# FSIS/FDA GUIDELINES FOR RETAIL AND FOODSERVICE ESTABLISHMENTS AFFECTED BY NATURAL OR OTHER DISASTERS

During and following a natural disaster, such as Hurricane Katrina, there are potential health concerns that can be created by the disruptions caused by the disaster. We are providing these guidelines because retail and foodservice establishments may be forced to shut down due to power outages, an influx of flood waters, contamination of potable water supplies, or structural damage to buildings. Such actions may affect the integrity of a food establishment's existing supply of food and may potentially have lingering effects on the operation.

## Purpose:

These guidelines provide emergency action food safety suggestions and information for retail and foodservice establishments resuming business in the aftermath of natural or other disasters.

## Emergency Assessment:

Disruptions such as an interruption of electrical service or potable water supply can create public health concerns about food safety. Therefore, food establishment management should conduct an evaluation of their facilities and inventory to determine whether it can continue to provide safe food. Perishable foods such as meat, poultry, milk and egg products, if not properly refrigerated, especially for an extended length of time as may be the case in a power outage, can cause illness if consumed, even after they have been thoroughly cooked. Most foods that have come into contact with flood waters should be considered contaminated and must be denatured or destroyed and discarded in accordance with local or state laws and regulations.

## General Considerations

- Prior to reopening, establishment persons-in-charge (PICs) should conduct a complete self-inspection to ensure that normal operations can be resumed safely and without compromising food safety. Establishments required to cease operations in an emergency or those affected by a natural disaster should not re-open until authorization is granted by the local regulatory authority.
- The owner or operator of any food establishment should notify the health department (provide 24/7 contact information) before opening for business. A temporary or conditional operating license/permit might be considered if all public utilities, etc. are not yet available.
- Other applicable provisions of the state Food Code or local ordinance must be followed as usual.
- These recommendations are for limited food service operations such as either cook-serve, service of foods that do not require cooking, or operations requiring minimal food preparation.

- For full service operations involving complex food preparation (e.g., cooking, cooling, and reheating of foods), complete reinstatement of all public utilities is necessary before reopening.

**Potable Water**

- If no potable municipal water supply, non-community public water system (NCPWS) or private well water is available to the food establishment, potable water should be brought in (tanks, bottled water, "water buffalos", etc.) for food preparation, cooking, utensil and food contact surface washing/rinsing/sanitizing and handwashing. It is important to ensure there is an adequate amount of potable water available for these tasks.
    - The source of the potable water should be identified. (i.e., bottled water, well water or municipal water supply). Water that is delivered must meet Environmental Protection Agency's (EPA) drinking water standards and must come from an approved potable water supply.
    - If tanker trucks are used, previous contents (water, milk, eggs, or other foods), cleaning and sanitizing methods, and location (i.e., Where did the truck come from? Where was cleaning and sanitizing done? Where will the truck be kept?) should be identified.
    - Single service utensils (paper/plastic plates, forks, spoons, knives) should be used.
    - A gravity-fed, potable water supply, soap and paper towels should be provided in the food preparation area for handwashing.
    - A small food establishment with 3 employees uses about 500 gallons of water a day. A major clean-up effort could use twice as much water.

**Electricity**

- If no electricity is available for refrigeration and frozen storage in the food establishment:
    - provide continuous refrigeration by the use of generators or ice (wet or dry ice). If dry ice is used in enclosed spaces such as walk-in refrigerators, make sure there is adequate ventilation to avoid the harmful affects of a build-up of carbon dioxide.
    - the volume and type of potentially hazardous food requiring refrigeration should be limited to very simple foods whenever possible (e.g., hot dogs, eggs, cheeses, cultured dairy products, hard summer sausage or salami, and other foods with preservatives).
    - Consider obtaining alternative refrigerated warehouse space outside of the affected area.

- If no electricity or gas is available for water heaters, water can be heated using alternate methods such as electrical generators for electrical power or propane heaters. As a safety

precaution, advise the utility company when using a generator and use it in a properly ventilated area.

**Sewer**

- If sewage connection is inoperable or in disrepair a holding tank can be obtained to store wastewater on a temporary basis. Contact the local wastewater authority for an approved pump and haul company to pump wastewater tanks and portable toilets for proper disposal.
- Until the water supply is reestablished consider obtaining portable toilets for employee and consumer use. When the portable toilets do not have handwashing facilities attached, alternative handwashing facilities should be provided for use by food employees in an accessible location (i.e., gravity-fed, potable water supply, soap and paper towels).
    - If non-potable water is used to flush toilets, it should be posted when faucets provide water that it is not for drinking.
- Upon the restoration of potable water supply all plumbing lines should be adequately flushed and all fixtures cleaned and sanitized.

