



## DISINFECTION BYPRODUCTS RULE (DBPR) VIOLATION RESPONSE AND COMPLIANCE SCHEDULE APPROVAL (CSA) FORM

M.G.L. c. 21A, §16, 310 CMR 5.00

**Failure to complete and return this form, and failure to take the actions required to return to compliance, could result in serious legal consequences.**

**INSTRUCTIONS:** By April 4, 2022, please complete and submit this form and supporting documentation to MassDEP at the address specified at the bottom of this form to obtain MassDEP approval of your system's proposed plan for returning to compliance with the requirements cited in your Notice of Noncompliance (NON).

### A General Information

Housatonic Water Works  
80 Maple Ave Ste 1  
Great Barrington, MA 01230

CITY/TOWN: Great Barrington  
PWS ID #: 1113003  
CLASS: COM  
ENF DOC#: 00012548

### B Corrective Actions required under M.G.L. c. 111, §§ 159-160 and 310 CMR 22.00

**PWS:** Please check *all* boxes below that apply.

<input checked="" type="checkbox"/>	My system violated the maximum contaminant level (MCL) for the disinfection byproduct(s) and monitoring periods identified in the NON. Violation of the MCL requires Tier 2 <b>public notice</b> in accordance with 310 CMR 22.16(3). I have completed Section C below to address the MCL violation(s) cited in the NON.
<input type="checkbox"/>	<p>My system violated the reporting requirements but <b>has collected and analyzed samples</b> at the required locations for <u>all</u> of the contaminants and monitoring periods described in the NON. My system failed to report any of the results to MassDEP by the applicable deadline. I have completed Section C below to come into compliance with this reporting requirement.</p> <p>I have attached two (2) copies of the monitoring results for the analyses performed during the applicable monitoring periods. I have completed Section C below to come into compliance for all other contaminants and monitoring periods identified in the NON.</p> <p>I have reported the monitoring results for the contaminants and monitoring periods identified in the NON to MassDEP via eDEP on the following dates: _____ and the transaction number(s) is/are: _____. No paper copies of my results are attached. I have completed Section C below to come into compliance for all other contaminants and monitoring periods identified in the NON.</p>
<input checked="" type="checkbox"/>	My system failed to notify MassDEP of this violation as required by 310 CMR 22.15 (1). I have completed Section C below to come into compliance with this requirement. <i>3 Q only see attached letter</i>

### C Request for Compliance Plan Approval

**PWS:** For each violation cited in the NON, please select **Option 1** or **Option 2** below by checking the appropriate box.

☐ **OPTION 1: MassDEP Approval of Pre-determined Compliance Plan**



For each violation, I understand that, by selecting Option 1, my system's Compliance Plan for that violation will be deemed approved upon MassDEP's receipt of this completed form if all of these items are selected.

PWS: Select the schedule and approval options below for violations checked off in Section B above.

**DISINFECTANT BYPRODUCTS - MAXIMUM CONTAMINANT LEVEL BOTH ARE REQUIRED**

<input type="checkbox"/>	My system has taken immediate action to reduce the levels of the contaminant identified in the NON at the location(s) specified in the NON and other hydraulically similar locations within the distribution system. <b>I will submit a report describing the immediate actions by April 4, 2022.</b>
<input type="checkbox"/>	<b>By May 20, 2022</b> , my system will submit to MassDEP a report by a Massachusetts Registered Professional Engineer with expertise in Drinking Water compliance documenting the causes of the MCL violation and his or her recommendations for preventing future MCL violations in the water distribution system. The report shall include an alternatives analysis including a feasibility evaluation, effectiveness determination, cost estimate, and implementation schedule. My system will implement the recommended actions set forth in the report as approved by MassDEP in accordance with a schedule approved by MassDEP.

