

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219

IN THE MATTER OF:)

City of Chariton, Iowa)
Chariton Municipal Water Works)
Chariton Water Works Board of Trustees)
PWS ID #5903011)

Respondents)

Proceedings under Section 1414 of the)
Safe Drinking Water Act, 42 U.S.C. § 300g-3)

) Docket No. SDWA-07-2017-0002

) FINDINGS OF VIOLATION,
) ORDER FOR COMPLIANCE
) ON CONSENT

1. This Order is issued under the authority vested in the Administrator of the United States Environmental Protection Agency (“EPA”) by section 1414 of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. § 300g-3, as properly delegated to the undersigned officials.

FINDINGS

2. The City of Chariton, Iowa owns the Chariton Municipal Water Works, a “public water system” within the meaning of Section 1401(4) of the SDWA, 42 U.S.C. §300f(4), and 40 C.F.R. §141.2, located in Lucas County, Iowa. The Chariton Waterworks Board of Trustees (collectively “Respondents”) operates the Chariton Municipal Water Works and is responsible for operations of the public water system (“PWS”).
3. Respondents are a “supplier of water” within the meaning of Section 1401(5) of the SDWA, 42 U.S.C. §300f(5), and 40 C.F.R. §141.2.
4. Respondents are “persons” within the meaning of Section 1401(12) of the SDWA, 42 U.S.C. §300f(12), and are subject to an Administrative Order (“Order”) issued under Section 1414(g)(1) of the SDWA, 42 U.S.C. §300g-3(g)(1).
5. Respondents provide piped water for human consumption and regularly serves a population of at least 25 individuals year-round, and is therefore a “community water system” as defined by Section

1401(15) of the SDWA, 42 U.S.C. §300f(15), and 40 C.F.R. §141.2. The PWS serves approximately 4,321 customers through 2,150 service connections.

6. The Chariton Water Works (hereinafter “System”) is a surface water system supplied by two lakes with two active surface water intakes, a treatment plant, a 67,000 gallon clear well, a 1,000,000 gallon ground storage reservoir, two 250,000 gallon elevated storage towers and one 150,000 gallon elevated storage tower, and distribution system.

7. Respondents are subject to the SDWA and the National Primary Drinking Water Regulations (drinking water regulations) at 40 C.F.R. part 141. The drinking water regulations are “applicable requirements” as defined in § 1414(i) of the SDWA, 42 U.S.C. § 300g-3(i).

8. The Iowa Department of Natural Resources (“IDNR”) administers the Public Drinking Water Program in Iowa pursuant to Section 1413 of the SDWA. The approval of primary enforcement authority from EPA to the IDNR was effective as of July 2, 1982.

9. The state of Iowa establishes rules governing the design, treatment, and operation of public water supply systems within the Iowa Administrative Code (“IAC”) Chapters 40, 41, 42, 43, and 44. The IAC rules pertaining to public water systems meet the definition of “applicable requirements” as defined in Section 1414(i) of the SDWA, 42 U.S.C. § 300g-3(i).

10. 567 IAC Chapter 40 requires public water systems to obtain a permit from IDNR for the “construction, modification and operation of any public water system.”

11. The IDNR originally issued Respondents a Water Supply Operation Permit (“WSOP”) on June 1, 1975, which identified the System as Public Water Supply ID: 5903011.

12. The WSOP expired on January 31, 2017, but has been administratively extended until the permit is renewed.

13. Between January 1, 2014 and January 13, 2017, IDNR issued approximately 46 Notices of Violation for violations of applicable drinking water regulations including, but not limited to:

