
S.O.P. #: TACTICAL OPERATIONS MANUAL #04

SUBJECT: ELEVATOR USE DURING FIRE EMERGENCIES

DIVISION: EMERGENCY OPERATIONS

Objective: To assist Emergency Operations personnel in determining when to use elevators during fire emergencies, safety measures that must be taken and explain operation of elevators using the "Firefighters Operation" feature.

Section 1: Determining elevator usage during fire emergencies

- A. With the numerous safety features that have been built into elevators, a complete cable failure would not normally cause an elevator car to crash. However, the presence of fire, smoke, and/or water can make elevators a dangerous option in the event of a fire. In such a situation, Fire Officers must gather the following basic information before making the decision to use an elevator.
1. Presence of "Fireman's Operation" Feature. This feature is present on most elevators and allows firefighters to manually take control of the elevator with a key. Without the ability to over-ride the elevator controls, firefighters should avoid elevator use during fires. Elevators with automatic controls should also be avoided. If crews are unfamiliar with firefighter operations, take the stairs.
 2. Location of the Fire. Elevators are only to be used for fires on the 5th floor or higher. Often times it is quicker to use the designated stairway. Identify location of fire and designate attack stairway.
 3. Extent of the Fire - Use designated stairway if concerns exist of fire spread to elevator control systems or components. The fire may have originated in or reached the machinery room, compromising elevator controls.

Section 2: Safety Precautions that should be taken if a decision is made to use an elevator.

- A. As mentioned above, never use an elevator without the "Firefighter's Operation" feature.
- B. Before taking control of the elevator, attempt to verify the location of the fire.
- C. Inspect the Elevator Shaft. Prior to entering the elevator and periodically thereafter, inspect the elevator shaft for any fire, smoke or water conditions. Crews should stop no less than every five (5) floors to evaluate conditions. If any of these are present, notify Lobby Control discontinue the use of the elevators.
- D. Before entering the elevator, note the location of the attack and evacuation stairs. Should the car go to the fire floor and open, you must know which way to escape.
- E. Only one crew in a car at a time. If the car stalls, the crew will need room to force their way out or make an emergency exit.
- F. Every member entering the car shall be in full PPE with SCBA with face piece ready for donning. This ensures firefighters are ready should the car open on the fire floor.
- G. Elevator operator shall be in Full PPE, SCBA with face piece ready for donning. Inside the elevator the operator will have a set of irons, fire extinguisher, radio and flashlight.

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- H. NEVER GO DIRECTLY TO THE FIRE FLOOR. Stop a minimum of two (2) floors below the IDLH, and then make your exit. Proceed to the designated “attack” stairwell and initiate the appropriate method of fire attack as outlined in Tactical #10.
 - I. NEVER PASS THE FIRE FLOOR. This is a hazardous situation. If the car passes fire floor you could be trapped in the chimney effect above the fire.
 - J. NEVER USE ELEVATORS TO BASEMENT LEVELS. Stairways shall be used for incidents located in the basement or sub-basement.

Section 3: “Firefighter’s Operation” – Phases and Procedures

FIREFIGHTER’S OPERATION. Elevator Emergency Service systems are designed to prevent elevator use by building occupants and ensure that the building’s elevator system is controlled by fire department personnel. This feature provides emergency personnel the ability to gain control of the elevators immediately in the lobby, or designated level of the building as well as controlling the functions of the elevators inside the elevator car. “Firefighter’s Operation”, or “Fireman’s Service” as it is also known, allows firefighters to take elevators out of automatic operation and place them under manual control by emergency personnel increasing the margin of safety for firefighting personnel and the building occupants.

