



THE FIRE RATTLE



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Assisted Living Facilities: So What's in a Name?

“In many cases the building might as well be a spaceship from Mars for all the fire department really knows about it.” Francis Brannigan, 1971

As far as the fire fighter is concerned, what's in a name anyway? A bistro is just a restaurant, right? The kitchen is cluttered with the same dirty pots and pans. The dumpster out back smells as bad. The fire that spreads from the range top, to the grease caked hood and duct system burns just as hot. In the bistro, Pierre might suggest a refreshing after dinner wine. In the restaurant, Cookie might suggest that you must be stupid if you think you can substitute a salad for the mixed vegetables.

Names create a picture for those responding to a fire. Sometimes they reflect the relative hazards associated with a building, or perhaps the kind of people who are in danger from the fire. Say “*auto body shop*” and most of us think of flammable liquids, solvents, spray finishing, fuel tanks and welding. “*Preschool*” brings images of little kids, who probably can't respond appropriately to a fire emergency without assistance from staff members. If our preplans are old or inadequate, we end up putting a lot of weight on the name of the facility. Sometimes the initial dispatch and initial operations are based on what we *think* a facility is. Sometimes it works. How about when it doesn't?

What do the words “*assisted living facility*,” “*board and care facility*” and “*adult congregate living facility*,” mean to the fire department en route to an alarm of fire? Is it a nursing home? Are the people there patients or residents—or are they the same thing? Can they evacuate on their own, or does the fire department have to rescue them? Is the building designed for them to stay in their rooms, go to a protected area of refuge, or is complete and immediate evacuation the only prudent strategy? The only thing that everyone would probably agree on is the presence of “old people.” Even that isn't always right.

Regardless of your location, there are probably several assisted living facilities within your jurisdiction. They are generally regulated by state health or social service agencies and are licensed as: *Assisted Living Facilities, Adult Foster Care Homes, Adult Congregate Living Facilities, Board and Care Facilities, Long Term Residential Care*

Facilities, Supported Residential Care Facilities, Personal Care Homes, Homes for the Aged or some combination of the above. They house the elderly, and adults with special needs. They house the fastest growing segment of “at risk” persons within the population. Think this is a bit like arguing how many angels can dance on the head of a pin? Consider these facts:

- ⊗ A 1998 report by the National Fire Protection Association identified 64 fires in assisted living facilities in which 296 persons perished, within the previous 27 years.¹
- ⊗ A 1999 Department of Health and Human Services study estimated that there were almost 12,000 licensed assisted living facilities in the U.S., with approximately 558,000 residents.²
- ⊗ A 1981 report from the Ninety-seventh Congress, reported that an estimated 300,000 boarding homes house 2,000,000 people in the United States, and range from specially designed and constructed facilities to converted single family homes.³
- ⊗ The 1999 DHHS study reported that facility administrators estimated that 24 percent of their residents needed help with three or more activities of daily living, such as bathing, dressing or locomotion, and that one third had *moderate to severe cognitive impairment*.⁴
- ⊗ In 1860, half of the population was under age 20; in 1994 half were age 34 or older.⁵
- ⊗ In 1994, one in eight Americans was age 65 or older. By 2030, one in five Americans will be a senior citizen.⁶
- ⊗ The elderly population increased eleven-fold from 1900 to 1994, compared with only a three-fold increase for those under age 65.⁷
- ⊗ Of people aged 75 and older, 60 percent will need some form of long term care.⁸

The odds are good that your department will respond to a fire incident in an assisted living facility in the future. Your department will also very likely be called upon to approve a fire plan for an assisted living facility. Many states require fire department approval as a condition of licensure. The name “assisted living facility” tells you as much about the building as the term “attractive” does about a blind date. Will you approve a plan that calls for the residents to stay in their rooms, or move to an area of refuge in the building? Or will you insist on total evacuation? **These decisions are dictated by the fire protection and construction features of the building, not by the abilities of the residents.**

Intelligent decisions cannot be made without a thorough survey and inspection of the facility. There is no substitute for an accurate up-to-date preplan when the time comes to respond to a fire emergency. Without one, you might as well be responding to the spaceship from Mars.

This isn't an article about enforcing the fire code in assisted living facilities. It is about evaluating the structure that is there, and making your plans accordingly. The term used by the building and fire codes for assisted living facilities is "board and care facilities." The model building codes and NFPA's *Life Safety Code* have different fire protection requirements for buildings that house the aged or infirm. A direct one-on-one comparison is impossible, because the model building codes and the *Life Safety Code* use slightly different approaches in attempting to achieve the same overall level of safety.

