

### Doing Things the Texas Way

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# Life Safety Rounding in Hospitals

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### Agenda

- Define life safety standards in hospital environments
- Implement comprehensive life safety rounding in hospitals
- Identify the top life safety-related findings in hospital environments

### **Taylor Vaughn**

Taylor Vaughn, MBA, CHFM, CHC, SASHE is a Facility Manager at Children's Health in Dallas, Texas. In this role, she assumes responsibility for ensuring systemwide compliance with facilities-related regulatory compliance. Additionally, Taylor is a Subject Matter Expert and Content Writer at Legacy FM, where she contributes her expertise to the development of tailored training materials for healthcare systems. She is also a Senior Life Safety Consultant with Covenant Rock Consulting. Taylor is the current President-Elect for TAHFM.



### **Amanda Foret**

Bio

## Life Safety Standards in Hospitals

### Life Safety Rounding

At Children's Health, we have implemented monthly Life Safety Rounds focusing on one floor at a time strictly reviewing life safety issues. Our goal is to review all areas of the hospital at least annually.

We have separate, dedicated Environment of Care (EOC) Rounds, so we try not to focus on EOC findings, except for obvious issues.

#### Joint Commission Standard

LS.01.01.01, EP 2: In time frames defined by the hospital, the hospital performs a building assessment to determine compliance with the "Life Safety" (LS) chapter.

### **Alcohol Based Hand Rub (ABHR)**

#### Joint Commission Standard: LS.02.01.30, EP 6

- Corridor is at least six feet wide
- ABHR does not exceed 95% alcohol
- Maximum individual dispenser capacity is 0.32 gallons of fluid (0.53 gallons in suites)
- Dispensers have a minimum of four feet of horizontal spacing between them
- Dispensers are not installed within one inch of an ignition source (receptacle)
- · If floor is carpeted, the building is fully sprinkler protected
- ABHR is protected against inappropriate access
- Not more than an aggregate of 10 gallons of fluid or 1135 ounces of aerosol are used in a single smoke compartment outside a storage cabinet, excluding one individual dispenser per room
- Storing more than five gallons of fluid in a single smoke compartment complies with NFPA 30

### **Alcohol Based Hand Rub (ABHR)**

#### NFPA 101-2012: 18/19.3.2.6(11)

- The dispenser shall not release its content until activated
- Any activation of the dispenser shall only occur when an object is placed within 4 inches of sensing device
- An object placed in the activation zone and left in place shall not cause more than one activation
- The dispenser shall not dispense more than required for hand hygiene
- Shall be operated in a manner that assures accidental dispensing is minimized
- The dispenser shall be tested by manufactures care and use instructions each refill

- ABHR stored over electrical outlet
- Broken push button or drip tray
- Dispensers have at least 4ft of space between them

### **Fire Doors**

#### Joint Commission Standard, LS.02.01.10, EP 11

• Fire-rated doors within walls and floors have functioning hardware, including positive latching devices and self-closing or automatic closing devices (either kept closed or activated by a release device complying with NFPA 101-2012 7.2.1.8.2.) Gaps between meeting edges of door pairs are no more than 1/8 inch wide. The undercuts are no larger than 3/4 of an inch. Fire-rated doors within walls do not have unapproved protective plates greater than 16 inches from the bottom of door. Blocking or wedging open rated doors is prohibited. (Refer to NFPA 101-2012: 8.3.3.1; 7.2.1.8.2; NFPA 80-2010: 4.8.4.1; 5.2.13.3; 6.3.1.7; 6.4.5)

- Protection plates rated if over 16"
- Appropriate labels
- Clearances (bring door gap tool)
- Latching

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- Clearances (bring door gap tool)
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### **ABC Fire Extinguishers**

