

AFDO Food Emergency Regulator Pocket Guide 3rd Edition



ASSOCIATION OF FOOD AND DRUG OFFICIALS

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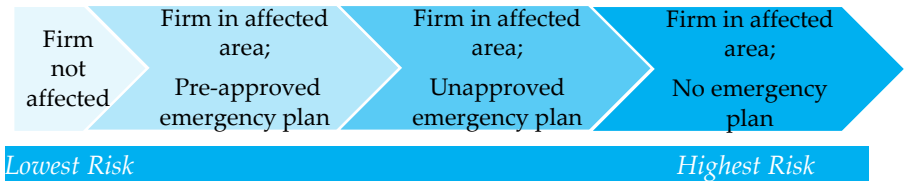
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Contaminated Water Supply (Boil Water Advisory)

During a contamination of the water supply, a Food Safety Regulator response needs to ascertain the extent of the contamination and assess food safety handling practices at affected facilities. During a contaminated water incident, regulators will respond to determine if an Imminent Health Hazard exists. For a large-scale response to a boil water advisory, the Regulatory Agency will likely need to prioritize efforts based on highest risk. Regulatory Agencies should consider the following factors when planning responses to major water contamination issues, and prior to assigning responders.

1. *Has there been an evacuation or other order that would require the public (including regulators) to leave the area?*
2. *Can Responders safely travel to facilities and safely conduct assessments?*
3. *Are alternative procedures or backup communication systems available?*
4. *Is there a set of assessment questions that all responders should be asking?*
5. *Does the municipality rely on other organizations such as EPA or local Department of Environmental Quality for assuring the safety of non-community water supplies?*

During a large-scale response, a regulatory agency will likely need to prioritize efforts based on risk. The example below shows risk on an increasing scale:



Planning

Boil water notices are typically issued when an unexpected condition has caused a potential for biological contamination of a public water system, due to loss of pressure in the distribution system, loss of disinfection, or from other events such as water line breaks, treatment disruptions, power outages or floods. The contamination event may be short, lasting only a few hours, but in some cases, the event may continue for multiple days.

Regulators should encourage facilities to develop a plan for an onsite water supply that exceeds maximum contaminant levels. Food Regulators may review or pre-approve an emergency plan to ensure it addresses issues and decisions the firm will have to make and minimizes uncertainty when water supply contamination occurs.

Contaminated Water Supply-Facility Plan Considerations:

- ✓ Prepare an emergency menu including recipes for foods that require little to no water and the number of servings/or people that can be served.
- ✓ List equipment that uses water and develop a plan for each piece.
- ✓ Provide a first aid kit with necessary items.
- ✓ Determine amount of water needed to operate equipment, sinks, and prepare emergency menu items.
- ✓ Identify available alternate water sources (FC 5-104.12):
 - Include contact information, address, directions, and equipment/supplies needed to obtain alternate commercial, private, or public water supplies, and points where containers can be filled with potable water.
 - Develop business agreements with bottled water supplier, licensed drinking water hauler, or ice suppliers.
- ✓ Keep contact information for a plumber, well-contractor, utility company, water supplier, ice supplier, etc.
- ✓ Maintain an inventory of emergency items:
 - Bottled water, suitable containers for hauling or storing water.
 - Disposable gloves and hand sanitizer for use after washing hands with alternative water sources.
 - Single-service and single-use utensils and similar articles.

If a firm has a plan to address the above issues, classify them as lower risk and focus response efforts on higher risk firms lacking a plan.

Assessment

Emergency response assessments during a boil water advisory will evaluate how the nature of the water supply contamination and anticipated duration may impact the firm's ability to manage food safety (FC 5-101.11, 5-102.11, 5-103.11, 5-103.12). If Regulators identify unsafe operations, cease operations orders are issued in accordance with state or local law or Food Code (FC 8-404.11).

Nature, Scope, and Duration

The nature and scope of the contaminated water supply will determine the type and complexity of regulatory authority response. Boil watery advisories can be placed into one of three broad categories:

<p>Short Term or Localized</p>	<ul style="list-style-type: none"> • Does not disrupt community infrastructure • Affects one facility or very limited area • Regulator responds to facility notifications or consumer complaints
<p>Large area; no disruption of community infrastructure</p>	<ul style="list-style-type: none"> • May be of unknown duration • Affect multiple facilities or multiple areas • Regulators conduct extensive coordinated response based on risk
<p>Large area; disruption of community infrastructure</p>	<ul style="list-style-type: none"> • Longer anticipated duration due to storms, floods, fires and earthquakes • Regulators conduct extensive coordinated response based on risk • May have to assess other emergency categories concurrently

Safety

Regulator safety is priority no matter the incident size, nature, or scope.