A. “Firefighter’s Service” Phases

1. Phase I (or Recall Phase): Phase I controls are normally located on the ground floor in the building’s lobby. Elevators may be recalled non-stop to the primary floor of recall either when the fire alarm system activates or when smoke is detected in an elevator lobby, hoistway, or machine room. Firefighters may also initiate Phase I control by using a key activated switch at the main floor (see Fig I).
2. Phase II (or Operational Phase): Is key operated when placed in the **ON** position, after Phase-I has been initiated, and will make the elevator operable only by the person inside the car. (see Fig II)
3. Phase III: Activation occurs when an alarm signal originates from a lobby/ first floor smoke or heat detector. The elevator cars will not return to the lobby, but will be recalled to a pre-designated floor other than the lobby (usually the second floor). The cars cannot be recalled to the lobby. Members must go to the designated floor to board the cars.
4. Bypass: Switching into “Bypass” mode will allow the elevator to be used in normal operations during system activation. This will only be used when the building is deemed safe but there is still enough smoke to actuate the fire alarm system.

B. Operations

1. The Lobby Control officer will be responsible for taking control of the elevator(s) and shall designate one person to control each bank of elevators in use by fire service personnel.
2. Activate Phase I of “Firefighter’s Operation” by inserting the key and turning the Elevator Recall key switch to the “ON” position. This recalls elevator(s) to the lobby or recall location. Note: Older elevators may use different terminology, such as Firemen Service.



Fig I: Phase I Elevator Key Switches

3. Remove the key from the “Elevator Recall” key switch, leaving the switch in the “ON” position.
4. Inspect elevator shaft, looking for fire, smoke or water conditions. If any are present do not use the elevator.
5. Determine location of stairwells in proximity to elevator lobby.
6. Inside the elevator car, insert the key into the Phase II “Firefighter’s Operation” switch. Turn the key to the “ON” position.



Fig II: Phase II Elevator Key Switches



Fig II: Phase II Elevator Key Switches

7. Press and hold the “Door Close” button until elevator doors completely close. When in Phase II operations, “Door Close” and “Door Open” buttons must be **held in** to activate the doors. They will not open and close on their own.
8. Press the “Call Cancel” button to clear any previously selected floors.
9. Select the floor button (two floors below the IDLH).
10. Crews must stop every five (5) floors to inspect elevator shaft conditions for fire, smoke, and/or water conditions. If any of these conditions are present, Command must be notified, the use of the elevators shall be immediately discontinued, and crews shall use the appropriate tactical stairway.
11. Press the “Door Open” button until the elevator doors fully open.
12. For initial operations, where a dedicated elevator operator has not yet been designated, the Phase II key switch shall be returned to the “OFF” position and the key left in place. This will place the elevator back in Phase I operations and return the elevator car to the lobby for use by additional crews. Once in the lobby, other crews can then return the elevator to Phase II operations by turning the key to the “ON” position inside the elevator. (Fig III)



Fig III: Turning the Phase II key switch to “OFF” will return the elevator car to the lobby.

13. Placing the Phase II key switch in the “HOLD” position will hold the elevator car at the floor. If placing elevator on HOLD for any reason notify the Lobby Control Officer and resume elevator operations as soon as possible.
14. Fire Helmet Indicator Flashing. When a smoke detector in the elevator hoistway or machine room has activated, the fire helmet lamp in the elevator car will begin to flash. This alerts the firefighters that are using the elevator that fire may be present in the hoistway or machine room, making the use of the elevator a risk to their safety. Immediately notify Command and discontinue the use of the elevator.



A blinking helmet lamp indicates smoke or fire has been detected in the elevator hoistway or machine room.

Section 4: Returning to Normal Operations

1. Return elevator car to lobby area or other designated area.
2. Turn off Phase II inside elevator car by turning key switch to the "OFF" position.
3. Turn off Phase I by turning key switch to the "Bypass" position and then to the "OFF" position.
4. Verify that elevators have returned to normal operations.

Section 5: Training

1. It is imperative that you familiarize yourself and your crew with the buildings in your area (or neighboring areas) and the types of elevators contained therein. There will be subtle differences between elevators and "Firefighter's Operation" panels and buttons. Don't let a lack of knowledge limit your options during a fire in a multi-story building. You may be the initial attack crew or assigned the Lobby Control responsibilities. Not knowing how to take control of the elevators could have a significant impact on the fireground.