

# Lake County Fire Service Standard Operating Guidelines

High Rise Fire Operations	SOG: 012 Effective Date: April 1, 2011 Supersedes: Approved: <hr/> President, Lake County Association of Chiefs of Fire Page 1 of 9
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## 1.0 PURPOSE

- 1.1 To establish guidelines for fire operations in buildings exceeding three stories in height.

## 2.0 DIVISIONS AFFECTED

- 2.1 All Fire Department personnel.

## 3.0 RESPONSIBILITY

- 3.1 All Officers are responsible to comply with and ensure that personnel under their command are adequately trained, fully understand, and comply with this guideline.
- 3.2 All members have the responsibility to learn and follow this guideline.

## 4.0 STRATEGIES

- 4.1 Establish Command; utilize appropriate portions of Incident Management System (IMS/NIMS).  
NOTE: The need for implementing a comprehensive incident management system is pivotal at a high-rise fire. There is a need for personnel to quickly respond to a reported fire location and attempt quick intervention to resolve the problem. Expansion of the IMS/NIMS should be based on incident needs based on rapid size-up. Don't prioritize implementing command systems at the expense of rapid assessment and aggressive attack on the fire. Implement only those parts of the Incident Management System (IMS/NIMS) that are needed.
- 4.2 Determine the specific fire floor.
- 4.3 Verify location before committing hand lines.
- 4.4 Ventilation needs to be conducted early and aggressively in order to protect the occupants and firefighting forces. Consideration must be given to the outside temperature and wind conditions. Stairwells should generally no be used for smoke evacuation, however, if needed, the stairwell chosen should have roof access. In addition, adequate personnel must be available to prevent self-evacuating residents from entering the stairwell chosen for smoke evacuation.

- 4.5. Establish an Occupant Support Group early in the incident, and support it with adequate personnel. The condition and location of evacuees, confirmation of primary and secondary “all clears”, security, and location and disposition of pets are all major concerns of the evacuated residents and can best be handled through the establishment of the Occupant Support Group.
- 4.6. Begin a controlled evacuation. Consider Shelter in Place whenever possible.
- 4.7. Perform search and rescue as needed.
- 4.8. Gain control of building systems. Establish liaison with building personnel.
  - A. Elevators.
  - B. Heating, ventilation, and air conditioning (HVAC).
  - C. Fire pumps, sprinkler and standpipe systems.
- 4.9. Confine and extinguish the fire.

## 5.0 SAFETY

- 5.1. All personnel engaged in firefighting, rescue; or performing any other function where they may encounter a hazardous atmosphere shall wear SCBA.
- 5.2. Personnel shall not be detailed to work in the building alone. All details should be given to teams of at least two.
- 5.3. All crews operating in the building should be equipped with portable radios. The use of talk-around may be necessary; Command shall maintain monitoring capabilities on the fire ground talk group and talk-around.
- 5.4. A Safety Officer Group shall be assigned at all working high-rise structure fires. In addition, there will be a real need to allocate staffing to assist the Incident Scene Safety Officer:
  - Exterior
  - Lobby
  - Fire floor
  - Floors above the fire
  - Others as needed

## 6.0 FIRST-ARRIVING COMPANY DUTIES:

- 6.1. The Officer and Company, minus the pump operator, shall enter the lobby wearing full turnout gear with SCBA's; carrying the following as minimum equipment:
  - A. Apartment packs
  - B. Forcible entry tools
  - C. Hand light(s)
  - D. Portable radio
  - E. Water fire extinguisher

- 6.2 Obtain the keys needed to convert the elevator to manual operation and obtain a master (pass) key if available.
- 6.2.a Assign one firefighter to the fire alarm panel. This person can also be responsible for building communications systems and other system controls, if applicable.
- 6.3 A minimum of two personnel (Recon) should proceed to the fire floor (per Section 6.5) with items B, C, D, and E from Section 6.1 above.
- 6.4 The Recon crew should determine the floor from which the alarm originated – if alarms have come from more than one floor, the lowest floor shall be considered the alarm floor until an investigation proves otherwise.
- 6.5 Proceeding to the alarm/incident location:
  - A. If the alarm originated on or below the third floor, the stairs should be used exclusively.
  - B. Elevator usage
    - 1. Ascend to two floors below the floor from which the alarm originated, stopping at least once at an intervening floor to test the elevator's operation and to check for the presence of smoke.
    - 2. Upon reaching two floors below the alarm floor, the crew shall exit the elevator and ascend to the alarm floor via the stairs.
  - C. Upon reaching the door to the alarm floor, the personnel shall check for the presence of fire, heat, and/or smoke by feel and observation, including opening the door slightly.
  - D. If a smoke or fire is detected and thought to be the by-product of a structure fire or to have the potential for developing into a structure fire, the personnel shall report such conditions immediately to the Incident Commander or, if functioning as mobile command, order additional resources as he/she deems necessary. The personnel in the lobby with the apartment packs should respond as directed.
  - E. If no fire products are present, the Officer and at least one member of the crew shall investigate further.