▲ Safety Note: Never enter an area or perform any job task that will result in injury or illness. Upon arrival at an emergency or disaster, check with the Fire Chief, Police Officer, or Incident Commander to determine safety of the site. If the building is standing, find out when it will be safe to enter and attempt to contact the owner. If damage is extensive, approval from the fire department or city building inspector may be required prior to entering the building or area.

Exercise care to eliminate the chance of injury. Wear protective clothing, i.e. helmet, coveralls, safety goggles, boots, use a flashlight as appropriate, and carry a personal supply of bottled water. If there are concerns about in-facility safety, then contact supervisor or Safety Officer IMMEDIATELY.

Food Safety Considerations

During a contaminated water supply event or boil water advisory, the primary concern for the Regulatory Authority is to quickly assess the operation (or many operations), to verify the following:

1. No imminent health hazard is present. (FC 8-404.11).
2. PIC is ensuring that safe operating conditions exist during the water contamination event (FC 2-103.11).

If either of the above items cannot be demonstrated, then order closure of the establishment or limit operations until they are safely resumed. However, if the impact is not too severe, then continued operation may be approved, pending initial and continued demonstration of food safety practices. If the firm is operational, then the firm's emergency operational system and equipment impacted by the water supply contamination will have to be assessed, focusing on systems, procedures, and equipment that are dependent on the availability of water:

1. Drinking water, water as a food ingredient, ice makers, beverage mixing/dispensing machines and approved water sources.
2. Sinks (handwash, food preparation, etc.), warewash equipment, toilets, and other equipment that depend on water.
3. Cleaning and sanitizing systems.
4. Functionality of systems that require water, but which may not use potable or drinking quality water such as heating/air conditioning equipment and cooling systems.

Business Continuity

If an affected firm intends to continue operations throughout a boil water advisory, and they do not have a pre-approved emergency action plan to follow, then the Regulator must verify that the firm is able to demonstrate safe practices. In most cases, this is accomplished by following temporary emergency procedures that have been approved by the Regulatory Authority during an assessment.

Emergency Procedures:



Approved Water Sources:

During an assessment, verify that the firm has an alternative, approved water source available. (FC 5-104.12). Examples include:

1. Boiled water: water that has been boiled and maintained at a rolling boil for at least one minute.
 - a. Chemical disinfection is generally not an option because of the lack of onsite equipment for testing chemical residuals.
 - b. *Note: Boiling water is not a permissible alternative to chemical contamination in water (i.e. heavy metals in water).*
2. Commercially bottled water:
 - a. Large water bottles used for water dispenser units. Some dispenser units have lever type faucets for hot or cold water (if electricity is available).
 - b. Individual retail sized containers of bottled water.

3. Municipal or approved water source delivered via:
 - a. Tanker truck,
 - b. Water buffalo style tank that is pulled by a motor vehicle,
 - c. Approved portable water containers,
 - d. Covered sanitized bulk containers, or
 - e. Other approved sanitary means of transporting water.
4. Water hauled from an approved public water supply in a covered, food-grade container that has been cleaned and sanitized.
5. Approved water supply from a neighboring location using approved sanitary hose(s) and fittings.
6. Fire system water when approved, as this water is not usually potable and may require additional treatment prior to use.



Water as a Food Ingredient

If a firm is unable to provide a safe, alternate water supply, then restrict the menu or food preparation to items that don't require water. Firms must demonstrate how safe water will be provided, stored, and dispensed from and approved alternative water source if using water as an ingredient:

1. Only approve commercially manufactured ice. (FC 3-202.16).
2. Issue cease operations orders for automated, post-mix fountain drink dispensers, auto-fill coffee makers, instant hot water dispensers, juice and tea dispensers, etc., since they do not sufficiently heat/boil water to make it safe to drink.
3. Approve food preparation using potable water from an approved source as described above, also verify that the firm will:
 - a. Immediately discontinue preparing food with potentially contaminated water (FC 5-101.11).
 - b. Discard ready-to-eat food that may have been prepared with or may have contacted contaminated water (FC 3-701.11).
 - c. Discard RTE food items stored with ice or displayed on ice that could have been made from contaminated water (3-701.11).



Water in Food Processing

Washing or soaking fresh produce must include being able to sanitize sink with potable water first, and then washing fresh produce with water from an approved source. If the firm is unable to ensure this, then limit the operation to only allow:

1. Use of pre-washed packaged produce, or
2. Use of frozen or canned fruits and vegetables.

Use of spray misting units for produce should be limited and turned off during boil water advisories. Spray bottles may be approved if filled with an approved water source, properly labeled, and cleaned and sanitized.

Thawing frozen foods under running water is not an acceptable procedure under boil water advisory, only approve thawing procedures as follows [FC 3-501.13 (A) or (C)]:

1. Under refrigeration, or
2. As part of the cooking process if the food that is frozen is:
 - a. Cooked as specified under 3-401.11(A) or (B) or 3-401.12, or
 - b. Thawed in a microwave oven and immediately transferred to conventional cooking equipment, with no interruption in the process.



