

**Laconia Fire Department
Standard Operating Procedure**

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SOG Title: Response to Elevator Emergencies 207.06		
Approved by: Kenneth L. Erickson, Fire Chief	Re-evaluation Date:	Number of Pages: 3

Purpose: Our primary job at elevator emergencies is to safely remove persons trapped/stuck inside the elevator car.

Scope: Elevator Emergencies are becoming more frequent. Many times the response is quick and simple, the access key opens the door and people are removed, and crews go in service. Occasionally Elevator Emergencies become extrication rescues; this is a high-risk/ low frequency operation.

There are two types of operations: non-emergency and emergency.

- **Non-emergency** is a stuck elevator and passengers cannot get out and they are not in danger. These people are stuck inside and need assistance getting out. At this point they are generally not in danger.
- **Emergency** operations are stuck elevators and passengers are in danger or are in trouble. The emergency can involve a medical emergency, a person panicking, a fire in the building, a person stuck or trapped in the shaft or doors. This is entrapment and requires some form of extrication.

Fire Department Response:

- **Non-emergency operation** - Respond with two LFD companies.
- **Emergency operation** - Respond with a full shift two Engines, two Ladders, one Ambulance

One crew will go to the area where the elevator is suspected to be stopped to make contact with the occupants/victims. The second crew will go to the elevator control room for shut down/lock-out tag-out procedures.

If there is an occupant(s) trapped ensure that the elevator repair company is responding. If there is no occupants, but there was a stalled elevator ensure the elevator is shut down and that the owners call their repair company. The company will check every incident where a person was stuck in an elevator.

For Emergency Operations the additional units will stage outside and assemble extrication tools that may be needed to remove/extricate the victim. Active a recall or request a 1st alarm for coverage.

If the elevator technician is on-scene let that person handle the problem and we will assist that person. Building maintenance personnel are usually not qualified to remove passengers.

In general, we get involved with elevators and removal of people when the car has stopped for an unknown reason. It could be a power failure, malfunction of equipment, or a person has pushed the emergency stop button.

GENERAL OPERATIONS

Whether the situation is non-emergent or emergent, the same initial procedures must be followed:

1. Locate the elevator car.
2. Communicate with the passengers. Determine if there is an emergency. How many occupants are in the car? Was the Emergency Stop button pushed?
3. Determine if conditions are such that immediate removal is needed, or can we wait for the arrival of the elevator technician.
4. Inform the occupants of your plan of action.

Locate the car by looking at the floor indicator lights. Look for the car top or bottom by looking between the doors and walls of the elevator shaft. Listen for the occupants.

Communicate with the passengers. Advise them that steps are being taken to remove them from the elevator car. Ensure they are safe. Advise them to stand away from the doors, preferably stand or sit against the back wall. Ask how many passengers. Determine their condition but do not ask direct questions such as are you sick or afraid. Are the lights on? Advise the occupants that we may shut the power off to the elevator while we remove them as a safety precaution. The emergency lights should come on.

OCCUPANT REMOVAL

Non-emergency primary removal methods

If Emergency Stop is activated, ask passengers to deactivate the switch.

Have passenger press Door Open button. If the car is at a landing, the door may open.

Ask passengers to insure inner door is closed.

Push Lobby call button. Door may open.

Use Firemen Service

At the main lobby, insert Firefighter Elevator key. The key switch should be in the main lobby adjacent to the door. Turn the key from *Normal* to *Firemen Service*. The elevators should return to the main lobby and the doors should open. After the car responds or if it does not respond, return *Firemen Service* to *Normal* and remove the key. If the car responds the doors should open and the occupants can walk out.

If the car does not respond then go to Secondary procedures.

Secondary and Emergency removal methods in preferred order

Whenever secondary or emergency removals are performed, the power must be shut off. Disconnect the power and apply LFD lock out procedures. If lock out is not available a firefighter must stay at the power disconnect switch. Always shut off the power to the elevator car for any of these methods.

Start by shutting off the elevator power, waiting 10 seconds, and then turning it back on again. This may reset the system's computer allowing the elevator to work again. If this works and once the occupants are out the elevator shall be shut off and locked out so it can-not be run again until elevator company arrives.

Advise passengers that you must shut off power and that the car emergency lights should come on. Shut off power from main control room. Lock out the switch or secure the room.

Insert the elevator control rod into the hole in the outer door and rotate the rod to releases the outer door. After opening the outer door, open the inner door. Assist the passengers from the car. If necessary, use a folding ladder to assist passengers. Before allowing, anyone to climb in or out verify the power is off.

Another method is to ask passengers to assist in opening the inner door. Instruct a passenger to open the inner door by physically exerting pressure on the inner door and then pushing the door in the open direction. Advise that person which direction to slide the door (opposite the outer control buttons) If it opens, the passenger can then lift the locking arm or depress the rollers and the outer door will now open. This method will usually work if the car is within 18" of a landing. Open the door.

If passenger car is between floors, the passengers should be taken UP and OUT, if practical. This prevents people from falling down the hoist way. If this cannot be accomplished then the shaft must be protected and members and passengers must be attached to a rescue rope.

Locate the car. Go to the floor above and open the shaft doors. Place a ladder down to the roof of the car. Open the top hatch. Lower a folding ladder into the car. Send one firefighter in to the car to assess passengers and then assist in climbing out. Have one firefighter on the top of the car to assist in removal. At least one

firefighter is needed outside the elevator hoist way to assist in removal. If the lift is greater than 6 feet attach a safety line to the occupants as they ascend. This is a very difficult procedure and should not be performed unless absolutely necessary. Power must be off.

Emergency removal

Forcible Entry is a last resort and should only be used under the advisement of the elevator mechanic or in emergency situations.

Slide Type Doors.

Shut off power to the car. Keep passengers informed of your actions.

Air bags: Air Bags are preferred as they provide more coverage.

Use a halligan or other tool to make a small opening. Insert the air bag as close as possible to the latching mechanism, usually at the top of the door. Try to get the air bag centered for maximum and equal force. Slowly inflate the air bag.

Rabbit Tool – use similar method as air bags. Tool must have equal bite and tool must be flush with the door. Slowly force open the door.

Jaws of Life – last method of operation. Insert the tips into the door opening again near the latching mechanism. Slowly force open doors.

The Rabbit tool and Jaws may force the door off the track, which will slow the rescue operations now the door must be removed by firefighters. This is generally caused by lack of surface area when applying force.

Terminate the incident

Whenever we shut off power to an elevator, we will leave the power off until the elevator technician arrives and restores service. If doors cannot be closed then measures must be taken to secure the opening with physical barricades and fire line tape.

Always notify the property owner or manager of our actions and that the elevator is out of service until the mechanic clears the problem.