## 7.0 WORKING FIRE

### 7.1 Rescue

- A. As in all emergencies, rescue (life safety) is the primary objective. In the case of high rise fires, protecting the occupants by limiting the spread of fire, and more importantly, smoke, through fast fire attack on the fire combined with ventilation may be the best way to achieve the rescue

objective.

- B. Search and Rescue Divisions shall be established as necessary. Search and rescue will normally begin on the fire floor and the floor above the fire; then expanded to other floors as needed. Ensure that frequent CAN Reports are provided to Command; much of Command's decision making will be based on the reports provided by interior crews.
- C. Primary and Secondary Searches
  - 1. Primary search is a quick search for live victims before the fire is brought under control. All viable victims found shall be removed or sheltered in place, as directed by Command.
  - 2. It is recommended that the following primary search order be followed, unless conditions dictate otherwise:
    - a. Fire area
    - b. Areas adjoining the fire area
    - c. The fire floor
    - d. The floor above the fire
    - e. The floor below the fire
    - f. Remaining floors above the fire floor
    - g. Remaining floors below the fire floor
  - 3. When apartments and other areas have been searched and evacuated, members shall close the door and mark the door with an "/" in chalk to indicate that a primary search has been completed. If a secondary search is done later, another slash shall be made over the first to make an "X".
  - 4. Secondary search is performed after the fire is under control. The need for speed is lessened; either the occupant has survived or has not.
  - 5. The secondary search must be extremely thorough to ensure that there is no possibility of a fire victim left undiscovered. Secondary searches are performed by different crews than those who performed the primary search. If the same personnel are used, they should search different areas.
  - 6. Search and rescue crews shall keep Command/Operations apprised of their status.
- D. Evacuation floors will normally involve the fire floor and one or two floors above and below the fire floor, depending on the severity of fire and smoke conditions. Thorough monitoring of smoke and CO levels must be maintained throughout the incident on the fire floor and all floors above. As the atmosphere cools, all floors must be checked for CO levels, as CO

can diffuse throughout the atmosphere.

- E. Where conditions on floors are such that evacuation is not needed and the threat of further smoke spread is absent, occupants may be left in place. Ensure continuous air monitoring in areas designated for shelter in place.
- F. Whenever possible, the recon crew should advise Command of the stairwell(s) to be used for occupant removal and which stairwell(s) should be reserved for firefighting forces. It is usually better to use a stairway remote from the fire than one right near the blaze to bring occupants down from floors above / threatened by the fire. On the fire floor, rapid evacuation may utilize any available stairwell. See 4.4 also.

## 7.2 Standpipe/Automatic Sprinkler Operations

- A. The first or second arriving engine shall supply the standpipe/automatic sprinkler system using the appropriate fire hydrant.
- B. A Water Supply shall be established as necessary.
- C. Standpipe Systems
  - 1. Outlets located in stairwells on the fire floor may be used for initial attack, if fire conditions are favorable.
  - 2. If conditions are poor, stretch lines from the standpipe connection on the floor below and move up to the fire floor. Excess line should be played out up the stairs going up to the next level, laying it against the wall.
  - 3. If standpipe connections are in the corridors, the attack should generally begin from an outlet on the floor below the fire floor.
  - 4. "House hose" should not be used unless Fire Department hose is unavailable, or the hose is known to be FD approved.

7.3 Charge and advance a hose line to a point between the occupants and the fire; and if possible, extinguish the fire. Every effort must be made to get hose lines to the fire area to cut off vertical and horizontal fire spread.

7.4 Where fire attack must be delayed because of the need to use personnel for rescue or evacuation, isolation of the fire area by closing a door or other means may be the best option to provide time for additional manpower and resources to arrive.

7.5 Ventilation is critical to the success of fire and rescue operations. If possible, A means of ventilation from within the involved area or near it (local ventilation) shall be initiated as soon as possible to limit the spread of smoke. Horizontal

ventilation is recommended to release super-heated gases and smoke.

