

### By Tim Knisely

March 2015 (reprinted from March 2008 issue)

# Cooking 101:

Food on the stove and grease fires are common responses for fire departments in off-campus housing communities. Like most fires and the associated responses, many could be prevented with a simple awareness to cooking basics - or Cooking 101.

incidents; including inexperience with the appliance and alcohol impairment. Once the student moves out of the residence hall there is no limit as to the type of appliances available. This could be a gas or electric range, microwave, frying pan or deep fryer, charcoal or gas fired grill, turkey fryer and many others. This is also where the introduction of alcohol

the heat source to remain on. Another hazard is when these fires occur and are extinguished by the occupant, never notifying the fire department. The smoke alarm may be disabled to silence the noise and the occupants think everything is okay and go back to sleep. When these fires are not extinguished completely, it spreads



FROM THE FRYING PAN TO THE FIRE

The Fire Problem:
Cooking fires are a
leading cause of fires in
any household, but
several factors increase
the frequency of offcampus cooking

and the late night munchies can increase the chances for a cooking fire. Late night cooking often goes bad when the chef is distracted or falls asleep allowing the food to cook unattended or

unknowingly to nearby combustibles or to the cupboards above the stove. Since the smoke alarms may be disabled the next notification of this fire might not be until the smoke reaches the corridor, or



## By Tim Knisely

March 2015 (reprinted from March 2008 issue)

hopefully the sprinkler in the kitchen will activate.

In addition to the item being cooked beginning to burn; items stored on or near the stove top are also easily ignited. This could include potholders, wooden utensils, pizza boxes, paper and anything else that can burn. Many times countertops are covered with paper or foil to protect the surfaces from the grease buildup adding another fuel awaiting a fire.

Outdoor cooking appliances typically don't usually pose a risk when used properly. However, using a propane or charcoal grill on a combustible deck, under a roof or a few inches from the vinyl siding create an exposure problem. Turkey fryers can be dangerous at any time and the use should be discouraged by the property owner.

Raising the Awareness:
As with many other
hazards that come with

living off-campus, property owners should provide guidance to the

This could include how to properly use the appliances, how to





new occupants about the appliances in the house or apartment.

maintain the kitchen in a clean and safe manner and how to report any



## By Tim Knisely

March 2015 (reprinted from March 2008 issue)

deficiencies. This seems really basic and redundant, but experience tells us that this knowledge is lacking.

If not required by local codes, a fire extinguisher should be installed in each kitchen. Occupants need to be taught the proper use of the extinguisher as well as determining when to use it and when not to. The extinguisher needs to be displayed in a visible location, not in a cupboard or closet. Other methods to extinguish a stove top fire should also be provided to the occupants, such as using a lid or baking soda. It is especially important to teach the proper way to handle a grease fire. Burn injuries are often received while trying to carry the pan outside and the burning grease splashes out or someone puts water on the burning grease. Not everyone knows that you can't put water on a grease fire.

Make sure occupants are instructed to call 9-1-1 and begin evacuation before attempting to use the extinguisher.

If someone is in doubt if

microwave or oven, turn off the power and keep the door closed until the fire is out. Never reuse an appliance following a fire until it has been



the extinguisher will be effective then get out and close the door on the way. Always make sure they have a clear path to the exit. Also, once the extinguisher is discharged the visibility will be quickly diminished making it more difficult to locate the exit. Occupants should also

Occupants should also be instructed that if a fire occurs inside a

evaluated by the property manager.

Detection and Suppression Systems:
Automatic sprinkler and suppression systems are the best type of protection available for kitchen fires and for cooking equipment. These systems operate automatically in the event of a fire and can be connected to the



## By Tim Knisely

March 2015 (reprinted from March 2008 issue)

building fire alarm system. While this type of protection is very effective, don't expect owners to retrofit these in existing buildings due to the cost. However, there are some other effective options. There is a fire extinguisher that mounts under the range hood or the microwave/hood combination. These units are held in place by a magnet and are activated by a fusible link. Detection systems such as smoke alarms, heat detectors or fire alarm systems will activate from smoke or heat. These systems will alert the occupants of the condition and some are connected to a central station alarm service. Newer types of systems available include a smoke detector that installs inside a microwave oven and disconnects the power when the alarm detects smoke inside. Another type of device utilizes an extension cord that is connected to a smoke alarm. When the smoke

alarm sounds the power to the cord is terminated and anything plugged into the cord will be deenergized. Inspectors frequently find smoke alarm batteries closest to the kitchen with the batteries removed. Occupants report that the smoke alarm sounds while cooking, causing them to remove the batteries. Others in an apartment building may choose to ignore the building fire alarm because it always sounds during the dinner hour or late at night. To address this, the first step may be to move the smoke alarm as far as possible from the kitchen. This may not always be possible if a bedroom is located near the kitchen. Consider the installation of a photo electric smoke alarm in this instance that is less likely to activate from steam from cooking. Newer smoke alarms feature a "hush" button that will silence the alarm when accidentally activated.

If the smoke condition remains for a period of time, or gets worse, the alarm will again activate.

#### More Information:

There are a number of training programs and videos available for fire extinguisher training and the technology is constantly changing.

If you have a unique training program that you'd be willing to share with others, please contact me.

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.



By Tim Knisely

March 2015 (reprinted from March 2008 issue)

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

He is a frequent presenter at Campus Fire Forum, an instructor for the Fire-Wise Campus program and served as project manager for Campus Fire Data.



Published by: The Center for Campus Fire Safety.
<a href="https://www.campusfiresafety.org">www.campusfiresafety.org</a>
978.961.0410 | email