

Pioneering Technology SMARTBURNER™ Case Studies

Three High-Risk Occupancy Case Studies Use SMARTBURNER™ Technology with Significant Life-Safety Results



Cooking is responsible for almost half of all reported home fires in the U.S. As fire departments strive to achieve Community Risk Reduction (CRR) in their jurisdictions, many are incorporating proven cooking-fire prevention technology in their educational outreach.

It's a smart strategy. According to the National Fire Protection Association (NFPA),* cooking is the leading cause of reported home fires and home fire injuries in the United States and the second leading cause of home fire deaths. Households that use electric ranges have a higher risk of cooking fires and associated losses than those using gas ranges. Ranges or cooktops were involved in 78% of cooking fire injuries and 87% of deaths.



When local CRR fire risk analysis identifies housing with increased emergency response to reported cooking fires, it makes sense to invest in and direct a strategic prevention response for those occupancies. This is especially effective when residents are among high-risk populations: Older adults: people aged 55-64 had the largest share of U.S. home cooking fire deaths, and those 85 and older had a risk of dying in a cooking fire that was 5.5 times greater than the overall population. Young adults: people aged 20-34 experienced the highest rate of cooking fire injuries. And males have slightly more than half of all home cooking fire injuries and deaths (NFPA).

Combining education with proven prevention technology is a winning solution to cooking fires. That's why many fire departments are advocating the installation of SmartBurner's temperature limiting control (TLC) technology, especially in public housing, low-income housing, student and senior housing and other occupancies with high-risk residents.

SmartBurner's technology has been successfully installed more than 1.5 million times, with **zero** reported cooking fires where this technology was in place. These public safety installations benefit property owners, residents and the fire service.

*Home Cooking Fires, NFPA, Marty Ahrens, July 2020

Three CRR Success Stories

Worcester, MA

Partners: Worcester Fire Department and Worcester Housing Authority (WHA)

Campaign: "A Recipe for Fire Safe Cooking" program - implemented with FY 2015, 2016 & 2020 Federal Emergency Management Agency Fire Prevention & Safety Grant funding

The Worcester Fire Department's CRR fire analysis identified four WHA high-rise buildings that were responsible for nearly 25 percent of all of Worcester's reported cooking fires in 2015. These buildings accounted for an average of nearly 12 fires per month, causing more than \$500,000 in property damage. The apartments housed low- to no-income older adults, most of whom had physical or mental disabilities that increased their fire risk.

The program combined education and training of property managers and residents with the installation of SmartBurner™ in the WHA apartments. There have been zero fires where SmartBurner was in place. Remarkably, there were two fires in units where the SmartBurner was removed by the tenant. That, in turn, has prompted the WHA to implement Standard Operating Guidelines to help ensure that the SmartBurner is never again removed by tenants.

After the first phase of installations, there was a documented 96% reduction in cooking-related fire department calls. As well, following a stovetop fire in a different WHA complex that destroyed two WHA apartments and displaced four residents, a grant amendment allowed the fire department to retrofit an additional 60 units.

The Worcester Fire Department was awarded a fourth FEMA grant in 2020 that completed the installation of SmartBurner in additional WHA properties equipped with electric coil stove tops - a final total of 3000 units.

Wilson, NC

Partners: Wilson Fire & Rescue Services, Wilson Housing Authority, North Carolina Association of Fire Chiefs, Southeastern Association of Fire Chiefs and Wilson County

Campaign: Pass a city ordinance to mandate cooking fire prevention technology and install it in all tax-supported housing

After a fire analysis showed that Wilson's residential cooking fire problem was higher than the national average, local fire safety advocates partnered with the Housing Authority and local politicians. Together they achieved passage of an ordinance requiring all electric coil cooking devices in publicly funded housing be equipped with listed "temperature limiting control" technology by the end of 2016.

Since passage in 2011, Pioneering Technology's SmartElement™ (aka Safe-T-Element™) and, more recently, SmartBurner, have been installed in Wilson public housing units. To date there have been no reported stovetop cooking fires in the equipped buildings. In response to this success, the Southeastern Association of Fire Chiefs passed a resolution supporting available technology for reducing fire loss and injury from stovetop cooking fires.

Gwinnett County, GA

Partners: Gwinnett County Fire & Emergency Services (GCFES), Gwinnett Christian Terrace, Gwinnett County Senior Services and Friends of Gwinnett Seniors

Campaign: "SeniorBSafe" Community Risk Reduction initiative - a fire and injury prevention program focused on older adults

Cooking fires are the predominant cause of fire in Gwinnett County, representing more than 52% of all structure fires in one- or two-family dwellings and 48% in other residential occupancies. A fire analysis covering seven years showed that the six-story Gwinnett Christian Terrace was experiencing between two to four reported cooking fires per year. The 125-unit complex houses older adults.

To protect this high-risk population, GCFES partnered with Friends of Gwinnett Seniors to conduct a pilot project in 2015 to install SmartBurner in all 125 apartments. A review five years after SmartBurner was installed found there had been no reported stovetop cooking fires at Gwinnett Christian Terrace.

The cost of the project was \$25,000 with Friends of Gwinnett Seniors splitting the cost with Gwinnett Christian Terrace. The fire department put the two parties together and brokered the deal after conducting a formal risk assessment, proof that data from a formal risk assessment can help support these types of partnerships. A few years after SmartBurner was installed, Friends of Gwinnett Seniors stated that this was the best and most measurable project for creating goodwill that they have ever done.

The success of this project paved the way for the retrofit of SmartBurner in hundreds of additional high-risk seniors' homes in the County. SmartBurner installation now plays an integral role in the GCFES multi-hazard SeniorBSafe CRR initiative.

You can incorporate this life-saving technology into your CRR program too. SmartBurner easily replaces electric coil burners and helps prevent cooking fires. The prevention solution provides a return on investment through insurance savings, energy savings, and maintenance savings as well as preventing the high costs of restoration and lost-rent when fire occurs. Learn more at preventcookingfires.com.