#### Joint Commission Standard, LS.02.01.35, EP 10

The travel distance from any point to the nearest portable fire extinguisher is 75 feet or less. Portable fire extinguishers have appropriate signage, are installed either in a cabinet or secured on a hanger made for the extinguisher and are at least four inches off the floor. Those fire extinguishers that are 40 pounds or less are installed so the top is not more than 5 feet above the floor. (For full text, refer to NFPA 101-2012: 18/19.3.5.12; 9.7.4.1; NFPA 10-2010: 6.2.1.1; 6.1.3.3.1; 6.1.3.4; 6.1.3.8)

- Height less than 5ft from the top
- Blocked extinguishers
- Spacing

### Kitchen Fire Extinguishers

#### Joint Commission Standard, LS.02.01.35, EP 11

Class K-type portable fire extinguishers are located within 30 feet of grease-producing ranges, griddles, broilers, or cooking appliances that use vegetable or animal oils or fats, such as deep fat fryers. A placard is conspicuously placed near the extinguisher stating that that the fire protection system should be activated prior to using the fire extinguisher.

- Correct type in the kitchen
- Height less than 5ft
- Blocked
- 30ft from appliances

### **Smoke Detectors**

#### NPFA 72, 2010, 17.7.5.6.6.1

If ceiling-mounted smoke detectors are to be installed on a smooth ceiling for a single or double doorway, they shall be located as follows (Figure 17.7.5.6.5.3(A) shall apply):

- (1) On the centerline of the doorway
- (2) No more than 5 ft (1.5 m), measured along the ceiling and perpendicular to the doorway (Figure 17.7.5.6.5.1(A) shall apply.)

#### NFPA 72, 2010, A.17.7.4.1

Detectors should not be located in a direct airflow or closer than 36 in. (910 mm) from an air supply diffuser or return air opening. Supply or return sources larger than those commonly found in residential and small commercial establishments can require greater clearance to smoke detectors. Similarly, smoke detectors should be located farther away from high velocity air supplies.

### **Smoke Detectors**

- Smoke detectors are with 5ft of cross-corridor doors
- Not installed within 3ft of diffusers or returns
- Installed in areas that are not occupied 24/7

### **Pull Stations**

#### NFPA 72, 2010, 17.14

- The operable part of each manual fire alarm box shall be not less than 42 in. (1.07 m) and not more than 48 in. (1.22 m) above floor level.
- Manual fire alarm boxes shall be installed so that they are conspicuous, unobstructed, and accessible.
- Manual fire alarm boxes shall be located within 60 in. (1.52 m) of the exit doorway opening at each exit on each floor.
- Additional manual fire alarm boxes shall be provided so that the travel distance to the nearest fire alarm box will not be in excess of 200 ft (61.0 m), measured horizontally on the same floor.

- Not blocked
- Within 5ft of exit doors
- No less than 200ft apart

### **Exit Signs**

Exit signs are visible when the path to the exit is not readily apparent. Signs are adequately lit and have letters that are 4 or more inches high or 6 inches high if externally lit. (See NFPA 101-2012: 20/21.2.10; 7.10.5)

#### **Life Safety Rounds Focus**

• Exit signs can be subjective, review them as you are walking and ensure the layout and spacing makes sense

### **Suites**

#### NFPA 101, 2012, 19.3.6.3

- A clearance between the bottom of the door and the floor covering not exceeding 1 in. (25 mm) shall be permitted for corridor doors.
- Doors shall be provided with a means for keeping the door closed that is acceptable to the authority having jurisdiction, and the following requirements also shall apply:
- (1) The device used shall be capable of keeping the door fully closed if a force of 5 lbf (22 N) is applied at the latch edge of the door.

- Doors to suites must latch and the bottom clearance cannot exceed 1 inch
- · Practice knowing where suites are located

### **Penetrations**

#### LS.03.01.10, EP 10

- The space around pipes, conduits, bus ducts, cables, wires, air ducts, or pneumatic tubes penetrating the walls or floors are protected with an approved fire-rated material.
- Note: Non-approved polyurethane expanding foam is not an accepted fire-rated material for this purpose. (For full text, refer to NFPA 101-2012: 8.3.5)

- All penetrations are sealed properly
- Open conduits are sealed properly
- Fire caulk is not mixed with different types/brands

### Sprinkler Pipes & Heads

#### NPFA 13, 2013, 9.1.1.8.1

Sprinkler piping or hangers shall not be used to support non-system components.

