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National Institute of  
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# Protecting Yourself While Removing Post-Disaster Debris from Your Home or Business



**FEMA**

www.fema.gov



www.ema.alabama.gov



**US Army Corps of Engineers®**

www.usace.army.mil

## Debris removal guidelines

In efforts to expedite the debris removal process, please follow these rules

Placing debris **near or on trees, poles or other structures** makes removal difficult. This includes fire hydrants and meters.

## Debris separation

Please separate debris into the **six categories**, shown below.

### Electronics

Television, computer, stereo, phone, DVD player

### Large Appliances

Refrigerator, washer/dryer, air conditioner, stove, water heater, dishwasher

### Hazardous waste

Oil, battery, pesticide, paint, cleaning supplies, compressed gas

### Vegetative debris

Tree branches, leaves, logs, plants

### Construction debris

Building materials, drywall, lumber, carpet, furniture, plumbing

### Household garbage

Bagged garbage, discarded food, paper, packaging.

Do not leave doors **unsealed or unsecured**

Debris should be placed curbside

10 feet

Debris should not **block roadway**

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# Protecting Yourself While Removing Post-Disaster Debris from Your Home or Business

*This factsheet is for small business owners, residents and community/faith-based volunteer groups conducting post disaster cleanup activities. The purpose of this factsheet is to provide awareness level information on post-disaster hazards. Stay away from any hazards created by the disaster. Only authorized, licensed professionals should deal with these hazards.*

*This factsheet outlines the main hazards associated with post-disaster cleanup and provides common control methods. When in doubt, contact your local government authority.*

**Do not let children participate in post-disaster cleanup!**

## HEALTH AND SAFETY HAZARDS

**If you have any of the following, seek assistance from a qualified local government authority:**

- Damaged structures
- Damaged utilities/downed power lines
- Debris/debris piles
- Washed away bridges and roadways
- Standing water, cracks in ground, recent fire
- Chemical containers (household or other)
- Asbestos if your house was built during or before 1979
- Lead if your house was built during or before 1978
- PCBs if your house was built during or before 1977
- Mold if your home was affected by water
- Silica from construction materials/soil
- Use of powered equipment or hand tools
- Use or work around heavy equipment
- You have to work at heights
- Working in hot or cold environments

### Who to contact when you have concerns

#### Occupational Safety and Health Administration (OSHA)

Ph. 800-321-OSHA (6742); [www.osha.gov](http://www.osha.gov)

OSHA sets and enforces workplace health and safety laws. Most workers in the nation come under OSHA's jurisdiction. OSHA covers private sector employers and employees in all 50 states, the District of Columbia, and other U.S. jurisdictions either directly through Federal OSHA or through an OSHA-approved state program.

#### Federal Emergency Management Agency (FEMA)

Ph. 800-621-FEMA (3362); [www.fema.gov](http://www.fema.gov)

FEMA's mission is to support citizens and responders during disasters. Contact them if you have questions about debris cleanup procedures or disaster assistance and recovery procedures.

### Your local emergency services

Call 911 to contact your local emergency services (including fire and police services) if you are concerned about hazardous situations that could be immediately hazardous to life including damaged utilities, unstable structures, unsecured hazardous chemicals (damaged containers, strange odors, etc.), discovery of trapped person, etc.

### Your first concern is life safety!

**Protect yourself and family first, before protection of property. Do not attempt actions which may put you in danger, such as entering an unstable building to search for valuables or crossing flood waters. Contact local emergency services and evacuate to a safe location until hazard is removed by authorized/trained professional.**

# COMMON POST-DISASTER HAZARDS AND THEIR CONTROLS

## Unstable/Dangerous Walking and Working Surfaces

**Examples: Debris piles, standing water, cracks/voids in the ground, damage by recent fires**

- Assess the area and choose the safest path
- Walk and work on surfaces you know are stable
- Look for smoldering material on/beneath surfaces
- Wear protective equipment including hard hats, safety glasses, leather work gloves and safety shoes with slip resistant soles
- Watch for fall hazards
- Watch for entrapment hazards

## Unstable Structures and Confined Spaces

Disasters can damage and collapse structures, so follow these tips:

- Never assume that damaged structures or ground are stable. Instead, have them certified safe by a registered professional engineer or architect.
- Assume all stairs, floors and roofs are unsafe until inspected
- Unstable ground or flooring can give way
- Watch for leaning structures and trees and avoid them
- Entering confined spaces can kill you! Only trained and authorized personnel should enter confined spaces (Not designed for continuous occupancy, limited entry, large enough to work in)
- If you find a trapped person, call 911 IMMEDIATELY and do not attempt rescue as you could become the victim. Stay clear and, if you will be safe, throw a rescue line.

**Leave immediately if you hear shifting or unusual noises - A COLLAPSE MAY BE OCCURRING**

## Pressure Washers

Hazards include chemical and thermal burns, lacerations, carbon monoxide (CO) production, projectiles and electric shock. Safe use guidelines include:

- Follow manufacturer's safe use recommendations
- Inspect the washer
- Receive training on the proper use
- Use Personal Protective Equipment (PPE) (including safety glasses and insulating rubber boots)
- Understand the chemicals used with the washer
- Use with Ground Fault Circuit Interrupters (GFCI) and proper electrical safety

## Residential and Business Utilities

Utilities can cause electric shock, poisoning, explosions, fires, burns and death, so follow these tips:

- Call 911 if you suspect utilities have been damaged, do not enter the area
- Fuel leaks will have a distinct odor (gasoline, oil, rotten eggs)
- Electrical contact can cause electric shock, falls, and electrocution. Do not use conductive materials near power lines
- Stay away from downed power lines. Report downed lines and assume they are live

## Debris Removal

- Wear safety shoes with slip resistant soles, safety glasses, leather work gloves, hard hat, long pants and shirt.
- Do not handle broken chemical containers
- Do not remove debris that may destabilize piles or structures
- Do not lift too much, call for heavy equipment
- Segregate debris according to FEMA, U.S. Army Corps of Engineers, or Local/State requirements
- Do not accumulate debris near utilities

## Carbon Monoxide (CO)

Carbon Monoxide has no warning properties; it is a colorless odorless gas that can kill you!

