

## Sprinkler Retrofit Mandates (Fire Safety)

A number of high-profile fires in older apartment properties have drawn the attention of code officials, fire safety advocates, and the media. In response, state and local officials have repeatedly proposed retrofitting these buildings with sprinkler systems. While the installation of sprinklers in new construction can be done in a cost effective, straightforward manner, apartment owners face complex and expensive challenges in retrofitting an existing building with these systems, including physical design impediments, the inevitable displacement of residents, and environmental concerns. Mandating such retrofits would negatively impact an already inadequate affordable housing supply nationwide and be cost prohibitive for small owner-operators.

While installing a sprinkler system in a new construction represents one percent of the total building cost, retrofitting an existing building is a significant cost and logistical burden. Based on National Fire Sprinkler Association estimates, retrofitting a 400,000 sq. ft. high-rise runs anywhere from \$800,000 to \$4 million. This high cost is due to the labor intensive and complex installation, which involves tearing out ceilings, running new sprinkler lines with necessary connections, and relocating light fixtures and ductwork. Major building systems would need alteration, including electrical, heating, plumbing, ventilation, and air conditioning, adding to the cost and duration of the installation process. This would surely displace residents from their homes for an unknown period of time, and necessitate additional planning for precautionary measures to protect personal property, carpets, and walls.

The tremendous cost burden of mandating sprinkler retrofits would exacerbate the nation's growing demand for affordable housing. Based on the above NFPA calculations, the cost to property owners would range from \$2,540-\$12,700 per unit, which would certainly be passed down to residents through rent increases. It could also discourage new investment in a community's older housing stock, particularly in rent-controlled areas where rent increases to cover renovation costs are limited by rent board determined rent ceilings.

The presence of asbestos and lead based paint are also a concern as the process to retrofit the building could expose residents to contaminants that would otherwise be safely contained. These materials become a health hazard only when disturbed, exposing microscopic fibers. Construction work that exposes asbestos or lead-based paint requires costly remediation.

It is important to emphasize high rise apartments built prior to 1987 were constructed under previous code requirements to effectively contain fires to the room of origin.<sup>1</sup> These properties often include firewalls, smoke lobbies, elevator recall systems, backup lighting in stairwells, concrete between floors, and fire-resistant doors that aid in such containment. All apartments undergo annual fire inspections to assess and mitigate potential fire and life safety hazards. Most fire departments provide a written report of any necessary

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corrections at the conclusion of each inspection. Moreover, all buildings are required to have fire evacuation and safety plans under the International Fire Code. These requirements are in every version of the code currently adopted by all 50 states.

Sprinklers are an effective fire suppression tool that should be installed in all new construction. However, it is important for policymakers to understand the cost and implementation challenges for owner-operators in retrofitting existing buildings with these systems. Apartments are built to codes that contain fires when they do start, required fire evacuation and safety plans ensure residents can escape during fires, and annual fire inspections identify and correct deficiencies to maintain a safe living environment.

### **NAA Viewpoint**

NAA opposes government mandated sprinkler retrofit requirements. These retrofits require costly renovations that would ultimately be born onto apartment residents and discourage investment in older housing stock. Existing apartment buildings already operate under fire codes, required evacuation and safety plans, and annual inspections processes to ensure resident safety.

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<sup>i</sup> <https://www.nytimes.com/1998/03/15/nyregion/old-apartments-and-the-fear-of-fire.html>