

Re-opening a Retail Food Establishment Post-Disaster Guide

Guidance for Douglas County retail food establishments for re-opening after a flood, interruption of water service, sewer backup, electrical or gas outage, fire, communicable disease or other disaster.



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INTRODUCTION & LEGAL REQUIREMENTS

INTRODUCTION

Purpose of Guidance: This document provides generalized instructions for retail food service establishments resuming business in the aftermath of natural or other disasters. This guidance is not intended to be all inclusive. For specific questions not included in this document please contact DCHD.

Self-Inspection Requirement: Prior to reopening, the "person-in-charge (PIC)" must conduct a complete self-inspection of the facility to ensure normal operations can resume safely without compromising food safety or employee health.

Imminent Health Hazards: As defined by Colorado Revised Statutes Title 25. Health § 25-4-1602;

(a) "Imminent health hazard" means a significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury or illness based on the number of potential injuries or illnesses and the nature, severity, and duration of the anticipated injury or illness.

(b) "Imminent health hazard" includes an emergency such as a fire, flood, extended interruption of electrical or water service, sewage backup, misuse of poisonous or toxic materials, onset of an apparent food-borne illness outbreak, grossly unsanitary occurrence or condition, or other circumstances that may endanger public health.

Definition of Hazard: An "imminent health hazard" is a significant threat or danger to health requiring immediate correction and/or cessation of operation to prevent injury or illness.

Authorization to Reopen: Establishments directly affected by a disaster, imminent health hazard, or who are required to cease operations may not reopen until authorization is granted by the health department

This guide is for after a disaster has already occurred. **If you are currently experiencing an emergency and need immediate emergency response, call 911.** There are many potential health concerns that can occur because of disruptions following a disaster.

COLORADO RETAIL FOOD ESTABLISHMENT (RFE) RULES AND REGULATIONS

"If an imminent health hazard exists, such as, but not limited to, absence of adequate refrigeration, no water supply, nonfunctional water heating system, server and active pest infestation, or sewage backup into the establishment, the establishment shall immediately cease food operations. Operations shall not be resumed until authorized by the Department." An "imminent health hazard" is defined as a "significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of an operation to prevent injury or illness." (6 CCR 1010-2).

Establishments required to cease operations during an emergency or those directly affected by a natural disaster may not reopen for business until such authorization is granted by Douglas County Health Department (DCHD).

REENTRY

Maintain awareness that there may be health associated risks when reentering a facility following a disaster or hazard. Ensure that all hazards have been properly mitigated including hazards such as mold, electrical, air contaminants, communicable disease risks, chemical and hazmat risks. Always use appropriate personal protective equipment (PPE) and contact professionals to mitigate risks where appropriate.

HAZMAT

For your own protection, if there is the potential for hazardous materials or gas leaks within the building, do not enter any damaged buildings until they have been cleared by an industrial hygienist or other proper authorities. Use appropriate personal protective equipment (PPE) to avoid exposure to mold-contaminated materials/environments or other recognized hazards.

FLOOD

Operations: Stop all food operations if flooding affects food, utensils, equipment, or prep areas.

Food Product Disposal:

Discard all food and packaging materials that have been submerged in flood waters unless the food is sealed in a commercially sealed can that has not been damaged. **If in doubt, throw it out!**

- Discard all refrigerated and frozen foods (e.g. meat, poultry, shell eggs, egg products, and milk) that have been immersed in flood waters.
- Inspect all canned foods and discard any damaged cans. A can is considered damaged if it is swelling; leaking; punctured; fractured; has extensive deep rusting; or was crushed/dented severely enough to prevent normal stacking or opening with a manual, wheel-type can opener.
- Discard products in containers with screw caps, snap lids, crimped caps (e.g. soda bottles), twist caps, flip tops, snap open, and similar closures that have been submerged in flood waters.
- Discard food packed in paper, cardboard, cloth, single service items or similar containers that have received water damage.
- Undamaged, commercially prepared foods in all metal cans or retort pouches can be saved if the labels are removed and they are thoroughly washed, rinsed, and disinfected. Re-label the containers with a marker and include the expiration date.
- Ensure disposal of food items is done according to state, and local guidance provided in response to the emergency. For further guidance see the *Food Product Evaluation Guide* at the end of the document.

