IOWA DEPARTMENT OF INSPECTIONS & APPEALS

Guidance for Food Establishments during and after a Water Advisory

1. What is a boil water advisory?

a. A boil water advisory is issued by a public water system when there is concern that a problem with drinking water exists. All water used for drinking, preparing food, beverages, ice cubes, washing fruits and vegetables, should be brought to a rolling boil for at least one minute (or the length of time in the advisory) on a stovetop, in an electric kettle, or in a microwave (in a microwave-safe container).

2. What is bottled water advisory?

a. A bottled water advisory is issued by a public water system when boiling water from that system will concentrate the identified contaminate to a level that could cause a health concern. Only bottled water may be used for drinking, preparing food, beverages, ice cubes, washing fruits and vegetables.

3. What is a Do Not Use advisory?

a. A do not use advisory may be issued if public health is at risk from contact or inhalation of contaminants or toxins in the water. Do not use water from the contaminated water source.

4. Why is a water advisory issued?

a. A water advisory is issued to protect the public from infectious agents (such as bacteria or parasites) or other threats (such as chemicals) that could be or are known to be present in drinking water.

5. What procedure should be used for a boil water advisory?

a. Place water in a clean and sanitized, heat-resistant container.
b. Place container on a stove burner, electric kettle, or in a microwave and bring the water to a rapid, rolling boil for at least one minute.
c. If necessary, cool water by placing in another sanitized container and store the container in the refrigerator.

6. What should restaurant, supermarket and food service managers do?

A food facility manager (or the "Person-in-Charge") is responsible for conducting both the initial and ongoing assessments to ensure consistent compliance with food safety requirements.

a. Assess food, water and ice in your facility effected by the advisory start date
b. Implement the appropriate emergency procedures outlined below or remain closed until disinfection of contaminated items occurs and boil water advisory is lifted.
c. Immediately discontinue operations if a safe operation cannot be maintained using alternative procedures
d. Follow all requirements for flushing lines and thoroughly clean and sanitize all food contact surfaces prior to resuming normal operations.

7. What should food establishments do to address a current boil water advisory?

The following are temporary alternative procedures that can be taken to address specific impacted food operations during a biological contamination of the water supply (boil water advisory). Where "boiled" water is indicated, the water must remain at a rolling boil for at least one minute. Large volumes of water should be brought to a rolling boil for at least three to five minutes. Although chemicals (e.g. bleach) are sometimes used for disinfecting small amounts of household drinking water, chemical disinfection is not an option for food establishments because of the lack of onsite equipment for testing chemical residuals.

8. What are Alternative Sources of Drinking Water?

- **a.** Commercially bottled water
- **b.** Haul water from an approved public water supply in a covered sanitized container
- **c.** Arrange to use a licensed potable drinking water tanker truck.

9. What should be done about Beverages made with piped in water – including post mix carbonated beverages, auto-fill coffee makers, instant hot water dispenser, juice, tea, etc.?

Discontinue use of post-mix carbonated beverage machine, auto-fill coffee makers, instant hot water heaters, etc. using auto-fill. Remove and replace any filters that may have been connected to water lines.

10. What should be done about ice?

- **a.** Discard existing ice. Do not use ice made during a water advisory.
- **b.** Discontinue routine methods of making ice until boil water advisory is lifted
- **c.** Use commercially manufactured ice from an approved water supply.

11. What about food products requiring water?

- **a.** Discard any ready-to-eat food prepared with water prior to the advisory or incident
- **b.** Prepare ready-to-eat food using commercially bottled or boiled water.

12. What alternatives are there for washing/soaking produce?

- **a.** Do not use tap water for washing/soaking produce.
- **b.** Use pre-washed packaged produce
- **c.** Use frozen/canned fruits and vegetables
- **d.** Wash fresh produce with boiled, commercially bottled water, or safe potable water hauled from an approved public water supply system.

13. Can tap water be used to thaw frozen foods?

- **a.** Do not use tap water to thaw frozen foods
- **b.** Thaw only in the refrigerator, or microwave as part of the cooking process.

14. Can we continue to use the Reverse Osmosis System?

- **a.** No because RO systems are not intended to kill bacteria or viruses which may cause disease.

15. Can tap water be used when cooking food?

- **a.** Use commercially bottled water
- **b.** Use water that has been at a rolling boil for at least three minutes
- **c.** Haul water from an approved public water supply in a covered sanitized container
- **d.** Arrange to use a licensed drinking water tanker truck.

