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# Fire Scene Safety for Adjusters

BY RON KOERTH



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Fire scenes can be extremely hazardous, with even minor fires having numerous potential dangers. However, depending on the degree and timing of fire scene participation, all of these dangers can either be eliminated or protected against with the most practical methods.

## Type of involvement and duration of on-scene time will affect protection required

Firefighters are usually the first on scene (when the fire is still active) and are likely on the scene for the longest duration of time, which would, in most cases, mean they require the most protection. On the other hand, adjusters are usually on the scene much later and for a much shorter duration, which would mean they require less protection.

### Firefighters

- On scene while fire is active and during post-fire overhaul;
- Could be on scene for a considerable amount of time; and,
- Full turnout gear such as heavy boots, fire resistant outer clothing, helmet, heavy gloves and possibly self-contained breathing apparatus is required.

### Fire investigators

- On scene post-fire;
- Could be on the scene a considerable amount of time;



- Moves throughout all areas and likely would move contents, collapsed building components and debris; and,
- Minimum protective personal equipment could include safety boots, coveralls, rubber and/or leather gloves, hardhat, eye protection, respirator.

### Adjusters

- On scene post-fire;
- Probably not on the scene for an extended period of time;
- Would move into many areas of the building, but not likely into the most damaged areas;
- Protective personal equipment could include safety boots, appropriate outer clothing, gloves, hardhat, eye protection and respirator; and,
- Equipment needs are highly dependant on how far into the scene the adjuster progresses and at what stage of cleanup the site is at when the adjuster arrives on the scene (i.e. prior to any cleanup or after most fire debris has been removed and some cleaning has occurred, etc.).

## Hazards that may be encountered at the fire scene

### Structural Instability

- Unstable roofs, floors or walls due to the loss of connecting and stabilizing structural components;
- Unsupported chimneys, poles, towers;
- A risk of being struck and/or trapped.

### Loose Building Components

- Bricks, blocks, other heavy items that could cause serious injury or death;
- Shingles, roof tiles;
- Flapping metal siding;
- Glass;
- Lighting fixtures;
- Dangling debris or contents;
- A risk of being struck, cut or eye injury.



### Openings in or Weakened Floors

- Holes in floors — fall hazards, sharp or jagged edges;
- Damaged wood stairs;
- Fire or water weakened floor joists, leading to possible floor collapse if weight is applied;
- A risk of falls or cuts.

### Slippery Surfaces

- Ice and snow in winter (a given in our climate);
- Oils;

- Spilled paints;
- Food stuffs;
- A risk of slips and falls.



### Poor Visibility and Jumbled Interior Contents

- Difficulty in safely moving around and avoiding other hazards.

### Natural Gas or Propane

- Local utility may not have been notified (especially if it was an unreported fire);
- Leaking barbeque and other smaller propane tanks;
- A risk of fire or explosion.

### Electrical Systems

- The power may still be on resulting in a risk of electric shock.

### Drug Labs

- Marijuana grow ops (risk of mould);
- Meth labs (potential explosive/lethal gases);
- A risk of exposure to mould and/or explosive/lethal gases.

### Chemicals

- Industrial chemicals;
- Hazardous consumer products (bleach, chlorine);
- A risk of eye injury, chemical burns or respiratory problems.



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### Airborne Contaminants

- Combustion products;
- Asbestos;
- Mould;
- A risk of respiratory problems (may not develop in the short term).

### Communicable Diseases

- Hepatitis;
- HIV;
- Tetanus;
- A risk of infection.

### Fatigue

- Reduces ability to avoid other hazards and impairs judgment.

After reading the extensive list of hazards that may be encountered at the fire scene, you may think it is unlikely you will encounter most of them. However, you would be wrong. For example, it may seem highly unlikely the fire department would leave the power on. but they often do. You may also think you will not need to worry about airborne contaminants as you will not be on scene for a long time. While exposure is primarily time dependant, if you visit many fire scenes, the effect can be cumulative (meaning significantly greater exposure than what you think).

Many of the hazards do not act alone, either. For example, when in a kitchen after a fire, there often are numerous oils and greases present on the floors. Further, there may be broken glass or other sharp objects. If you were to slip and fall in that area, you could easily end up with serious cuts, which could directly cause significant injury or indirectly through a subsequent infection. So, while you may initially have thought “Well, I won’t be in the house long; I’ll just take a look-see, so I don’t need to worry too much about safety issues,” you may quickly regret that decision.

### Precautions you should always take

1. Don’t assume anything.
  - a. The power or gas may still be on”;
  - b. No one may have checked the status of propane tanks;
  - c. Information provided to you may be inaccurate.
2. If the structure has been damaged (particularly if there are large areas of floor, wall, ceiling or roof “missing”), have it inspected by a qualified person. Ultimately, sections of the structure may need to be taken down to eliminate danger to people who want access to the structure. It is also important to understand the type of structure you are dealing with as that can have a bearing on how the fire could have damaged



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the various materials in it. For example, if you are dealing with an older brick house in Toronto, it is likely that it is a solid brick house as opposed to the newer style of brick veneer. A solid brick house will typically survive a fire better than a brick veneer house because in a brick veneer house, the load bearing wood framing can be entirely burned away, leaving a dangerous, unstable wall of brick veneer. Other structures have their own attendant risks.

3. Ensure you have adequate lighting. With no natural lighting, a mini-maglite will probably not provide adequate lighting, the deeper you move into a badly burned (i.e. blackened) structure. If necessary, wait for temporary power before proceeding.

4. Do not enter a badly damaged building if you are tired or sick. Your mental awareness will be reduced and you may not see the missing section of floor or other immediate hazards.

5. Avoid entering a badly damaged structure alone, particularly in remote or isolated areas. One slip or fall onto a hard surface or into a basement could render you unconscious or unable to exit the structure and obtain medical help. Cell

phone coverage may not exist in that area, potentially leaving you to fend for yourself until someone “happens” to come to the scene.

6. Wear appropriate attire. Leather soled dress shoes and a suit are not appropriate for a badly damaged structure entry. Suitable attire includes (depending on circumstances):

- a. Safety shoes or boots;
- b. Hardhat;
- c. Gloves;
- d. Coveralls;
- e. Safety glasses/goggles;
- f. Properly fitted respirator. Note: In general, a HEPA type filter is adequate, but in some instances, for example, a chemical storage facility, filters appropriate for site-specific substances may be advised.

Safety on a fire scene is similar to safety anywhere else. Use common sense, don’t rush, be knowledgeable about your environment and consistently follow proven safety procedures. Further information can be found in NFPA 921: Guide for Fire and Explosion Investigations, 2004 Edition, National Fire Protection Association; Chapter 12, Safety and the Occupational Health & Safety Act. 🍁

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