

**COLUMBUS DEPARTMENT OF FIRE
AND EMERGENCY MEDICAL SERVICES
OPERATING GUIDELINES
VOLUME II**

SUBJECT: Highrise Fire Tactical Guideline
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1.0 PURPOSE

- 1.1 To establish operational guidelines for the rescue of occupants, fire control, property conservation, and personnel safety during emergency situations in highrise structures.
- 1.2 These highrise guidelines should not be construed to restrict any member in the exercise of good judgment and common sense, based on their experience and training.

2.0 OBJECTIVES

- 2.1 To define the responsibilities of department personnel at highrise incidents.
- 2.2 To establish control and coordination at highrise incidents.
- 2.3 To assist fire companies in identifying information that should be included on a pre-fire plan.

3.0 DEFINITIONS

- 3.1 **Branch:** The organizational level having functional or geographical responsibility for major aspects of incident operations. A branch is organizationally situated between the section and the division or group in the Operations Section, and between the section and units in the Logistics Section. Branches are identified by the use of Roman Numerals or by functional area.
- 3.2 **Base:** A collection point for the equipment and personnel that will be used at a highrise incident emergency. The Base is normally located at least two floors below the fire floor.
- 3.2 **Division:** The partition of an incident into geographical areas of operation. Division are established when the number of resources exceeds the manageable span of control of the Operations Chief. A division is located in the ICS organization between the branch and resources in the Operations Section.
- 3.3 **Group:** Established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographical division. Groups, when activated, are located between branches and resources in the Operations Section.
- 3.3 **Highrise Building:** A building over three floors above ground, or beyond the reach of ground ladders.
- 3.4 **HVAC System:** A system that controls the heating, ventilation, and air conditioning of a building.
- 3.5 **Lobby Control Officer:** An officer who is responsible for controlling all vertical access routes (including the elevators), controlling the HVAC System, and coordinating the movement of personnel and equipment between the base and staging area.
- 3.6 **Pressurized Stairway:** Stairways that have high pressure fans installed in them to maintain positive pressure within the stairway. When activated, the fans keep smoke out of the

stairway.

- 3.7 **Rapid Intervention Team (RIT 1):** Three or more personnel in full personal protective equipment with donned SCBA on stand-by for immediate entry in the event they are needed. RIT 1 will be used as a search team to find the downed or trapped firefighter. The “buddy system” shall be used whenever an entry into any IDLH area is made; **this team will consist of a minimum of three personnel!**
- 3.8 **Rapid Intervention Team (RIT 2):** A team composed of four or more firefighters utilized as an extraction team for the removal of a downed or trapped firefighter; **this team will consist of a minimum of four personnel!**
- 3.9 **Staging Area:** A collection point for incoming companies and equipment. Normally, two companies are kept in the staging area for each company located at the Base.
- 3.10 **Security Center:** The center of communications in a highrise building that contains a Public Address System, Annunciator Panel, Stairwell Door Lock Controls, Public Service Telephones, Elevator Keys, and Building Master Keys.

4.0 SCOPE

- 4.1 This guideline applies to all operations personnel.

5.0 RESPONSIBILITIES

- 5.1 All responsibilities will be noted within the context of the guideline.
- 5.2 **AT ANY TIME AN OFFICER IS ASSIGNED IN A CAPACITY OTHER THAN THAT OF COMPANY OFFICER HIS/HER PERSONNEL WILL BE ASSIGNED TO ANOTHER COMPANY OFFICER TO ENSURE PROPER SUPERVISION, PERSONNEL SAFETY, AND ACCOUNTABILITY. THIS REASSIGNMENT WILL BE COMMUNICATED VIA RADIO TRANSMISSION TO THE INCIDENT COMMANDER.**

6.0 TOOLS AND EQUIPMENT

- 6.1 **All Companies:** Personnel will don full personal protective equipment and SCBA replacement cylinders must be readily available.
- 6.2 **Engine Companies:** Highrise Hose Packs include most of the equipment that will be transported to the fire floor:
 - A. 150 feet of 1-3/4" hose
 - B. Fog nozzle
 - C. Two spanners
 - D. One pipe wrench
 - E. One 2-1/2" to 1-1/2" reducer
 - F. One 2-1/2" to 1-1/2" gated wye
 - G. Handlight
 - H. Two Portable Radios
 - I. Thermal Imager
 - J. Master Key (availability and location noted during Pre-Fire Planning)
- 6.3 **Ladder Companies:** In addition to the same equipment engine company carry ladder companies will carry tools designed for rescue, forcible entry, ventilation, overhaul, and utilities control:
 - A. Pike Pole