Flood/ Water Damage		
Food Product	Action	Explanation/ Instruction
Fresh fruits and vegetables	Discard	Contaminants can be absorbed by produce
Submerged or splashed screw-top, crimped-cap, twist-cap, pop-top containers	Discard	Not cleanable under/around caps. Containers returned for deposits or recycling must be drained
Submerged permeable (paper, cardboard, cloth, plastic etc.)	Discard	Inadequate barrier to contaminants and water.
Submerged or splashed hermetically sealed containers (cans, pouches)	Salvage	Relabel, if necessary, by removing label; wash, rinse, sanitize (50-200 parts per million (ppm) chlorine), dry, relabel with all required information and codes
Leaking, dented, rusty, or bulging hermetically sealed containers (cans, pouches)	Discard	Possible presence of pathogenic bacteria that can produce deadly toxins. In addition, do not use any food products that have a foul odor or any container that spurts liquid when opening
Alcoholic Beverages (closed with cork, screw-top, twist-top, crimped cap)	Discard	Check with the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) regarding alcohol tax reimbursement (large volumes)

Physical Facility:

Thoroughly wash all interior surfaces (e.g. floors, walls, and ceilings) of the facility using a hot detergent solution made from a safe water source. Rinse all surfaces so they are free of detergents and residues and treat them with a sanitizing solution.

- Clean, repair, and disinfect any structural components of the building (e.g., walls, piping, ceiling, and HVAC system/ventilation systems) that were affected by flood waters wherever possible to avoid mold contamination. All water-damaged wallboards must be removed and destroyed. Cement and concrete walls with mold damage may be able to be reconditioned.
- Thoroughly clean the exhaust systems and hoods, and free them from any debris. Consult professional service technicians as needed. Water-damaged ventilation systems that cannot be thoroughly cleaned and sanitized should be removed and replaced. In all cases, replace all ventilation air filters.

Water Supply:

- Municipal water supply has been verified and is no longer a threat.

- Facilities with wells that were flooded will need to properly disinfect the well water and test it to confirm it is safe once the flood waters have receded.

Disinfection and Sanitation

- Use approved chemical sanitizers, e.g., non-scented chlorine bleach at a concentration of 400 parts per million or 1 cup of bleach per 1 gallon of water on equipment and structural surfaces that have been contaminated with flood waters. Disinfect in a manner that eliminates any harmful microorganisms, chemical residues or filth that could pose a food safety risk. Refer to the sanitization and disinfection guidance at the end of this document.
- Secondary cleaning and sanitation of food contact surfaces: Perform an additional wash, rinse, sanitize step on all food contact surfaces and equipment using appropriate sanitizer concentrations. For chlorine use 50-200ppm.

Pest Control

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

EQUIPMENT

Inspect all equipment to ensure it is operational and all aspects of their integrity are maintained.

- Discard all refrigerated display cases, storage cases, or other refrigerator equipment if the insulation, door gaskets, hoses, etc. were damaged by flood or liquefied food items.
- Stove units should be thoroughly cleaned and checked by an authorized service representative prior to use.
- Prior to cleaning, remove all contaminated products from all refrigerated display and storage cases.
- Thoroughly wash the inside and outside of equipment with a hot detergent solution and rinse it 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. Treat all clean surfaces with an adequate sanitizing solution (see above for directions).

Follow the equipment startup checklist at the end of this document.

Maintaining Food Temperatures

- Verify that all open-top, refrigerated, freezer display cases, walk-in refrigerators, and walk-in freezers consistently maintain cold holding temperatures (Less than 41°F or in a frozen state) before any food items are placed in them.
- Ensure that the hot holding equipment can heat to the appropriate cooking temperature (greater than 135°F) for hot foods.
- Verify that all equipment used for food preparation (e.g. cooking, cooling, and reheating) is functioning and properly calibrated prior to use.

Water Supply

- Ensure safe water supply; see Interruption of Water Service section and/or Boil Water Order section.

BOIL WATER ADVISORY

In the event a “Boil Water Advisory” has been issued, a retail food facility must cease operations and contact DCHD. Establishments intending to operate when there is a Boil Water Advisory may only do so with approval from DCHD. Food operations and alternative water supplies will need to be evaluated on a case-by-case basis. Once the water supply is no longer threatened and the Boil Water Advisory has been lifted, follow ***the equipment startup checklist & sanitization and disinfection guidance*** before reopening.

