



PORTABLE FIRE EXTINGUISHERS ARE USEFUL, SAFE AND COST EFFECTIVE

Data from across the country backs that up

They can extinguish incipient fires before sprinklers activate

1. According to the 2013 NFPA report “U.S. Experience With Sprinklers”, citing fires from 2007-2011, there were a total of 48,460 reported structure fires annually in buildings equipped with sprinkler systems. Of these fires, a total of 40,440 never grew large enough to activate the sprinkler system (confined and unconfined fires). This means that some 83 percent of the fires reported in sprinklered buildings didn’t grow large enough to operate the sprinkler system. The systems were operational and unimpaired; the fire simply didn’t grow large enough to activate them. One conclusion that can be drawn from this statistic is that many fires are being suppressed by building occupants. (Ref: Table 3-1, page 19 of 2013 NFPA report titled “U.S. Experience With Sprinklers by John Hall)

2. According to the 2010 NFPA report “U.S. Experience With Sprinklers And Other Fire Extinguishing Equipment”, citing fires from 2003-2007, of fires reported in sprinklered buildings, 65 percent didn’t grow large enough to activate the sprinkler system. Again, these systems were operational and unimpaired, so it’s likely that, in most cases, someone intervened to mitigate the hazard prior to the system activating. (Ref: Page 11, 2012 NFPA report titled “U.S. Experience With Sprinklers And Other Fire Extinguishing Equipment” by John Hall)

Thousands of fires are put out annually by portable fire extinguishers

3. The Consumer Product Safety Commission conducted a survey and analyzed the data from survey participants, the results of which were published in 2009. The study targeted residences, including apartments. According to this report, there were a total of 7,430,000 residential fires in the United States annually. This includes both fires attended by a fire department, and those where the fires went unreported. According to this report, five percent of the fires were put out using a portable fire extinguisher. This means that 371,000 residential fires were suppressed using portable fire extinguishers annually at the time of the survey. While there may not be a direct correlation between residential and commercial fires, it’s clear that thousands of fires are extinguished annually by people using portable fire extinguishers, both in commercial and residential occupancies. (Ref: 2004-2005 National Sample Survey of Unreported Residential Fires, U. S. Consumer Product Safety Commission, Michael A. Greene, Division of Hazard Analysis, Directorate for Epidemiology, page 159, Table 8-4)

4. According to the Texas State Fire Marshal, there were 47 fires in state owned buildings from 2008-2010. Of those fires, 16, or 40%, were suppressed using portable fire extinguishers. This included both sprinklered and unsprinklered buildings. (Reference: Texas State Fire Marshal Paul Maldonado, 2010)

Extinguishers are an excellent fire protection investment

5. The cost/benefit analysis of portable extinguishers is indisputable. According to a study conducted by Richard Bukowski at RJA (formerly of NIST), the total lifecycle cost of a portable extinguisher ranges from a low of one half of one cent to a high of just under four cents per square foot per year. This includes acquisition costs and all inspection, maintenance, and upkeep for the life of the extinguisher. This is probably some of the lowest cost fire protection available, and has shown to be very effective. (Reference: Study the Life Cycle Cost of Portable Fire Extinguishers, Richard W. Bukowski, P.E., FSPE, Rolf Jensen and Associates, Inc. 2014)



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6. Portable extinguishers can be used safely and effectively by persons with little or no training in their use. According to a study conducted by Worcester Polytechnic Institute and the Eastern Kentucky University, of 276 subjects, 98 percent were able to successfully use an extinguisher by pulling the pin, squeezing the trigger, and discharging the extinguisher. Almost three-quarters (74%) used proper technique of aiming at the base of the fire and used a back and forth motion until the fire was extinguished. After minimal training, the subjects showed a measurable increase in effectiveness. (Reference: "Ordinary People and Effective Operation of Fire Extinguishers", (April 27, 2012 by Brandon Poole, Undergraduate Student, WPI; Kathy Ann Notarianni, Professor and Head of Department, Fire Protection Engineering, WPI; Randy Harris, Lab Coordinator, Fire Protection Engineering Department, WPI; William D. Hicks, Assistant Professor, Fire and Safety Engineering Technology Program, ECU; Corey Hanks, Lab Coordinator, Fire and Safety Engineering Technology Program, ECU; Gregory E. Gorbett, Program coordinator, Fire and Safety Engineering Technology Program, ECU.)

Portable fire
extinguishers are an
important part of
fire protection

7. There should be no linkage between portable extinguishers and sprinklers. They are different technologies fitting different circumstances. Extinguishers are to be used in incipient fires; sprinklers activate when the fire grows larger. The determination of whether each technology should be implemented depends upon a number of factors, none of which involve what other technologies are present.

8. Through the adoption of their statewide fire code (NFPA 1, or the 2012 IFC, or 2006/2009 IFC with 906.1 amended) 35 states have recognized the need for layered fire protection and do not allow for a trade-off between sprinklers and portable fire extinguishers.