



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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July 2, 2020

Nicholas LaChance, President  
Colonial Water Company  
37 Northwest Drive  
Plainville, CT 06062

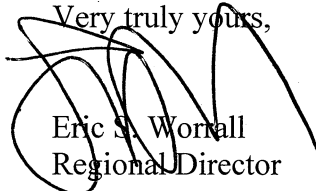
RE: Dover  
PWS: Colonial Water Company  
PWS ID # 3078006  
ENF No. 00009869  
Issuing Bureau: BWR  
Issuing Region/Office: NERO  
Issuing Program: DWP

### BOIL WATER ORDER-SECOND AMENDMENT

Dear Mr. LaChance:

The Massachusetts Department of Environmental Protection ("MassDEP") hereby issues this Second Amendment of the Boil Water Order No. 00009792 that was previously issued on June 11, 2020 and that was amended on June 18, 2020 by the First Amendment No. 00009817. If you have any questions regarding this Second Amendment of the Boil Water Order, please contact Amy Lachance, MassDEP Drinking Water Section Chief, at (978) 694-3260 or 617-429-1428.

Very truly yours,



Eric S. Worrall  
Regional Director

Attachment: Second Amendment of Boil Water Order

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

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E-cc: David Candeias, Colonial Water Company, 14 Dedham Street, Dover, MA 02030  
Christopher Dwelley, Town Administrator, Town House, P.O. Box 250, Dover, MA 02030  
Dover Board of Health, P.O. Box 250, Dover, MA 02030  
MassDEP/DWP Boston  
H. Zisch, MassDEP-OGC-NERO  
MassDPH-Community Health, 250 Washington Street, Boston, MA 02108  
Attn: Stephen Hughes  
MassDPH-Bureau of Environmental Health Assessment, 250 Washington St., Boston, MA  
02108, Attn: Jan Sullivan  
MassDPH-Division of Epidemiology, Immunization & Communicable Diseases, 305 South  
St., Jamaica Plain, MA 02130, Attn: Patricia Kludt

**COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

IN THE MATTER OF:  
Colonial Water Company

Enforcement Document Number:  
00009869  
Issuing Bureau: BWR  
Issuing Region/Office: NERO  
Issuing Program: DWP  
PWS ID No. 3078006

**SECOND AMENDMENT OF BOIL ORDER NO. 00009792**

On June 11, 2020, the Commonwealth of Massachusetts Department of Environmental Protection ("MassDEP") issued a Boil Order, File No. 00009792 (the "Boil Order"), to Colonial Water Company ("Respondent"). It became effective on June 11, 2020. MassDEP issued a First Amendment of the Boil Order No. 00009817 ("First Amendment") on June 18, 2020.

MassDEP hereby issues this Second Amendment of the Boil Order (the "Second Amendment") as follows:

1. The First Amendment of Boil Order No. 00009792 (Enforcement Document No. 00009817), issued on June 18, 2020, is hereby terminated as of the effective date of this Order.
2. Based upon MassDEP's review of the actions taken by the Respondent, MassDEP hereby terminates paragraph 6.A., which requires the Respondent to provide notification to its consumers in the Respondent's service area to boil their tap water before using for purposes of consumption. This termination covers paragraph 6.A. of the Order only. All other provisions of the Order, with the exception of those explicitly addressed below, shall remain in full force and effect.
3. Paragraph 6 of the Boil Order is hereby amended by adding the following sub-paragraphs:
  - I. Respondent shall implement the Francis Street Interim 4-Log Treatment Plan, dated July 2, 2020 (the "Interim Plan"), as may be modified and approved by MassDEP. A copy of the Interim Plan is attached hereto as Attachment A. The MassDEP-approved Interim Plan is deemed incorporated into and made an enforceable part of this Order. Each failure to implement a component of the Interim Plan shall be a violation of this Order.
  - J. Respondent shall implement the Staffing Plan, dated July 2, 2020 (the "Staffing Plan"), as may be modified and approved by MassDEP. A copy of the Staffing Plan is attached hereto as Attachment B. This MassDEP-approved Staffing Plan is deemed


incorporated into and made an enforceable part of this Order. Each failure to implement a component of the Staffing Plan shall be a violation of this Order.

- K. By no later than July 10, 2020, the Respondent shall submit to MassDEP a Level 2 Assessment of its water system conducted by an independent, qualified third party.
  - L. By no later than July 15, 2020, the Respondent shall submit to MassDEP a Permanent 4-Log Treatment Plan and Schedule (the "Permanent Plan"). The Permanent Plan shall be submitted by Respondent in a manner and form approved by MassDEP. The Permanent Plan, upon approval by MassDEP, shall be deemed incorporated into and made an enforceable part of this Order. Each failure to implement any component of the Permanent Plan as approved by MassDEP shall be a violation of this Order.
4. This Second Amendment shall be incorporated into the Boil Order and is effective and enforceable pursuant to the terms of the Boil Order.
  5. Except as explicitly revised by this Second Amendment, all of the terms and conditions of the Boil Order shall remain and continue in full force and effect.
  6. This Amendment shall be deemed effective as of the date on which MassDEP signs this Second Amendment.