Symptoms: Headache, dizziness, drowsiness, or nausea progressing to vomiting, loss of consciousness. Prolonged or high exposure can lead to coma or death.

You have a high risk for CO exposure when you are near:

- Any activity using gasoline, diesel or propane-powered equipment including portable electric generators
- Sites where debris is burning
- Hot work (cutting, welding) especially in confined spaces and smoldering debris

## Hazardous Chemicals

Hazardous chemicals include household and industrial (small business use or displaced from other property) chemicals

- Do not handle any containers that are damaged/leaking
- Do not handle any chemical containers if you are unsure of their contents
- Do not handle any industrial chemical containers
- Use gloves and safety glasses when handling household hazardous chemicals
- Do not mix chemicals
- Do not place chemicals near open flames/hot surfaces (e.g., a running motor)

## Traumatic Stress

A traumatic event is a shocking and emotionally overwhelming situation in which an individual perceives actual or threatened death or serious injury. Those affected by a disaster may experience traumatic stress.

Responses will vary from person to person. It is very common for people to experience anxiety, terror, and shock, as well as emotional numbness and personal or social disconnection.

**Individuals with prolonged traumatic stress (anxiety, depression, etc.) that disrupts their daily functioning should consult with a trained and experienced mental health professional.**

**A Yellow Tag indicates that hazardous materials are present. If you see this tag, stay away and seek guidance from your local government authority.**



## Hand and Portable Power Tools

- Inspect tools in accordance with manufacturer's specifications
- Take damaged tools and electrical cords out of service and use only sharp tools and blades
- Do not work with electricity in wet environments
- Electrical cords/outlets must meet OSHA standards
- Use ground fault circuit interrupters (GFCIs) on all power tools and cords. Locate them as close to the electric panel (point of connection) as possible
- Use with proper gauge electric cord
- Use double insulated tools
- Do not re-energize electrical systems or use electrical equipment that has been in a fire or wet until it has been evaluated by a qualified electrician
- Always wear eye protection when using tools

## Portable Generators

Hazards include carbon monoxide poisoning and electrocution.

- Follow manufacturer's recommendations and specifications and grounding instructions
- If using gasoline- and diesel-powered portable generators, switch the main breaker or fuse on the service panel to the "off" position before starting the generator
- Do not use the generator on or in wet surfaces
- Do not operate the generator in rain unless it can be kept dry
- When refueling the generator, turn off and wait for motor to cool or use appropriate funnel to prevent spills onto hot engine
- Never use a generator indoors
- Never place a generator outdoors near doors, windows, or vents

## Chainsaw Use

Operate, adjust, and maintain the saw according to manufacturer's instructions.

- Properly sharpen chain saw chains and properly lubricate the bar and chain with oil
- Periodically check and adjust the tension of the chain saw blade to ensure good cutting action.
- Use proper size of chain saw to match the job
- Include safety features such as a chain brake, front and rear hand guards, stop switch, chain catcher and a spark arrester
- Wear the appropriate protective equipment:
  - Hard hat
  - Safety glasses/face shield
  - Hearing protection
  - Heavy work gloves
  - Cut-resistant legwear (chain saw chaps)
- Always cut at waist level or below
- Avoid contact with utilities or ground
- Bystanders or coworkers should remain at least:
  - Two tree lengths (at least 150 feet) away from anyone felling a tree
  - 30 feet from anyone operating a chain saw to remove limbs or cut a fallen tree

## Harmful Dusts

Dusts created by a disaster or during cleanup may have asbestos, heavy metals, silica or other toxic materials. Avoid driving over debris material as this could cause hazardous material to become airborne. **These dusts can present serious health hazards. If you lack the expertise and equipment to control these hazards, consult with your local government authority and seek professional assistance.**

**If you must disturb dust, use:**

- Water to mist material and keep it wet
- High Efficiency Particulate Air (HEPA) vacuum

**Do not use:**

- Common shopvac that does not have a HEPA filter
- Do not dry sweep

Avoid walking or working in dusty areas as you may inhale harmful dust and/or become contaminated with dust

Respirator use may be required. Residents and volunteers should seek guidance from your local government authority. Respirator use requires training. Respirators must be fit tested and you may need medical clearance to wear certain respirators (business use only). An N-95 or greater respirator is acceptable for most activities. Use an elastomeric, half-mask respirator with N,R, or P-100 series filters if asbestos, ash or fire retardants may be present.

**Surgical masks should not be used because they do not provide adequate protection.**

## Other Post-Disaster Cleanup Hazards

- Heat and cold stress
- Sunburns
- Injuries to your body from lifting and strain
- Animals, insects and harmful plants
- Infection from polluted water and surfaces
- Overhead hazards, such as falling glass, tree limbs, debris and low-hanging utility lines
- Working around heavy equipment
- Vehicle/ driving safety
- Cuts, punctures
- Eye injuries
- Fall injuries
- Fatigue

## Bloodborne Hazards

- Wear appropriate PPE when handling debris contaminated with blood or other body fluids
- Ensure your tetanus immunization is current

***If you or another person gets injured, know how to get help.***