



Life Safety Code

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The findings and conclusions in this presentation are those of the author and do not represent the views of St. Joseph Hospital or any professional organizations



NFPA

- National Fire Protection Association
- Founded 1896 to promote the science and improve the methods of fire protection.
- Mission: to reduce the burden of fire and related hazards on the quality of life.

NFPA 101 (2000 Edition) LSC

- The LSC is a set of fire protection requirements designed to provide a reasonable degree of safety from fire. It covers construction, protection and operational features designed to provide safety from fire, smoke, and panic.

42 CFR part 494

- February 9, 2009 to include LSC to standardize CMS regulations across provider types.
- Not appropriate with unique characteristics of ESRD facilities

Executive Order 13563

- “Improving Regulations and Regulatory Review”
- Establish a plan for ongoing retrospective review of existing significant regulations, to identify those rules that can be eliminated as obsolete, unnecessary, burdensome or counterproductive or that can be modified to more effective, efficient, flexible and streamlined.

October 24, 2011

- Published a proposed rule that proposed reforms in CMS regulations that were identified as unnecessary, obsolete, or excessively burdensome to health care providers and beneficiaries.
- Final rule published May 16, 2012 and effective rule date: July 16, 2012

Two Changes

- Core Survey
- Limits mandatory compliance with the Life Safety Code to those End Stage Renal Disease facilities located adjacent to high hazardous occupancies and clarifies that the requirement for sprinklers in facilities housed in high rise buildings is intended to be applicable to those buildings constructed after January 1, 2008

Defend in Place

- Smoke compartment barriers
- Occupancy separations
- Hazardous area separations
- Upgraded fire alarms

Risk/Cost Analysis

- Original per facility government estimate: \$1960
- Smoke compartment barriers, occupancy separations, hazardous area separations and upgraded fire alarms.
 - \$23,500 - \$222,000
 - Avg: \$77,659/facility
- No recorded patient injuries or death due to fire in 40 years of Medicare ESRD program.
 - Federal Emergency Management Agency's (FEMA) Topical Fire Report Series (TFRS) ranked ESRD facilities the lowest among all health care facilities.

Health Care Facilities

- Authority Having Jurisdiction (AHJ)
 - Only the AHJ shall be permitted to grant exceptions to the requirements of NFPA provided:
 - Technical documentation is submitted to the AHJ to demonstrate equivalency; and
 - The system, method, or device is approved for the intended purpose.

Exceptions

- Adjacent to a high hazardous occupancy and that do not exit to grade
- Sprinklers: State may require

Health Care Facilities

- Introduction

- The scope of NFPA is to establish criteria to minimize the hazards of fire, explosion, and electricity in health care facilities providing services to human beings.

Health Care Facilities

- Receptacles in all patient care areas
 - * Highly dependable grounding pole
 - * Sufficient number of receptacles to avoid the need for extension cords or multiple outlet adapters
 - * Each general care patient bed location minimum of four receptacles
 - * Each critical care patient bed location minimum of six receptacles

Health Care Facilities

- Receptacles in all patient care areas

*Exceptions

1. Receptacles shall not be required in bathrooms or toilet rooms.
2. Receptacles shall not be required in areas where medical requirements mandate otherwise; for example, certain psychiatric, pediatric, or hydrotherapy areas.

