

Standards, Operational Protocols and Guidance Document

Boil Water Advisory Issuance and Rescission

General Overview

The assessment of communications regarding drinking water distribution system becoming compromised, causing a boiled water advisory to be issued, and conditions to remove (partly or fully) the boil water advisory by Drinking Water personnel are provided in this document.

Definitions

Term	Definition
Boil Water Advisory	A precautionary notice to users of public drinking water to disinfect water that they may ingest due to water of unknown quality in the distribution system.
POC	Point of Contact, usually name, 24-hour telephone number, and electronic mail address
PWS	Public Water System that provides drinking water to 25 or more persons or 15 or more connections for more than six months a year.

Standards

- (A) Failure to maintain, under Chapter 391-3-5-.10:
 - (1) The water distribution system must be designed and the water lines sufficiently sized to furnish at all times the instantaneous demand flow of water required and to maintain at all times a pressure of twenty (20) pounds per square inch at each service connection in the distribution system under all conditions of flow.
 - (4) It is the responsibility of the supplier of water to maintain the distribution system to prevent contamination of the drinking water and to provide the required pressure and flow at all times.
 - (12) Public water distribution network and its related components must be protected to prevent unauthorized tampering.
- (B) Failure to perform, under Chapter 391-3-5-.12:
 - All newly constructed public water systems including extensions, additions, modifications, or repairs to existing public water systems including water mains, storage tanks, treatment plants, wells, or any other pipes or parts of the public water system which may affect the quality of the drinking water which is delivered, treated or stored, must be disinfected before being placed into service by the supplier
- (C) Failure to maintain, under Chapter 391-3-5-.14:
 - The supplier of water must continuously chlorinate the water to maintain a detectable residual of free chlorine in all parts of the distribution system in

the recommended amount of at least 0.2 parts per million, and such additional amounts as may be determined necessary by the Division, unless other means of disinfection have been approved by the Director. If the residual disinfectant concentration is measured by approved analytical methods and not detected, the supplier may, upon approval by the Division, determine and report detectability by the use of heterotrophic plate count measurements as required by 40 CFR § 141.72 (1989) and other applicable paragraphs of 40 CFR Part 141.

- Legal basis: OCGA § 12-5-182. Powers of director as to protection of public from contaminants presenting imminent and substantial danger
 - The director, upon receipt of information that a contaminant is present in or is likely to enter a public water system and that such contaminant may present imminent and substantial danger to the public health, may take such authorized action as he may deem necessary in order to protect the public health. The actions which the director may take include, but shall not be limited to, issuing such orders as may be necessary to protect the health of persons who are or may be users of such system, including travelers; commencing actions under Code Section 12-5-187; and commencing a civil action for appropriate relief, including, but not limited to, an action to obtain a restraining order or temporary or permanent injunction.

Protocol

The actions to issue boil water advisories should follow these general steps:

1. Drinking Water Inspector (generally, but others may, such as Drinking Water Engineers, district office staff) receive notification by PWS of main breaks, low pressure events, water outages, disinfection problems, or deliberate or inadvertent tampering of water treatment facility or distribution system.
2. Contact PWS Superintendent or Operator to obtain situational awareness of the incident, including:
 - a. Location
 - b. Area affected (geographic and population)
 - c. Operations
 - d. Repairs undertaken or planned, estimated time for return to service
3. Provide advice on courses of action to remediate situation
4. Advise PWS to issue Boil Water Advisory.
5. Advise PWS to devise sampling plan to assess that the portion of the water distribution system affected is not microbiologically contaminated and have samples analyzed by a Georgia-certified drinking water laboratory.
6. Determine the severity of the incident: Number of people affected and are there any other critical water customers impacted as well due to the BWA such as any Public Health Facilities (Hospitals, Nursing Homes, Dialysis Units, Restaurants, day cares/schools) or Agriculture Facilities (Food producers/manufactures/food processing plants, grocery stores, animal feed) .
7. Contact immediate supervisor (if unavailable, Drinking Water Program manager) to apprise of situation and provide contact information for follow-up communications.

