

# Trash Chutes and the Life Safety Code

by Joanna Ribner

hen considering fire and life safety codes in multi-story buildings, very few people think about the trash chute as being part of the equation. Even the most experienced managers may not realize that every part of the chute is governed by the Fire Code. The same rules apply to trash chutes in residential high-rises and laundry chutes in hotels and health care facilities.

Those of you who have lived in the 'frozen north' can relate to this analogy: A chute is like a gigantic chimney in the middle of your building. The fan on the top of the chute creates a vacuum-like effect—which actually sucks the dank, malodorous air out of the chute—which can draw smoke

and flames up the chute. Combine that possibility with the very flammable material inside a typical trash chute, such as grease, and the image of a horrible conflagration comes to mind.

There are four distinct areas of a chute: there is the bottom section, where the chute empties into the dumpster or compactor; there is the middle section, where residents access the chute through hopper doors; and there is the roof section. The fourth section is the wall, or chase, which surrounds the chute, which is also governed by code.

### The Bottom of the Chute

The bottom of the chute has a door, which used to be called a guillotine door. It is now called a discharge door—which eliminates the vision of Marie Antoinette that the word 'guillotine' conjures up!

Code requires that this door must be equipped with a lead fusible link, which will melt in case of a fire in the trash room. Once the link melts, it releases the door, which slides shut and seals off the chute. It is a simple mechanism but vital to the safety of the property.

There are also maintenance issues with this door. Unfortunately, the door makes life very convenient for your maintenance staff. They love to close the door when the containers are being swapped out on garbage collection days. That stops the garbage from falling on the floor. But if the discharge door is not opened in a timely manner, the weight of the garbage falling on it will cause it to bow in, which will eventually

damage the door. The links are also prone to falling off the doors, which will result in a citation by the Fire Marshall. Also, the doors are prone to rusting and denting. They should be cleaned and serviced twice a year at a minimum in order to keep them working properly.

Fires in the dumpster room are the most common of all trash chuterelated fires. There have been cases of arson where fires were deliberately

set in the dumpster, and reports of fires that have started because a resident threw a lit cigarette or a smoldering rag or a flaming candle down the chute. For under a thousand dollars, a property can be code compliant and protect its residents with a working discharge door.

#### The Middle of the Chute

The middle of the chute is the section from the ceiling of the dumpster room up to the top of the building. On each floor, there is access to the chute with a hopper door.

Code requires that these doors must self-close, self-latch, and have a 'B' Label UL rating of one and a half hours. This

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would protect the building in case of a fire within the chute itself, or one not contained by a working discharge door. If the hopper doors are working properly, they will only allow minimal smoke to seep out onto the residential floors. Smoke, of course, is the leading killer in a multi-story fire.

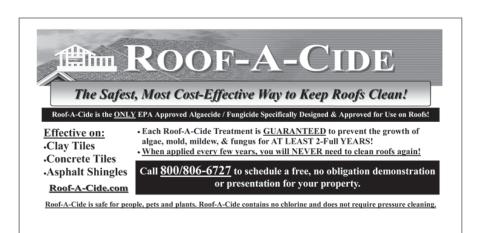


The 'B' Label rating means that the doors will not melt for one and a half hours. That buys rescue crews a lot of time to get a building evacuated and all the residents safely outside.

Another part of the code dictates that hopper doors can only open 65 degrees. The thinking behind that rule is that a small child would not be able to fit into such a small opening, and could not, therefore, fall down the chute. The opening does allow for a 'normal' bag of household garbage to fit through the door. It does not allow for pizza boxes, broken toilets, discarded strollers, or potted plants to fit through the door! Of course, many of the residents will stuff and cram and shove over-large items through these doors, resulting in broken closers. If they are strong enough or persistent enough, they can even shear off the welded housing that holds the closer, which means the door is no longer viable and must be replaced. Latches get 'gunked' up with grease and grime due to lack of regular maintenance, and handles get forced the wrong way. Most of the maintenance issues can be fixed with regular cleaning and lubricating.

#### The Top of the Chute

The top of the chute is the section that actually exits the building through the roof. Code requires that the chute is fitted with a vent cap and that the cap is at least 48 inches above the roof. This allows air to pass across the top of the vent. Without this, noxious fumes and gasses can build up in the chute. It would take a long time for these gasses to





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reach an explosive point. The smell of rotting garbage would probably cause an explosion of complaints from your residents first!

The vent caps are very vulnerable to strong winds. They are made of light aluminum, and because of their height above the roof line, they can blow off easily. After the 2004 and 2005 hurricanes and storms, we replaced literally dozens of vent caps! It is one of the first things maintenance should check after a storm. The good news is that they are usually under \$900 to replace.

#### The Chase Walls

The chase walls that surround the chute are supposed to be constructed of two-hour fire rated block. This is similar to the hopper doors—the block would contain a chute fire for at least two hours, allowing time to evacuate the building. Of course, older buildings do not have this type of construction. However, if and when you have to partially or entirely replace your trash chute system, the chase walls will have to be rebuilt to meet today's code.

So, the simple "tube" that runs through your building is not so simple, after all. The good news is that regular cleaning and maintenance can extend the life of all parts of the chute. Educating your maintenance staff is also good policy, so they can alert you to necessary repairs before the Fire Marshall alerts you!

Joanna Ribner is general manager of Southern Chute, Inc. in Hollywood, Florida. For more information, visit www. southernchute.com.