- B. Pick Axe
- C. Halligan Tool
- D. Additional tools as directed by Command or the Company Officer

6.4 **Squad Companies:** Squad Companies may be used to carry out various operations, such as providing additional manpower and specialized equipment (air monitoring devices, thermal imaging devices, and specialized lighting equipment) and may be utilized by Command as deemed necessary. At any time a Squad Officer is utilized as a Safety Officer or other capacity other than as the Squad Truck Officer, the Squad Truck members shall be assigned to a company officer to provide supervision, safety, and accountability.

7.0 HIGHRISE FIREFIGHTING ASSIGNMENTS

7.1 The minimum response of the first alarm will be three engine companies, one ladder company, one squad company, one ALS medic unit, and a Battalion Chief. Actions of the first companies will determine the direction and outcome of the entire incident. Highrise firefighting follows the same basic priority list as all structural firefighting; these are rescue, exposure protection confinement, and extinguishment. Upon declaration of a working fire, the Battalion Chief initially dispatched shall request an additional engine company for RIT duties.

7.2 **Immediate Priorities:**

- A. Providing for the life safety of persons in immediate danger.
- B. Investigating and identifying the fire floor.
- C. Providing an attack on the fire floor.
- D. Providing water supply for the initial attack.
- E. Making a size-up of conditions on the fire floor, the floor above, and ventilation needs.

7.3 **First arriving Engine Company and Ladder Company Investigation.**

- A. Locate apparatus near Division A of the structure, but do not block the entrance.
- B. Assume command per Department Guidelines.
- C. Begin evacuation of occupants.
- D. Form an Investigative Group from personnel assigned to him/her.
- E. Depending upon staffing levels, an investigative group shall consist of a minimum of two persons, one officer and one to two firefighters.
- F. Investigative Group Deployment:
 1. Determine from pre-fire plans if the building has a standpipe system.
 2. Note; do not enter areas involved in fire without a charged hoseline.
 3. The investigative group shall proceed to the reported fire area, with high-rise hosepack.
 4. Note, if the structure does not have a standpipe system, charged hoselines will need to be advanced up stairways or Ladder Trucks will have to be utilized as exterior standpipe systems.
 5. Investigative groups must exit elevators one or two floors below the fire area and use the stairway as the entrance to investigate the floor below the fire floor and the fire floor. At no time will the group take the elevator to the

reported fire floor.

6. In the case of a working fire, elevators will not be used unless elevator banks are housed in a location separate from the area involved.
7. Upon reaching the floor below the fire floor, personnel will note the locations of hose cabinets (if applicable).

G. Investigative Group Responsibilities:

1. Gather information.
2. Gain initial control of elevators.
3. Locate and identify the problem.
4. Identify the extent and location of the fire.
5. Identify the stairwell that offers the best access for a fire attack based upon the location of the fire and hose outlets.
6. Report action being taken to command.

H. After locating the fire, and making a report to Command, the Investigation Group becomes the Fire Attack Group.

I. When possible, attach 150' of 1-3/4" hose, and a fog nozzle (contained in highrise hose backpack) to the standpipe system one floor below the fire floor.

J. Notify second arriving Engine Company as soon as the decision is made to connect a line to the standpipe system.

K. Actions taken by the first-arriving companies establish a basis from which all other operations will develop. The duties and actions of the later responding companies cannot be predetermined due to the many variables present. While first-arriving companies will operate according to set guidelines, later-arriving companies will be assigned tasks and assignments by Command or other officers based upon the needs of the situation.

7.4 **First Arriving Ladder Company Officer.** Upon arrival, the first in Ladder Company Officer will enter the lobby and assume the duties of Sector Lobby Control Officer.

A. He/She shall designate which stairways will be used for particular purposes and post personnel at each location to control entry and to direct civilians exiting from the building.

B. He/She shall recall all elevators to the lobby by use of the emergency service control. The elevators shall be secured there until it is determined that they are safe to use.

7.5 **Second Arriving Engine Company:**

A. Report to standpipe connection and be prepared to supply the system with two 3" lines upon order from Command.

B. Personnel shall stand by at their apparatus until ordered to deploy, supply water to the private protection system, or provide a 5" supply line to first arriving Engine Company.