INTERRUPTION OF WATER SERVICE OR NO HOT WATER

Water is necessary in most retail food facilities to wash hands, clean and sanitize surfaces, clean produce, and prepare food. If running water is not available at your establishment, stop food production/ preparation and contact DCHD. During an extended disaster, allowances may be made for facilities to operate under very limited circumstances. Approval from DCHD must be obtained prior to operating during an extended disaster. Drinking water approved for use when special permission is granted will be limited to:

- A supply of commercially bottled drinking water.
- Closed portable water containers containing potable water.
- An enclosed vehicular drinking water tank.
- An approved on-premises drinking water storage tank.
- Other, as approved by DCHD.

Handwashing

- Cease all food preparation activities. Restrict menu items to those that are prepackaged and require no further handling. If the menu cannot be limited to prepackaged items, close the facility until potable water service returns.

Toilet Facilities

- If the water interruption is for less than two (2) hours, find a conveniently located alternative location for employees to use during operation (e.g. a neighboring facility).
- Discontinue operation if the toilet facilities are not operational.

Potable Drinking Water

- Cease operations if potable water is not available for food preparation and hand washing (unless you are only serving prepackaged foods).

Hot Water

- Ensure that hot and cold water is provided at all sinks. If hot water is not available in the facility, cease operations until hot water is available.

Cooking

- Restrict the menu to items that are prepackaged and require no further preparation.

Ice

- Use commercially manufactured ice from approved sources.

Fountain Drinks

- Discontinue service until potable water returns.

Cleaning/Sanitizing Equipment

- Unless only single-service items are used, discontinue food service until potable water service is returned and utensils, food contact surfaces, and equipment can be properly washed, rinsed, and sanitized.

Flushing Lines

- If a biological water interruption occurred, see “Equipment Startup” checklist for necessary steps to flush lines.

RUSTY/BROWN WATER

Occasionally tap water from municipal water supplies may shed rust, causing the water to temporarily turn a red or brown color. Usually, the cause is due to occasional sloughing of common iron rust from the inner surfaces of drinking water pipes – this is most common in areas where unlined cast iron pipes are still used. Changes in water pressure or flow in the drinking water distribution system due to the use of fire hydrants, construction projects, heavy water use areas, or activities like a water main break can cause the water to be temporarily shut off and on, dislodging rust.

Eliminate Discoloration

- Run several cold water taps at full force for 15 minutes to help flush the rusty water out of the system. If the water is not clear after this time, wait 30 minutes and then run the water again for another 15 minutes.
- If the water still hasn’t cleared after this, contact your facility’s drinking water provider.
- Avoid using hot water as much as possible to help keep rusty water out of the hot water heater or boiler.

Use Alternative Water Sources

There are no known health hazards associated with rusty water; however, due to unpleasant taste and appearance, it is recommended that you:

- Wait until the water has cleared before serving it to customers for consumption, including preparing any foods requiring water.

- Avoid washing food-contact surfaces and equipment, including running dish machines until the water clears.
- Use an alternative, approved source of bottled water for consumer consumption, preparation of food, and cleaning of food equipment. Use the alternative approved water to clean food-contact surfaces by:
 - Washing, rinsing, and sanitizing all food equipment and utensils in a three-compartment sink until the water clears, and then a dish machine can be used for ware-washing operations.
 - Washing, rinsing, and sanitizing all food-contact surfaces that cannot be cleaned in a three-compartment sink.

Please note: If you have been notified of a water main break in your area, or if you have any questions, please contact DCHD at 720-643-2400 and follow the phone tree.

SEWAGE BACKUP

A sewage backup means there is an overflow of sewage from equipment or plumbing within the facility, such as from floor drains. The regulations state that sewage backup in the establishment requires that your facility immediately cease food operations until you have received authorization from DCHD to reopen.

General Guidance in the event of a sewage backup

- Stop all food operations, close the facility, and notify DCHD immediately.
- Remove any affected equipment from service. Make sure it is safe, operational, and properly functioning before returning it to service. Properly disinfect and sanitize any contaminated equipment.
- Remove the obstruction or call a plumbing service to resolve the sewer backup issue.
- Keep foot traffic away from the sewage backup.
- Discard contaminated food and single-service items.
- After the sewage is cleaned up, ensure that affected floors, surfaces and equipment are thoroughly cleaned and sanitized by:
 - Use approved chemical sanitizers, e.g., non-scented chlorine bleach at a concentration of 2400 parts per million on equipment and structural surfaces that have been contaminated with sewage. Disinfect in a manner that eliminates any noticeable dirt, debris and filth.
 - Secondary cleaning and sanitation of food contact surfaces: Perform an additional wash, rinse, sanitize step on all food contact surfaces and equipment using appropriate sanitizer concentrations. For chlorine use 50-200ppm. Follow the disinfection and sanitization guidance at the end of this document.
- Call DCHD when you are ready to be re-opened.

