



**Presentation Title: “Nuisance Alarm  
Reduction on Campus” – Safe-T-sensor**

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**We ask that your presentation and handout use language consistent with that in the Presentation Guide and below. This uniformity will help ensure better understanding of how model measures are applied to prevention programs for those attending the symposium and for a wider audience as we expand the library of model programs. Please describe your project/program using the outline below. Include specific information and especially data on the results of your efforts. Limit the content to 2 pages – use bullet items rather than discussion. (An example handout from the first symposium is provided as reference.)**

**I. Program/Project Overview**

This project was developed because of an ongoing issue with on campus runs to Ohio University by the local fire service in Athens, Ohio. This created an unsafe environment for our students and local first responders. There was also a fiscal impact on the City of Athens that needed to be addressed. Our project was simply to determine the most prevalent cause of the nuisance alarm, and then to determine the best way to address it.

**II. Formative Evaluation - Planning**

A study completed by Ohio University’s Environmental Health and Safety (EHS) and the Athens Ohio Fire Department (AFD) found that the majority of the fire department’s nuisance alarms on campus were caused by burnt food in microwave ovens.

It was estimated that there was a direct cost of more than \$2,000 for each run AFD made to campus. The campus experiences well over 100 AFD nuisance runs per year. Since the summer of 2007 the EHS department at Ohio University has been keeping statistical records of all fire runs to campus by the AFD.

**III. Process Evaluation - Implementation**

In August 2010, Ohio University determined that an engineering solution that would reduce the incidents regardless of the student’s actions would be a good approach. So the university through a FEMA Fire Prevention grant purchased 4,630 Safe-T-sensors to be installed in residence halls to help reduce the occurrence of nuisance fire alarms and the associated runs by AFD to university housing facilities. The University hoped that the Safe-T-sensors would reduce AFD’s nuisance runs to residence halls by 75 percent.

Ohio installed the first 3,593 sensors in December during the schools winter break. Classes resumed January 3, 2011. Educational presentations were given to residential staff and materials were presented to all students receiving the sensors.

It was determined by Ohio University that if the Safe-T-sensors could eliminate about 100 runs over a three-year period, the resulting savings in time and money would be significant for everyone involved.

#### **IV. Impact Evaluation – Short Term Results**

In the first 14 weeks of 2010 the AFD responded to the University 38 times. Of those 38 runs 10 were burnt food in microwave ovens that activated the buildings fire system resulting in an evacuation. During the same 14 weeks of 2011, in the same residential halls with Safe-T-sensors installed, the AFD responded to campus 28 times with 1 being related to burnt food in a microwave oven. **The result of the Safe-T-sensor installations and the corresponding cooking fire safety education was a 92% reduction in same type runs to campus compared to 2010.**

#### **V. Outcome Evaluation – Long Term Results**

Ohio University believes that the education provided at the time of installation not only helped reduce the number of burnt microwave food alarms but resulted in a greater awareness of fire safety as reflected by the reduction of total runs for the first quarter of 2011. The University has now installed 4,479 sensors and the University expects this trend to continue.

Results now available over the past year (37 fewer burnt food runs versus the previous 4 year average mean that we are exceeding our target of reducing the number of nuisance runs over the next 3 years.

The Ohio University staff of Environmental Health and Safety plans to continue its efforts and ongoing education to new students each year to stress the importance of these devices and of the awareness of fire safety.

**Recommendations for others:** The process went smoothly. Education is a key factor that the students understand the technology going in. In a college dormitory setting, because of the small space and potential for bumping into things we did experience some incidents of damage occurring to the sensor covers. Pioneering on or recommendations are re-engineering the cover to be a little tougher. In a related issue we also discovered that the sensors were occasionally being bumped and because they are attached magnetically, they were being moved around on the micro-wave. This was easily resolved by use of Velcro tape to aid adhesion.

**Conclusions:** We feel this was a very effective program. We not only provided a safer environment for our students and first responders but substantial savings to the City of Athens Ohio, by reducing the fire services run volume substantially.