



## After the Flood: Cleaning & Re-opening Requirements for Food Establishments

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:

### 1. First CHECK:

- Safety of structure (*follow instructions on any warning sign placed by the building 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.

### 2. Then REMOVE and DISCARD:

- Food exposed to flood water or debris.
- Any food that has an unusual odor, color or texture.
- Potentially hazardous 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 waste water.
- Water and ice in icemakers, coffee makers and soda pop dispensers.
- Water filters, purifiers, and beverage cartridges attached to equipment — replace with new filters after the cleanup and before beginning operation (*this includes coffee makers, ice machines, carbonated beverage machines, etc.*).
- 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.*

### 3. Then FLUSH and CLEAR:

- All water lines *and* equipment connected to the main water supply for at least 5 minutes (*this includes all sink faucets – both hot and cold water, drink dispensers, ice makers, drinking fountains, hose bibs, etc.*).
- Any blockage of floor sinks and drains.
- Equipment drain lines (*flush from the interior of the equipment*).

4. 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.
- 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.

**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.

5. 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 above 135°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 health inspector for a pre-reopening inspection.**

**For more information, please call the Lee County Health Department at 319-372-5225.**



## Iowa Department of Public Health Division of Environmental Health

### **Flood Contaminated Foods**

**Overview:** Food contamination is often a problem after a flood because flood water can carry mud, raw sewage, chemicals, and fuel. Filth and disease-causing bacteria can contaminate any food the water contacts and make that food unsafe to eat. This fact sheet provides guidance on food salvage.

#### **Most metal cans can be salvaged. Examine cans carefully.**

Metal cans of food that are free of dents and rust can be saved if the following steps are followed:

- Remove the labels and re-label with a permanent marker.
- Wash the unopened cans in a strong dish detergent solution.
- Use a brush to remove all silt and dirt.
- Immerse the scrubbed containers in a lukewarm solution of one tablespoon of bleach in one gallon of clean water.
- Allow the cans to thoroughly air dry before opening or storing.

#### **Discard Damaged Foods.**

Discard the following foods if flood water has covered, dripped on, or seeped into the package:

- Containers of nuts, spices, seasonings, and flavorings
- Canisters or bags of grains, flour, sugar, salt, coffee, and tea.
- Food in paper, plastic, cloth, fiber, or cardboard packages even if the packages seem dry (i.e., pasta, cereal, crackers, baking mixes).
- Jars or bottles of food that have screw-top or crimp-topped lids. This includes virtually all home-canned and commercially canned foods in glass jars.

#### **Fresh foods should ALWAYS be discarded.**

All fresh vegetables and fruits, and fresh meat, fish, and poultry that have been in contact with flood waters must be discarded.

#### **Discard porous non-food items that come into contact with foods.**

Any porous items that are used with food or come in contact with the mouth should be discarded. This includes:

- Plastic baby bottles, nipples, and pacifiers.
- Plastic storage containers.
- Wooden bowls.
- Disposable silverware.
- Plastic utensils.
- Paper, foam, or plastic dishes.

#### **Clean non-porous dishes thoroughly.**

Glass and china dishes, metal and glass cookware, glass baby bottles, and empty canning jars can be saved.

- Wash in a strong dish detergent solution; remove all filth and mud.
- Disinfect china and glass dishes, metal pots, pans, and utensils, and silverware in a solution of one tablespoon of bleach in one gallon of clean water.



## Re-opening Requirements for Food Establishments after Water Service Disruption or Contamination

Food establishments must not re-open until safe water service is restored and the local health department approves re-opening.

After safe water service has been restored, the following procedures should be completed *prior* to 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.**

1. Flush all pipes and faucets. Run both hot and cold water faucets for at least 5 minutes.
2. Thoroughly clean and sanitize all sinks before beginning to use them again.
3. Discard all ice in ice machines.
4. Flush, clean and sanitize all equipment connected to water lines according to the manufacturers' instructions. This equipment includes but is not limited to beverage-dispensing machines, ice machines, glass washers, dishwashers, spray misters, filters, coffee/tea urns, etc.
  - a. Contact your beverage distributor for post-mix machine cleaning instructions.
5. Run the empty dishwasher through the wash-rinse-sanitize cycle at least 3 times. This will flush the water lines and ensure the dishwasher is cleaned and sanitized inside before washing dishes and utensils in it.
  - a. Consult manufacturer instructions or contact the product representative if further instructions are needed.
  - b. For chemical sanitizing machines, use approved test kit to ensure appropriate sanitizer strength has been reached.
  - c. For high temperature machines, the hot water temperature must reach 180°F.
6. After completing Step 4 above, use the dishwasher to wash and sanitize any dirty dishes.
7. Run water softeners through a generation cycle.
8. Flush drinking fountains by running water continuously for at least 5 minutes.
9. After completing the above procedures, **notify your health inspector before resuming food operations.**

For more information, please call the Lee County Health Department at 319-372-5225.