- 7.6 A room on a floor below the fire or in the lobby may be used to establish a Rehab Branch if the incident continues for a period long enough to warrant doing so.
- 7.7 Personnel should be assigned to the floor above the fire floor for rescue, evacuation/shelter in place, fire control, and air monitoring. The general order is the floor above the fire, the top floor, and the floors in between.
- 7.8 HVAC systems should be shut down or utilized as appropriate.
- 7.9 The Incident Commander shall determine the level of response needed to successfully mitigate the incident. The key factor in escalating response is the confirmation of structural involvement or the potential for such involvement. This can come from reports of eye witnesses and/or be the result of fire department investigations.
- 7.10 Some minor conditions, such as food burning on a stove, which do not involve or threaten to extend to the structure or its contents, shall not be a reason to escalate to a higher level of response. If there is any doubt, however, there shall be no hesitation by the Incident Commander to put escalation measures in motion.
- 7.11 Assignment of personnel to the Occupant Services Group should be conducted as soon as possible; if the situation warrants its creation.

## 8.0 SIGNIFICANT FIRE INVOLVEMENT

- 8.1 Assign an Operations Section Chief to establish the Operations Branch. The duties of the Operations Section Chief include, but are not limited to:
  - A. Assignment and coordination of personnel in divisions/groups operating on or above the Forward Staging floor.
  - B. Communication of conditions and needs to the Incident Commander.
  - C. Assignment of a crew to investigate conditions directly above the fire.
  - D. Establishment and maintenance of the Forward Staging Manager.
  - E. Operations reports to Command.
- 8.2 Establish a Forward Staging Area as personnel become available.
  - A. Normally, this area shall be located one or two floors below the fire floor, depending on heat and smoke conditions.
  - B. The Forward Staging Area may be located in a hallway or in a room, whichever is most practical.

- C. Examples of resources brought to this area include:
  - 1. reserve personnel
  - 2. high-rise packs
  - 3. extra hose
  - 4. air bottles
  - 5. smoke ejectors
  - 6. tools
  - 7. RIC personnel & equipment
- D. The Forward Staging Manager should track all units as they ascend into the fire building hazard zone. The FSM receives information from Lobby Control on the disposition of units as they enter the building.
- E. After units have returned to the Forward Staging floor they shall report to the Forward Staging Manager.
- F. The Forward Staging Manager reports to Operations.

### 8.3 Lobby Control

- A. The lobby area demands Fire Department control; therefore, a Lobby Control Officer should be assigned.
- B. Lobby Control reports to the Operations Section Chief.
- C. Lobby Control responsibilities:
  - 1. Clearing the area of civilians.
  - 2. Locating a secure area for occupant relocation.
    - a. area within the building
    - b. nearby building
    - c. shelter

NOTE: Keeping those evacuated at one location until a list of names can be obtained will assist in finding anyone reported missing.

- 3. Determining the status of all elevators.
- 4. Assisting movement of firefighters and equipment to the upper floors (accomplished through the use of elevator or stairwell support).
- 5. Tracking every unit entering the building, including destination; unless relieved of this duty by the Accountability Branch

### 8.4 Logistics

- A. Moving resources and equipment up into the building in a timely manner is the responsibility of the Logistics Section Chief.

- B. "BASE" is under the Logistics section.
- C. Medical Planning is under the Logistics section.

8.5 A "BASE" should be established:

- A. The "BASE" is an area that is used for parking apparatus and is a marshalling point in preparation for moving resources and equipment to the upper floors.
- B. The "BASE" is a secure area barring entry to unauthorized persons.
- C. Staging will release units to the "BASE" as necessary.
- D. The "BASE" should be located approximately 200 – 300 feet from the building.
- E. "BASE" reports to Logistics.

8.6 First-Aid Stations

- A. A minimum of two first-aid stations should be established under Logistics and a Medical Branch Director assigned to ensure proper staffing and supplies.
- B. One station should be adjacent to the Forward Staging area.
  - 1. Monitor firefighters as they return from upper floors.
  - 2. Establish triage area for occupants escaping from the fire floor or floors above, prior to their removal to the lobby.
- C. Another station should be established in the vicinity of the lobby to handle distressed occupants.
- D. If sufficient resources are available, and a need exists, another first-aid station can be established at the occupants' relocation site.

9.0 TERMINATION ACTIVITIES

9.1 After evacuation, search and rescue, fire control, and loss control are completed, termination activities shall begin. These may include, but are not limited to any or all of the following:

- A. A check of the entire building for smoke, hot spots, and air quality.
- B. The organization of a fire watch.

- C. Fire Investigation (request FIU as necessary).
- D. Return Companies to service.
- E. Occupant Services should be provided / continued as necessary.