ELECTRICAL OUTAGE OR PLANNED SAFETY POWER SHUTOFF (PSPS)

Food safety may be compromised by electrical outages since refrigeration units may not be able to keep foods at safe temperatures, equipment may not be functional, and electric water heaters will not be able to supply hot water. In general, if the power is out for less than two hours, food kept in a refrigerator or freezer should be safe to eat. While the power is out, keep the refrigerator and freezer

doors closed as much as possible to keep the food cold as long as possible. When preparing food, avoid menu items that require cooling. **If your facility has been without electricity for four hours or more, follow the food product Salvage Evaluation Chart.**

When in doubt, throw it out! Food must be in sound condition, free from spoilage, temperature abuse, filth, or contamination in order to be fit for human consumption.

Manage disposal in accordance with local rules and ordinances.

Contact the restaurant's waste management provider for additional guidance. The creation of any public hazards or unsanitary conditions are subject to a notice of violation from Douglas County's Environmental Health Division.

Electrical Outage or PSPS		
Food Product	Action	Explanation/ Instruction
Refrigerated foods, food at temperatures higher than 41°F for more than 4 hours.	Discard	Foods that remain in the temperature danger zone for longer than 4 hours support the grow of harmful bacteria and should be discarded.
Refrigerated foods at >41°F for less than 4 hours	Salvage	Must be iced or moved to a properly functioning refrigerator unit
Frozen foods that remained frozen and did not thaw.	Salvage	
Partially thawed frozen foods that remained under 41°F.	Salvage	Must be moved to a properly functioning refrigerator unit and cooked immediately. DO NOT REFREEZE.
Improperly cooled or hot held foods.	Discard	Food in the 41°F-135°F temperature range can produce dangerous pathogens and toxins.

Hot Running Water

- Food establishment operations are required to have hot running water at all times for proper hand washing, cleaning, food preparation, etc.
- If you are experiencing an electric outage and have an electric water heater, you must cease operations until the power is returned.
Equipment
- Verify that all equipment is safe, operational, and properly functioning.

Refrigeration

- Refrigeration is a vital part of food safety within retail food establishments. Cold foods must be held at 41°F or colder to maintain food safety.

- Document what time the electricity went out.
- Keep refrigerator and freezer doors closed to conserve refrigeration.
- After the electricity is restored, check to make sure the refrigeration unit is fully functional and maintains proper temperatures.
- Discard potentially hazardous foods that have been out of proper temperatures for 4+ hours or if it is unknown how long they've been out of ideal temperatures. Frozen foods that remain solid can be refrozen if the food shows no sign of container damage.
- Document all food that is discarded.
- If food surfaces have been contaminated from thawed food, clean and sanitize the surfaces prior to resuming food handling operating. This includes ice bins and machines that may have melted during the interruption in service.

Ventilation

- Discontinue cooking operations if mechanical ventilation is not available to remove cooking smoke, steam, or grease-laden air. Cooking Equipment
- If hot holding units are non-operational, stop use and find alternative methods to either keep food above 135°F or below 41°F. If proper cooling methods can't be followed or food will be out of proper temperature for more than four (4) hours, then discard the food.
- Discard any potentially hazardous foods that were in cooking, cooling, or reheating processes if proper temperatures or time limits were not met. Document all food that is discarded.
- Discontinue cooking operations if cooking and holding equipment is not functional.

Lighting

- Lack of artificial illumination can cause personal safety and food preparation issues and make it difficult to properly clean equipment, utensils, and surfaces. Equipment
- If the dishwashing machine is not operational, use the three-compartment sink as an alternative to wash, rinse, and sanitize utensils and equipment. Hot water must be available for the facility to remain operational.
- Consider using single service ware until the dish machine is operational.

