

## Drinking Water and Groundwater Protection Division

### Procedure: Boil water notices necessary to prevent consumption of waterborne pathogens

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Section 10.2.3 of the Vermont Water Supply Rule (December 1, 2010) states:

*The Secretary may modify the requirements of this subchapter, or require additional public notification measures (e.g. Boil Water notices, Do Not Drink notices, or other language) when necessary, in his or her judgement, to inform consumers of the water for protection of public health. Such additional measures may include other forms of notification and specific language in the notice.*

A. Pursuant to Vermont Water Supply Rule Section 10.2.3, the Secretary has determined that, in the following circumstances, it is necessary for the protection of public health to prevent consumption of water potentially or actually contaminated with waterborne pathogens for a water system to issue a notice to affected consumers<sup>1</sup> instructing the consumers to boil tap water prior to any consumptive use of the water:

1. The water system violates the *E. Coli* Maximum Contaminant Level as defined in the Revised Total Coliform Rule in 40 CFR 141.860(a).
2. Results of the water system's routine total coliform monitoring required under the Revised Total Coliform Rule in 40 CFR 141.854 through 40 CFR 141.857 show a presence of total coliform and *E. coli*, and the water system is unable to collect repeat samples required under 40 CFR 141.858(a) within 24 hours.
3. Operational issues (e.g., leaks, breaks, or other emergencies) experienced by the water system that result in all or a portion of the water system distribution system experiencing a loss of pressure below 20 psi.
4. Repairs or maintenance completed on the water system result in all or a portion of the water system distribution system experiencing a loss of pressure below 20 psi, unless the repairs are completed pursuant to American Water Works Standard C-651 or other equally-protective means as authorized by the Secretary.
5. Repairs completed on the water system require the use of an unpermitted or unauthorized hydrant-to-hydrant connection to enable continued service of water to consumers.
6. Filtration or disinfection equipment for a surface water source no longer operates as designed or permitted or is otherwise unable to achieve adequate disinfection or inactivation of bacteria or viruses.
7. The water system receives a delivery of bulk water and:
  - a. the bulk water was not from a permitted public community water system;
  - b. the bulk water was not conveyed using a designated water tanker;
  - c. the bulk water does not contain a measurable disinfectant residual at any point throughout the process of tanker loading, water delivery, or storage; or
  - d. the receiving system is unable to maintain a measurable disinfectant residual throughout the entire distribution system after receiving bulk water.

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<sup>1</sup> In some circumstances, including when a water system is required to issue a boil water notice due to the circumstances described in A.1, A.2, A.6, and A.7, "affected customers" are all customers served by the water system.

B. When the Secretary determines in circumstances not listed above that it is necessary for the protection of public health to prevent consumption of water that is potentially or actually contaminated by waterborne pathogens, the Secretary will provide a directive to the water system to issue a notice to affected consumers instructing the consumers to boil tap water prior to any consumptive use of the water.

C. As soon as possible, but not more than 24 hours, after becoming aware of one of the circumstances identified in Section A, or after receiving the directive from the Secretary to issue a notice to consumers to boil tap water prior to any consumptive use (i.e., a boil water notice), the water system shall provide a boil water notice that meets the requirements of Section D to every affected consumer.

D. The boil water notice shall use the existing Boil Water Notice template or other document that includes, at a minimum, all the following information:

1. Instructions to boil water for at least 60 seconds prior to any consumptive use, including:
  - a. drinking, including using water for juices or formula;
  - b. making ice;
  - c. brushing teeth;
  - d. washing and preparing food; and
  - e. washing dishes.
2. Clear explanation of the affected location(s) required to boil water until otherwise directed by the water system or Secretary.
3. Explanation by the water system about what is being done to address the actual or potential contamination.
4. Contact information for water system personnel managing the situation.

E. Pursuant to Section 10.3 of the Vermont Water Supply Rule, within 10 days of issuing the boil water notice, the water system shall provide a completed Public Notice Certification form to the Secretary along with a copy of the notice.

F. The water system shall not inform consumers that boiling of tap water is no longer required until the water system receives notification from the Secretary that it may do so.

G. If the requirement to boil tap water extends for more than three consecutive calendar months, the water system shall provide a reminder boil water notice that meets the requirements of Section D to every affected consumer every three months, and, pursuant to Section 10.3 of the Vermont Water Supply Rule, within 10 days of issuing the notice, provide a completed Public Notice Certification form to the Secretary along with a copy of the notice.

H. The Secretary shall notify a water system that boiling of tap water is no longer required for the protection of public health when the following steps have been taken by the water system and all monitoring results show the absence of total coliform and *E. coli*:

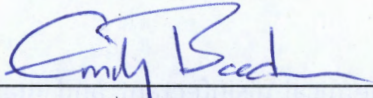
1. When a water system issues a boil water notice due to the circumstance described in Section A.1 and the water system:
  - a. completes the Level 2 Site Assessment required under the Revised Total Coliform Rule in 40 CFR 141.859(b)(4);

- b. corrects all sanitary defects identified in the Level 2 Site assessment as required in the Revised Total Coliform Rule in 40 CFR 141.859(c);
  - c. collects the number of total coliform samples identified in Table 1 based on the number of total affected consumers (i.e. all consumers served by the water system), unless directed by the Secretary to collect additional samples to account for system-specific conditions, at locations that are geographically and hydraulically representative of the water system using one of the following schedules:
    - i. evenly distributed over two sequential days; or
    - ii. if the water system is continuously applying a chemical disinfectant and maintaining a measurable disinfectant residual throughout the entire distribution system, and the Secretary approves a one-day monitoring schedule, over one day.
2. When a water system issues a boil water notice due to the circumstance described in Section A.2 and the water system collects the number of repeat samples required under the Revised Total Coliform Rule, 40 CFR 141.858(a).
  3. When a water system issues a boil water notice due to the circumstance Sections A.3-A.7 and the water system:
    - a. resumes normal operation;
    - b. collects the number of total coliform samples identified in Table 1 based on the number of total affected consumers, unless directed by the Secretary to collect additional samples to account for system-specific conditions, at locations that are geographically and hydraulically representative of the affected area of the water system using one of the following schedules:
      - i. evenly distributed over two sequential days; or
      - ii. if the water system is continuously applying a chemical disinfectant and maintaining a measurable disinfectant residual throughout the entire distribution system, and the Secretary approves a one-day monitoring schedule, samples may be collected over one day.

**Table 1 – Number of Total Coliform Samples**

Affected Population	Number of Samples
≤25 – 2,500	2
2,501 – 3,300	3
3,301 – 4,100	4
4,101 – 4,900	5
4,901 – 5,800	6
5,801 – 6,700	7
6,701 – 7,600	8
7,601 – 8,500	9
8,501 and greater	10

I. If a water system's monitoring results collected pursuant to Section H.1.c., H.2, or H.3.b. show a presence of total coliform, the water system shall communicate with the Secretary to determine and complete steps for identifying and resolving sanitary defects and for conducting subsequent monitoring to show the absence of total coliform and E coli.



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Emily Boedecker, Commissioner  
Department of Environmental Conservation

Effective Date: 10/2/18