

FIREHOUSE®

Weekly Drill

DRILL #93: HIGH-RISE BUILDINGS

Introduction

Modern technology and energy codes have created many hazards for the firefighters in high-rise buildings. Among those hazards are air movement and smoke control during firefighting operations. Having a thorough knowledge of a high-rise building's systems is important. Improper or careless ventilation techniques may be disastrous to both occupants and firefighters.

Many fire departments have procedures that call out how many floors will be climbed before firefighters should occupy elevators to gain access to the fire floor. The department I work for uses a rule of thumb that states, "Elevators will not be used for access to floors on or below the sixth floor." Any use of elevators by anyone, including firefighters, during a fire involves a risk of entrapment. Firefighters using the stairs to gain access to the fire floor face less of a danger than the hazards posed by using an elevator for fires on the sixth floor and below.

In many high-rise buildings, especially those used for residential purposes, the general floor layout is the same from floor to floor. When you have an apartment number (say 369) it sometimes will save us time if we walk the floor below looking for apartment 269, as 369 will be right above it. At this point we can count the number of apartment doors from 269 back to the point of entry on the floor. This information will be vital once we make entry on the 3rd floor and are confronted with dense smoke, all we need to do is start counting doors. If there were seven doors from the point of entry on the 2nd floor, we should be able to locate apartment 369 at the seventh door of the 3rd floor.

Another good idea is to make preplans or site visits to familiarize firefighters with the building operating equipment. Arrange tours with the building maintenance personnel or engineer and obtain specific information on the location of the fire department connections, air handling system, mechanical room and the location of the enunciator panel.

Once on location, proceed to the enunciator panel to gather information on the location of the fire. Request a building representative to assist with taking control of the building utilities and obtain keys to the building.



Additionally, capture the elevators and place them in fire department mode.

Communications will be extremely difficult, however, it is the most important function, especially, within the first few minutes of the incident. In recent years, the building construction in high-rise building has greatly improved and most are installing communication systems for fire department use. If you have a high-rise with one of these communication systems, become familiar with its operation.

If the building is equipped with a standpipe and or sprinkler system, drivers need to know the whereabouts of the fire department connections. A rule of thumb is for the sprinkler system to be feed first, as this will augment the water already being applied to the set of the fire. However, some departments operate by feeding the standpipe connection first, believing that the sprinklers are already working and getting a handline into operations is more important. Make sure the drivers have a total understanding of which option your department has adopted, so they can perform their assignments without delay.

—Prepared by Russell Merrick