

Park Valley Church Disaster Relief Team

Gutting Out Below-Grade (Basement) Homes

Scope of Task:

Gutting out below-grade homes (basements) after a disaster, typically following a flood, involves removing water-damaged materials, removing drywall, ceiling tiles, duct work, refrigerators/freezers and a variety of household goods. Some items like safes may be extremely heavy.

Basements may pose additional risks due to limited ventilation, hazardous conditions such as advanced mold growth, standing water, and household hazardous waste (e.g., oils, solvents, paint, fuel etc.).

Hazards and Risk Mitigation:

1. Household Hazardous Waste (Oils, Solvents, Paint, Fuel)

- Hazards: Exposure to hazardous chemicals can cause respiratory issues, skin irritation, or more severe health effects.
- Mitigation:
 - Identify and segregate hazardous materials (paint cans, oil containers, fuel, etc.).
 - Handle and dispose of these materials following safety protocols (do not mix chemicals).
 - Use nitrile gloves under disposable work gloves to prevent skin contact.
 - Use of protective cover all suit may be warranted.
 - Leave known waterlogged containers of suspected household hazardous waste alone. Work around these containers.

2. Advanced Mold Growth

- Hazards: Mold, which thrives in dark, damp areas, can pose severe respiratory risks, especially weeks after a flood.
- Mitigation:
 - Wear an N95 respirator or better (P100 filter) to protect against inhaling mold spores.
 - Limit exposure to heavily infested areas; use natural ventilation by opening windows or doors. Do not use mechanical ventilation such as fans which may stir up moldy materials unnecessarily, bag contaminated items carefully.

3. Electrical Hazards

- Hazards: Water-soaked electrical outlets or live wiring can lead to shock or electrocution.
- Mitigation:
 - Ensure the electricity is shut off at the main household shutoff before entering any flooded basement. If the main shutoff is in the basement with standing water, DO NOT ENTER.
 - Stay clear of any exposed wiring or electrical panels until a professional has deemed them safe.

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4. Poor Lighting

- Hazards: Dim or no lighting in basements can cause trips, falls, and injuries while working.
- Mitigation:
 - Use portable, waterproof work lights to properly illuminate the basement.
 - Ensure every team member has a flashlight or headlamp as backup lighting.
 - Use team provided lighting to properly illuminate the work area as needed.

5. Basement Risks (Odors, Poor Air Quality)

- Hazards: Working in basement spaces with poor ventilation can lead to symptoms like tingling eyes, dizziness, or nausea due to fumes, gases, or mold.
- Mitigation:
 - Ventilate the basement by opening windows and using fans when possible (except when concentrations of mold exist).
 - Pay attention to pungent odors and symptoms like dizziness; these can signal dangerous fumes.
 - Leave the area immediately if you experience any of these symptoms and alert the team.

6. Standing Water

- Hazards: Flooded basements often have standing water and or mud that can hide hazards such as sharp objects or uneven surfaces such as sump pump wells.
- Mitigation:
 - Use rubber steel-toed boots to protect against water and sharp objects.
 - Always test the depth of water before walking in it and use a tool to probe for hidden hazards.

Risk Mitigation Steps:

- Pre-Task Inspection: Identify structural issues, presence of water, electrical hazards, and hazardous materials before beginning work.
- Illuminate the work area.
- Continuous Air Monitoring: Pay attention to unusual smells, tingling eyes, or lightheadedness. Take breaks in fresh air if working in confined or unventilated spaces.
- Work in Teams: Always work with a partner and ensure communication lines are open in case of emergency.

Recommended Personal Protective Equipment (PPE):

- N95 respirator or better (to protect against mold spores and airborne contaminants)
- Rubber steel-toe boots (to protect against water, sharp objects, and hazardous waste)
- Splash protection goggles (to shield eyes from chemicals and mold)
- Nitrile gloves under disposable work gloves (for protection against hazardous substances)
- Hard hat (to protect from falling debris or low ceilings in confined spaces)

- Waterproof work lights (to improve visibility in poorly lit basements)

Remember: Safety is the first priority. Always assess the environment, wear the proper PPE, and communicate with your team. When in doubt, stop and seek assistance. Trust your instincts—if something feels unsafe, it probably is.