



**Review of Panel Forum
Conducted at
Columbus Convention Center
On March 4, 2013**

Sponsored and Produced by: Live Safe Foundation in collaboration with Campus Fire Safety COM, and Em2's panel of subject-matter experts.

At the 10th Anniversary Campus Fire Safety, Security & Risk Management Professional Development Conference & Expo the Live Safe Foundation joined forces with Campus Fire Safety to host and moderate a 1-hour breakout panel session entitled *"Permanent Solutions for Fires and Nuisance Alarms on Electric Ranges and Microwave Ovens"* on the topic of engineered solutions for fire safety and fire risks, especially cooking fire prevention.

The panel discussion was designed to deliver a multi-perspective understanding of the dramatic and permanent fire solutions now being widely implemented in campus-related kitchens and dorm rooms across the country. Well-credentialed panelists from insurance, university, and fire-protection discussed the scope of the problem and the impact of kitchen fires and nuisance calls on schools and the surrounding community. Each panelist brought something distinct to the session as they shared their unique take on the value and success of engineered solutions for kitchen fires and nuisance calls.

Panelists included:

- **Brian J. Foy** – Willis of Ohio, Inc., Vice President, Commercial Property & Casualty Department
- **Brent Auken** – Ohio University, Athens, Ohio, Fire Protection Engineer Environmental Health & Safety
- **Christopher Hartnett** – University of Miami, Florida, Associate Director for Residential Life
- **Steve Rucker** – Sandusky Fire Department, Ohio, Fire Safety Inspector, Bureau of Prevention & Risk Reduction

Before an attentive group of 22, panelists shared details of their personal experience with engineered solutions that prevent fires in the kitchen, and attendees had the opportunity to understand how HEHLT (high end heat-limiting technology) and microwave sensors work, that they *do* work, and that they're being used widely already. More than a few eyebrows were raised as panelists shared the impressive performance history of these engineered solutions.

Insurance Perspective — Brian Foy / Willis opened the session with an illuminating discussion of how cooking fires and nuisance alarms are extremely expensive. Engineered solutions that prevent kitchen fires save not only lives, but prevent a chain of financial loss. When engineered solutions like heat-limiting burners are deployed it's not just that fewer fires occur. When a fire is prevented from starting, the savings are dramatic. Insurance companies spend far less in claims, consumers and institutions see their insurance rates drop, and colleges are not forced to defend injury claims as targeted responsible





parties. So, from the insurance industry's perspective there are *enormous* economic efficiencies associated with technology that prevents fires from starting in kitchens.

Moreover, according to Foy, every property owner and manager ought to very closely examine all options available to them in this regard, especially engineered heat-and-smoke-sensing technologies. And if they don't, now that these engineered solutions are readily available, property owners will likely find that they've exposed themselves to significant additional culpability and liability for not offering or implementing them. The simple fact is that preventing fires through these engineered solutions also prevents escalating wrongful death and injury claims for prospective defendants.

University Perspective — Two Universities (Ohio University & University of Miami) showcased their kitchen-fire strategies, which include engineered solutions that are reducing and eliminating both electric stove and microwave fires.

Brent Auker of Ohio University explained to the group in some detail the steps Ohio University has taken to reduce nuisance alarms and fire department runs to campus. After analyzing FD run data and researching available technology OU elected to install Pioneering Technologies' Safe-T-Sensor® for microwave ovens (sensor power control technology—SPCT) throughout the campus, and succeeded in funding the program with a FEMA FP&S grant. Auker explained the logistics of implementing, maintaining, and inspecting the devices, and the dramatic success the university realized.

Between 2007 and 2010 burnt food events in microwave ovens were the leading cause (22%) of fire-department runs to the OU campus. The result of the Safe-T-sensor®

Pertinent Points and Questions from and Insurer's Perspective:

A. **What if I make the decision to do nothing in my apartments, a fire ensues and multiple injuries take place?** If after a kitchen fire loss causing bodily injury occurs, and an apartment owner, or a property manager is deposed and questioned if they had knowledge of a fire suppression/prevention system(s) which could have been offered, and were not, the exposure to a heightened level of financial loss by the plaintiff could be made.

B. **Is my culpability raised because of this? Could someone come back at me for making this decision?** If I decide to do nothing to limit my kitchen fire losses, especially if I know a specific resident may be at risk (i.e. senior, visually impaired, etc.), and a loss ensues, then the plaintiff could focus on my failure to act as a reason for the injury caused to the resident or guest.

C. **Eliminating fires and nuisance alarms does more than limit damages—it protects residents, and reduces liability for the University.** A kitchen fire in an apartment exposes residents to many injury types: smoke inhalation, injury during evacuation, heart attack (exacerbated by the emergency), property damage / loss. Wrongful death claims can escalate to millions of dollars, especially when multiple injuries occur. When fires occur in non-sprinklered facilities, the injury and loss are even greater. Failure to protect residents, even from their own mistakes, not only leads to injury, but the financial impact can far exceed the limits of insurance coverage.



Installations, and the cooking fire safety education provided when the devices were installed, was a 92% reduction in fire-department runs to campus in 2011 compared to 2010. Ohio University has now installed 4,479 sensors and expects this trend to continue.

Mr. Auken concluded by stating that OU's deployment of the Safe-T-Sensor® on microwave ovens on its campus has been a fabulous success on all levels, and he strongly encouraged all colleges and universities to adopt similar engineered solutions campus wide.

