**Retail Food Facility Food Safety Concerns for Flood Emergencies**

Natural disasters, including floods, fire or severe storms, can jeopardize the safety of your food. Knowing how to minimize potential loss of food and reduce the risk of food borne illness will help you keep your family safe during an emergency.

**\*\*\*Remember, if your kitchen had to close due to an emergency, it should not reopen until authorized by the Pennsylvania Department of Agriculture.**

**Power Outages**

 A refrigerator will keep food safely cool for about 4 hours. A full freezer will hold the temperature for approximately 48 hours (24 hours if half full).

 Food may be safely refrozen if it still contains ice crystals or is at 40°F or below.

 Discard refrigerated perishable food such as meat, poultry, fish, soft cheeses, milk, eggs, leftovers and deli items after 4 hours without power.

**Floods**

*Cleaning and Maintenance:*

 If your water supply has been contaminated and you are on a boil water advisory, you should not use this water supply to clean your facility. You may need to wait until the boil water advisory has been lifted to do your

final cleaning and sanitizing.

 Wash, rinse, and sanitize all equipment and utensils.

o Use a dishwasher or 3-compartment sink.

o Use an approved foodservice sanitizer (chlorine, iodine, or quaternary ammonium) at the appropriate concentration or hot water at 180°F.

o Use test strips to check the sanitizer concentration and adjust as needed.

o Use a maximum registering thermometer or temperature sensitive strips to check that the hot water reaches 180°F or the utensil surface reaches 165°F.

o Run empty dishwashers completely through the wash, rinse, and sanitize cycles three times to flush the water lines and make sure the dishwasher is cleaned and sanitized before using it to clean and sanitize equipment and utensils. Check to make sure the sanitizer is at the appropriate concentration or that the water reaches the appropriate temperature.

 Check equipment that has stood in flood waters to determine if the legs of the equipment are solid or tubular. If the equipment has tubular legs, water may have seeped into the tube requiring that the interior of the legs be cleaned and sanitized.

 Use steam to clean equipment as needed.

 Contact your equipment manufacturer to determine appropriate cleaning and sanitizing procedures for equipment that has been submerged in flood water. It may be recommended that equipment be removed from service.

 Clean out all foods and residues from refrigerators, freezers and display cases and shelves. A three step method of cleaning (wash with detergent, rinse with clear water and sanitize with an approved sanitizer) should be used on all food contact surfaces. Give special attention to drainage areas, ventilation vents, corners, cracks and crevices, handles, and gaskets. Do not mix cleaners (soap) with sanitizers.

 Wash all interior surfaces of the facility, including floors, walls, and ceilings using potable water and a hot detergent solution. Rinse with clear water to remove detergents and residues and then treat with a sanitizing solution.

 Have the facility checked for mold contamination. If there is mold, it may be removed by cleaning and disinfecting, removing and replacing surfaces, or reconditioning.

 Replace all air filters unless they are designed to be cleaned in place.

 Discard all ice in ice machines. Run through three cycles of the ice machine, discarding the ice each time. Clean and sanitize the interior surface following standard operating procedures for food contact surfaces before using the ice machine.

 Remove and replace any water filter that may be on your water supply or on any equipment such as ice machines, soda machines and other food equipment.

 Gas and electrical equipment should be thoroughly cleaned and checked by the fire department, utility company, or authorized service representative before it is used.

*After flooding, discard:*

 All foods in cardboard boxes, paper, foil, cellophane or cloth.

 Meat, poultry, eggs or fish.

 Spices, seasonings, extracts, flour, sugar, grain, coffee, and other staples in canisters.

 Unopened jars with waxed cardboard seals, such as mayonnaise and salad dressing. Also, throw away preserves sealed with paraffin.

 Wooden cutting boards, plastic utensils, baby bottle nipples and pacifiers.

 Any single-use items exposed to flood water. Items that are stored in plastic bags within a cardboard box must be discarded if the cardboard box is exposed to flood water because the plastic bags are not waterproof. Examples include disposable plates or cups.

*After flooding, save:*

 Canned foods that did not come into contact with flood water or flood water splash.

 Commercially canned foods that came into contact with flood water or flood water splash must be properly cleaned and sanitized by: labeling cans with the name of food in permanent market; removing labels (save a label for re-labeling information); washing cans in water containing detergent; rinsing the cans with clear water, followed by soaking cans for at least one minute in chlorine solution (1tablespoon of unscented chlorine bleach to 1 gallon of water) and air drying by placing on sides to dry (do not stack cans). Commercially canned food for sale within a retail food store that is reconditioned for sale must be re-labeled with the name of the product, ingredients, net weight and manufacture/distributor information. Unlabeled product may not be sold.

 Dishes and glassware if they are sanitized by boiling in clean water or by immersing them for 15 minutes in a solution of one teaspoon of chlorine bleach per quart of water or another approved sanitizer.

 Thoroughly wash countertops with soap and hot water. Rinse and sanitize by applying a solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water. Allow to air-dry.

 When in doubt, throw it out.

**Boil Water Advisories**

 Any boil water advisory issued by your water suppler must be followed until the boil water advisory is lifted, even if the boil water advisory is precautionary.

 Boiling water for one minute will kill most types of disease-causing organisms that may be present in the water. After being boiled, water should be cooled, then stored in clean containers with covers.

 Wells that have been flooded should be tested and disinfected after flood waters recede.

**Questions about food safety may be directed to the Pennsylvania Department of Agriculture Bureau of Food Safety and Laboratory Services at 717-787-4315. More information is also available online at** [**www.EatSafePA.com**](http://www.EatSafePA.com)**.**

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**Emergency Guideline for Food Facilities during Boil Water Order**

**What food facilities are affected?**

All food facilities/establishments including restaurants, supermarkets, caterers, food service operations in schools, nursing homes and hospitals, charitable food facilities, kitchens in non-profit institutions, food manufacturers and distributors and anyone else involved in the commercial preparation and distribution of food, water and beverages could be affected if a boil water advisory is issued in your area.

