



**CHURCH WORLD SERVICE**



# Keeping Safe During Fire Cleanup

## The Challenge

Disaster sites pose a multitude of health and safety concerns. The hazards and exposures are a function of the unstable nature of the site, the potential of hazardous substances being present and the type of work being performed. An accurate assessment of all hazards may not be possible because they may not be immediately obvious or identifiable. In addition to the hazards of direct exposure, home owners and volunteers are also subject to dangers posed by the unstable physical environment, the stress of working in protective clothing, and the emotional trauma of the situation.

## Potential Chemical Exposures from Fire Scene

Exposure to chemicals such as the following must be anticipated: Metals (dust and fume), Hydrogen cyanide, Inorganic acids (particularly sulfuric acid), Aldehydes including formaldehyde), VOCs (volatile organic chemicals), PCBs (polychlorinated biphenyls) may be present in older buildings with electrical equipment manufactured prior to 1977.



Even though flames are gone, danger from fire remains in contaminants left behind in ruins of even basic homes.  
Photo courtesy Reuters-AlertNet

## How do these chemicals affect health?

Eye, nose, throat, upper respiratory tract, and skin irritation; flu like symptoms; central nervous system depression, fatigue, loss of coordination, memory difficulties, sleeplessness, mental confusion. Chronic effects depend on the extent and the duration of exposure.

**You should assume all damaged buildings contain chemical toxins, and should wear protection to keep safe.**

# Use These Items to Help You Keep Safe



## Worker Protection & Safe Worker Practices

*Cleanup workers should always wear a respirator. Dust masks and surgical masks are not respirators. They do not protect against mold or contaminants.*

Use the right respirator and filters (see below). Make sure the respirator or filter says “NIOSH approved.” Learn now how to do a *seal check* each time you use the respirator. Change filters or use a new disposable N95 (or N100) respirator at the beginning of each work day, or more often if necessary.

*For small cleanup/rip-out jobs (example: up to 3 sheets of Sheetrock):*

- Use an N95 disposable respirator (a reusable half face respirator with N95 filters is better).
- Wear protective gloves (non-latex, vinyl, nitrile, or rubber).
- Wear tight-fitting goggles designed to keep out dust (no holes or vents).

*For large cleanup/rip-out jobs (example: more than 3 sheets of Sheetrock):*

- Use a full-face respirator with N, R, or P100 filters (or powered air purifying respirator [PAPR] with HEPA filter).
- If a full face-respirator is not available, use an N95 disposable respirator or a reusable half face respirator with N95 filters. Also use tight-fitting goggles designed to keep out dust.
- Wear disposable protective clothing that covers the entire body, including head and shoes.
- Wear protective gloves (non-latex, vinyl, nitrile, or rubber).

*For any area with known or suspected contamination:*

- Use HEPA vacuum cleaners only - no dry sweeping or non-HEPA vacuums.
- Place used disposable personal protective equipment in a secured bag and discard.
- Clean reusable personal protective equipment before reusing.
- Wash hands and face with soap and clean water before eating or smoking.
- Shower with soap and clean water before driving or returning home.
- Wash personal clothing that may contain contaminants separately.
- Be aware that you may also be exposed to harmful chemicals like asbestos and lead. These may require additional protection.