

## **Background**

Firefighters, in the course of their work, may respond to incidents where a structure has partially or completely collapsed, other than during firefighting operations.

These are rare but dangerous occurrences that threaten the lives of civilians, other assisting agencies and emergency responders.

Structural collapse may occur as a result of explosions, severe weather occurrences, structural degradation, vehicle collisions with structures or other causes.

These structural collapses may occur during construction, normal occupancy or during demolition.

While some fire departments provide structural collapse responses at the operations and technician level which allow for entry into the collapsed structure, typically known as Urban Search & Rescue (USAR) or Heavy Urban Search & Rescue (HUSAR), this level of service is rare and typically limited only to a few large urban fire departments. Most fire departments operate at the awareness level only.

## **Concerns/hazards**

A structure that has collapsed is hazardous as a result of unstable building materials, falling objects, confined spaces, risk of fire, risk of electrical hazards and risk of gas hazards.

Structural collapse rescues require special training, equipment and preparation to ensure that firefighters safely carry out their duties.

## **Actions for employers**

Employers must:

- provide training to firefighters that is consistent with the department's level of response (awareness, operations or technician) that includes (at minimum):
  - scene size-up and hazard recognition
  - utility control
  - incident isolation and evacuation procedures
  - safe work practices for working around structural collapses
  - gas detection
  - fire protection and control
- maintain records of the training
- appoint a person with adequate knowledge, training and experience to conduct the training
- develop and review the training in consultation with the joint health and safety committee or the health and safety representative, if any

- review the training whenever there is a change in circumstances that may affect worker safety and at least once a year
- provide personal protective equipment, clothing and devices for the adequate protection of the firefighter
- provide the equipment necessary to safely and effectively mitigate the emergency and, where equipment is provided, the employer shall ensure the equipment is inspected, tested and maintained in accordance with manufacturers recommendations
- develop written procedures and other measures for the adequate protection of the firefighter
- develop protocols for requesting assistance from other agencies (USAR, HUSAR etc.) who can initiate hot zone entry and search & rescue
- for departments that perform structural collapse rescue above the awareness level, ensure the training, equipment and written procedures reflect the level of service

## Applicable regulations and acts

Read:

- [Occupational Health and Safety Act](#)
  - clause 25(2)(h) for taking every precaution reasonable in the circumstances to protect workers

## Applicable standards

For minimum job performance requirements for fire service personnel who perform technical rescue operations, read [NFPA 1006 – Standard for technical rescuer professional qualifications](#)

For levels of functional capability for efficiently and effectively conducting operations at technical search and rescue incidents, read [NFPA 1670 - Standard on operations and training for technical search and rescue incidents](#)

## Related

Read firefighter guidance notes:

- [1-5 Life safety rope and equipment](#)
- [2-1 Incident command](#)
- [5-1 Firefighter accountability and entry control](#)
- [6-4 Rope rescue](#)
- [6-5 Confined space rescue](#)