#### NFPA 13, 2013, 6.2.7.4

The use of caulking or glue to seal the penetration or to affix the components of a recessed escutcheon or concealed cover plate shall not be permitted.

- Items resting on, touching, or being supported by sprinkler pipes or hangers
- Gaps in escutcheon caps do not exceed 1/8 inch

### Signage

#### NFPA 101, 2012, 7.10.8.3.2

The NO EXIT sign shall have the word NO in letters 2 in. (51 mm) high, with a stroke width of 3/8 in. (9.5 mm) and the word EXIT in letters 1 in. (25 mm) high, with the word EXIT below the word NO, unless such sign is an approved existing sign.

#### NFPA 99, 2012, 5.1.3.1.8

Locations containing positive pressure gases other than oxygen and medical air shall have their door(s) labeled as follows:

Positive Pressure Gases

NO Smoking or Open Flame

Room May Have Insufficient Oxygen

Open Door and Allow Room to

Ventilate Before Entering

### Signage

#### NFPA 99, 2012, 5.1.3.1.9

Locations containing central supply systems or cylinders containing only oxygen or medical air shall have their door(s) labeled as follows:

**Medical Gases** 

NO Smoking or Open Flame

- Conflicting signage
- Correct No Exit signs
- Correct medical gas signage

### Implement Life Safety Rounding

### **Implementation**

#### Children's Health Process

- Multi-disciplinary group, including Engineering, Safety, & Security
- Focus on life safety issues only
- Life safety drawings are available on an iPad
- Carry door gap tool, door gauge, measuring stick
- **No solving**, only finding issues during the walk
- Post findings in group chat in Microsoft Teams
- 1-2 floors at a time, 2 hours max

### **Implementation**

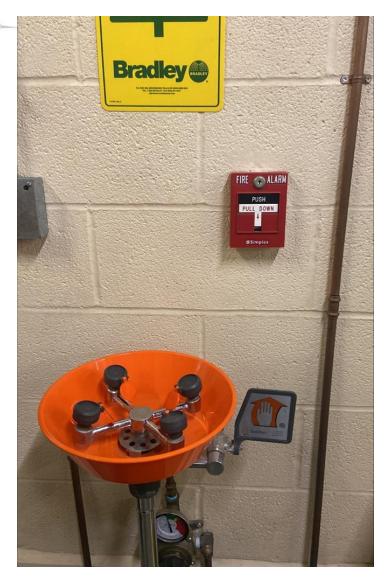
#### Children's Health Process

- Findings are sent to the appropriate group or work orders are created as necessary
- Reports are created from each month over the year to show trends
- Patterns reported to Environment of Care committee as needed

### **Top Life Safety Findings**





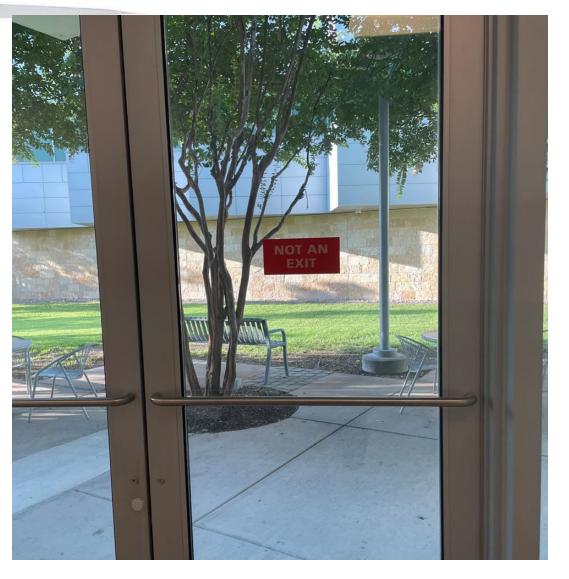
















### Questions?