**Issued By:**

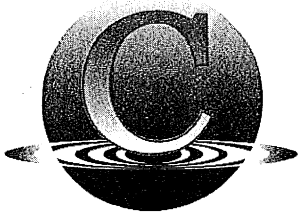
**MA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

By:

  
\_\_\_\_\_  
Eric S. Worrall, Regional Director  
MassDEP-Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

Date: July 2, 2020

**ATTACHMENT A**



COLONIAL  
Water Company

July 2, 2020

Amy LaChance, Section Chief  
Drinking Water Program  
MassDEP/Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

Re: Colonial Water Company – Francis Street Interim 4-log Treatment

Dear Amy,

Per our 7/1/2020 conference call, I am providing the following information and attached calculations for approval of an interim 4-log treatment plan for the Francis Street Pump Station, in Dover. The following information supports the calculations for the interim treatment.

- Well 'A' pumps at approximately 160 gpm, Well 'B' at approximately 110 gpm and Well 'C' at approximately 110 gpm, for a total combined flow rate of approximately 380 gpm. For the purposes of this proposal and analysis a combined flow of 400 gpm was used.
- The 4-log calculations consider the volume of one of the 5,000-gallon hydropneumatic tanks, with a flow rate 200 gpm (flow splits equally between tanks). The calculations also consider the volume contained in the 8-inch ductile iron main that extends from the outlets of the hydropneumatics tanks, down the plant access road, to the connection at Francis Street. Of the approximately 550 feet of pipe that runs from the station to Francis Street, only 495 feet will be considered, to a point where an existing curb stop and blow off/whip will allow for chlorine residual testing. The analysis does not consider the pipe volume beyond the blow off location, where there is an additional 50 feet of pipe along the access road, and additional pipe within Francis Street to the first customer connection.
- The baffling factors for the calculations are 0.1 for the tank, and 1.0 for the 8-inch main.
- The 4-log treatment will utilize the previously referenced tank and pipe volumes, 200 gpm for a single tank and the combined 400 gpm flow rate for the water main. It also considers 50-degree Fahrenheit water, with a system free chlorine residual of 1.25 mg/L. With a typical pH of 7.2, the calculated inactivation is 4.14-log. The 4.14-log figure is the sum of the calculation results from Tank #1 (1.17Log) the 8-inch ductile iron main (2.97Log). The 1.25 mg/L residual at the exit of the 4-log system would decrease as the flow spreads through the distribution system.
- The total contact time (CT) required per Table 3-5 of the attached calculations is 6 mg-min/L. The calculated CT for Tank #1 is 1.76 mg-min/L, and the CT for the water main is 4.45 mg-min/L, for a total

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

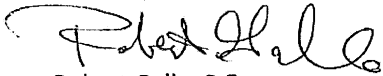
37 Northwest Drive • Plainville, CT 06062 • Phone 508 785-0052 • Fax 860 747-2536

CT of 6.21 mg-min/L. The calculated CT meets the 6 mg-min/L requirement. The contact time ratio is 6.21 mg-min/L divided by 6 mg-min/L = 1.04.

- Free chlorine residuals at the previously mentioned blow off will be monitored four times per day to ensure that the minimum 1.25 mg/L residual is being achieved, and conversely, the residual levels are not excessive. Given that a minimum residual of 1.25 mg/L is required, a residual of 1.4 mg/L will be targeted to allow for typical variations that may otherwise cause levels to drop below the minimum.
- An undiluted solution of 12.5% sodium hypochlorite will be used for chemical injection.

It would be advantageous to have the interim plan approved, and the boil order lifted, prior to the holiday weekend, beginning on Friday July 3<sup>rd</sup>. With that goal in mind, please let me know if any revisions to the plan and/or calculations are required, and I can address them in a timely manner. Please contact me if you have questions regarding the above and attached information. I can be reached at (860) 747-1665, or by email at [rgallo@newenglandservicecompany.com](mailto:rgallo@newenglandservicecompany.com).

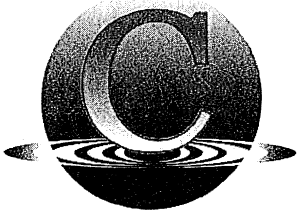
Sincerely,



Robert Gallo, P.E.  
Colonial Water Company/  
New England Service Company

**ATTACHMENT B**





COLONIAL  
Water Company

July 2, 2020

Amy LaChance, Section Chief  
Drinking Water Program  
MassDEP/Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

Re: Colonial Water Company – Francis Street Facility Staffing & Operation Plan

Dear Amy,

Per our telephone conversation, I am providing the following staffing and operation plan for the Francis Street Facility, while the temporary 4-log treatment plan is in place.

- An operator will be onsite 8 hours per day through the Fourth of July weekend. Staffing hours will be further coordinated with the MassDEP next week for ongoing operations.
- Operators will be on call 24 hours per day, seven days per week, per standard Colonial Water policy.
- Free chlorine residuals will be taken at the sampling point every two hours during the 8-hour shifts to ensure that appropriate residuals are sustained for the 4-log treatment.

Please contact me if you have questions regarding the above information. I can be reached at (860) 747-1665 or (508) 785-0052.

Sincerely,

Robert Gallo, P.E.  
Colonial Water Company/  
New England Service Company