Handwashing

If a firm is unable to provide approved water source for handwashing facilities, then issue orders to cease food preparation and limit operations to pre-packaged foods only. If the firm wants to continue operations, then verify that sufficient water source has been provided as detailed below:

1. Use water from an approved source.
2. Alternative handwashing facility is typically a “gravity flow” handwashing set-up using potable water (i.e. commercially bottled water) in a clean, sanitized container with a continuous-flow type spigot allowing water to flow over hands into a catch bucket or directly above a functioning drain.
 - a. Dispensable hand soap, disposable towels, and a waste receptacle must be provided at designated handwash stations;
 - b. The catch bucket must be emptied into a drain such as a janitor sink or toilet. Hands must be washed after emptying the catch bucket and before returning to food handling operations; and,
 - c. Even if previously approved, limit the operations to suspend bare hand contact with ready-to-eat foods.
3. Acceptable temporary handwashing substitutes may be approved when only prepackaged foods are provided. The following must also be followed if handwash facilities are unavailable in the immediate area where the prepackaged food is handled:
 - a. Approved hand antiseptics or chemically treated towelettes must be used for cleaning hands; and
 - b. An operational handwash sink or alternative handwashing facility must be provided for use in the immediate area of a toilet facility.

4. A handwashing sink with non-potable water must be identified to prevent its use.



Dishwashing- Cleaning/Sanitizing Equipment, Utensils, Tableware

Issue orders to limit or discontinue operations if the firm is unable to demonstrate proper cleaning and sanitizing procedures to ensure food safety (FC 2-103.11). If the firm wants to continue operations and can follow approved procedures to wash, rinse, and sanitize, then approve operations that:

1. Require single service/use articles or utensils usage (FC 4-502.12).
2. Use an alternate approved water (as listed above) for cleaning equipment, utensils, tableware, and surfaces that may contact food (FC 5-104.12).
3. Use of non-potable water for warewashing and sanitizing will be assessed based on the reason for the boil water advisory. Sanitizers may not be effective against eliminating parasites, toxins, and viruses that could be present in contaminated water.
 - a. Before approving automatic warewashing machine usage with non-potable water, consider if the water temperature, cleaning agents, and/or heat cycle are sufficient to clean and sanitize utensils and tableware. (FC 4-501).
 - b. If approving three-compartment sink with non-potable water usage, then ensure sanitizer concentration and contact time are sufficient to clean and sanitize utensils and tableware.
 - c. If the firm uses an automatic chemical dispensing system, recommend manually mixing of chemicals following manufacturer's instruction.



Cleaning the Facility

Issue orders to cease operations if facility cleanliness could jeopardize food safety (FC 6-501.12), however, alternative water supply may be approved for general cleaning of the physical facilities.

Recovery Following an Interruption of Water Supply (FC 8-404.12)

Regulatory agents **must** authorize the re-opening of a firm if a cease operation order was issued due to an imminent health hazard. Prior to lifting the cease operation order, verify that food safety processes affected by the water supply contamination can resume safely.

Recovery Considerations

- ✓ Verify the firm documented date and time when the water advisory was lifted, or testing deemed water safe for use.
- ✓ Assure that cleaning and sanitizing equipment such as dishwashing machines, three compartment sinks are clean and sanitized.
- ✓ The firm must flush pipes, faucets, and drinking fountains (FC 5-101.12), following the directions from the water municipality or, as general guidance, run cold water faucets for at least five minutes.
- ✓ The firm must follow manufacturer's instructions to flush, clean and sanitize equipment with waterline connections such as post-mix beverage dispensers, spray misters, coffee or tea urns, ice machines, glass washers, dishwashers, etc. (FC 5-101.12).
 - Ice Machine-example of a written cleaning and sanitizing:
 - Flush the water line to the machine inlet.
 - Close valve on water line and disconnect water line from the inlet.
 - Open valve, run water through for 10-15 minutes, dispose of the water, and close the valve.
 - Reconnect the water line to the machine inlet, open the valve, and flush the water lines in the machine.
 - Replace filters on equipment if not designed to be cleaned in place.
 - Turn on the machine.
 - Throw away the first three batches of ice from the machine.
 - Clean and sanitize all parts and surfaces that contact water and ice, following the manufacturer's instructions.
 - *Alternatively contact cleaning service provider to back into service*
- ✓ Clean and sanitize food contact surfaces utensils and equipment.
- ✓ Run water softeners through a regeneration cycle.
- ✓ Drain reservoirs in tall buildings.
- ✓ Change out all water filters.
- ✓ Type II or Type III non-community water supply (such as a well) follow Safe Drinking Water Act Requirements (40 CFR 141 and 142).