



Preparing for a Sewage Backup

A sewage backup means the overflow of sewage from equipment or plumbing within a food establishment. Sewage can contain disease-causing organisms which can contaminate everything it touches including equipment used to clean it up. Limiting contamination from sewage requires control of the affected areas to prevent contamination from being spread to non-contaminated areas, items, people, and food.

The following information will assist you in developing a plan to prepare for and respond to a sewage backup in your establishment. While not required for an Emergency Preparedness Plan accepted by the Houston Health Department Bureau of Consumer Health Services (BCHS), it is highly recommended that your establishment have procedures in place for sewage backups.

PLAN AND ACT NOW

- Identify emergency cut-off valves, back siphonage preventers, and water supply lines. Ensure managers or persons in charge know where to find them.
- If possible, have a diagram that shows how the waste drainage system is designed. A diagram will help you identify drains and equipment that may be affected by a blockage in the plumbing line causing the sewage backup. Note: Usually the lowest opening in the drainage system will overflow first.
- Obtain equipment, supplies, and Personal Protective Equipment (PPE) for employees to clean up the sewage.

OR

Include a janitorial service in your emergency contact list that specializes in sewage/flood water cleanup.

WHAT TO DO WHEN ONE OF THE SEWAGE BACKUP CONDITIONS BELOW EXISTS:

- Standing water/sewage is in drains.
- Restrooms have toilets that do not flush or have sewage overflowing.
- Wastewater from dishwashing machine or sinks is not draining or is spilling onto floors.
- The grease trap is not functioning.
- Employees are walking or working in sewage/overflowing water.

First Steps

- Locate and close the emergency cut-off valve to the affected pipes if possible.
- Immediately cease all food-related operations including food preparation and handling, warewashing, and cleaning when one or more of the above conditions occurs.**
- Notify the Houston Health Department Bureau of Consumer Health Services (BCHS) at www.houstonconsumer.org, chs@houstontx.gov or 832-393-5100.
- Contact the Houston Permitting Center to determine if plan review/ building permits are required for replacement of large floor-mounted equipment, repairs or replacement of interior surfaces, and repairs, replacement, or remodeling of the facility's structure. Refer to [Recovering from Flood and/or Structural Damage](#).
- Call a licensed plumber to remove blockages in drain lines.

- Call a permitted transporter if the grease trap is overfilled.
 - Hire a professional service experienced in cleaning food establishments exposed to sewage.
- OR**
- Ensure employees are provided Personal Protective Equipment (PPE), know to avoid bare skin contact with sewage, are trained for cleanup activities, and follow the procedures below.
- If cleanup begins before a BCHS health officer arrives, document the type and pounds of food and the method of disposal.
 - Ensure a food establishment manager or person in charge is responsible for consistent compliance with food safety requirements.

Remove Sewage and Sewage-Contaminated Items

- Remove any standing sewage as soon as possible and prior to starting cleanup procedures.
- Remove any affected absorbent wall and insulation materials susceptible to mold.
- Discard the following items that contacted sewage since they cannot be safely cleaned and sanitized (refer to the [Food and Equipment Salvage Chart](#)):
 - All food, packaged, or unpackaged, including foods that were in sealed packages within a larger box and jars or bottles with pull-tops, corks, or screw caps
 - All single-service articles packaged or unpackaged
 - Soft, porous materials such as plastic, rubber, or wood items (wooden cutting boards, plastic utensils, and storage containers, disposable silverware or plastic utensils, cracked dishware)
 - Food equipment such as toasters, filters, purifiers, and beverage cartridges attached to equipment
 - Contaminated linens and clothing affected by the sewage or used during cleanup **OR**
Use a commercial laundry service that can properly disinfect the items
- Record (and photograph) the type and pounds of food to be discarded and the method of disposal. Keep the records for health inspection and insurance purposes. Refer to [Proper Disposal of Contaminated Food](#).
- Clean all other affected cookware and tableware with hot water and detergent. Rinse with water then disinfect with an [EPA Registered Disinfectant for Norovirus](#) appropriate for the surface. Rinse thoroughly after disinfecting, then sanitize and air dry.
- Use test strips, a maximum registering thermometer, or temperature-sensitive tape, as applicable, to ensure mechanical dishwashing machines provide the required chemical or 180°F final sanitizing rinse.
- Discard and replace mop heads and other cleaning tools that contacted the sewage.

Prepare to Disinfect

[EPA-Registered Disinfectants for Norovirus](#) should be used to disinfect surfaces contaminated by flood water or sewage. It is extremely important that the following safety precautions are followed when using disinfectants

- Know what disinfectant you are using and follow the manufacturer's safety precautions (Safety Data Sheet or SDS) and instructions for use. Some disinfectant solutions can be toxic and can be harmful to the eyes, skin, and airways.

