

EMHA Success Story

HOW INSTALLING PIONEERING'S COOKING FIRE SOLUTION HELPED SAVE PROPERTY, LIVES, AND MONEY.

Stove top cooking is the leading cause of household fire throughout North America. In 2011 U.S. fire departments responded to an estimated 156,300 home fires involving cooking equipment. These fires caused 470 deaths, 5,390 injuries, and \$1.0 billion in direct property damage. According to Facts and Figures from NFPA's Cooking Fires 2010, cooking caused 44% of reported home fires in the U.S., 16% of home-fire deaths, 40% of home-fire injuries, and 15% of the direct property damage in 2010. In fact, 68% of all home cooking fires involve an electric cooking range. **Cooking left unattended is the number one reason for these fires. Shockingly, statistics reveal that 43.4% of all stovetop fires occur in multi-unit residences and that 63.2% of stovetop fires are in subsidized units.**



Three years after EMHA and Sandusky Fire partnered to reduce the number of stovetop-related fires in low-income and senior multi-family housing in Sandusky, Ohio, the results speak for themselves. Zero cooking fires and thousands of dollars saved.



THE PROBLEM.

Erie Metropolitan Housing Authority (EMHA) serves Sandusky, Ohio citizens by operating multiple public-housing properties, providing and maintaining safe, affordable housing. Sandusky's EMHA also administers rent-supplement programs assisting Sandusky families in renting over 1,000 private housing units. Overall, the agency currently provides or arranges safe and affordable housing for thousands of residents. EMHA sought to increase resident comfort, reduce fires, reduce utility expenses, and promote sustainability. In 2012 Sandusky Fire Department Inspector Steve Rucker secured a Red Cross grant to fund smoke detectors for Sandusky's low-income residents and seniors. **While deploying grant**

funds, Sandusky Fire responded to an unattended cooking fire at EMHA's "Community Plaza" (a senior residence), which focused Inspector Rucker's attention on stove-top related fires, particularly in low-income and senior housing. Rucker quickly concluded that Sandusky, like every other U.S. community, suffers from a significant risk of cooking fires often because of unattended cooking.

THE SOLUTION.

After identifying the problem's scope, Inspector Rucker approached EMHA's Director of Maintenance, Randy Richmond, with a proposal to use part of the Red Cross grant to purchase and install an engineered solution to address recently documented stove-top fires. **He proposed retrofitting**

SmartElement (also known as Safe T Element) onto electric coil ranges in all 29 units of EMHA's Community Plaza, the site of the senior living cooking fire.

Sandusky Fire and EMHA turned to Pioneering Technology and its cooking fire prevention solution for electric coil stoves as a way to reduce fires and the costs associated with emergency response, repair and restoration. SmartElement (like SmartBurner) is a device that automatically prevents temperatures on electric coil stoves from exceeding safe limits. The product solution cycles on and off during cooking, thereby limiting temperature to below the auto-ignition point of most cooking oils. This patented cooking system also reduces the amount of electricity required to

cook, which in turn delivers energy cost savings to property owners. SmartElements were installed in the 29 senior living Community Plaza building in October, 2012. The joint effort between EMHA and Sandusky Fire included a product orientation for residents and a general cooking-safety awareness campaign.

THE RESULT.

Sandusky Fire and Erie Metropolitan Housing reported a dramatic reduction in cooking fire incidents as well as savings in energy and water consumption.



The Initial Result — In looking at the data for the 29-unit senior living building (Community Plaza), here's what Inspector Rucker concluded: "In the five years preceding STE (SmartElement) installation, Sandusky Fire responded to one cooking-related fire and two burned-food events, for a total of three responses. Within the first year after STE installations, we responded to "zero" fires or smoke-detection activations due to burned food. I attribute this to the advancement in technology and the education of residents."

EMHA's Response — In November 2012, after the initial installation at the Community Plaza, EMHA Director of Maintenance Randy Richmond authorized the installation of SmartElement (aka Safe-T-element) in all existing EMHA public housing. This included 76 single-family units plus an additional 134 Public Housing units. In all, 239 housing units were outfitted with Pioneering's cooking fire prevention solution.

First Three Years - In the five years before the SmartElement installation, all of the EMHA properties reported a total of 10 cooking fires, including one instance that resulted in a total loss of a single-family dwelling. **In the first three years after the SmartElement installation, all of the EMHA properties reported zero cooking fires.**

Energy Savings — Beyond fire protection, SmartElement reduces energy consumption by 25 to 35 percent. **Through**

the installation of 239 SmartElement units, EMHA benefits from annual energy savings of more than \$7,000 (\$30/stove/year).

Water Savings — An additional benefit of cooking fire prevention surprised Randy Richmond, EMHA's Director of Maintenance: "We saw the safety value of Safe-T-element (aka SmartElement) immediately and **are absolutely convinced it has prevented fires, which is why we expanded it to all our other properties.** We are very happy with the results and our ability to provide a safer environment for all our tenants. Not only does the product save energy, but surprisingly **we also identified significant savings in water usage of \$5,000 in the first year after all installations.** After analyzing all water usage before and after STE installation we discovered that because our fire sprinklers are metered, and since we had no sprinkler activations, the savings were a direct result of no fires."

FINAL WORD.

The SmartElement installation at EMHA properties was a tremendous success on many levels. The partnership between Sandusky Fire and EMHA has helped keep property and people safe from cooking fires – the leading cause of home fires and fire related injuries. It has helped the EMHA to save on energy and – surprisingly – water consumption. With literally thousands of dollars in savings each year, this cooking fire prevention program will quickly pay for itself and continue to deliver a significant Return on Investment (ROI). **Sandusky Fire and EMHA acknowledge the success of collaborating with Pioneering Technology and recommend that others do the same.**

You can see Inspector Steve Rucker speak about the success of the EMHA program [here](#).

KEY TAKEAWAYS

SmartElement = Significant ROI

The installation of SmartElement (aka Safe T Element) in EMHA's properties resulted in immediate and significant benefits.

Five years prior to installation: 10 cooking fires, including one total loss fire.

Three years after installation: **No stove top fires; No property loss; No Injuries.**

Energy Savings: ~ \$7,000 per year.

Water Savings: ~ \$5,000 per year

Sandusky EMHA's Director of Maintenance Randy Richmond, identified the following results:

- Significantly reduced the cooking-fire problem.
- Avoided expense of repairing units damaged by fire.
- Eliminated expensive fire-department runs.
- Enjoyed big water and electricity savings annually.
- Sandusky EMHA will recoup its entire program cost within a short time frame.



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NEVER LEAVE COOKING UNATTENDED.

