



# Fire Protection in **Public Housing**

BY ROBERT S. MARTON

Fire fatalities in apartment buildings are frequently reported in the news. There have been many such fatalities in public housing facilities as well, and it is these facilities that I will focus on today. Fires in dwellings tend to result from overloaded electrical wires, cooking, space heaters, smoking and arson. These fires are compounded by the fact that government agencies are usually required to award construction and renovation bids to contractors who can perform the project for the lowest amount of money. Lack of oversight of unscrupulous subcontractors may result in short cuts which include lack of fire stopping, removing smoke detectors and not restoring them after reconstruction, or introduction of non-fire rated materials into the structure. In some cases they utilize wiring below the design specifications. These factors create a building that upon appearance is aesthetically pleasing but may harbor hazards that can contribute to fire spread within a structure.

In addition, some tenants contribute their own set of hazards. In my years in the safety profession, I frequently inspected numerous public housing low and high rise buildings. Tenants are usually apportioned a small apartment with limited storage. Usually these buildings do not have garage spaces. Sometimes there is no air conditioning in the hallways. I found motorcycles, mattresses, furniture and garbage on stairwell landings. In addition, tenants place objects against stairwell doors on each floor as well as the roof access door to keep them open and create a cross breeze, thereby removing the integrity of the stairwell as a means of egress. Many tenants disconnect their smoke detectors due to nuisance alarms. Should there be a fire in these buildings, smoke will enter these stairwells, rendering them untenable. Occupant evacuations could be severely hampered by blocked egress pathways, increasing risk of injury or fatalities.

Lastly, many serious fires occur at night when public housing maintenance staff are not on site to assist in evacuations. I investigated a fire in a public housing facility in which an elderly woman got up early and put food on the stove and went back to sleep.





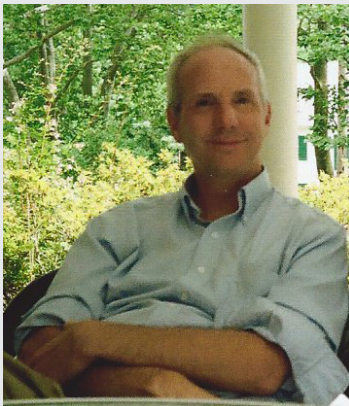
At some point the food caught fire and spread to the cabinets. The apartment filled with heavy smoke. Since the detector was disconnected, no alarm went off, and the occupant died from smoke inhalation. Early the next morning, a staff member arrived to work and was walking the floors when they smelled smoke, which is how this fire was discovered. The bedroom and living room each had a single fire sprinkler which contained the fire, but as a cost saving measure, the public housing entity had stopped paying for the water flow alarm which triggers when a sprinkler system activates.

## Prevention

It essential that safety professionals, housing managers and maintenance staff be very familiar with the Life Safety Code which is published by the National Fire Protection Association (NFPA). This Standard which addresses the requirements for safe evacuation from buildings has been incorporated into most State and Municipal Building Codes, and is also adopted by OSHA. This standard addresses, exit design and quantity, maintenance of a safe and clear pathway to egress, and related information. Maintenance personnel should inspect stairwells daily to ensure that tenant or maintenance property are not being stored in stairwells, and safety professionals should always inspect stairwells and exit hardware (doors, push handles, etc.) to ensure they are in good condition.

In addition, it is essential that safety professionals inspect renovation and repair work being performed to ensure that contractors are fire stopping thru-penetrations in walls, and that during and after repairs all fire detection and fire protection equipment are in operating condition.

Finally, staff and tenants should be provided with fire prevention and fire evacuation instructions.



### ABOUT THE AUTHOR:

*Robert Marton has been a safety professional for 36 years, with specialization in places of public assembly, public housing and correctional facilities. He has expert knowledge in fire protection, fire simulation modeling, hazardous materials and occupational infectious diseases. Mr. Marton has 17 years of government safety experience, and is currently a safety and health consultant in southwest Florida. He is also a member of the NIOSH Public Safety Sector committee of the National Occupational Research Agenda. He has received national awards and recognition for his safety and health programs.*

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