LOST OR TRAPPED FIREFIGHTERS RESCUE

This procedure identifies operational approaches for search and rescue of a lost or trapped firefighter.

Rescue of trapped or lost firefighters in a burning building is especially time sensitive. An immediate and well organized search and rescue response must be implemented to take advantage of the very limited survivable time element.

Rescue needs generally fall into two categories. A firefighter(s) is trapped by a collapse, or is lost in a smoke filled and burning building.

BUILDING COLLAPSE

Emergency traffic will be used to announce a collapse in which firefighters may have been trapped.

The Sector Officer (or Command) will immediately initiate an evacuation of the collapsed area, rescuing firefighters as necessary, as crews exit the area.

An accountability check of all firefighters operating in the sector or area will follow immediately to determine if any firefighters are missing and how many.

Command will immediately send the Rapid Intervention Team(s) (Rescue Sector) to the sector or area.

If it is suspected or confirmed that a firefighter(s) is missing, an additional alarm(s) with a medical component will be requested. (i.e., "A second alarm and MCI level one") Level Two Staging should be considered. Heavy rescue or other special teams should also be considered and **notified as soon as possible.**

Command will adjust the incident management plan to a high priority rescue effort and for protecting firefighters from the affects of fire.
Command must immediately place additional attack lines, or elevated streams as appropriate, in the collapsed area to protect trapped firefighters, and rescuers; from the fire (piercing nozzles may be used to protect victims in inaccessible areas). Positive pressure ventilation should be initiated to improve atmospheric conditions and visibility. Writing off of the remainder of the building may be required in order to commit resources to the rescue effort.

If a sector had not yet been implemented in the collapsed area, command will establish a sector with the first crew to the area. Additional sectors should be considered. Additional Command Officers should be sent to the collapsed area to assume additional sector responsibilities. A safety sector will also be required. Depending on the size of the geographic area, and nature of the search and rescue effort, an operations level command structure may be required.

When searching for a firefighter, the following should be considered to aid in the search and rescue efforts:

1. Visible sighting of trapped firefighters such as arms or legs.
2. Knowledge of their last known location.
3. Shouts for help from the collapse area.
4. Tapping noises, etc.
5. Sounds of portable radio broadcast in the collapse area
6. Breathing, moaning sounds.
7. The sound of the PASS device's audible tones.
8. The sound of the SCBA bell's sounding.
9. Radio request for help from portable radios from within the collapse area.
10. Tracing attack hose lines into the collapse area.
11. Locations of ladders, fans, lights, or other equipment being used by missing firefighters.

If the PASS devices are not operating, rescuers can use portable radios as a potential locator. All radios in the immediate collapse area, including apparatus radios, should be turned off. (To eliminate confusing background broadcast) Radios will remain off only long enough to complete the locator

test. Sector Officer's radios will remain on. Various messages can be broadcast from a single radio at the collapsed area. Rescuers can then listen for radio transmissions from lost firefighter's radios. In some cases, placing two portables side by side and "keying" their microphones will produce a feedback squeal that may be more audible.

During the rescue effort, crews should take protective measures to protect trapped firefighters from the affects of fire. In addition to attack lines, etc., early lighting of the area will be required. (Inside and outside) Positive pressure ventilation should be used to minimize smoke inhalation by trapped firefighters and improve visibility for rescuers. Debris will need to be stabilized as rescue efforts precede. Spare SCBA's should be brought to the rescue area. These will be used to place on firefighters who are trapped and awaiting extrication.

An early assessment on the need for heavy or specialized equipment must be conducted by Command and Sector Officers. **Request for this resource must be made as early as possible, even if it's unsure if it will be needed on arrival.**

Rescue crews must be cautious not to cause an additional collapse in their haste to rescue trapped firefighters.

Treatment and transportation sectors, with appropriate resource, must be implemented early and be prepared to receive patients.

Command and Sector Officers should use the company's apparatus crew accountability tags to obtain an accurate accountability check and determine the names of missing firefighters.

LOST FIREFIGHTERS

Lost firefighters in a building pose a different search and rescue problem. The most significant problem and difference is that the search area can be substantially larger than a collapsed area.

In many cases, lost firefighters will be able to radio to command that they are lost and in need of rescue, prior to being incapacitated when a SCBA goes empty.

Firefighters who find themselves lost, and who have a radio, will immediately use emergency traffic to announce situation (**MAY-DAY**) while they continue to attempt to find their way out. Lost firefighters will give command information as to where they think they are, description of building structure where they are, sounds of nearby activity, (i.e. ventilation saw noise), or any other information that might direct rescue crews to their location. If firefighters detect they are about to become incapacitated (i.e., now breathing smoke), they should take whatever protective measures are necessary to increase survivability and manually activate their PASS devices. Flashlights must be turned on and placed in a position that will assist rescue crews in locating down firefighters.

Company or Sector Officers who receive information that firefighters may be lost will use emergency traffic to announce the situation and initiate appropriate rescue efforts.

Command will immediately send the Rapid Intervention Team (Rescue Sector) to the most appropriate location to initiate search and rescue efforts.

An additional alarm(s) with a medical component will be requested. Level Two Staging should be considered.

Command may initiate an evacuation of the building, or applicable sectors, in order to obtain a roll call of all personnel operating in the building.

Command will adjust the incident management plan to high priority rescue effort. In many cases, the offensive fire attack must be continued in order to protect lost firefighters from the affect of fire. However, some sections of the building may need to be written off to concentrate on the rescue effort and protecting firefighters.

Early and continued ventilation, including positive pressure ventilation, must be implemented. Early and continued interior lighting must be implemented.

Command will implement appropriate sectors. Additional Command Officers will be sent to the rescue area to assume additional rescue related sectors. The affected geographic sector may have to assume offensive fire attack responsibilities in addition to search and rescue responsibilities.

Command and Sector Officers will determine the search area based on last known locations of lost firefighter(s) and closely coordinate rescue efforts. The Sector Officer will assign specific areas or grids of the building to each rescue team entering the building.

If multi-entry points to the building are available, search and rescue teams may need to operate from all these points, starting with the area where the lost firefighters are believed to be.

In searching for lost firefighters, the following should be considered:

1. Knowledge of their last known location.
2. Tracing attack hose lines into the area the lost firefighters were known to be.
3. Evidence of building structures or locations that were described by lost firefighters.
4. Listening for the sound of PASS device's audible tones.
5. Listening for the sound of SCBA bells.
6. Sounds of shouts for help, tapping sounds, sound of breathing, etc.
7. Sounds of portable radio broadcast audible in search area.
8. Flashlight beams.

If PASS devices on lost firefighters are not operating, the use of portable radio feedback may be used, as previously described for locating firefighters in a collapsed area.

Additional standby rescue crews should be maintained outside the entry points to relieve initial rescue crews as SCBA's go empty. At least two fully equipped firefighters for each rescuer should be on standby outside the entry point(s).

These standby rescue crews may also be required to quickly enter and assist with removal of lost firefighters once they are located. Several firefighters for each downed firefighter will be needed to quickly remove them.

Treatment sectors and personnel must be present and ready to receive and treat rescued firefighters.

Spare SCBA's should be available to take into the building to be used on lost firefighters if needed.

Command and Sector Officers should use the company's apparatus crew accountability tags to obtain or keep accurate roll call and determine the names of missing firefighters.