

FIRE SAFETY

IN POSTSECONDARY INSTITUTIONS

by Brandon Gilliland

As colleges and universities begin implementing a variety of safety plans for crisis situations, fire safety policies and procedures have become an integral part of preserving life and property. Not surprisingly, the most problematic areas related to fire safety for postsecondary institutions involve laboratories and residence halls.







Science laboratories, especially chemistry laboratories in postsecondary universities, pose a significant fire threat due to the presence of combustible chemicals. According to the National Fire Protection Association, college residence halls are also at a significant risk due to the number of cooking-related fires that occur. Because fires at colleges and universities often take place in large buildings, it is important that steps are taken to protect students.

Lab Safety

There are several options for ensuring safety in laboratories when unexpected fires occur. Fire extinguishers are often the first line of defense, but they can only be used to control small fires. If an explosion or flash fire were to occur, or if the fire spread too quickly for the fire extinguisher to control the fire, building-wide sprinkler systems could be used to help protect the building and its contents. Smoke detectors and fire alarms can be used to ensure that others within a building are able to escape before the fire consumes the building. However if a person were unable to get to a fire extinguisher, or unable to pull a fire alarm in time, sprinkler systems become extremely important because they can be used to help save lab workers as well as to protect the building from any fire that may otherwise spread out of control.

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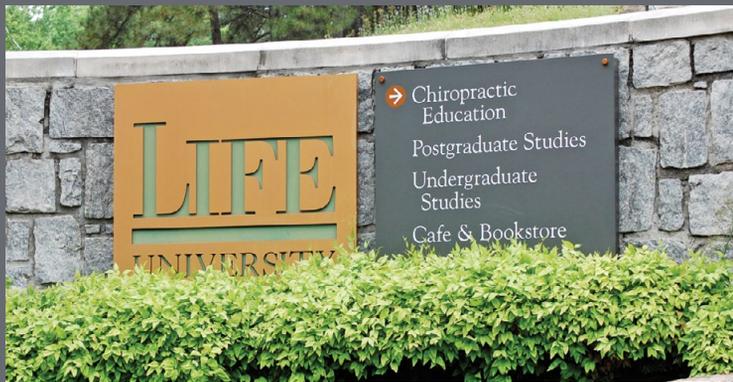
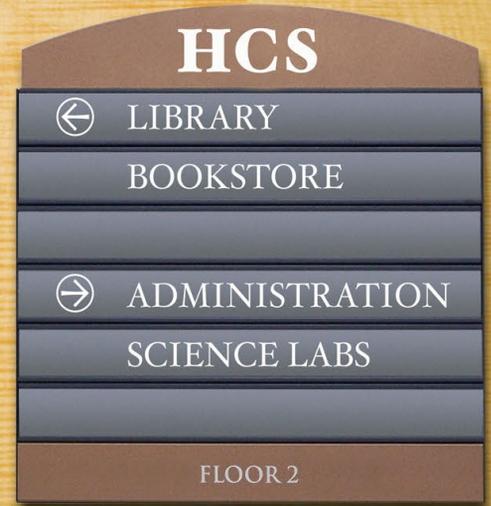
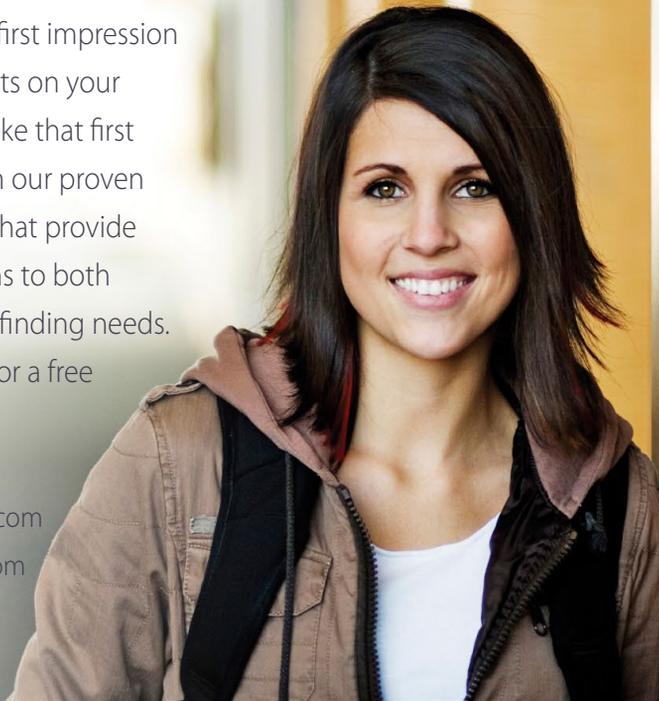