**PUBLIC NOTICE AND CONSUMER CONFIDENCE REPORT - BOTH ARE REQUIRED**

<input type="checkbox"/>	My system provided <b>public notice</b> of each violation that requires Tier 2 <b>public notice</b> in accordance with 310 CMR 22.16 (3) and submitted to the local Board of Health and MassDEP a certification that it has fully complied with the <b>public notice</b> regulations in accordance with 310 CMR 22.15(3)(b). <b>Two copies of the public notice and certification are attached.</b> My system will repeat the <b>public notice</b> and certification every three months as long as the violation(s) persist(s) unless MassDEP determines in writing that appropriate circumstances warrant a different repeat frequency.
<input type="checkbox"/>	My system will include in its next Consumer Confidence Report (CCR) the following information: an explanation of each monitoring and/or reporting violation in accordance with 310 CMR 22.16A(6)(a); and/or the information on each MCL, treatment technique or MRDL violation required by 310 CMR 22.16A(4)(k).

**MONITORING AND REPORTING REQUIRED**

<input type="checkbox"/>	My system will collect and analyze the required Disinfection Byproducts samples at the required locations to return to compliance with the monitoring and reporting requirements cited in the NON and submit to MassDEP two (2) copies of the monitoring results by mail or upload via eDEP by the deadlines identified in 310 CMR 22.00.
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☒ **OPTION 2: PWS's Proposed Compliance Plan for Approval**

For each violation, I understand that, by selecting Option 2, the following is applicable:

- My Proposed Compliance Plan must be submitted with this Violation Response Compliance Schedule Form by the date specified in Section D of the NON. *please see attached letter*
- My Proposed Compliance Plan must include a schedule for coming into compliance with each violation cited in the NON for which the system is required to complete Section C and did not select an Option 1 pre-determined compliance plan.
- At a minimum, my Proposed Compliance Plan must address all applicable elements listed in Option 1.
- If my system is a repeat violator, my Proposed Compliance Plan must also include the actions that the system intends to take to prevent future noncompliance.
- MassDEP will notify me by e-mail whether my system's proposed Compliance Plan is approved or whether it must be revised and resubmitted to MassDEP.
- My Proposed Compliance Plan must be implemented as approved.

**D Water Commissioner, Owner, Owner Representative or Other Responsible Party**

I certify that I am duly authorized to complete and submit this form on behalf of the public water system identified above and that the information contained herein is true, accurate and complete to the best of my knowledge and belief. I understand that MassDEP may assess civil administrative penalties in accordance with M.G.L. c. 21A, §16, and 310 CMR 5.00 on any Supplier of Water that fails to comply with the provisions and schedule set forth in a MassDEP-approved Compliance Plan.

Signature: James J. MercerDate: MARCH 30, 2022Print Name: JAMES J. MERCERTitle: TREASURERPhone #: 413.528.1780Email Address: houstonicwater@gmail.com

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Please return this form and all attachments to:

MassDEP/DWP  
436 Dwight Street  
Springfield, MA 01103





# HOUSATONIC WATER WORKS COMPANY

SINCE 1897

BY EMAIL

Ms. Deirdre Doherty  
Massachusetts Department of Environmental Protection  
Western Regional Office  
436 Dwight Street  
Springfield, MA 01103

March 30, 2022

Re: Response to Notice of NonCompliance for DBPs  
PWS #1113003

Dear Ms. Doherty:

This letter is in response to your letter dated March 3, 2022 containing a Notice of NonCompliance (NON) for haloacetic acid (HAA5) Maximum Contaminant Level (MCL) exceedance violations during the third and fourth quarter of 2021, and also alleged reporting and public notice violations during those quarters. Please consider this letter to serve as the required written violation response/compliance schedule approval form that is due April 4<sup>th</sup>, and to include the 1<sup>st</sup> quarter of 2022 for which the MCL for HAA5 was also exceeded.

The Housatonic Water Works Company acknowledges the MCL for HAA5 was exceeded in the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021 and the 1<sup>st</sup> quarter of 2022. HWWC did implement an immediate response to the high HAAs by reducing the chlorine residual, while maintaining sufficient levels for primary and secondary disinfection.

The Notice of Non-Compliance references three reporting violations for both the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021. HWWC acknowledges the three reporting violations for third quarter 2021, as they were completed at the same time as the 4<sup>th</sup> quarter notifications. However, all reporting requirements were met for the 4<sup>th</sup> quarter of 2021, and we deny any reporting violations occurred during that quarter. Please update MassDEP's record to reflect this correction.

