development of a disinfection profile and calculation of disinfection benchmark.
- 2. Disinfection (40 C.F.R. 141.72)**
  - a. During the inspection, the operator confirmed that the chlorine dosing is not being properly calculated, but the operator is assuming that the existing set points are providing adequate disinfection.
- 3. Emergency Response Plan (SDWA Section 1433)**
  - a. The emergency response plan is due six months after the Risk and Resiliency Assessment. Benton Harbor has submitted certification that the emergency response plan is completed. During the inspection, the emergency response plan was not available since it had not yet been completed.
- 4. Enhanced Filtration and Disinfection - Systems Serving Fewer Than 10,000 People (40 C.F.R. 141 Subpart T)**
  - a. The combined filter effluent monitoring location was not representative of the filtered water from all filters in use at the time of the inspection. The system was using two locations for combined filter effluent.

**5. Treatment**

- a. Broken washer arms on filters.
- b. Broken filter to waste valve.
- c. Broken control panels, e.g., panels at the filters not functioning.
- d. Sludge monitoring and removal activities from the plate settlers.
- e. Unbalanced filter flows during backwash.

**6. Potential Deficiencies**

- a. Mussel control system is still offline. There is no chlorine addition at the intake.

**7. A number of potential cross connections were identified throughout the treatment system**

- a. Untested backflow prevention device in the filter pipe gallery on the wash line for filters.

**8. Offline/Unidentified Equipment**

**9. Monitoring**

- a. Raw water chlorine analyzer
- b. Two unidentified sensors at raw water monitoring location.
- c. Settled water chlorine analyzer was not functioning.
- d. Settled water flow meters were not calibrated, and one appeared to be malfunctioning with erroneous readings.
- e. Status of the flow meter at roof of high service suction well was unknown.
- f. The flow meter on header to high service pumps had no calibration records available, it was unknown if it was connected to the supervisory control and data acquisition (SCADA) system, and it was not being used for compliance reporting on monthly operating reports.
- g. Continuous chlorine meter at the pressure gages for finished water to the distribution system.
- h. Depth sensors on the chlorine bulk tanks and chlorine day tanks are inaccurate.
- i. Unknown status of the flow metering on the individual filters.
- j. Depth sensor on the high service suction well appears to be unreliable based on notes in logbook. This depth sensor is being used for compliance reporting.
- k. Uncalibrated equipment in addition to the notes on calibration above.
  - i. Individual filter effluent turbidimeters are not being calibrated as recommended by the manufacturer. No maintenance schedule or operating procedure is available for that equipment.
  - ii. Unknown if the turbidimeters on the raw water and settled water lines have been calibrated and maintained.

**10. Additional Observations**

- a. A lack of automation has led to overflowing chemical tanks and operating chemical injections to the treated water when the treatment system was not in operation.

- b. At the time of the inspection, the system was unable to identify which alarms had call out capability for the SCADA system.

**11. Additional Compliance Measures in EPA 1414(g) Draft Order**

- a. Failure to contact the local health department in the 12-month period - 08/2020 - 08/2021.
- b. Failure to contact certain organizations in the 12-month period – 08/2020 – 08/2021.
- c. Failure to make a good faith effort to locate organizations in the 12-month period - 08/2020 – 08/2021.
- d. Failure to provide information notifying customers that the System has found high levels of lead in each water bill during the 12-month period - 08/2020 – 08/2021.
- e. Alternatives Analysis Failure to complete the capacity study required under the 2020 Amended Administrative Consent Order.

We appreciated the opportunity to collaborate on these issues during our October 26, 2021, consultation call and look forward to working together to correct the deficiencies. As we discussed, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) has previously, and during the joint inspection, identified additional violations as to which it will maintain primacy for purposes of taking any necessary enforcement action. Because EGLE will be working collaboratively with the United States Environmental Protection Agency on the enforcement issues arising out of the inspection, we anticipate that additional discussion will take place between the parties on who will take lead on particular issues that have previously or in the future arise with respect to the Benton Harbor Water Treatment Plant.

If you have any questions, please feel free to contact me at 517-643-2543; [OswaldE1@Michigan.gov](mailto:OswaldE1@Michigan.gov); or EGLE, P.O. Box 30817, Lansing, Michigan 48909-8311.

Sincerely,



Eric J. Oswald, Director  
Drinking Water and Environmental Health Division

cc: Mr. Michael Harris, Director, Enforcement and Compliance Assurance Division,  
United States Environmental Protection Agency, Region 5  
Mr. Richard Kuhl, Michigan Department of Attorney General  
Ms. Liesl Eichler Clark, Director, EGLE  
Mr. Aaron B. Keatley, Chief Deputy Director, EGLE