Christopher Hartnett of University of Miami (Florida) walked attendees through UM's experience in implementing another engineered solution produced by Pioneering Technologies, the Safe-T-element® or (High end heat limiting technology) HEHLT, a device that automatically prevents burner temperatures from exceeding safe limits and shuts them off. In UM's case, the Office for Residential Life managed the installation of approximately 300 Safe-T-element® devices on all stove burners in student kitchens in its newly constructed University Village, a student-living complex housing 800 students. UM applied for and received a \$100,000 FEMA grant to purchase and install the devices.

Like OU, UM's implementation program also required the training of students and janitorial staff in the use and maintenance of the Safe-T-element® devices; but it went a step further by actively engaging students in the fire-safety educational process, byproducts of which were:

- A student-produced Cooking Fire Safety PSA/educational video highlighting the dangers of fire and the value of fire prevention, safety education, and engineered solutions like the Safe-T-element®.
- Instructional flyers posted in student kitchens.

High-end Heat Limiting Technology (HEHLT):

HEHLT for electric coiled cooking devices is being made mandatory and/or law in jurisdictions throughout North America.

Stovetop cooking operations can quickly reach temperatures that greatly exceed the auto-ignition temperature for cooking oils and common household materials. These high temperatures are not necessary for safe, efficient and effective cooking.

HEHLT consists of a device that is hard wired (tamper proof) into electric coil ranges that limits the high-end cooking temperature to help prevent auto-ignition of common cooking & household materials.

Numerous state and provincial fire chief and fire marshal associations have recently passed Resolutions supporting **HEHLT**.

Some underwriters look for industry studies on technologies before they offer rate reductions. The Consumer Products Safety commission has now released a study verifying that HEHLT is a commercially viable method to reduce fires. There are now a number of other independent studies available that reinforce (HEHLT) as a viable prevention technology. Along with the CPSC, these studies include NFPA, Vision 20/20 and the International Fire Chiefs Association.

The **Safe-T-element®** cooking system for electric-coiled ranges is engineered to help prevent cooking fires & save energy by delivering high-end heat limiting technology. The **Safe-T-sensor®** is a retrofit sensor powered technology (SPCT) developed for microwave ovens. It works with a sensor that magnetically attaches above the vent and shuts off at the first sign of smoke.



See the student video here:



Mr. Hartnett reported that the process succeeded in generating intense awareness of the engineered solution and fire safety, and demonstrated the effectiveness of such devices. In UM's experience since the devices were installed cooking fires have been reduced to zero, as have fire department false alarm runs.

As a result of their successful experiences with these technologies both universities' environmental health and safety departments plan to continue efforts to acquire and install such devices and ongoing education of new students stressing the importance of using these devices and fire-safety awareness. They also plan to make the devices available through campus stores.

First Responder Perspective — Steve Rucker of the Sandusky, Ohio Fire Department shared the experience of first responders and addressed the scope of the false-alarm problem, and the value of risk reduction through engineered solutions to the community. In particular Mr. Rucker explained the significant impact of false alarms and FD runs on the community budget and its burden to taxpayers. Depending on the circumstances of a community, Mr. Rucker stated that as many as one-third to one-half of calls to fire departments are false alarms, and many college fire-safety educational programs don't seem to have any measurable positive effect on false-alarm statistics in those communities.¹

In addition to the cost of each of these false alarm fire runs (hundreds or thousands of dollars each), Mr. Rucker reminded the audience that false alarms also generate hidden costs for first responders and their communities, including:

- Increased risk of injuries.
- Reduced readiness and ability to cover *entire* community's needs, due to unnecessary runs to facilities with high false-alarm rates.
- Consumption of scarce resources.
- Dangerous alteration of basic response criteria to control costs.

¹ According to Mike Halligan, Em2 Conference participant, University of Utah, the International Association of Fire Chiefs, Fire and Life Safety Section formed a task group to analyze the characteristics of the home fire problem, assess the potential of various protection technologies to reduce these fire losses, and develop recommendations to reduce these fire losses. This report summarizes the task group's work.

"Protecting Life and Property and Reducing Injuries from Fire Originating on Home Ranges, prepared by the International Association of Fire Chiefs" See it here: http://www.iafc.org/files/1FIREPREV/flss_ResidentialRangeTopSafetyReport.pdf





Mr. Rucker stated that communities should do everything they can to reduce false fire alarms, and noted that resolutions in support of engineered solutions that prevent false alarms have recently been passed by numerous state and provincial fire chief and fire marshal associations. He also advocated that governments at all levels should adopt legislation requiring or encouraging the use of such technology, especially in institutional settings where high false-alarm rates are most common.

Conclusion — Through the expertise of the four panelists, and several pointed questions from the audience, all present were provided with sufficient insight to walk away thinking “how can I implement these engineered solutions in my community?”

Live Safe believes that the panelists’ knowledge, interests, experience, and perspective brought special value to the session topic and appreciates their participation in expanding the base of fire-safety knowledge.

Jill Marcinick & David Speaker
Moderators— Em2 Roundtable Exchange 2013

About the Live Safe Foundation: The Live Safe Foundation is a non-profit organization (501c3) based in Dublin OH devoted to making fire-and-life-safety education, awareness initiatives, and life-saving tools available on a broad basis to communities, campuses, and institutions. Its objective is to reduce fire fatalities and fire losses; its mission is to enable individuals, through preparation and training, to improve their ability to avoid and survive fires. For more information, visit www.live-safe.org.

Details about some of today’s engineered fire solutions are available at *Pioneering Technology Corporation*, Laird Comber, lcomber@pioneeringtech.com .

EM2 Panel Discussion

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