HWWC received the 4<sup>th</sup> quarter monitoring results on December 16, 2021, and notified MassDEP on December 21<sup>st</sup> of both the results and the MCL exceedance. Per the regulations, those need to be reported to MassDEP within 10 days after the end of the quarter, which would be January 10<sup>th</sup>. The public notice was distributed on January 10, 2022, within the required 30 days after HWWC learned of the violation which was on December 16<sup>th</sup>. The public notice certification was also provided to MassDEP on January 10, 2022.

80 Maple Avenue, Suite 1, Great Barrington, MA 01230

Tel: 413.528.1780

Fax: 413.528.3024

E-mail: [housatonicwater@gmail.com](mailto:housatonicwater@gmail.com)

[www.housatonicwater.com](http://www.housatonicwater.com)

There also were no reporting violations for 1<sup>st</sup> quarter 2022. The analytical results were received on March 2<sup>nd</sup>, and MassDEP was notified on March 4<sup>th</sup>. The required public notice was distributed on March 30, 2022, and the public notice certification will be submitted to MassDEP and the local Board of Health. This demonstrates HWWC's fundamental determination to meet MassDEP's notification requirements, and the remainder of this letter will address the MCL violations.

HWWC is not a repeat violator of the MCL, and in fact has never had an exceedance of either the HAA or total trihalomethanes (TTHM) MCLs during the full time of the Stage 2 Disinfectants/Disinfection Byproduct Rule. As shown in the plots below, the recent monitoring results were atypically high, and were likely caused by the historically heavy rainfall that fell in July 2021. We understand several other surface water supplies in western Massachusetts also experienced elevated DBPs last August and fall, and those water systems also attributed that to the unique weather circumstances.

The recent data give good news in that not only have the HAA levels been decreasing since last August's atypically high value, but the difference compared to the historical average for their seasons has been decreasing, cutting in about half from August to November and then again in half from November to February (see table below). That suggests the water is returning to its more normal state in terms of the potential for formation of DBPs, though it is still somewhat elevated. In the past, the recent February result of 61 µg/L generally would not have put the LRAA over the MCL, given February was usually the highest result of the four quarters.

HWWC's current slow sand filtration plant already does a very good job at removing natural organic matter, with TOC removals recently measured from 34% (February) up to 55% (September) with treated water TOC levels just under 2.0 mg/L. That is impressive for slow sand filters, which typically are expected to remove only ~15 to 20% of the TOC. Perhaps this success is partly due to the well-established age of the microbial population and HWWC's custom hydraulic rake filter cleaning system. Periodically cleaning the sand surface with water instead of physically removing the top layer of sand has allowed the sand to not be replaced for many years.

Given the unique circumstance of this HAA violation, the unlikelihood of it continuing on a regular basis, and the existence of an effective TOC removal system already in place at HWWC, we expect compliance with the HAA5 MCL to be achieved naturally over time as the source water returns to its more usual condition. Nonetheless, we intend on investigating additional methods to further reduce levels during our pilot study this summer.

Because of the impact of including results from previous quarters in the compliance determination, we don't expect compliance will be met until after the August and November 2021 results are replaced in the calculation by the August and November 2022 results. Thus compliance is expected to be met by 1<sup>st</sup> quarter 2023 or soon thereafter. Given HAAs do not have acute health effects at these levels, and chronic exposure over decades is expected to be required before there would possibly be any impact, there is no health concern expected from such a short-term excursion of the MCL.

We believe that this approach makes sense, is cost effective, and should be sufficient for achieving compliance. We respectfully request that this letter and the included logical rationale suffice in place of the report required to be completed by May 20 by a Massachusetts Registered Professional Engineer.

Regardless, HWWC plans to consider additional TOC removal as part of its investigation into new treatment for manganese removal. That project and the corresponding pilot plant study are being led by the Cornwell Engineering Group from Newport News, VA, who are recognized experts in DBP control.