8. Supervisor or Manager (or their delegate) to provide electronic communication confirming PWS incident and directing issuance of a Boil Water Advisory (include an electronic document copy)
 - a. Direct communication to PWS Point-of-Contact
 - b. Copies to: Drinking Water managers
 - c. Copies to: Emergency Coordinator to relate and share information with other agencies such as the health department and Agriculture (Amy Rammo-Kuhs)
 - d. Copy to: Drinking Water inspector, Engineer, appropriate district
 - e. Copies to: Drinking Water Compliance staff (Grubb, Rammo-Kuhs)
 - f. For major incidents (Particularly those impacting Public Health and Agriculture): The EPD Watershed Emergency Coordinator(Amy Rammo-Kuhs) will inform, coordinate and share information with the following:
 - i. Copy to appropriate EPD District Manager
 - ii. Copy to EPD Communications Director
 - iii. Copy to State Department of Public Health
 - iv. Copy to State Department of Agriculture
 - v. Georgia Emergency Management Agency (GEMA)
 - vi. Will Coordinate Resource requests if any are needed

The actions to rescind boil water advisories should follow these general steps:

1. Drinking Water Inspector (generally, but others may such as Drinking Water Engineers, district office staff)) receive notification by PWS that repairs were completed.
2. Advise PWS to provide written documentation of:
 - a. Summary of the incident, including proximate cause and efforts undertaken to place distribution system back into service.
 - b. Copy of the actual Boil Water Advisory issued
 - c. Sampling results which demonstrate all analyses were negative for Total Coliform and Fecal Coliform (or *E. Coli*) bacteria.
3. For major incidents, advise and consult with Supervisor or Manager on results received from PWS.
4. A PWS **MAY** go ahead and rescind the BWA (wholly or in-part) after reviewing their sample results and insuring that all water sample analyses were negative for Total Coliform and Fecal Coliform (or *E. Coli*) bacteria.
 - ❖ Please note that the WS **MUST** still submit copies of the sample result analyses to EPD, but they may go ahead and lift the BWA without waiting on EPD to instruct them to do so if all their results are negative for Total Coliform and Fecal Coliform (or *E. Coli*) bacteria
5. Place all written correspondence in facility file.

Guidance

The Boil Water Advisory guidance is provided below.

Public Advisory

BOIL WATER NOTICE

[Indicate or state the cause for loss of pressure in the system here (e.g., *The isolation of a large diameter water main for repair*)] is causing water pressure in parts of the water system to drop to dangerously low levels. When this occurs a potential health hazard may exist in these areas of zero pressure from backflow and/or back-siphonage of water of unknown quality into the water distribution system.

In order to protect the public from a potential health hazard, all citizens that have experienced water outages and/or low water pressures are advised to “boil” all water prior to use for drinking, cooking, or preparing baby food. The water should be boiled for at least one minute after reaching a rolling boil. Citizens should continue to boil their water until they are notified by their drinking water utility that the water system has been restored to full operation, and that the microbiological quality of the water in the distribution system is safe for human consumption.

Notes:

1. The Drinking Water Program of the Georgia Environmental Protection Division (EPD) has issued this public advisory. Please take the necessary steps to issue this notice by radio & television announcements, by newspaper, reverse-911 calls or hand delivery. Make sure that all your water customers have been notified of this public advisory.
2. The boil water notice must remain in effect until acceptable corrective measures are taken to ensure pressure has been restored to the affected areas and the water quality in these areas has been demonstrated to be microbiologically safe to drink. When these conditions have been met, a PWS **MAY** go ahead and rescind the BWA (wholly or in-part) after reviewing their sample results and insuring that all water sample analyses were negative for Total Coliform and Fecal Coliform (or *E. Coli*) bacteria. Please contact the EPD’s Drinking Water Program and notify them of acceptable conditions for rescinding the boil water notice. (Copies of the laboratory reports **MUST** be sent to EPD, along with a copy of the boil water notice).

PROCEDURES FOR REMOVING A BOIL WATER NOTICE

The following items must be accomplished before a boil water notice will be removed by EPD:

- A. Distribution system integrity must be restored by repairing and/or isolating all main breaks. Pipes should be flushed until the water is clear. Adequate water should be pumped into the distribution system to pressurize all areas and build adequate reserve in the storage tanks. Free chlorine residual measurements and coliform bacteria samples must be collected from enough sites to adequately represent all areas of the distribution system (we recommend using at least 50% of the water system’s existing coliform sample site locations and/or collecting at least 15-20 samples). Free chlorine residuals must be detected throughout the distribution system and all microbiological tests (performed by a certified laboratory) must be negative for total coliform bacteria. **A copy of the laboratory results must be sent to EPD.**
- B. Based upon the laboratory results, PWS **MAY** go ahead and rescind the BWA (wholly or in-part) after insuring that all water sample analyses were negative for Total Coliform and Fecal Coliform (or *E. Coli*) bacteria.