16. Can tap water be used by employees of a food establishment for handwashing?

- **a.** The best practice is to use only boiled, bottled or treated water for handwashing.
- **b.** If that is not possible, and handwashing is done with soap and tap water, you must thoroughly dry your hands with paper towels and then use a hand sanitizer.
- **c.** As a reminder -- food handlers must NOT touch ready to eat foods with bare hands. Instead they should use physical barriers, such as disposable papers, gloves and utensils

17. Can patrons use tap water in the restrooms during a boil water advisory?

- **a.** Patrons may use tap water for handwashing provided that hand sanitizer is made available at each sink.
- **b.** Post a notice advising patrons not to use tap water for drinking or for brushing teeth.

18. Can Spray Misting Units be used?

- **a.** Spray misting units used to spray produce, seafood, meat cases, etc. cannot be used.
- **b.** Discard any foods exposed to misters after the advisory was issued or any that may have been exposed to contaminated water prior to the advisory.
- **c.** Discontinue use of misters until boil water is lifted.

19. What about cleaning and sanitizing utensils and tableware?

- **a.** Use disposable, single-service utensils and tableware.
- **b.** **High Temperature Dishwashing Machines during a bottled water or Do Not Use advisory:** During these advisories the water source connected to a dish machine is not safe to use.
- **c.** **High Temperature Dishwashing Machines connected to the city water during a Boil Advisory *when a water parasite is not a concern*:** High temperature sanitizing commercial grade dish machines may be used in accordance with the manufacturer specifications listed on the dish machine data plate.
- ***d.*** **High Temperature Commercial Dishwashing Machines connected to the city water supply during a Boil Advisory *when a water parasite is a concern:***
  - **i.** Dish machine rinse cycle must be a minimum of 165*F for a stationary rack, and a minimum of 180* for all other machines, and run continuously for at least one minute holding at a temperature of at least 162*F. If this cannot be verified, then
    1. Dish machine can be run according to manufacturer's specifications listed on the machine's data plate **and** followed up with a manual sanitizer step in an additional sink compartment.
    2. Sink compartment must be large enough to completely submerge the largest utensil or other item to be sanitized, and
    3. The manual sanitizing step must occur with potable water from a DNR approved source **or** boiled and cooled water (from the municipal water source), and
    4. Sanitizer levels must be 100ppm for Chlorine, 200ppm for Quaternary Ammonium, or 25ppm for Iodine, and
    5. Sanitizer must be in contact with the completely submerged utensils for a minimum of one minute.
- **e.** **High temperature sanitizing commercial grade dish machine *connected directly to an outside DNR approved potable water source*** may be used according to the specifications listed on the dish machine data plate.
- **f.** **Low Temperature (Chemical Sanitizing) Dish Machine connected to the city water during a water advisory:**
  - **i.** Low temperature (chemical sanitizing) dish machines are not allowed to be used during a boil advisory, a bottled water advisory, or a Do Not Use Advisory. Sanitizers may not be effective against eliminating parasites, toxins, and viruses that could be present in contaminated water.
  - **ii.** Utensils must be manually washed, rinsed, and sanitized in water that was boiled and cooled
- **g.** **Low Temperature (Chemical Sanitizing) commercial grade dish machine *connected directly to an outside DNR approved potable water source*** may be used according to the specifications listed on the dish machine data plate.
- **h.** **Three Compartment Sinks during a boil advisory:**
  - **i.** Sink basins should be filled using only water that has been boiled as required or is from a potable water source (i.e. bottled water)
  - **ii.** The three compartment sink method of cleaning can then be utilized with verification that the sanitizer in the 3rd compartment is at the proper concentration.
- **i.** **Three Compartment Sinks during a bottled water or do not consume advisory:**
  - **i.** Sink basins should only be filled with bottled water or potable water from a source approved by the Iowa DNR.

What to do AFTER a Water Advisory is lifted

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Flush out the building's water pipes to ensure they contain safe water prior to using. To do this, turn on one hot water tap and let it run until the water is cold. This will drain the hot water heater and refill it with safe water.

Flush, clean, and sanitize water lines on equipment such as beverage machines, coffee machines, and ice machines with clean water.

Then turn on the cold water taps, faucets, fountains, shower heads, etc. and let them run for 5 minutes.

Use Clean Water to make one batch of ice in your ice maker– and then dump the batch.

Clean faucet screens and aerators on all faucets and taps. Replace all water filters.

Clean and Sanitize all food preparation surfaces, dispensing equipment, and sprayers and misters.

20. After a flood, the water supply may be contaminated and this can affect the health of persons living or working in the affected areas. *All flood water should be considered contaminated!* Food establishments must not re-open until safe water service is restored and the local health department approves re-opening.

ALL PROCEDURES MUST BE COMPLETED WITH POTABLE WATER (water that is safe to drink). POTABLE WATER MUST ALSO BE USED FOR HAND HYGIENE.