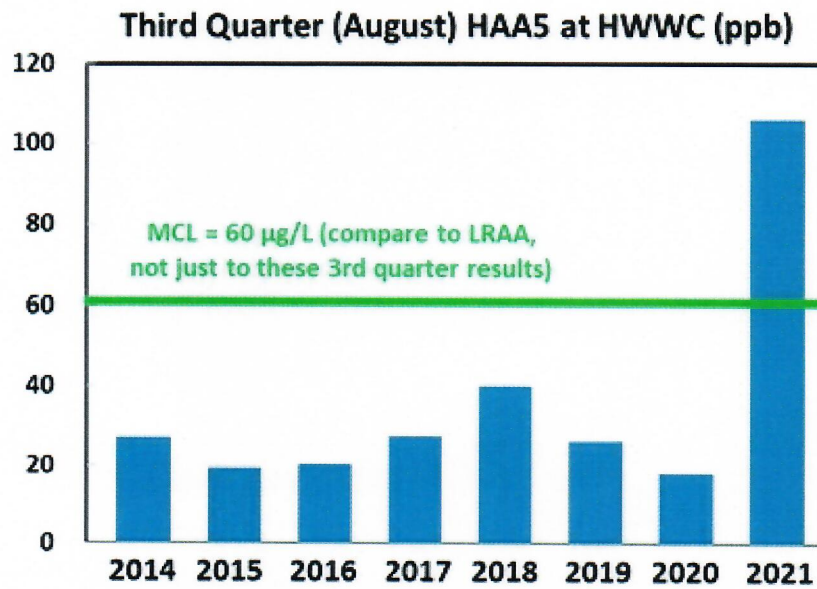
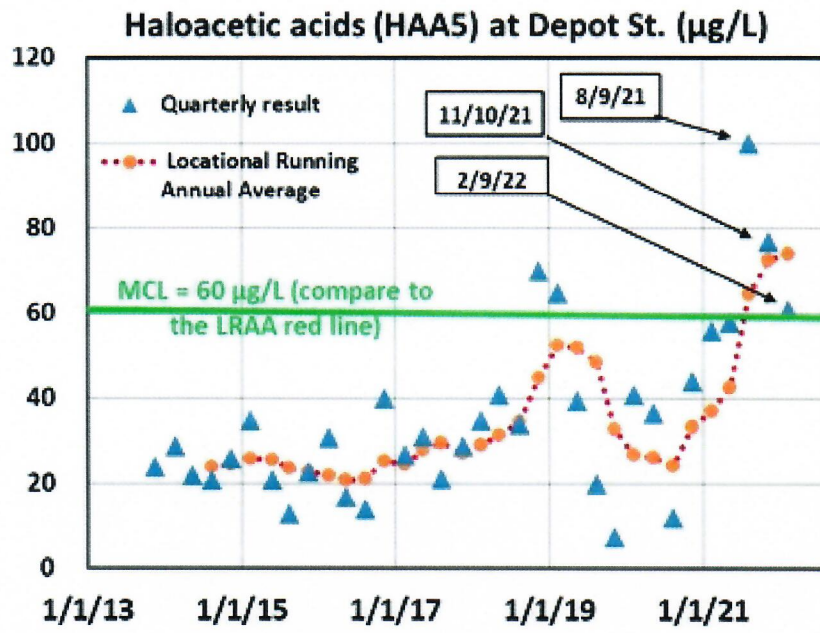
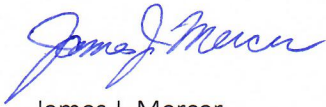


Table 1. Historical average HAA5 (2013 – 2021) vs. recent results (since August 2021) in µg/L

Month	Historical average	Recent result	Recent difference from average	Recent sample date
August	22	103	+ 81	8/9/21
November	33	77	+ 44	11/10/21
February	40	61	+ 21	2/9/22
May	33	NA	NA	NA

We thank you for your consideration of the unique circumstances of this particular HAA5 MCL exceedance, and of our plan for returning to compliance.

Sincerely,



James J. Mercer

cc: via e-mail

Douglas Paine, MassDEP

Hem Pokharel, MassDEP

Rebecca Jurczyk, Town of Great Barrington

Richard Gullick, Water Compliance Solutions, LLC