- a) Failure to comply with combined filter effluent (“CFE”) requirements with the exceedance of the maximum allowable turbidity value of 1.0 Nephelometric Turbidity Unit (“NTU”);
- b) Failure to comply with CFE requirements with the failure to achieve less than 0.3 NTU in 95 percent of turbidity measurements collected during monitoring periods;
- c) Failure to notify IDNR of CFE >1.0 NTU;
- d) Failure to obtain minimum disinfectant residual;
- e) Failure to maintain adequate disinfectant residual in the distribution system;
- f) Failure to obtain minimum disinfectant Contact Time (“CT”);
- g) Failure to meet required CT;
- h) Failure to calculate daily CT values;
- i) Failure to accurately calculate daily CT values due to operating above clear well baffle height;

- j) Failure to report total residual disinfectant level below 1.5 mg/L;
- k) Exceedance of the Maximum Contaminant Level (“MCL”) for disinfection by products (“DBP”);
- l) Failure to monitor for DBP;
- m) Failure to operate the low disinfectant residual automatic shut off mechanism;
- n) Failure to conduct self-monitoring;
- o) Conducting unauthorized changes to the water treatment plant;
- p) Failure to have the adequate number of certified operators;
- q) Failure to have the appropriately certified operator at the plant during operation;
- r) Failure to conduct public notification of drinking water violations; and
- s) Failure to comply with record keeping requirements.

14. IDNR issued an Administrative Order to Respondents on October 12, 2016 for violations of applicable drinking water regulations including, but not limited to:

- a) Failure to comply with CFE requirements with the exceedance of the maximum allowable turbidity value of 1.0 NTU;
- b) Failure to comply with CFE requirements with the failure to achieve less than 0.3 NTU in 95 percent of turbidity measurements collected during monitoring periods;
- c) Failure to notify IDNR of CFE >1.0 NTU;
- d) Failure to obtain minimum disinfectant residual;
- e) Failure to maintain adequate disinfectant residual in the distribution system;
- f) Failure to obtain minimum disinfectant CT;
- g) Failure to meet required CT;
- h) Failure to calculate daily CT values;
- i) Failure to accurately calculate daily CT values due to operating above the clear well baffle height;
- j) Failure to report total residual disinfectant level below 1.5 mg/L;
- k) Exceedance of the MCL for DBP;
- l) Failure to monitor for DBP;
- m) Failure to operate the low disinfectant residual automatic shut off mechanism;
- n) Failure to conduct self-monitoring;
- o) Conducting unauthorized changes to the water treatment plant;
- p) Failure to have the adequate number of certified operators;
- q) Failure to have the appropriately certified operator at the plant during operation;
- r) Failure to conduct public notification of drinking water violations; and
- s) Failure to comply with record keeping requirements.

15. On November 29, 2016, EPA, Region 7 issued a Notice of Violation to Respondents pursuant to Section 1414(a) of the SDWA, 42 U.S.C. § 300g-3(a) for violations of applicable drinking water regulations, including:

- a) As required by 567 IAC 43.5(2); Failure to achieve or demonstrate that the total inactivation ratio (CT calculated/CT required) of a minimum of 1.0 was achieved for each day the treatment plant was in operation;
- b) As required by 567 IAC 43.5(2); Failure to achieve the minimum residual disinfectant

- concentration in finished drinking water entering the distribution system;
- c) As required by 567 IAC 43.5(2); Failure to demonstrate the proper operation of the low disinfectant residual automatic shutoff mechanism;
- d) As required by 567 IAC 43.10(4); Failure to comply with CFE requirements with the exceedance of the maximum allowable turbidity value of 1.0 NTU;
- e) As required by 567 IAC 43.10(4); Failure to comply with CFE requirements with the failure to achieve less than 0.3 NTU in 95 percent of turbidity measurements collected during monitoring periods;
- f) As required by 567 IAC 42.5(455B); Failure to meet record keeping requirements; and
- g) As required by 567 IAC 42.4(3); Failure to submit complete monthly operating reports.

16. Section 1414(a)(1)(A)(ii)(B) of the SDWA authorizes EPA to commence a civil action against public water systems for violations of “applicable requirements,” as defined by Section 1414(i) of the SDWA, 42 U.S.C. § 300g-3(i).

