



Department of Health

## Food Safety Program

### Bureau of Environmental Health and Radiation Protection

*"To protect and improve the health of all Ohioans"*

# Flooding in a Food Service Operation

When a flood occurs, there are potential health concerns that can be caused by the flood event. Prior to re-opening, persons-in-charge (PICs) of food service operations should conduct a complete self-inspection to ensure that normal operations can be resumed safely and without compromising food safety.

***Facilities required to close or cease operations should not re-open until authorization is granted by the local health department.***

## After a Flood

Do not enter a flood damaged building where there is potential for hazardous materials or gas leaks within the building, until the building has been cleared by a hazardous materials (HAZMAT) team, fire department or other regulatory agency. For exposures to mold-contaminated materials/environments, or other recognized hazards, a National Institute for Occupational Safety and Health (NIOSH) approved respirator may be necessary. Please refer to the NIOSH website for more information on personal protective equipment: <https://www.cdc.gov/niosh/ppe/>.

A facility that has been flooded must be properly cleaned and sanitized before operations resume. Decontamination and sanitization procedures using chemical sanitization should be used on equipment and structural surfaces that are salvageable. Examples of chemical sanitizers include chlorine bleach at a concentration of 100-200 ppm (1 tablespoon of bleach in 1 gallon of potable water), quaternary ammonium at a concentration of 200 ppm, or other approved sanitizers. Decontamination should be completed in a manner that eliminates any harmful microorganisms, chemical residues, or filth that could pose a food safety risk.

## Exposed Food Products

After a flood event, most foods that have come into contact with flood waters should be discarded. The general recommendation is *"When in doubt, throw it out."* The following are recommendations for the disposition of specific foods that have been exposed to flood water:

- Dispose of contaminated or spoiled foods in closed containers to prevent rodent and fly harborage.
- Complete proper and safe disposal of condemned food items in a manner consistent with federal, state, and local solid waste storage, transportation, and disposal regulations, to ensure these products do not reappear as damaged or salvaged merchandise for human consumption.

## Physical Facilities

Mold contamination is a concern whenever a flood occurs. Structural components of the building affected by flood waters or other damage from the flood, should be cleaned, repaired, and sanitized, where possible. Porous materials that have been exposed to flood water for more than 48 hours generally cannot be sufficiently cleaned and sanitized and should be discarded, including unsealed (bare) wood, carpet, upholstered furniture, drywall, etc. Cement walls that have mold damage may be reconditioned if they can be effectively cleaned and sanitized. Once cleaning is complete, the facility must be sufficiently dried to prevent mold growth.

- Thoroughly wash all physical facility interior surfaces (e.g., floors, walls, and ceilings) using potable water, with a hot detergent solution, followed by a clean-water rinse and residues, and treated with a sanitizing solution.
  - Special attention should be given to lighting, drainage areas, ventilation vents, corners, cracks and crevices, door handles and door gaskets.
- Exhaust systems and hoods should be thoroughly cleaned and cleared of any debris by professional service technicians as needed. Water damaged ventilation systems that cannot be thoroughly cleaned and sanitized should be removed and replaced. All ventilation air filters should be replaced.
- Facilities served by a water well that has been flooded should have the well disinfected and tested for bacteria to confirm it is safe after flood waters recede. The Ohio EPA or the local health district should be contacted for guidance.



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## Equipment

Thoroughly wash all countertops, equipment and non-food contact surfaces with soap and hot water; rinse with clean water, and then sanitize using an approved sanitizer; allow to air dry.

- Thoroughly clean and sanitize all sinks before resuming use.
- Inspect equipment to ensure it is operational and all aspects of its integrity are maintained. Repair or replace damaged equipment prior to being put back into service.
- Thoroughly clean all cooking equipment and have them checked by the fire department, local utility company, or authorized service representative prior to use.
- Sanitize food contact surfaces and equipment using chlorine bleach at a concentration of 50-100 ppm, quaternary ammonium at a concentration of 200 ppm, or other approved sanitizer.
- Thoroughly wash, rinse and sanitize all metal pans, ceramic dishes, and utensils.
- Wash, rinse, and sanitize equipment and utensils using a dishwashing machine or 3-compartment sink, and:
  - Run the empty dishwasher through the wash-rinse-sanitize cycle three times to flush the water lines and clean and sanitize the dishwasher.
  - Hot water-sanitizing dishwashing machines should provide a final, sanitizing rinse of 180°F (160°F on utensil surfaces).
  - Chemical sanitizing dishwashing machines should provide chlorine bleach at a concentration of 50-100 ppm, quaternary ammonium at a concentration of 200 ppm, or other approved sanitizer.
  - An approved test kit must be used to ensure appropriate sanitizer strength for chemical sanitizing. For hot water sanitization, a maximum registering thermometer or temperature sensitive tape must be used to verify the final rinse temperature.
  - Refrigerated storage equipment should be thoroughly washed inside and outside with a hot detergent solution and rinsed free of detergents and residues.
- All filters on equipment should be removed and replaced if not designed to be cleaned in place.
  - Replace all ice machine filters and beverage dispenser filters, and flush all water lines, including steam water lines and ice machine water lines, for 10 to 15 minutes.
- Discard all ice in ice machines; clean and sanitize the interior surfaces (ice making compartment and storage bin); run the ice through 3 cycles; and discard ice with each cycle.

## Maintaining Food Temperatures

- Verify that that all refrigerated and freezer equipment is capable of consistently maintaining cold holding temperatures (41°F or lower, or in a frozen state) before food items are placed in the units.
- Verify that all equipment used for food preparation (e.g., cooking, cooling, and reheating) is functioning and properly calibrated prior to use:
  - Cooking equipment can heat to the appropriate cooking temperature, and hot-holding equipment can hold food at the required temperature (135°F or higher for prepared hot foods).
  - Cooling equipment (such as blast chillers) can properly cool foods to 41°F within a maximum of 6 hours, and hold the food at 41°F or lower.