

The Office of the Illinois State Fire Marshal (OSFM) reminds local Fire Departments and AHJ enforcers, and especially the owners/operators of "Haunted Houses," that these occupancies can present special hazards making them particularly vulnerable to fire, and thereby exposing visitors and volunteers to fire injuries if applicable codes are not followed. By their nature, haunted houses are often temporary structures which may be constructed of plywood or other combustible materials. Also, because of the temporary nature of these haunted house structures, owners often believe these occupancies are exempt from fire sprinkler system or fire detection system requirements. They are not. Furthermore, haunted houses are usually designed to be dark and offer low visibility to visitors and frequently are set up in "maze-like" designs, all done to deliberately to confuse occupants as part of the experience. This document reviews the fire safety requirements imposed by Illinois' rules, including the NFPA Life Safety Code[®] (LSC) which classifies haunted houses as "Special Amusement Buildings." These OSFM rules serve as the minimum requirements which must be met, leaving local fire and/or building departments to possibly impose additional and more stringent requirements, at their discretion.

Fire History

At least two tragic fires have occurred in haunted house occupancies in the United States since 1973:

- In October 1973, just four days prior to Halloween, a fire occurred at the Washington Reid School PTA haunted house in Prince William County, Virginia. In that haunted house a simulated maze caught fire killing a PTA volunteer and injuring two others who were helping to construct the maze inside a school classroom. The PTA members had created the effect of a haunted house in one of the classrooms by erecting eight-foothigh panels of flannel cloth secured to 1x3 inch wood strips. The flannel was then sprayed with a black lacquer-based paint. To reduce light, brown paper was taped over the windows and over the flannel panels directly in front of the windows. Black lights were installed with temporary wiring at various locations. Power was supplied to test the lights prior to the start of the function, at which time one of the panels burst into flames. The fire occurred just one-half hour prior to when over 200 students were to have entered the haunted house.
- In May 1984 a fire in the Haunted Castle at Six Flags Great Adventure Park in New Jersey resulted in the death of eight (8) visitors. At the time of the fire there were three employees and an estimated 28-34 visitors in the structure. Eight of the visitors who were unable to immediately exit from the structure died in the fire. The Haunted Castle

was made up of 17 commercial trailers, each about 8 ft wide by 40 ft long. The trailers were connected using plywood. The interior of the Haunted Castle was constructed of plywood partitions that created a convoluted path of travel approximately 450 ft. long. Materials used for the interior included synthetic foam, various fabrics, plastics, plywood, and tarpaper. The exact cause of the fire was undetermined, but some witnesses indicated that they had seen a visitor lighting a cigarette lighter inside the occupancy and possibly igniting foam insulation. According to NFPA's investigation of the Six Flags fire, several major factors contributed to the loss of life. Those factors included the failure to detect and extinguish the fire at its incipient stage by means of fixed fire detection and suppression systems; ignition of synthetic foam materials and subsequent fire and smoke spread involving combustible interior finishes; and the difficulty of escape by occupants based on fire conditions in the haunted house-type of environment.

Illinois Code Requirements

Haunted houses are considered a "Special Amusement Building" in accordance with the LSC, Section 3.3.36.10 and Section A 3.3.36.10 which has been adopted in Illinois as the State's minimum fire prevention and safety rules.

For information on accessing this and other NFPA Codes online click HERE

The following are highlights from the LSC regarding Special Amusement Buildings. This information is not all inclusive. The applicable sections of the LSC shall apply in their entirety in conjunction with any state or local requirements.

- Language in the LSC applies to both NEW (12.4) and EXISTING (13.4) haunted houses.
- Haunted houses can be temporary, permanent, or mobile.
- Haunted houses are defined as having confusing paths and egress due to nature of the design and effects.
- Language in the LSC applies regardless of the occupant load of the haunted house.
- Haunted houses over a certain size must be equipped with a NFPA code compliant sprinkler system.
- Haunted houses <u>may</u> require a smoke detection system.
- Haunted houses <u>shall</u> require exit signs and emergency lighting which automatically activate if sprinkler or smoke detection system activates.
- Haunted houses interior finish and decorations <u>shall</u> comply with class A rating in accordance with Chapter 10 of the LSC.

Special Amusement Buildings, like haunted houses, are also subject to the other requirements of the LSC Assembly Occupancy chapter. These include, but are not limited to:

- Means of egress shall be of an adequate number and width to accommodate occupant loads within the building.
- Panic hardware is mandatory on exit doors if the occupant load exceeds 100 people.
- There are restrictions on dead-end pathways.
- Stairway construction must comply with the LSC, including riser height and tread depth, provision of handrails, and fire rated enclosure of the stairway in some situations.
- The use of open flame devices or pyrotechnic special effects is restricted. Illinois law requires specific permitting and operator licensing for the use of indoor pyrotechnics, and prohibits the use of pyrotechnics in buildings that are not protected by an automatic sprinkler system. Use of pyrotechnics before a proximate audience is regulated by OSFM rules found in Title 41 of the Illinois Administrative Code.
- Furnishings and decorations (including all draperies and curtains) are required to be flame resistant as proven in a test in accordance with NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
- In accordance with both LSC requirements and Illinois' Furniture Fire Safety Act, any upholstered furniture in the occupancy must comply with testing and labeling requirements.

For clarification, the LSC Annex explanation indicates that where a Special Amusement Building is installed inside another building, such as in an exhibit hall, the Special Amusement Building requirements apply <u>only</u> to the special amusement building. For example, the smoke detectors required by 12.4.8.3 are not required to be connected to the building's system. Where installed in a Special Amusement Building within an exhibit hall, such smoke detectors are also required to comply with the provisions applicable to an exhibit.

Contact Us

For further information regarding the requirements applicable to haunted houses or any special amusement building, contact OSFM's Technical Services Section or the OSFM Division of Fire Prevention.

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