Environmental Protection Agency

Disruption of Service Events at Small Public Water Systems

This fact sheet covers response requirements for disruptions of service at "Small Systems," which include nontransient noncommunity (NTNC) public water systems (PWSs) serving a population under 1,000 and all transient noncommunity (TNC) PWSs, in accordance with OAC Rule 3745-83-02. This policy is not law.

Disruption of Service Events

A disruption of service means an event during which minimum pressure at any point in the distribution system of a PWS falls below 20 psig at ground level. The area where the pressure falls below 20 psig is called the "affected area." Disruptions of service can be caused in a variety of ways (waterline break, power outage, well pump failure, etc.). They can pose a health risk and may result in contamination entering the water system. Therefore, Small Systems are required to complete the following steps if a disruption of service occurs:

1. **Implement a temporary remedy:** This can include closing, providing bottled water, or implementing an acceptable alternative (with Ohio EPA approval) within 24 hours. If the PWS chooses to remain open, they are encouraged to post a precautionary boil advisory (a.k.a. precautionary "water use advisory").

2. **Complete repairs and restore pressure to at least 20 psig throughout the distribution system:** PWSs may need to call in a contractor to complete repairs (e.g., plumber, well driller). The PWS must hire a contractor registered with the Ohio Department of Health (ODH) if any of the following work is needed on the well: drill, construct, alter, repair, or seal the well, or install a pitless adapter or pitless unit. ODH maintains lists (in-state contractors and out-of-state contractors) and a map of well contractors.

3. **Complete the disinfection procedure for well work, if applicable:** If work is done on the well that could result in contamination entering the well (replacing well pump, replacing portion of well casing, replacing pitless adapter, etc.), complete the well disinfection procedure. This procedure is outlined in OAC Rule 3745-9-08 and the "Disinfection of a Public Water System Well" instructions. The PWS must have at least 2 consecutive raw total coliform samples collected at least 30 minutes apart that are total coliform negative (TC-) ("safe") before proceeding to Step 4. These are raw samples (before any treatment) and are required in addition to the distribution samples in Step 5 below. Contact Ohio EPA if either sample is E. coli positive (EC+) or total coliform positive (TC+).

4. **NTNCs only: Complete any lead requirements, if applicable:** Consult the "Guidelines for Water Line Repairs and Replacements in Areas with Lead Service Lines" guidance document to determine applicable lead requirements.

5. **Collect total coliform samples in the affected area.** Based on the total coliform sample results, PWSs may be required to issue a water use advisory and collect additional samples (See below).

Total Coliform Sampling from Affected Area

Collect total coliform samples after repairs are complete and pressure has been restored to at least 20 psig throughout the distribution system. General instructions on how to collect total coliform samples are available online. Additional details regarding sampling after a disruption of service are discussed below.

Where to Collect Samples

Collect samples from representative locations in the affected area (i.e., where the pressure dropped below 20 psig). If the whole distribution system has low (less than 20 psig) or no pressure, samples should be collected from representative locations throughout the distribution system. If only a portion of the distribution system has low or no pressure, then samples should be collected from representative locations in that portion. All samples must be collected from the distribution system (after any treatment equipment). They cannot be collected from the raw tap, pressure tank, etc.

How to Label the Samples

The total coliform samples should be marked as follows on the Sample Submission Report (SSR) given to the lab:

Sample Type = **Special**
Facility Code/Facility ID = **DS1**
Sample Monitoring Point (SMP) = **DS000**

How Many Samples are Required

Reference Table 1 to determine how many initial samples to collect based on the number of service connections in the affected area (i.e., where the pressure dropped below 20 psig).

Response Requirements Based on Sample Results

Table 2 outlines the requirements based on the sample results. Contact the Ohio EPA District Office with any questions.

Table 2. Response Requirements from Total Coliform Sample Results

Results of Sampling	Response Requirements
All samples are TC- (safe)	• Can stop implementing the temporary remedy (from Step 1). • Can lift the precautionary water use advisory (if one was issued).
Any sample is TC+, and all are EC-	• Can stop implementing the temporary remedy (from Step 1). • Can lift the precautionary water use advisory (if one was posted), though the PWS can choose to keep it posted as a precaution. • Contact Ohio EPA and continue to monitor with an additional set of total coliform samples (See Table 1) until one complete set is TC-. It is recommended to flush the system prior to collecting a new set of samples.
Any sample is EC+	• Contact Ohio EPA and issue a water use advisory. • Collect 2 additional sets of samples, at least 24 hours apart. See Table 1 for the number of samples required in each set; however, if 0 to 15 service connections are affected, collect a minimum of 2 samples per set. • PWS can lift the water use advisory once all samples in both sets are TC-. It is recommended to flush the system prior to collecting a new set of samples. • Once the advisory has been lifted, submit a copy of the issued advisory and the completed verification form to Ohio EPA.