VIOLATIONS

17. 567 IAC 43.5(2) establishes the disinfection treatment criteria that must be achieved by public water systems using a surface water source. Respondents are required to calculate the total inactivation ratio (CT calculated/CT required) each day the treatment plant is in operation. The system’s total inactivation ratio must be equal to or greater than 1.0 in order to ensure that the minimum inactivation and removal requirements have been achieved.

18. Based on the March 14, 2006 disinfection strategy designed for the System, approved by the IDNR on August 7, 2006, and the compliance schedule incorporated into Respondents’ September 26, 2006 WSOP, Respondents are required to operate the clear well at a minimum of eight feet and a maximum of ten feet in order to achieve and accurately calculate the total inactivation ratio necessary for Giardia cysts and virus inactivation disinfection. On multiple occasions since June 16, 2015, including October and December 2016, the system has failed to achieve and/or demonstrate that the total inactivation ratio (CT calculated/CT required) of a minimum of 1.0 was achieved for each day the treatment plant was in operation.

19. 567 IAC 43.5(2) requires Respondents maintain disinfectant levels of at least 0.3 mg/L free residual chlorine or 1.5 mg/L total residual chlorine at the source entry point to the distribution system, and when these minimum disinfectant levels are not achieved, implement an automatic shutoff of delivery of water to the distribution system.

20. On multiple occasions since December 2015 and as recently as July 2016, the system failed to achieve the required residual disinfectant concentration in the water entering the distribution system of 0.3 mg/L free chlorine residual or 1.5 mg/L total residual chlorine and failed to demonstrate that the automatic shutoff mechanism operated correctly.

21. 567 IAC 43.10(4) establishes the CFE turbidity limits the System is required to meet. Respondents must maintain CFE turbidity levels not to exceed 1 Nephelometric Turbidity Units (“NTU”), and maintain CFE levels less than 0.3 NTU in at least 95 percent of the turbidity measurements taken during the month.

22. On June 2016, the System reported a turbidity result of 1.625 NTU, which exceeded the maximum allowable turbidity value of 1.0 NTU. Since June 2014, the system failed on multiple occasions, including August 2016, to achieve a combined filter effluent measurement of less than 0.3 NTU in at least 95 percent of the turbidity measurements taken during the month.
23. 567 IAC 42.4(3) establishes the monthly operational reporting and record keeping requirements that must be maintained by all PWSs. Monthly operation reports shall include at a minimum: pumpage and flow records or daily water usage records, treatment effectiveness and monitoring, chemical application, static water and pumping water levels, and chemical usage records.
24. Upon inspection by the IDNR on April 24, 2014, and July 2, 2014, the system was unable to produce required operational records. In addition, since October 2013, the system failed on multiple occasions, including as recently as October 2016, to submit all information required to be included in monthly operating reports.
25. 567 IAC 42.5(455B) establishes the record maintenance requirements for public water systems and requires that all data generated at the facility by recorder charts, logbooks, bench sheets, Supervisory Control and Data Acquisition (“SCADA”) records, or electronic files must be retained for at least five years in a form that allows retrieval and interpretation.
26. Monthly operational data submitted by the operator in charge for December 2015 and January 2016 demonstrated inconsistencies between operator recorded data and SCADA system records, or the lack of available data.
27. Respondents’ violations of 567 IAC and the terms of its WSOP are violations of “applicable requirements” as defined by Section 1414(i) of the SDWA and are, therefore, violations of the SDWA.
28. EPA is issuing this Order to place Respondents on an enforceable schedule to comply with the applicable requirements of the IAC, 40 C.F.R. Part 141, and the SDWA.