**Structural Integrity of Facility**

- Condition of the physical structure of the establishment should be in compliance with local building and occupancy codes in a manner that does not compromise the safe and sanitary handling of food and equipment and the safety of employees.
- All mud and debris should be removed from inside and outside of premises (if outside standing water is contaminated soil may also be contaminated).
- Ensure the interior and exterior of the facility is structurally sound and that there are no opportunities for water/moisture, or pests, to enter the facility.
- Prohibit the storage and/or preparation of food in areas of the facility that are not deemed structurally sound.

**Pest Control**

- Ensure that any rodents/pests that may have entered the facility are no longer present. Remove dead pests and sanitize any food-contact surfaces that have come in contact with pests.
- Seal all openings into the facility to prevent future entry of pests, rodents, or pets.

**Damaged Food Products:**

- Evaluate the usability of any food, and packaging materials that have been submerged under flood waters. Unsalvageable food items are those that are irreparably damaged by microbiological, chemical, or physical contaminants, or goods exposed to conditions

making such contamination likely. Most food containers, equipment, and packaging materials will not be salvageable.

- Fresh fruits and vegetables that have been inundated by flood waters cannot be adequately cleaned and should be destroyed.
- Refrigerated and frozen foods, such as meat, poultry, shell eggs, egg products, and milk, that have been immersed in flood waters, should be destroyed. **If in doubt throw it out.**
- Products in containers with screw-caps, snap-lids, crimped-caps (soda pop bottles), twist-caps, flip-top, snap-open, and similar type closures that have been submerged in flood waters cannot be reconditioned.
- Food packed in plastic, paper, cardboard, cloth and similar containers that have been water damaged cannot be salvaged.
- Foods in hermetically sealed cans (top and bottom double seams) that have been under water may be reconditioned and relabeled under certain conditions.

- Proper and safe disposal of condemned food items must be in a manner that ensures that the items will not be easily accessible to consumers in trash containers or reappear as damaged merchandise in any outlet that would permit public consumption. Disposal of such items should be conducted properly and in a manner consistent with food safety requirements in that jurisdiction.
- Foods subject to direct contact with non-potable water are not salvageable.

**Equipment:**

- Clean, repair and disinfect all surfaces affected by flood waters, including:
  - Non-food contact surfaces (e.g., floors, walls, ceilings)
  - Food contact surfaces, using potable water (e.g., equipment, utensils, etc.)

- A commercial dishwasher or 3-compartment sink should be utilized to wash, rinse, and sanitize equipment and utensils using potable water, and:
  - Chlorine bleach or other approved sanitizers should be provided for sanitizing food contact surfaces and equipment.
  - An approved test kit should be available to ensure appropriate sanitizer strength.

- Refrigerated display and storage cases and other refrigerator equipment used to store food should be cleared of all contaminated products and their juices prior to cleaning.
- Refrigerated storage equipment should be thoroughly washed inside and outside with a hot detergent solution and rinsed free of detergents and residues (Special attention should be given to lighting, drainage areas, ventilation vents, corners, cracks and crevices, door handles and door gaskets).
- Any exhaust systems and hoods should be thoroughly cleaned and freed of any debris. Consult professional service technicians, as needed.
- All filters on equipment should be removed and replaced if not designed to be cleaned in place.

- All sinks should be thoroughly cleaned and sanitized before resuming use.
- Equipment should be inspected to ensure it is operational and that all aspects of its integrity are maintained.
- Stove units should be thoroughly cleaned and checked by the fire department, local utility company, or authorized service representative prior to use.

**Maintaining Food Temperatures**

- Ensure that the facility has the capability to achieve the appropriate cooking temperature for raw animal foods and to consistently maintain potentially hazardous foods at both hot ($\geq 135^{o}$F) and cold ($\leq 41^{o}$F) temperatures.
- Verify that all equipment used for food preparation (e.g., cooking, cooling, reheating) is functioning and properly calibrated prior to use.

**Employees**

- Determine if there are an adequate number of trained employees to staff each area of the operation during normal working hours.
- Alcohol hand gels may be used **after handwashing.** Hand sanitizers or gels are a not a substitute for handwashing.
- Employees should not touch foods with their bare hands, but instead should use tongs, deli paper, or single-use, disposable gloves.
- Employees with open wounds should not work with hands-on preparation of foods or with cleaned and sanitized food contact surfaces or single-service/single-use utensils.
- Employees sick with vomiting or diarrhea should not be working in the establishment.

## US GOVERNMENT RESOURCES

Consult the US Department of Agriculture's Food Safety and Inspection Service for guidance on disaster response in regards to meat, poultry, and egg products **www.FSIS.USDA.gov**

Consult the US Food and Drug Administration for guidance on disaster response in regards to all other food products and for science-based information on food safety for retail and food service industries **www.FDA.gov**

Consult with the US Environmental Protection Agency for guidance on disaster response in regards to potable water supply, wastewater and soil erosion and contamination **www.EPA.gov**