Generators

- Never use generators, pressure washers, or other gasoline-powered tools indoors. They all produce large amounts of CO that can build up to dangerous levels in minutes. Keep generators outside; however, keep generators away from windows, doors and air intakes

NATURAL GAS OUTAGE

Hot Water

- Food establishment operations are required to always have hot running water for proper hand washing, cleaning, food preparation, etc.
- If your facility uses a gas water heater and is experiencing a natural gas outage, you must cease operations until the gas service is returned.

Heat

- If your facility requires natural gas for general heating purposes, take protective measures (e.g. let the faucets drip a little, etc.) to avoid freezing of the water pipes.

Cooking

- If your facility has an electric water heater but you normally use natural gas for cooking operations, limit your menu to items that do not require natural gas stoves and ovens for cooking or reheating. All food must be cooked to proper temperatures.

CHEMICAL INCIDENTS & NOXIOUS FUMES

Chemicals can contaminate the air we breathe, along with water, food, surfaces and people. Appropriate clean-up is dependent on the cause of the noxious fumes. To minimize workplace chemical incidents involving hazardous materials personnel should be properly instructed in their use. All hazardous materials should be stored in their original container, properly labeled and only used according to directions. Hazardous materials like cleaning solutions and chemicals should always be stored in separate well-ventilated areas away from heat, food and single service items. For example, everyday chemicals such as bleach can become toxic when mixed, stored or used improperly. Additionally, malfunctioning equipment can also cause noxious fumes and gases such as smoke or carbon monoxide which may be hazardous to building occupants; mitigation of the problem will be dependent on the piece of equipment.

After the affected area has been evacuated and the initial emergency response has been properly dealt with by emergency responders, call the health department for specific guidance at 720-643-2400.

FIRE

If a large fire occurs in your facility, cease all operations until the facility has been cleared by DCHD and your local Fire Department. If there is a substantial fire, a plan review and/or building permits may be required. Food that has been exposed to fire can be compromised by four factors: heat from the fire; smoke fumes; chemicals used to fight the fire; and power outages because of the fire.

Heat

Discard food in cans or jars if they have been close to the heat of a fire. Heat from a fire can activate food spoilage bacteria. If the heat is severe, the cans or jars can split or rupture and are not safe to consume.

Smoke Fumes

Toxic fumes released from burning materials are one of the most dangerous elements of a fire. The fumes can be hazardous and can contaminate food.

Chemicals Used to Fight Fires

Chemicals used to fight fires contain toxic materials that can contaminate food and cookware. While some of the chemicals may be listed as nontoxic to humans, they can be harmful if swallowed. These chemicals cannot be washed off food.

Power Outage

Refrigerated items should be discarded if the electricity has been off for more than four hours. See the *Electrical Outage and PSPS section*.

Post-Fire Facility Checklist

- Ensure that your local fire department has cleared the facility building to be structurally sound and safe for occupancy before entering.
- Notify DCHD about the fire in your facility prior to reopening.
- Identify whether water service is operational. Lack of potable water will likely result in closure due to the inability to properly wash hands, dishes, and clean the facility.
- Identify if the wastewater system is operational. Lack of adequate wastewater services will result in closure of the facility.
- In the event of sewage backup, wash, rinse, and sanitize all food surface areas. Ensure that the floors and surfaces are also thoroughly cleaned and sanitized. See the “Sewage Backup” section for more information.
- Identify if electrical services are operational; if not, identify how long the power will be out. The facility may need to close if critical operational needs can’t be met (e.g. keeping food at proper temperatures).
- Verify that all equipment is operational and functioning properly.
- Identify and discard any potentially hazardous foods that have been kept between 41° F and 135° F for more than four hours:
 - Check food temperatures in the walk-in cooler and cold top to ensure they are 41° F or colder. Check hot holding units to verify food is hot held above 135° F.
 - Check food temperature logs for records of when temperatures were last verified. Without logs there can be no way to verify how long foods have been out of temperature.
 - Food that has not been out of temperature for more than four hours can be rapidly cooled (below 41°F) or reheated (above 165°F and then hot held above 135°F) to avoid condemnation. Additionally, foods that may not be able properly cool down to 41 degrees within four hours can be reheated to 165 degrees and subsequently cold from 135 to 70 in two hours and from 70 to 41 within another 4 hours.
- Identify and discard any potentially contaminated foods or single-service products that can’t be cleaned (e.g. paper cups, plastic spoons, etc.).
- Discard any unprotected produce.
- Discard all opened cans or bottles. Canned goods that have not been damaged or affected by heat can be salvaged by cleaning the exterior of the containers and moving them to a suitable storage area.
- Discard products in vulnerable packaging (e.g. flour, sugar, rice, or grains) if the packaging has been affected or damaged in any way. See the *Food Product Evaluation Guide* at end of this section.

