



**Carnegie Mellon University**

Environmental Health & Safety

FIRE | LAB | WORK

## Life Safety Equipment

The Carnegie Mellon University Campuses are filled with various life safety equipment designed to assist in protecting lives and property. These include systems designed to detect fire and alert occupants of the need to evacuate as well as systems that extinguish or suppress the fire until the fire department arrives. While Facilities Management and Campus Services conducts ongoing inspections, testing and maintenance of these systems to ensure they will perform when called upon, there are some things that you can do to help.

### Best Practices

- All life safety equipment and systems should be accessible and unobstructed at all times. This means never placing anything within 3 feet of a fire extinguisher, fire hose station, fire alarm pull station or any other equipment used during emergencies.
- Never cover or remove the smoke detectors in your area. These devices can fail to perform as designed when tampered with.
- Any time a fire alarm goes off, you should immediately stop what you are doing and exit the building. Even if you do not see or smell smoke, you never know when a fire could be burning in another part of the building.
- Storage should be kept a minimum of 18 inches beneath of all sprinkler heads within any room or area. Failure to do so can result in the obstruction of the water spray pattern needed to extinguish a fire. This can severely decrease the sprinkler head's performance, potentially rendering it useless.
- No items should ever be hung from a sprinkler head or the sprinkler system piping.
- Always maintain a heated environment during cold weather in areas containing sprinkler systems. This includes not keeping windows and exterior doors open for extended periods of time and reporting heating system failures to the Facilities Management and Campus Services Department.
- Report any holes in ceilings or missing ceiling tiles so that these can be fixed as soon as possible. Smoke detectors rely on the collection of smoke and fire sprinklers rely on the collection of heat to activate. When ceiling tiles are missing or when there are holes in the ceiling, smoke and heat can escape into the space above and delay the activation of these devices.

- Fire extinguishers should be inspected monthly to ensure that they are in proper working order.
- Never park in front of fire hydrants, fire department connections on buildings or in any designated fire lane. It is crucial that these areas remain accessible by the fire department for use during an emergency.

## Did you know?

Contrary to what we see on TV and in the movies, water does not come out of every sprinkler head on a fire sprinkler system when a fire occurs or if the building fire alarm goes off. In its simplest form, a fire sprinkler system has water sitting in all the pipes waiting to be called upon during a fire emergency. Each sprinkler head is closed and relies on heat to activate it. When the sprinkler head reaches a pre-determined temperature, a glass bulb or a fusible link breaks and releases the water that is sitting inside of the piping. This means that no water will come out of any other sprinkler head unless also heated to the same temperature. In fact, most fires are brought under control with as little as 2 or 3 sprinkler heads.



While we are on the subject of fire sprinklers, many people have expressed concerns over the years about water from a sprinkler system accidentally going off and causing water damage. While any piping system is subject to unexpected failures, there is no added risk of water damage when a fire sprinkler system is installed. Think about it...do you have the same concerns about all of the other water pipes in your building? Probably not. When properly installed and with an effective maintenance program, fire sprinkler systems present no additional threat of water damage than any other plumbing system that you use on a daily basis. The only difference is, this one may just save your life one day.

**Safety concern, training request, or other inquiry?**  
**Reach out to the Environmental Health and Safety Department today!**  
**[safety@andrew.cmu.edu](mailto:safety@andrew.cmu.edu)**  
**412-268-8182**