A 1993 study by the National Institute of Standards and Technology for the U.S. Fire Administration summarized that the assisted living or "board and care" facility was "not a tightly classified occupancy," and "could range from two elderly friends living in a home to a 1,400 bed facility."⁹ In comparing the requirements of the model codes, the report stated that the *BOCA* and *Uniform Building Codes* "tended to require more board and care fire protection features than the *Standard Building Code*," and that the *Life Safety Code* was "perhaps the most flexible and lenient," adjusting required levels of protection based upon three levels of evacuation capability.¹⁰ Since 1993, the three model building codes and the new *International Building Code* have incorporated changes similar the *Life Safety Code*. These permit up to 16 nonambulatory persons to be housed in buildings of combustible unprotected construction, equipped with residential sprinkler systems (NFPA 13D or NFPA 13R).

The code requirements are generally based on the capacity of the residents for self-preservation. This is the ability of the resident to comprehend that there is an emergency situation, and then to act on that knowledge, without assistance. The codes use the term "ambulatory" to denote this ability. The code requirements also vary, based on the edition of the code under which the structure was designed and built. The level of protection that was built into the structure will dictate life safety strategies for the residents. While the model codes are based on the same principles, there are no absolutes that cross over all the model codes, and the edition of the code will also play a significant role.

Residential buildings designed for those who require some level of assistance range across the spectrum, from buildings with the most built-in protection to those with the least. Six variables that must be known prior to evaluating an emergency fire plan developed by the facility or responding to a fire incident are:

1. Staffing levels by time of day
2. Capacity of the residents for self-preservation
3. Type of construction
4. Type of sprinkler protection
5. Presence of smoke compartments or approved areas of refuge
6. Detection and alarm features.

Staffing: Staffing levels will generally be dictated by state licensing regulations. Nursing homes are staffed around the clock. Assisted living facilities will have far fewer staff on duty at night, at least a night watch, and typically a 24-hour watch.¹¹ Fire code

requirements that mandate fire emergency plans and fire drills for assisted living facilities must be based on actual staffing during each shift.

Abilities of the residents: What are the limitations of the people in the building? Are they mentally and physically capable of responding appropriately to a fire emergency? The fact that a person is wheelchair bound does NOT make them nonambulatory, if the person is capable of maneuvering the wheelchair to an exit or area of refuge. A person with severe Alzheimer's may be physically capable, yet mentally unable to respond appropriately. A physician's determination of the capability of each resident is often required annually for state licensing. This eliminates the fire department trying to make this difficult determination. Fire exit drills witnessed by the fire department will either validate the information contained in the plan or identify a serious situation in the making.

Building construction type : Is the building of combustible or noncombustible construction? Are the structural elements protected (encased in gypsum, concrete or other approved material)? Combustible construction is permitted in board and care facilities. It is generally not permitted in nursing homes. Fires in multistory residential buildings of combustible construction are well documented. Fires originating outside the building can quickly involve the structure, often entering through soffets or unprotected openings.

Sprinkler protection: Unquestionably, sprinkler protection is the most effective method of protecting people in any residential occupancy, perhaps more so in assisted living facilities. NFPA reports that there has never been a multiple death fire (three or more) in a fully sprinklered residential building in which the system was operable.¹² A 1998 *NFPA Journal* article profiled seven deadly fires, that claimed 50 lives in assisted living facilities during the 1990's. The common thread? None were equipped with sprinkler systems.¹³

But not all sprinkler systems are created equal. Assisted living facilities are often protected by residential sprinkler systems that are designed to prevent flashover and give building occupants time to escape or be evacuated. These systems do not provide the same level of protection as do the commercial systems that are required in nursing homes or hospitals.

Residential sprinkler standards (NFPA 13D and 13R) permit the omission of sprinklers from concealed combustible voids, such as attics and wood truss floor/ceiling assemblies, in addition to bathrooms, small closets, breezeways and porches. The total building area exempted from sprinkler protection has been estimated as high as 67 percent.¹⁴ In buildings of combustible construction, protected with residential sprinkler systems, fires have burned the building down, *around the sprinkler system*. This isn't a jab at residential sprinkler systems. It is a heads-up to the fire fighter. The fact that the building is sprinklered isn't enough. Know the type and extent of the sprinkler protection.

