

Elevator Safety



January, 2009

State of Hawai'i, Department of Labor & Industrial Relations, Occupational Safety & Health Division
Boiler and Elevator Inspection Branch, (808) 586-9141,
http://hawaii.gov/labor/hiosh/boilers_elevators.shtml

The State of Hawai'i's elevator inspectors work to assure that the elevators in the state remain among the safest in the nation.

WHAT TO DO IF STUCK IN AN ELEVATOR

If you are stuck in an elevator between floors, and building security or staff gets the doors open for you, and reaches their hand out to pull you up and out, or down and out, *don't* do it. Modern elevators will not suddenly fall to the ground, but they will resume function and move at a normal speed to the closest floor. If you are between the elevator car and the doorway at the time the elevator starts to resume its travel, you may be seriously injured or worse.

Here's what you should do:

1. Push the "Door Open" Button – If you are near the landing, the door will open. You can slowly and carefully step out of the elevator. Be sure to watch your step as the elevator floor may not be level with the landing.
2. Remain Calm – If the door does not open, you are still safe. Do not try to exit the elevator. Wait for trained emergency personnel to arrive. Even if the air temperature feels warm, there is plenty of air circulating in the elevator and its shaftway.
3. Press the Alarm Button – This will signal to others that you are experiencing an emergency. Someone may respond to you and get the appropriate help.
4. Use the Available Communications System - Telephone or Intercom.



- The telephone or intercom will place a call to a party that is trained to take action, i.e. elevator company, alarm company, etc. Some newer systems will automatically give the exact location of the building and elevator you are in. For others you may have to tell them where you are. Don't be alarmed if you don't get a response as some are designed to only receive calls. Trained emergency personnel should arrive within minutes.
5. NEVER try to exit a stalled elevator car. It is extremely dangerous. ALWAYS wait for trained emergency personnel.
6. Sit down and wait for trained emergency personnel to arrive. You want to sit down to prevent losing your balance in case the elevator starts moving again.

To Help Someone Stuck in an Elevator:

1. Establish communication with the passengers inside the car by simply calling through the doors. Find out if anyone is injured or ill. Tell them you are calling for help, or have them use the elevator telephone or intercom system if they have not already done so.
2. Call the building manager or if unable to reach someone right away, call 911 to get help. Notify the dispatcher if medical personnel are needed.
3. Reassure the passengers that the elevator car is usually the safest place to be, and that they should not lean against the doors, damage the doors, or try to exit on their own. Tell them to stand clear of the doors and preferably have them sit down for their own comfort and in case the elevator suddenly restarts.
4. NEVER force the doors open. Attempting to force the doors open is dangerous because the elevator could resume travel without warning and seriously injure someone.

ELEVATORS ARE SAFE

Movies sell more tickets by sensationalizing the dangers of elevators; however, modern elevators today have a number of redundant safety features that help to reduce the chances of an accident. Some of the safety features include:

- Steel cables used to hold and move elevator cars are built to hold several times the weight of the elevator and its full load of passengers. State elevator inspectors check the cables for wear and tear at each inspection.
- The safety brake, together with a speed-sensing governor, acts to stop an elevator if it should overspeed in the down direction, i.e. the brake is automatically applied if the elevator starts to fall. State elevator inspectors check the brakes and the governor during the 5-year or 3-year safety test.
- Doors are equipped with sensors to prevent closing of the doors on persons or objects in the doorway, preventing the door from injuring people.
- Interlocks on the hoistway doors ensure that the elevator cannot leave a landing (floor) with the doors partially open. In addition, the doors cannot be opened unless the elevator car is within inches of a landing (For elevators installed after 1983). This is to prevent injury to passengers who may be tempted to try to exit the safe confines of the car prior to its arrival at a safe landing.
- Various switches in the elevator shaft detect the presence of the car along the hoistway to initiate slowdowns and stops at the proper levels to prevent stopping in between floors and uneven leveling of the cars at the landings.
- In an emergency, a passenger can activate the emergency alarm switch to notify others that there is someone in the elevator experiencing an emergency situation. In addition, an emergency telephone or intercom system is required so passengers can call for help. In the event of a power failure, emergency lighting and even emergency ventilation is provided.
- A fire recall system is required in most elevator systems, which prevent the elevator from being used if the fire alarm has been activated, and also sends passengers in the elevator at the time to a “safe” floor. Prior to these systems, building fires would cause the elevator to open on a burning floor subjecting passengers to dangerous smoke inhalation, or would immediately stop and trap the occupants in a burning building.