C. On structures without a standpipe system, supply first arriving Engine Company with a 5" supply line upon notification to do so.

D. When ordered to deploy, all personnel will wear SCBA and carry one additional cylinder into the operation along with their required highrise equipment.

E. **ALL PERSONNEL MUST REPORT TO LOBBY CONTROL BEFORE**

ASCENDING/DESCENDING TO THE FIRE AREA.

7.6 **First Arriving Squad Company and Third Arriving Engine Company:**

- A. The Squad Company officer shall assume Safety Officer Duties at the direction of the Incident Commander.
- B. If the Squad Officer is assigned Safety Officer duties, he/she will assign his/her personnel to another company officer (see 5.2).
- C. The Third Arriving Engine Company and the remaining crew from the First Arriving Squad Company shall report to the Lobby Control Officer and advance to the floor above the fire. Initial responsibilities of these members is to:
 1. Examine the floor above the fire and report to command the following:
 - a. Heat and smoke conditions.
 - b. Status of evacuations.
 - c. Presence of access stairs down from the fire floor and up to the floor above.
 - d. Any extension of fire and smoke conditions.
 2. Examine the stairwells for occupants and smoke conditions.
 3. Evacuate occupants by stairways if safe to do so.
 4. Remove all occupants from the attack stairway for a reasonable distance above the fire floor and prevent its use by occupants. "Reasonable Distance" will depend upon the number of floors above the fire and upon the presence of effective stairwell pressurization and PA systems.
 5. If difficulty is encountered in clearing the attack stairwell of occupants, the attack team shall be advised to withhold the attack until the occupants have been safely removed.
 6. Conduct a primary search of the floor above the fire.
 7. Check avenues of fire spread such as:
 - a. Vertical utility shafts.
 - b. Exterior extension from floor to floor and through windows.
 - c. Suspended ceilings.
 8. Be aware of flashover and backdraft: When HVAC systems are shut down, it may create conditions for flashover and backdraft. Personnel must be constantly aware of the signs for these possible conditions.

7.7 **Fourth Arriving Engine Company 2nd Alarm:** The fourth arriving Engine Company will be responsible for RIT 1 duties.

7.8 **Fifth Arriving Engine Company 2nd Alarm:** The fifth arriving Engine Company will be responsible for RIT 2 duties.

7.9 **Second Arriving Ladder Company 2nd Alarm:** The Second Arriving Ladder Company shall be responsible for starting the Base Division two floors below the fire.

- A. Sometimes, it will be necessary to locate the Base on a lower floor because of smoke conditions.
- B. All extra air cylinders shall be transported to the Base and the officer in charge shall assign personnel to change out cylinders.

- C. Areas shall be clearly marked indicating full and empty cylinders.
- 7.10 At any highrise incident where the initial reports indicate a suspected fire in the building is likely:
- A. The pre-assigned duties of the investigative group and the second engine company shall be automatically activated.
 - B. If the report indicates that fire conditions exist, or if the elevators are reported inoperative, the other companies shall proceed to their pre-assigned positions and assume their duties.
 - C. As companies reach their assigned positions they must report this information to command.
 - D. In the early stages of an incident, before emergency operations are divided into divisions, groups, or branches, forward companies must give frequent condition and progress reports to command.
- 7.11 **The First Arriving Battalion Chief assumes the duties as Incident Commander and has full authority and responsibility to alter or to deviate from this guideline to any extent if such action will more effectively and safely manage an incident.**
- A. Appendix A contains a checklist for the Incident Commander to utilize at any working Highrise fire.
 - B. As necessary, divide responsibility to more manageable levels.
- 7.12 **Medic Group.** An ALS Medical Unit shall be dispatched on all highrise alarms. ALS personnel will be assigned to the Rehab Group. Only when casualties or injuries occur will a formal Medic Group be established.
- 7.13 **Staging Division.** Level II staging shall be at least 500 feet or one city block from the building.
- A. If second or subsequent alarms are requested, Command shall transmit via radio:
 1. Specific orders to the responding units regarding their assignment or will designate the location of the Staging Division. Responding units will report to the Staging area in the absence of specific assignments.
 - B. Command shall designate one of the third alarm engine company officers as Staging Division Officer. The Staging Division Officer shall keep his/her crew at the Staging location to assist him/her. His/her responsibilities are:
 1. Report his/her arrival, establishment, and location of the Staging Division to the Incident Commander and to all reporting companies.
 2. All companies shall then report their arrival to the Staging Division Officer and shall remain with their apparatus until requested by the Incident Commander and released by the Staging Division Officer.
 3. The Staging Division Officer must monitor both the Fire TAC channel and Fire Dispatch.
 4. Carefully record the arrival of all companies.
 5. Provide arriving companies specific instructions as to where and how to park. Apparatus should be parked diagonally so they can be moved independently.
 6. Maintain approximately one company in the Staging Area for each company