Smoke compartments and refuge areas: Are required in hospitals and nursing homes. Some assisted living facilities constructed under the model building codes will have

smoke compartments on each floor equipped with self closing, smoke tight doors that create smoke barriers. By having smoke tight corridors and these barriers, immediate and total evacuation of residents is forestalled. Only those residents in immediate danger must be evacuated, and then only into the next smoke compartment. This “defend in place” strategy has been used to successfully protect nonambulatory persons for many years.

Without smoke protected areas within the structure, immediate and total evacuation in case of fire is the only prudent course of action. With nonambulatory residents and few staff members to facilitate the evacuation, this could spell disaster for the residents.

Detection and alarm: Fire detection and alarm systems give early notification to residents and the fire department in case of fire emergencies, *if the system is monitored*. Detection and alarm systems don’t put out the fire. Notification accomplishes little, if the residents are incapable of understanding what the alarm signal means, or are incapable of physically responding to it. A single staff member or skeleton crew cannot be expected to successfully evacuate nonambulatory residents from multiple floors.

Many modern facilities will actually incorporate distinct fire areas, with assisted living facilities and institutional nursing home care facilities within a single building, divided by rated fire separation walls. Each area will comply with building code requirements for that use group.

So how does this all add up for the street fire fighter who will be called on to respond to fire incidents in assisted living facilities? You must get into these facilities and determine what is actually there. Find out about the building and find out about the residents. Talk with personnel in your fire prevention bureau. Ask the inspectors about the structure and about emergency plans that they have reviewed. Find out what the building department knows about the facility. Find out what agency licenses the facility, what it is licensed as, and what that means. The building code and the state licensing regulations may use different terms. They may not quite match, item for item.

Do your planning based on what is actually there. In doing your preplan, you may well find that the facility is not operating in accordance with code requirements or licensing requirements. Notify the fire prevention bureau, building department and state licensing agency if necessary. Don’t be surprised if you uncover a hornet’s nest.

In 1995, two metropolitan Washington D.C. jurisdictions and a state social services agency, were sued by the relatives of nonambulatory residents of an assisted living facility.¹⁵ At one of the facilities, 34 of the 53 residents were found to be nonambulatory and living on all three floors of a wood frame building with vinyl siding. The building was equipped with a residential sprinkler system and fire alarm system. The building lacked smoke compartments or refuge areas. Notices of violation were issued by the local building and fire departments, for violation of the building and fire codes (1993 BOCA).

The lawsuit claimed that the building and fire codes “discriminated against people with disabilities,” in violation of the Fair Housing Act and Americans with Disabilities Act. In

addition to unspecified monetary damages, the plaintiffs requested Judge Albert V. Bryan Jr., to invalidate the use group classification system used by the model building and fire codes because they illegally discriminated based on physical disability. The case was dismissed by the Court.

Multiple death fires (three or more persons) in assisted living or board and care facilities resulted in the deaths of 214 persons from 1971 to 1989.¹⁶ Fires in which one or two elderly people are lost are a common occurrence. Assisted living facilities are in nearly every jurisdiction in this country. Don't treat them like spaceships. Those old people are our parents and grandparents. Don't treat them like space aliens.

¹ Ed Comeau, *Board and Care Fires*, NFPA Journal, September/October 1988, p. 34.

² Hawes, Rose and Phillips, *A National Study of Assisted Living for the Frail and Elderly*, Department of Health and Human Services, April, 1999.

³ *Life Safety Code Handbook*, 7th ed. (Quincy, MA: National Fire Protection Association), p. 675.

⁴ *Ibid.*

⁵ Hobbs and Damon, *65+ in the United States, Special Study*, U.S. Bureau of Census

⁶ *Ibid.*

⁷ *Ibid.*

⁸ *Nursing Homes*, October 1997

⁹ Scot Deal, *Evaluating Small Board and Care Homes: Sprinklered vs. Nonsprinklered Fire Protection*, NISTIR 5302, U.S. Department of Commerce, November 1993, p. 3.

¹⁰ *Ibid.*

¹¹ *Ibid.* p. 1.

¹² Ed Comeau, *Board and Care Fires*, NFPA Journal, September/October 1988, p. 39.

¹³ *Ibid.*

¹⁴ Richard E. Hughey, P.E., "Property Protection or Life Safety- Can We Have Them Both?" *Fire Marshal Quarterly*, September 1996, p. 20.

¹⁵ *Dibble v. Stevens*, Civil Action no. 95-356-A, U.S. District Court for the Eastern District of Virginia.

¹⁶ *Life Safety Code Handbook*, 7th ed. (Quincy, MA: National Fire Protection Association), p. 676

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