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Colleges and universities have begun to list their laboratory safety protocol on their respective websites. The purpose for making this information available to the public, in addition to their stakeholders, is to ensure that students and staff are aware of the steps and procedures used for each individual building. Posting information about the location of fire extinguishers and exits on their websites is meant to save lives. Lab fire safety plans are written to provide students with information about how to evacuate each specific lab, how to use fire doors, and how to operate other safety equipment such as emergency showers.

Fire Safety in Residence Halls

The National Fire Protection Association (NFPA) notes that there were over 4,100 structure fires in college properties from 2011-2015. Additionally, eighty-six percent of fires that occurred on college campuses were cooking-related fires from dorm rooms inside residence halls, as students begin to experiment with cooking. Fires on campus are often a result of students using frequently banned items such as candles or connecting too many extension cords into one outlet. Other fire hazards may occur when students attempt to disable fire alarms inside of their residence halls rooms in an effort to smoke without being detected.

A report from the U.S. Fire Administration, which is a part of the Federal Emergency Management Agency, notes that the most fires in residence halls happen overnight while many students are in residence and sleeping. Because of this, it is imperative for colleges and universities to add safeguards, such as sprinkler systems, locally placed fire extinguishers, and fire alarm access points across their campuses to ensure safety to life and property. There are no federal statutes that require college residence halls to maintain sprinkler systems, and while many states have laws requiring college residence halls to have sprinkler systems as a line of defense against fires, many states do not. This lack of preparation is exceedingly dangerous, as students may not be aware of the safety precautions that they assume are in place.

Fire Safety Plans

Private colleges and universities across the country publish their fire safety plans online in order to prepare faculty, staff, and students for evacuation in the event



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of an emergency. Buildings are required to complete fire drills according to the local laws, and these drills present an excellent time for schools to review the fire safety plans with people who regularly visit, work, or live in each building. According to the Occupational Safety and Health Administration (OSHA), in the event of a fire, regulations state that building occupants should train workers to respond to fires accordingly:

Remember the rule of “RACE”

R = Rescue/remove all occupants

A = Activate the alarm system

C = Confine the fire by closing doors

E = Evacuate/Extinguish

Many residence halls, fraternities, and sororities have fire safety rules regarding where students may store things within the building. Bicycles and other large items must remain in places that do not obstruct exits, and items may not be stored in stairwells. Students forgetting to turn off electronics is another potential hazard that must be addressed. Another issue that may lead to fire, according to the NFPA, is the use of adaptors for plugging three-prong appliances into two-prong outlets. This greatly increases the opportunities for electrical fires.

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Creating New Standards

The Lab Safety Institute has a digital memorial wall honoring the lives of those lost in laboratory accidents. Many of these deaths were due to fires and explosions within labs on campuses across the country. In order to slow or prevent the deaths of anyone else, steps must be put in place to ensure that faculty, staff, and students are safe in their work environments. Laboratory environments require special rules and procedures to ensure the safety of everyone, and having the proper equipment in an emergency situation can be the difference between life and death. By adding new laws and changing legislation regarding the use of sprinkler systems and other fire safety equipment in college residence halls and laboratories, universities can ensure that they are providing a safe environment in which stakeholders can both live and work.



ABOUT THE AUTHOR: Brandon Gilliland, Ed.D. is a ten-year veteran educator. His research interests involve school violence prevention and education law. He may be reached at brandongilliland@gmail.com.

