



OFF-CAMPUS

By Tim Knisely

June 2017

Trash Chute Fire Prevention:

Building owners and code officials work together to ensure that the buildings and systems are maintained in order to provide a safe environment for the tenants. And, to also make sure that the passive and active fire protection systems work when needed for when things go wrong. One item that can be easily overlooked is the trash chute and related systems. It doesn't take long to know that you may have a fire in a trash chute, as the 9-1-1 center will start taking calls from nearly every floor in a building advising of a fire. Or, that the corridors are

full of smoke and they can't leave their apartments.

The trash chutes are typically a 24 or 30-inch

shaft that runs from the top floor of a building, down to the dumpster at grade level, or below grade. Depending on the age of construction



#1 fire crews work to extinguish the dumpster fire that has extended into the trash chute. Smoke was evident from upper floor windows upon arrival. (Photo by Author)



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this chute may be protected by a sprinkler at the top of the shaft, or perhaps on every

other floor. The floor hatches on each floor may be located inside a trash room, or may be

in the corridor without any separation besides the hatch door.

Hopefully, the self-closing and latching feature is working properly.



#2 fire crews complete extinguishment and check for extension in the trash chute, as the rolling incline door was damaged. (Photo by Author)

One of the greatest weaknesses in a trash chute is the hopper door, or the rolling incline door. This door is located at the bottom of the chute where the trash enters the dumpster. When the fusible link melts this door is designed to close quickly and completely to seal the shaft. This door is often times disabled because it closes prematurely due to damage by falling debris. Or, the link is removed to make



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repairs or clear blockages in the shaft - then never reinstalled. Mostly, because the maintenance worker does not know the value of this working properly.

Next, we need to consider what is placed in the trash chute. Trash of course, but what is in one's trash. What chemicals, combustibles, smoking materials or other materials are now being mixed in the dumpster. Or, someone disposing of some charcoal in the dumpster or more smoking materials. Dumpsters are of course always a target for the arsonist.

When the fire occurs, you will know soon if the fire protection systems are working properly or not. In a perfect world, the dumpster fire will be contained. If not, you'll likely have fire spread in to the trash chute and smoke on most floors above. The sprinkler(s) in the chute may activate if the heat gets high enough. And, the smoke detectors on each floor will sound where the smoke escapes the chute. It will take some time for the fire department to extinguish the fire and check for extension, but even more time to clear the floors of the smoke. With proper maintenance of all building components a

dumpster fire can be contained, and not have it become a trash chute fire.

Tim

Tim Knisely is on the Board of Directors for The Center and the Senior Fire Inspector for the Centre Region Code Administration in State College, PA.

In this position he manages the Existing Structures Division that administers the fire and property maintenance code in all existing commercial and residential rental properties, and coordinates the life safety education for the community including off-campus and Greek housing.

Tim has been active with The Center for Campus Fire Safety since its inception and served as treasurer from 2007 to 2010.

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www.campusfiresafety.org

Published by The Center for
Campus Fire Safety.

www.campusfiresafety.org

978.961.0410 | [email](mailto:)