**What does a boil water order mean?**

According to the state Department of Environmental Protection's guidelines for a “boil water” order allwater 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).

**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.

1) Assess food, water and ice in your facility affected by the advisory start date

2) Implement the appropriate emergency procedures outlined below or remain closed until disinfection of contaminated items occurs and boil water advisory is lifted.

3) Immediately discontinue operations if a safe operation cannot be maintained using alternative procedures

4) Follow all water department requirements for flushing lines and thoroughly clean and sanitize all food contact surfaces prior to resuming normal operations if closed.

**What should food establishments do to address a current boil water order?**

The following are temporary alternative procedures that can be taken to address specific affected 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 five minutes. Although chemicals (e.g. bleach) are sometimes used for disinfecting small amounts of household drinking water, chemical disinfection is generally not an option for food establishments because of the lack of onsite equipment for testing chemical residuals.

**What are Alternative Sources of Drinking Water?**

• Use commercially bottled water

• Haul water from an approved public water supply in a covered sanitized container

• Arrange to use a licensed potable drinking water tanker truck.

**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.

**What should be done about ice?**

• Discard existing ice made after the advisory and clean and sanitize ice bins

• Discontinue routine methods of making ice until boil water order is lifted

• Use commercially manufactured ice from an unaffected water supply.

**What about food products requiring water?**

• Discard any ready-to-eat food prepared with water prior to the advisory or incident

• Prepare ready-to-eat food using commercially bottled or boiled water.

**What alternatives are there for washing/soaking produce?**

• Do not use tap water for washing/soaking produce.

• Use pre-washed packaged produce

• Use frozen/canned fruits and vegetables

• Wash fresh produce with boiled, commercially bottled water, or safe potable water hauled from

another unaffected public water supply system.

**Can tap water be used to thaw frozen foods?**

• Do not use tap water to thaw frozen foods

• Thaw only in the refrigerator, or microwave as part of the cooking process.

**Can tap water be used when cooking food?**

• Use commercially bottled water

• Use water that has been at a rolling boil for at least three minutes

• Haul water from an approved public water supply in a covered sanitized container

• Arrange to use a licensed drinking water tanker truck.

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

• The best practice is to use only boiled, bottled or treated water for handwashing.

• 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.

• 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.

**Can patrons use tap water in the restrooms during a boil water order?**

• Patrons may use tap water for handwashing provided that hand sanitizer is made available at each sink.

• Post a notice advising patrons not to use tap water for drinking or for brushing teeth.

**What about cleaning and sanitizing utensils and tableware?**

• Use disposable, single-service utensils and tableware.

Or

• Use the existing automatic dish machine or the 3-compartment sink. Make certain that the sanitization step is being properly conducted (sanitizer concentration/temperature).

• Heat sanitizing dishwashers

o May be used only if verification can be made via a dishwashing thermometer that the final rinse temperature is reaching 180 F or above for the full rinse cycle.

o If this cannot be verified, after removal from the dishwasher, all dishes should be dipped in an approved sanitizer, followed by proper air drying.

• Chemical sanitizing machines

o May only be used if the chemical sanitizer level can be verified to 100 ppm chlorine

AND the contact time of the rinse cycle is 1 full minute

o If this cannot be verified, after removal from the dishwasher, all dishes should be dipped in an approved sanitizer (verified to be 100 ppm chlorine), followed by proper air drying.

 Three Compartment sinks

o 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)

o 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.

**Can Spray Misting Units be used?**

• Spray misting units used to spray produce, seafood, meat cases, etc cannot be used.

• 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.

• Discontinue use of misters until boil water is lifted.

***Recovery Phase***

**What should be done when food establishments have been informed that the water supply is safe again?**

Recovery involves the necessary steps for re-opening and returning to a normal safe operation. The DEP and your local water department will provide specific instructions. **A food establishment that was** **ordered or otherwise required to cease operations may not re-open until authorization has been** **granted by the local health department.**

After either the municipality or regulatory authority has provided notice that the water supply is safe to use, the person-in-charge must ensure the following has been completed:

• Flush all pipes / faucets

• Follow the directions of your water utility (in the newspaper, radio, or television) or, as general guidance, run cold water faucets for at least 5 minutes.

• Equipment with waterline connections such as post-mix beverage machines, spray misters, coffee or tea urns, ice machines, glass washers, dishwashers, and other equipment with water connections must be flushed, cleaned, and sanitized in accordance with manufacturer’s instructions.

• Run water softeners through a regeneration cycle.

• Drain reservoirs in tall buildings.

• Flush drinking fountains: run continuously for 5 minutes.

• Ice Machine Sanitation:

 Flush the water line to the machine inlet

 Close the valve on the water line behind the machine and disconnect the water line from the machine inlet.

 Open the valve, run 5 gallons of water through the valve and dispose of the water.

 Close the valve.

 Reconnect the water line to the machine inlet.

 Open the valve.

 Flush the water lines in the machine.

 Turn on the machine.

 Make ice for 1 hour and dispose of the first batch of ice.

 Clean and sanitize all parts and surfaces that come in contact with water and ice, following the manufacturer’s instructions.

 Water heaters may need to be disinfected and flushed to remove any contaminated water. Some types of water treatment devices may need to be disinfected and flushed to remove any contaminated water. Some types of water treatment devices may need to be disinfected or replaced before being used. Check with the manufacturer for details.

<http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Page.aspx?name=2011-Flood&navid=0&parentnavid=0&pageid=132&>