- Perform a wash, rinse, sanitize step on equipment and food-contact surfaces that have been exposed to contaminants using appropriate sanitizer concentrations. For chlorine use 50-200ppm.

Fire		
Food Product	Action	Explanation/ Instruction
Hermetically sealed containers (cans, pouches) with no heat damage.	Salvage	No bulged ends or ruptured seams; use a clean cloth or tissue to remove any residue on container.
Leaking, dented, rusty, or bulging Hermetically sealed containers (cans, pouches).	Discard	Possible presence of pathogenic bacteria that can produce deadly toxins. In addition, do not use any food products that have a foul odor or any container that spurts liquid when opening.
Foods in closed coolers or freezers.	Make determination upon visual inspection of smoke damage, or discard if unsure.	Evaluate space for smoke damage or temperature abuse
Exposed food products, produce.	Discard	Subject to contaminants in smoke and fire suppression chemicals.
Food in paper, cardboard, cloth containers, single services items or other penetrable package.	Discard	Any open food or food in penetrable packaging where the direct contamination of the exposed foods is possible or reasonably likely given its proximity to ANSUL discharges or actions taken by staff or the fire department.
Food stored in sealed, plastic container if it can be cleaned without contaminating contents.	Salvage	

CLEANUP AND DISINFECTION FOR NOROVIRUS (STOMACH BUG)

According to the CDC, "Norovirus is the leading cause of outbreaks of diarrhea and vomiting in the U.S., and it spreads quickly and easily. Norovirus spreads by contact with an infected person or by touching a contaminated surface or eating contaminated food or drinking contaminated water. Norovirus particles can even float through the air and then settle on surfaces, contaminating them."

Bleach Disinfection Method for Cleaning of Vomit and Fecal Accidents (for surfaces that can tolerate a high concentration of bleach):

- Get a 2½ to 5-gallon bucket with a lid.
- The person cleaning up the area should use disposable gloves, mask, and gown or coverall to avoid direct contact with fecal material or vomit, and any potentially contaminated surface. Safety glasses can be worn as well.
- Mix a bleach disinfectant solution of one cup household, non-scented bleach with 1 gallon water (this will be a 5000-ppm bleach solution). This is a concentrated solution so handle with care.
- Obtain disposable paper towels or disposable rags for the cleanup.
- Apply disinfectant solution directly onto the contaminants (vomit or feces), cover with the disposable towels/rags and allow the disinfectant to contact the materials for at least 10 minutes.
- Carefully pick up the contaminants with the towels/rags. Place all soiled towels/rags in a trash bag.
- Use the disinfectant solution again to spray the affected surface and wipe down with clean towels/ rags. Place all soiled towels/rags in a trash bag.
- Apply disinfectant to the cleaned surface again and let stand for at least 1 minute while air drying.
- Carefully remove the disposable gloves, mask, and gown or coverall and place them in the trash bag. If safety glasses are worn, they should be disposed as well or sprayed with the bleach solution and allowed to air dry.
- Place the trash bag containing the soiled towels/rags and gloves, mask, and gown within another trash bag. Make sure the bags go directly to the dumpster.
- Any commonly touched surfaces (like doorknobs, handrails elevator buttons, faucet handles, etc.) in the vicinity (within a 25-foot radius) of where the vomit or fecal accident occurred should be wiped down with the bleach solution.
- Be sure to wash hands after cleanup with soap and hot water, rubbing hands together for at least 20 seconds. An alcohol-based hand sanitizer can be applied after handwashing (but hand sanitizers should NOT take the place of proper handwashing with soap and hot water).

Contaminated linens (sheets, blankets, towels, etc.) can be washed in hot water with detergent and bleach (if bleach will not damage the material) and dried in a hot dryer. Soiled carpets and upholstery are very difficult to fully disinfect, and it may not be feasible to use the bleach solution if damage to the material will occur. Consider using a different disinfectant that is effective against norovirus that will not damage the material (see the EPA website mentioned above). Steam cleaning these types of surfaces after cleaning up the vomit or fecal material can be helpful. Air dry rugs and furniture in the sunlight after attempted disinfection and steam cleaning.