Once floodwaters have receded and it is safe to enter your facility:

a) **First CHECK:**
- Safety of structure *(follow instructions on any warning signs placed by the building inspection department).*
- Safety and availability of electrical, natural gas, and power supplies.
- Potable water (water that is safe to drink) supply and sewer system.
- For presence of rodents, snakes, or insects.
- With insurance company and/or licensed food salvager for possible recovery of loss.

b) **Then REMOVE and DISCARD:**
- Food exposed to flood water or debris.
- Any food that has an unusual odor, color or texture.
- Time/temperature controlled for safety foods at temperatures in the danger zone: **between 41°F and 135°F**.
- Perishable foods (including meat, milk, poultry, fish, eggs and leftovers) that have been **above 41°F** for more than 4 hours due to an electrical outage.
- Canned foods contaminated by flood or waste water- you cannot ensure that all contaminants can be removed by washing and sanitizing.
- Food containers with screw caps, snap-lids, crimped caps (soda pop bottles), twist caps, caps that snap-open and home-canned foods that have been contaminated by the flood or wastewater.
- Water and ice in icemakers, coffee makers and soda pop dispensers.
- Damaged building items that are contaminated or porous and cannot be cleaned.
- *Frozen food that contains ice crystals and is **41°F or below** can be refrozen or cooked unless contaminated by flood or waste water.*

c) Then FLUSH and CLEAR:

- All water lines *and* equipment connected to the main water supply *(this includes all sink faucets – both hot and cold water, drink dispensers, ice makers, drinking fountains, hose bibs, etc.):*
  - **Cold Water Lines and Faucets**:
    - Before using the water line for drinking, making ice cubes, food preparation etc., make sure it is safe to use and clear from any forms of contamination.
    - Open all cold water lines such as faucets, fountains, showers and water taps and run them for at least 5 minutes.
  - **Hot Water Lines and Faucets**: Turn all faucets to hot water and let it run to flush pipes until the water comes out cold, the bigger the water tank the longer time is needed to flush the water lines.
- Flush, clean, and sanitize **all equipment connected to water lines** according to the manufacturers' instructions, or contact your service provider. *This includes but is not limited to beverage-dispensing machines, ice machines, glass washers, dishwashers, spray misters, filters, coffee/tea urns, etc.*
  - Follow the equipment instruction manual on how to disinfect or clean the machine or piece of equipment.
  - Replace water filters, water cartridges, faucet screens and aerators on all taps used as water treatment and filtration devices. When in doubt, it is always best to clean, sanitize and disinfect any of these devices before using water again.
  - Contact beverage distributor for post-mix machine cleaning instructions.
- Equipment drain lines *(flush from the interior of the equipment).* Follow the steps above.
- Run **water softeners** through a generation cycle.
- Contact your service technician for the proper flushing and sanitizing of equipment such as dishwashers, water softeners, beverage dispensers and ice machines.
- Any blockage of floor sinks and drains.

d. Then CLEAN and SANITIZE (wear rubber boots, gloves, goggles, coveralls and appropriate respiratory protection):

- All sinks before using them.
- Food contact surfaces, work stations and dining tables.
- Run the empty dishwasher through the wash-rinse-sanitize cycle at least 3 times *before* washing dishes and utensils in it.
- Consult manufacturer instructions or contact the product representative if further instructions are needed.
  - For chemical sanitizing machines, use approved test kit to ensure appropriate sanitizer strength has been reached.
  - For high temperature machines, the hot water temperature must reach 180°F.
- After completing above step, use the dishwasher to wash and sanitize utensils, dishes, silverware and glassware.
- Exterior surfaces of equipment and furniture.
- Interior surfaces of equipment such as refrigerators, sinks, trash containers, etc.
- All floors, sinks and walls.

HOW TO MAKE A SANITIZING SOLUTION

To make a bleach solution of 100 parts-per-million (ppm) chlorine which is suitable for sanitizing all food contact surfaces, canned foods and equipment:

- Use **1 tablespoon (5.25% sodium hypochlorite) bleach for each gallon of water**
- ***1 tablespoon = 3 teaspoons or ½ fluid ounce***

Allow solution to air dry after application.

e. Finally, VERIFY:

- Toilets and hand washing stations with soap and paper towels are available.
- Refrigeration and/or freezer units are capable of maintaining food temperatures **at or below 41°F.**
- Hot holding units are capable of maintain food temperatures **at or above135°F.**
- Damaged food has been removed from sale.
- All food is protected from contamination.
- Rodent and insect infestations do not exist.

After completing the above procedures, contact your Food Safety Inspector for a pre-reopening inspection.

For more information, please call the Department of Inspections and Appeals at 515-281-6538.