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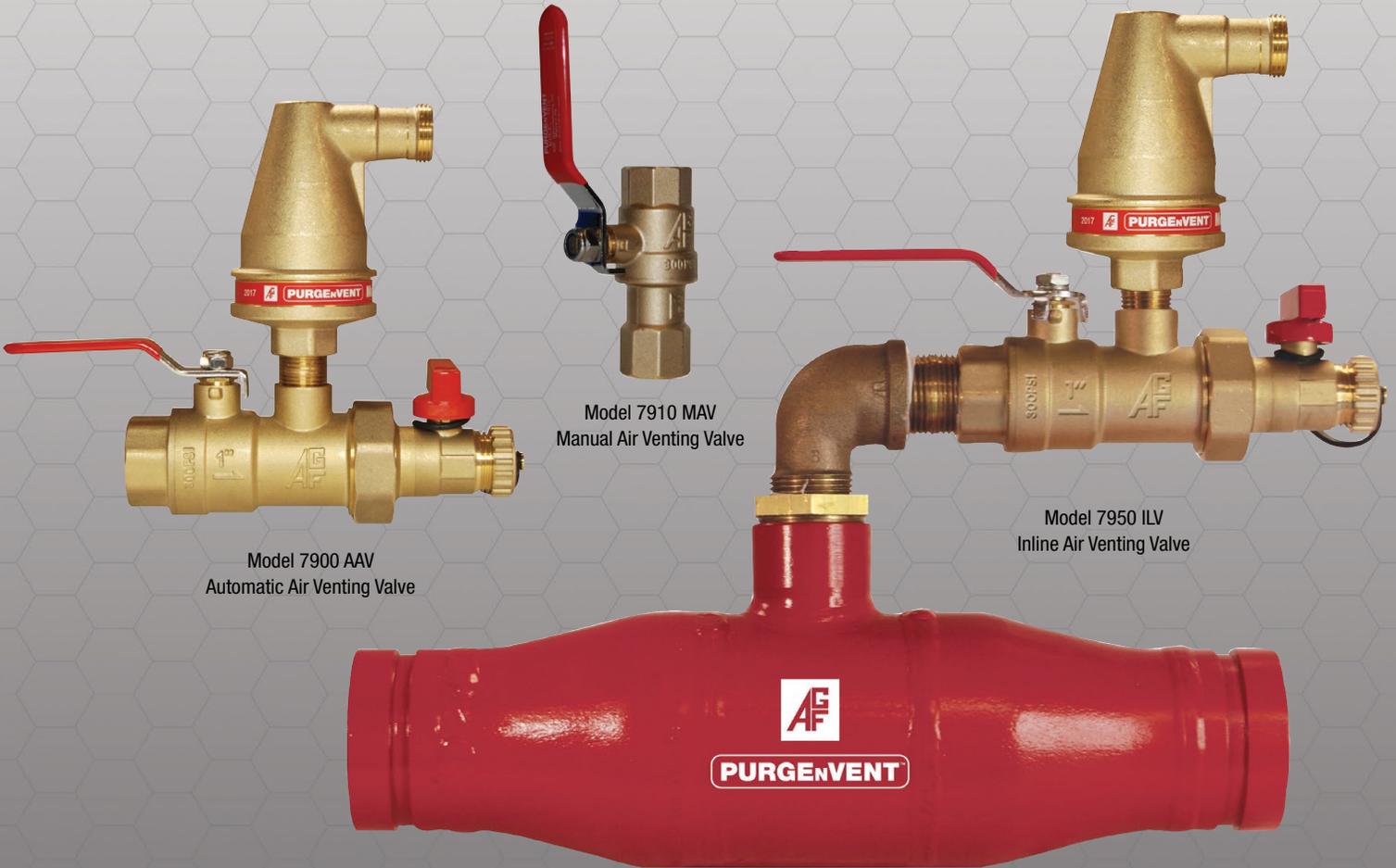
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