Food Contact Surfaces

- Initial disinfection of all contaminated food contact surfaces: Use non-scented chlorine bleach at a concentration of 5000 parts per million (ppm), on equipment and structural surfaces that have been contaminated. Disinfect in a manner that eliminates any harmful microorganisms, chemical residues, or filth that could pose a food safety risk.
- Secondary cleaning and sanitation of food contact surfaces: Perform an additional wash, rinse, sanitize step on all food contact surfaces and equipment using non-scented chlorine bleach at 50-200 ppm.

- Air dry surfaces.

SANITIZATION AND DISINFECTION GUIDANCE

Regardless of the disaster, chemical disinfection and sanitization procedures are used on equipment and structural surfaces that are salvageable. When disinfecting, do so in a manner that eliminates any harmful microorganisms, chemical residues, or filth that could pose a risk to food safety. The following bleach guidelines will be utilized in this document.

Cleaning is done with water, soap, and scrubbing and removes germs, dirt, and grime from surfaces.

Disinfecting products kill any remaining surface germs.

Before using bleach

- First, clean visibly dirty surfaces with household cleaners containing soap or detergent before disinfecting with household bleach.
- Make sure you have good ventilation while using bleach products indoors (for example, open windows and doors to allow fresh air to enter).
- Check to see if you need to wear any protective equipment, such as gloves or eye protection.

Preparing a diluted bleach solution

- Use regular unscented household bleach. Most household bleach contains 5%–9% sodium hypochlorite. Do not use a bleach product if the percentage is not in this range or is not specified. This includes some types of laundry bleach or splashless bleach, which are not appropriate for disinfection.
- Follow the label directions on the bleach product. Check to see if you need to wear any protective equipment, such as gloves or eye protection.
- Follow the directions on the bleach bottle to prepare a diluted bleach solution. If your bottle does not have directions, you can make a bleach solution by mixing:
 - 5 tablespoons (1/3 cup) of bleach per gallon of room temperature water or
 - 4 teaspoons of bleach per quart of room temperature water

Using the bleach solution

- Always follow the manufacturer's instructions for applying the bleach solution to surfaces. If instructions are not available, leave the diluted bleach solution on the surface for at least one minute before removing or wiping. This is known as the "contact time" for disinfection. The surface should remain visibly wet during the contact time.
- Wash hands after cleaning or disinfecting.
- Make a new diluted bleach solution daily. Bleach solutions will not be as effective after being mixed with water for over 24 hours.

Chlorine test strips can be used to confirm that you have mixed the correct concentration of the bleach solution. If you test and the concentration is too low, just add a little more bleach and retest.

How to make a 1500 ppm solution for general disinfecting:

	Amount of Cool Water	Amount of Clorox™ Disinfecting Bleach	Contact Time
Ratio	48 parts	1 part	
Five Gallon Bucket	1 gallon	1/3 cup	6 minutes
	2 gallons	2/3 cup	6 minutes
	3 gallons	1 cup	6 minutes
40 oz. spray bottle	5 cups	5 teaspoons	6 minutes
32 oz. spray bottle	4 cups	4 teaspoons	6 minutes
24 oz. spray bottle	3 cups	3 teaspoons	6 minutes
16 oz. spray bottle	2 cups	2 teaspoons	6 minutes

How to make a 2000 ppm solution to kill additional organisms

	Amount of cool water	Amount of Clorox™ Disinfecting Bleach	Contact time
Ratio	36 parts	1 part	

	Amount of cool water	Amount of Clorox™ Disinfecting Bleach	Contact time
Five gallon bucket	3/4 gallon	1/3 cup	5 minutes
	1½ gallons	2/3 cup	5 minutes
40 oz. spray bottle	4½ cups	2 tablespoons	5 minutes
24 or 32 oz. spray bottle	3 cups	4 teaspoons	5 minutes
16 oz. spray bottle	1½ cups	2 teaspoons	5 minutes

EQUIPMENT STARTUP CHECKLIST

Water Filter Systems

- Clean and sanitize the water filter housings.
- Prior to the startup of the equipment, all filter(s) should be removed and replaced if not designed to be cleaned in place.
- If designed to be cleaned in place, follow the sanitation procedures recommended by your water filter manufacturer and/or equipment service representative.
- Any system that is without a new water filter cartridge must not be placed back in service.
- Use a dishwasher or three-compartment sink and a safe water source to wash, rinse, and sanitize equipment and utensils: Run the empty dishwasher through the wash-rinse-sanitize cycle three times; in order to flush the water lines and ensure that the dishwasher is cleaned and sanitized internally before it is used to wash equipment and utensils.
- Thoroughly clean and sanitize all sinks before resuming use.