- held in the Base. Additional Resources are to be ordered through Command.
7. Establish and maintain a security perimeter around Staging Area.
 8. Establish a safe corridor from Staging Area to the entry point of the building.
 9. Assign personnel to maintain records of activities. Companies shall be checked in and out by assignment to which they are committed.

7.14 **Rehabilitation Group.** The condition of firefighters must be monitored for safety reasons.

- A. An interior rehabilitation (rehab) group should be established whenever:
 1. The incident is of long duration.
 2. The fire is located in the upper part of a highrise building.
 3. When other conditions warrant
- B. The interior rehab group should be established in a safe area of the building, preferably one or two floors below the fire floor. If this is not possible an exterior rehab group will be established in a safe location.
- C. The Incident Commander shall assign an officer to be in charge of the Rehab Group. The Rehab Group will coordinate assistance from Logistics/Support and outside agencies, such as the Salvation Army, Red Cross, etc.

7.15 **Evacuation.** Occupants will be evacuated from the fire floor, the floors above, and two floors below the fire, it may be advisable to move occupants to an area of safe refuge (a lower floor area) rather than to ground level. When occupants are evacuated to street level, Lobby Control must control and escort them to a designated safe location and have their names recorded. The list of occupants will be forwarded to Command or, if established, to the Public Information Officer.

- A. Search and rescue should be conducted on a priority basis beginning in the fire area and then advancing upward, and concluding with the balance of the building above the fire.
- B. Strict control and documentation of the search will be necessary to insure that each room on each floor is searched and duplication of effort is kept to a minimum.
- C. The Search and Rescue officer will check with the Lobby Control Officer to determine the status and location of all elevators.
- D. Elevators located above the fire must be verified empty because of significant danger to occupants.
- E. If it should become necessary to move large numbers of people from upper floors to the lobby, elevators are sometimes the only practical method. To do so, there are two rules, which must be adhered to:
 1. Elevators must be controlled by a firefighter equipped with a portable radio and forcible entry tools.
 2. Elevators must be in a blind hoistway with no openings on the fire floor.

7.16 **Salvage:** Salvage operations should begin concurrent with rescue and firefighting operations. There are not enough available companies on the first alarm assignment so the need for immediate multiple alarms will be necessary.

7.17 **Need for Multiple Alarms:** If a working fire is confirmed in a highrise building, the Battalion Chief shall automatically call for a 2nd alarm. A 2nd alarm shall consist of:

- A. Two Engine Companies
- B. One Ladder Company
- C. One Squad Company
- D. One ALS Unit
- E. One Battalion Chief

- 7.18 Command will instruct Fire Dispatch to contact the Deputy Chief of Operations on all second or subsequent alarm requests.
- 7.19 The in-service Battalion Chief will manage Plan B call up of off duty personnel, move-ups and assignment of any department providing Mutual Aid assistance for backfilling stations.

8.0 APPENDIX A

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| | All Radios on appropriate Fire TAC channel. |
| | Request additional alarms. |
| | Designate command position. |
| | Notify Fire Dispatch of Level II staging position. |
| | Develop air-recharging support (mobile cascade system, cascade trucks and logistics personnel may be needed). |
| | Assign companies to assist Lobby Control. |
| | Assign companies to search and rescue above the fire. |
| | Assign companies to Lobby Resource Pool. |
| | Assign ventilation responsibility. |
| | Assign an officer to be in charge of companies operating above the fire. |
| | Designate a primary firefighting stairwell. |
| | Initiate salvage operations below the fire. |
| | Consult with building engineer. |
| | Consult with the building safety director. |
| | Provide Command with floor plans. |
| | Monitor building fire pumps for proper operation. |
| | Have building personnel call the elevator service company to the scene. |
| | Have Police Department clear an area 500 feet or one city block around the building. |
| | Send medic units to Resource Pool level. |
| | Call for any equipment deemed necessary. |
| | Establish a Rapid Intervention Team(s). |
| | Utilize Plan B and/or Mutual-Aid |