- Do not use disinfectant solution on food-contact surfaces unless the surfaces have been contaminated with flood water or sewage.
- Ensure disinfected food-contact surfaces are rinsed thoroughly of the disinfectant solution and then sanitized with an approved sanitizer (chlorine, iodine or quaternary ammonia).
- Chlorine and quaternary ammonia may be used for both disinfection and sanitization but the chemical concentration for disinfection is much higher than that used for sanitization.
- Do not use the disinfectant solution to sanitize if using the same chemical. Make a separate sanitizing solution.
- Contact times on the manufacturer's label must be followed for disinfection and sanitization to be effective.

Clean and Disinfect Affected Equipment and Hard Surfaces

Do not clean the facility and equipment if the water supply is not potable (safe), the wastewater system is not functioning, and/or electricity is unavailable for heating water and providing sufficient lighting for cleaning.

- Determine whether the water, wastewater, and electrical systems are operational.
- Refer to the Disinfection Table below for disinfectant concentrations using bleach or use another [EPA-registered disinfectant for Norovirus](#).
- Clean all affected hard surfaces (floors, walls, side walls of large equipment, shelving, counters, and cabinets) with hot water and detergent. Rinse with water, disinfect with an Registered disinfectant appropriate for the surface, then air dry.
- Remove detachable parts to affected pots, pans, and utensils such as blades, plastic or wooden handles, and screens prior to cleaning.
- Boil affected silverware, metal utensils, pots, and pans in water for at least 10 minutes or use a heat-sanitizing dishwashing machine. Chlorine bleach should not be used because it reacts with many metals and causes them to darken.
- Clean affected iron pots, pans, and utensils by:
 - Washing with soap and water, using a stiff brush, scouring powder, or steel wool
 - Wiping items with an oil-saturated cloth or a commercial rust remover if rust remains. If using a commercial rust remover, be sure to follow the label instructions.
 - Washing again in hot, soapy water followed by rinsing and disinfecting with an approved - EPA Registered Disinfectant for Norovirus acceptable for iron cookware
 - Rinsing thoroughly after disinfecting, then sanitizing and air drying
 - Re-seasoning when dry

Bleach Guidance (5-6%) for Disinfecting After a Sewage Backup*

- Use chlorine bleach in a well-ventilated area and wear Personal Protective Equipment (PPE) such as goggles, masks, gloves, and a covering for all exposed skin. Do not mix chlorine bleach with ammonia.
- Wash surfaces with hot soapy water and rinse before disinfection.
- Then sanitize any food-contact surfaces with a sanitizing solution (50-100 ppm chlorine) as indicated

below.

Purpose	PPM	Dilution	Contact Time	Final Step after Disinfection
Disinfection - Nonfood Contact Surfaces	2400	¾ cup regular chlorine bleach/1 gallon water	5 minutes	Rinse thoroughly then air dry
Disinfection - Food-Contact Surfaces	2400	¾ cup regular chlorine bleach/1 gallon water	5 minutes	Rinse thoroughly then sanitize
Sanitization - Food-Contact Surface After Disinfection	50-100	1 tbsp chlorine bleach/1 gallon water	10 seconds	Air dry

*For concentrated (8.25%) chlorine bleach, use 1/2 cup bleach/1 gallon water for disinfection and 2 tsp bleach/1 gallon water for sanitization.

- Use only regular chlorine bleach with a sodium hypochlorite concentration of 5-6% or 8.25%. Do not use expired, scented, or splashless bleach.
- Steam cleaning may be preferable for carpets and upholstery. Chlorine bleach may permanently stain some surfaces.

Other [EPA-registered disinfectants for Norovirus](#), following manufacturer's directions, may be used.

PREPARE TO REOPEN

Meet the Requirements for Resuming Operations

- Repairs have been made and wastewater is draining properly.
- All affected areas and equipment have been disinfected or discarded.
- All items involved in the cleanup (clothing, cleaning tools, water faucets, and sinks) have been disinfected, discarded, or sent to a commercial laundry service.
- No imminent health hazard exists.

Contact BCHS at www.houstonconsumer.org or chs@houstontx.gov

- To request approval to resume operations once the requirements have been met.

OR

To request a pre-opening inspection if permits and/or approval are needed from the Houston Permitting Center.

THE BUREAU OF CONSUMER HEALTH SERVICES MUST GRANT APPROVAL FOR YOUR ESTABLISHMENT TO RESUME FOOD OPERATIONS.

Please contact the Bureau of Consumer Health Services (BCHS) with any questions or concerns.

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