Ice Makers

- Run three complete ice-making cycles and discard all ice made during those cycles.
- Clean and sanitize the icemaker bin.

Commercial Produce Mistors

- Remove all produce from the bins under the misters.
- Flush water through the misters for at least 10-15 minutes.
- If removable, disconnect, clean, and sanitize the misting nozzles.
- Clean and sanitize the produce bins prior to restocking.

Fountain Dispensers

- Run each beverage valve on each dispenser for at least four (4) minutes.
- Remove, clean, and sanitize dispensing nozzles and associated removable parts.
- Clean and sanitize the ice bin, if present.

Frozen Beverage Dispensers

- Discard all products in the dispenser(s).
- Call for service and/or follow equipment manufacturer's recommendations for cleaning and sanitization.

Juice Machines

- Flush water through the unit for at least five (5) minutes on first flavor.
- Flush water through any additional flavors on same unit for at least one (1) minute.
- Call for service and/or follow equipment manufacturer's recommendations for cleaning and sanitization.

Coffee Makers /Tea Brewers

- Brew and discard at least four (4) pots of hot water per unit.

FOOD PRODUCT SALVAGE EVALUATION GUIDE

Flood/ Water Damage		
Flood/ Water Damage		
Food Product	Action	Explanation/ Instruction
Fresh fruits and vegetables	Discard	Contaminants can be absorbed by produce
Submerged or splashed screw-top, crimped-cap, twist-cap, pop-top containers	Discard	Not cleanable under/around caps. Containers returned for deposits or recycling must be drained
Submerged permeable (paper, cardboard, cloth, plastic etc.)	Discard	Inadequate barrier to contaminants and water.
Submerged or splashed hermetically sealed containers (cans, pouches)	Salvage	Relabel, if necessary, by removing label; wash, rinse, sanitize (50-200 ppm chlorine), dry, relabel with all required information and codes
Leaking, dented, rusty, or bulging hermetically sealed containers (cans, pouches)	Discard	Possible presence of pathogenic bacteria that can produce deadly toxins. In addition, do not use any food products that have a foul odor or any container that spurts liquid when opening
Electrical Outage or PSPS		
Food Product	Action	Explanation/ Instruction
Refrigerated foods, food at temperatures higher than 41°F for more than 4 hours.	Discard	Foods that remain in the temperature danger zone for longer than 4 hours support the grow of harmful bacteria and should be discarded.
Refrigerated foods at >41°F for less than 4 hours	Salvage	Must be iced or moved to a properly functioning refrigerator unit
Frozen foods that remained frozen and did not thaw.	Salvage	
Partially thawed frozen foods that remained under 41°F.	Salvage	Must be moved to a properly functioning refrigerator unit and cooked immediately. DO NOT REFREEZE.
Improperly cooled or hot held foods.	Discard	Food in the 41°F-135°F temperature range can produce dangerous pathogens and toxins.
Fire		

Food Product	Action	Explanation/ Instruction
Hermetically sealed containers (cans, pouches) with no heat damage.	Salvage	No bulged ends or ruptured seams; use a clean cloth or tissue to remove any residue on container.
Leaking, dented, rusty, or bulging Hermetically sealed containers (cans, pouches).	Discard	Possible presence of pathogenic bacteria that can produce deadly toxins. In addition, do not use any food products that have a foul odor or any container that spurts liquid when opening.
Foods in closed coolers or freezers.	Make determination upon visual inspection of smoke damage, or discard if unsure.	Evaluate for smoke damage or temperature abuse
Exposed food products, produce.	Discard	Subject to contaminants in smoke and fire suppression chemicals.
Food in paper, cardboard, cloth containers, single services items or other penetrable package.	Discard	Any open food or food in penetrable packaging where the direct contamination of the exposed foods is possible or reasonably likely given its proximity to ANSUL discharges or actions taken by staff or the fire department.
Food packaged in sealed, plastic container if it can be cleaned without contaminating contents.	Salvage	