ORDER

Based on the foregoing FINDINGS, and pursuant to the authority of Section 1414(g) of the SDWA, EPA hereby ORDERS and Respondents AGREE to perform the following actions:

29. Within thirty (30) days of the effective date of this Order, Respondents must submit to IDNR with a copy issued to EPA a comprehensive Corrective Action Plan (“CAP”), subject to the IDNR review and approval, to come into compliance with the National Primary Drinking Water Regulations and IAC. The CAP shall include a plan with associated submittal dates describing short and long-term corrective actions Respondents shall implement to consistently and reliably abate the violations outlined in Paragraphs 17-28 above. The CAP shall include at a minimum the following information:

- Engineering Proposals, Reports, and/or Addendums;
- Construction Permit Applications or Schedules;
- Certified Plans and Specifications;
- A Funding Plan and Schedule; and/or

- Any signed agreements with other PWSs for provision of alternative water sources.

30. If the submission is disapproved in whole or in part by the IDNR, then, Respondents shall correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs within 20 business days or such longer time as agreed to by the EPA in writing.

31. Once approved by IDNR, all deliverables, including schedules contained therein, shall be incorporated into this Order.

32. Respondents shall submit the CAP and all other documents/deliverables specified by this Order to the following:

Lantz Tipton
U.S. EPA Region 7
Water Enforcement Branch
11201 Renner Boulevard
Lenexa, Kansas 66219

Mark Moeller
Iowa Department of Natural Resources
Water Supply Engineering Section
502 E. 9th Street
Des Moines, Iowa 50319

GENERAL PROVISIONS

33. By entering into this Order, Respondents (1) consent to and agree not to contest the EPA's authority or jurisdiction to issue and enforce this Order on Consent, (2) agree to undertake all actions required by the terms and conditions of this Order on Consent, and (3) consent to be bound by the requirements set forth herein. Respondents neither admit nor deny the specific factual allegations or Findings of Violation in this Order on Consent, except that Respondents admit the jurisdictional allegations herein. Respondents also waive any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondents may have with respect to any issue of fact or law set forth in this Order on Consent, including any right of judicial review under Chapter 7 of the Administrative Procedure Act, 5 U.S.C. §§ 701-706.

34. This Administrative Order shall not prohibit, prevent, or otherwise preclude EPA from taking whatever action it deems appropriate to enforce the Act in any manner and shall not prohibit, prevent, or otherwise preclude EPA from using this Order in subsequent administrative or judicial proceedings. Nothing in this Order shall constitute a waiver, suspension or modification of the requirements of the SDWA, or the rules and regulations promulgated there under which remain in full force and effect. Issuance of this Order is not an election by EPA to forgo any civil or criminal action otherwise authorized under the Law.

35. Violation of any part of this Order or the drinking water regulations may subject Respondents to a civil penalty of up to \$53,907 (as adjusted for inflation) per day of violation. 42 U.S.C. § 300g-3; 40 C.F.R. part 19; 81 Fed. Reg. 43091 (July 1, 2016).

36. Respondents shall comply with all other applicable laws, regulations, standards, and requirements contained in any applicable local, state and Federal laws, regulations, standards, and requirements including any such laws, regulations, standards, or requirements that may become effective during the term of this Order.

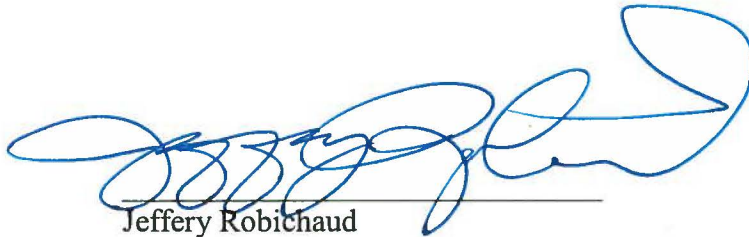
37. The terms of this Order shall be effective and enforceable against Respondents on the Effective Date, which is the date this Order is signed by EPA.

38. This Order shall remain in effect until a written notice of termination is issued by an authorized representative of the EPA.

Issued: 10th day of APRIL, 2017.



Chris Muehlberger
Office of Regional Counsel



Jeffery Robichaud
Acting Director
Water, Wetlands and Pesticides Division

