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Sewage in Basement Spill Cleanup Guidelines

As a result of a recent storm, if the sanitary sewer lateral that services your home surcharged resulting in raw sewage in the basement, the department recommends the following:

Any and all areas containing sewage should be remediated as soon as possible in order to maintain a healthy living environment. Thorough cleaning of indoor sewage spills is necessary to protect people and pets from harmful bacteria and viruses. Clean-up must begin as soon as possible to reduce the risk of exposure to sewage and to prevent mold growth.

The attached document should assist you in developing an adequate remediation plan. The affected area can be disinfected in accordance with the following procedure after the sewage has been removed and disposed of in an acceptable manner.

Warning: chlorine bleach can destroy various materials. Not all surfaces and materials are compatible with a bleach solution. The department recommends that you test an inconspicuous area for compatibility prior to use.. **Clean up tips:**

- Keep children and pets out of the area until clean-up has been completed.
- Wear rubber gloves and boots.
- Wash your hands thoroughly and launder clothes separately after completing the clean-up.
- Remove all furniture, loose rugs, and so on from the area.
- Saturated wall-to-wall carpeting (and the pad) usually cannot be adequately cleaned. They should be removed, wrapped in plastic, and disposed of in the municipal garbage. If you decide to keep the carpeting, hire a licensed carpet cleaning company to steam clean and disinfect the carpet.
- All hard surfaces, such as linoleum, hardwood floors, concrete, wood moldings, wood, and metal furniture, and on should be thoroughly cleaned with hot water and a mild detergent (dish detergent), and then rinsed with a bleach solution by mixing eight ounces of liquid household bleach to one gallon of water. Let the surface air dry.
- Upholstered furniture, loose rugs, drapery, and so on should be professionally cleaned. Notify the cleaner of the problem.
- Remove and replace plaster, plasterboard, and lath that have been saturated and are soft to the touch. If the surface has been wetted, clean as you would a hard surface, but do not saturate the plaster.
- Clean sinks, dishwashers, and other plumbing fixtures that have had sewage back-up with detergent, and then rinse with the bleach solution.
- Disinfect clean-up mops, brooms, and brushes with the bleach solution.
- Increase air circulation to reduce odors and mold growth -- open all windows and doors.
- The use of fans and heaters may speed this process.

If household bleach is utilized as a disinfecting agent a concentration of 3,750 mg/l or parts per million (ppm) available chlorine should be utilized to provide an effective disinfection rate.

A 3,750-ppm available chlorine solution can be produced by adding one cup (eight (8) ounces) of household bleach (6%) to one gallon of tap water. Not all surfaces and materials are compatible with a bleach solution. **The department recommends that you test an inconspicuous area for compatibility prior to use**. Keep the bleach solution on the treated material for a minimum of six hours. Increasing airflow by using fans or opening windows will assist in drying out the area.

All safety precautions contained on the bleach bottle and within the attached document should be followed when handling any bleach solution. Never mix bleach with any other cleaning product; toxic fumes may be produced. Wear rubber boots, rubber gloves, and goggles during cleanup of affected areas. Keep family members, especially children and pets out of the affected area until cleanup has been completed.

Any disposable sewage infested articles such as paper or cardboard, should be placed in a plastic bag and disposed of in the municipal garbage. If paper records are valuable, they can be photocopied prior to disposal.

Wash your hands with soap and water, thoroughly and often. This is especially important before handling food, eating, or smoking. If possible, use an antibacterial soap on your hands.

Additional guidance can be found online at: http://www.health.nv.gov/environmental/emergency/flood/

Attachment-CDC Reentering Your Flooded Home

PUBLIC HEALTH: PREVENT. PROMOTE. PROTECT



DISASTER SAFETY

Reentering Your Flooded Home

When returning to a home that's been flooded after natural disasters such as hurricanes, tornadoes, and floods, be aware that your house may be contaminated with mold or sewage, which can cause health risks for your family.

When You First Reenter Your Home

- If you have standing water in your home and can turn off the main power from a dry location, then go ahead and turn off the power, even if it delays cleaning. If you must enter standing water to access the main power switch, then call an electrician to turn it off. **NEVER turn power on or off yourself or use an electric tool or appliance while standing in water.**
- Have an electrician check the house's electrical system before turning the power on again.
- If the house has been closed up for several days, enter briefly to open doors and windows to let the house air out for awhile (at least 30 minutes) before you stay for any length of time.
- If your home has been flooded and has been closed up for several days, presume your home has been contaminated with mold. (See "Protect Yourself from Mold" at www.bt.cdc.gov/disasters/mold/protect.asp.)
- If your home has been flooded, it also may be contaminated with sewage. (See "After a Hurricane or Flood: Cleanup of Flood Water" at www.bt.cdc.gov/disasters/floods/cleanupwater.asp.)

Dry Out Your House

If flood or storm water has entered your home, dry it out as soon as possible. Follow these steps:

- If you have electricity and an electrician has determined that it's safe to turn it on, use a "wet-dry" shop vacuum (or the vacuum function of a carpet steam cleaner), an electric-powered water transfer pump, or sump pump to remove standing water. If you are operating equipment in wet areas, be sure to wear rubber boots.
- If you do not have electricity, or it is not safe to turn it on, you can use a portable generator to power equipment to remove standing water. Note: If you must use a gasoline-powered pump, generator, pressure washer, or any other gasoline-powered tools to clean your home, never operate the gasoline engine inside a home, basement, garage, carport, porch, or other enclosed or partially enclosed structures, even if the windows and doors are open. Such improper use can create dangerously high levels of carbon monoxide and cause carbon monoxide poisoning.
- If weather permits, open windows and doors of the house to aid in the drying-out process.
- Use fans and dehumidifiers to remove excess moisture. Fans should be placed at a window or door to blow the air outwards rather than inwards, so not to spread the mold.
- Have your home heating, ventilating, and air-conditioning (HVAC) system checked and cleaned by a
 maintenance or service professional who is experienced in mold clean-up before you turn it on. If the
 HVAC system was flooded with water, turning on the mold-contaminated HVAC will spread mold
 throughout the house. Professional cleaning will kill the mold and prevent later mold growth. When the
 service determines that your system is clean and if it is safe to do so, you can turn it on and use it to
 help remove excess moisture from your home.
- Prevent water outdoors from reentering your home. For example, rain water from gutters or the roof should drain away from the house; the ground around the house should slope away from the house to keep basements and crawl spaces dry.
- Ensure that crawl spaces in basements have proper drainage to limit water seepage. Ventilate to allow the area to dry out.

For more information, visit www.bt.cdc.gov or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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