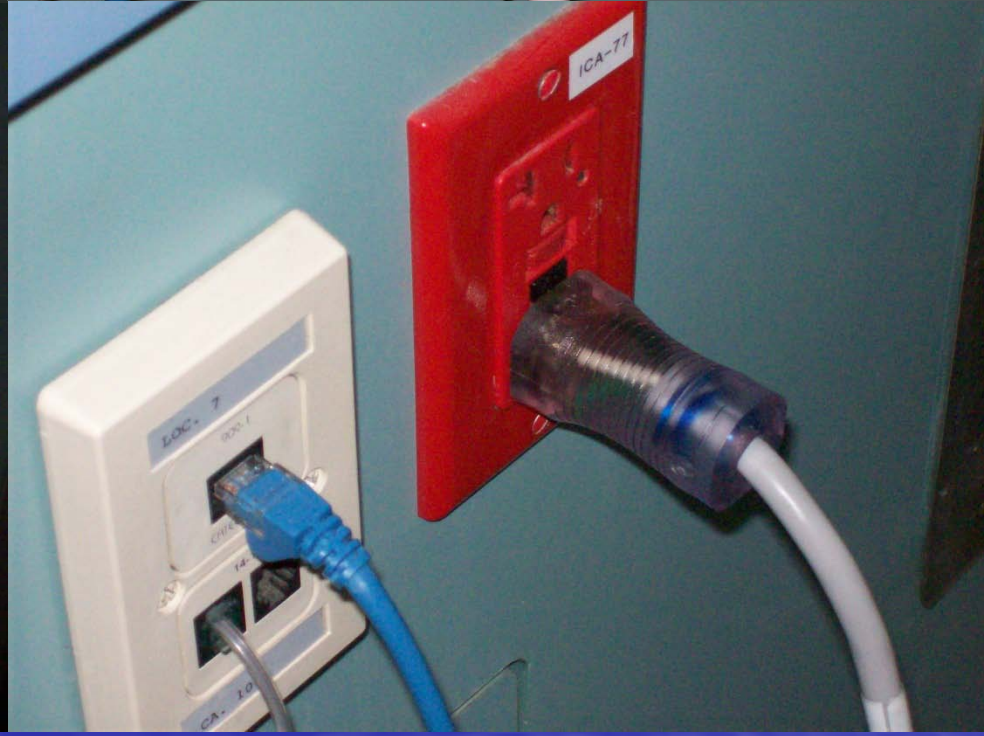
Health Care Facilities

- * Wet locations shall be provided with ground fault circuit interruption (GFCI) receptacles to not exceed 6 mA.

Health Care Facilities

- Receptacle testing in patient care areas at least annually
 - * Physical integrity of each receptacle by visual inspection
 - * Verification of continuity of the grounding circuit
 - * Verify correct polarity of the hot and neutral connections
 - * Verify retention force of grounding blade not less than 115 g (4 oz)





Health Care Facilities

- Electrical Equipment
 - * Scope – This chapter covers the performance, maintenance, and testing of electrical equipment used within health care facilities.

Health Care Facilities

- Manufacturer Requirements
 - * Scope – This chapter covers the performance, maintenance, and testing, with regard to safety, required of manufacturers of equipment used within health care facilities.

Health Care Facilities

- Health Care Emergency Preparedness
 - * Scope – This chapter establishes minimum criteria for health care facility emergency preparedness management in the development of a program for effective disaster preparedness, mitigation, response, and recovery.

Health Care Facilities

- Health Care Emergency Preparedness
 - * 11-2 Purpose – The purpose of this chapter is to provide those with the responsibility for disaster management planning in health care facilities with a framework to assess, mitigate, prepare for, respond to, and recover from, disasters. This chapter is intended to aid in meeting requirements for having an emergency preparedness management plan.



Automatic Sprinkler System

- Required for facilities housed in multi-story buildings that were constructed after January 1, 2008 and those housed in high rise buildings constructed after January 1., 2008
- Annual Inspections
- Quarterly Inspections
- Monthly Monitoring



Fire *Alarm* System

- Annual Inspection
- Sensitivity Test
- Smoke Detectors
- Alarm Panel
- Pull Stations



Portable Fire Extinguishers

- Annual Inspections
- Monthly Inspections
- Six year maintenance
- Hydrostatic testing
 - 5 – 12 years interval



Fire Drills

- Have a plan and specific duties for all employees.
- ALL staff must participate.
- Shall be conducted quarterly on each shift.
- Drills are to be held at unexpected times and under varying conditions



Corridor Room Doors

- Doors in sprinklered buildings only required to resist the passage of smoke.
- Doors must latch securely when closed.
- Hold open devices that release when the door is pushed or pulled are permitted.
- Doors can not be blocked open with any thing.



Exit Access Corridors and Exit Doors

- Exit access and exit doors shall be arranged and designed to be clearly recognizable.
- Means of egress shall be continuously maintained free of all obstructions or impediments at all times.

EXITACCESS

- Exits must terminate directly at a public way or at an exterior exit discharge. Yards, courts, open spaces, or other portions of the exit discharge must be of required width and size to provide all occupants with safe access to a public way.
- To ensure adequate hard surfaces, CMS requires asphalt or concrete surfaces from exterior exits to public ways.



EXITACCESS

- Keyed locks, dead bolt locks and multi latching devices create an impediment to egress from individual habitable spaces.





Deficiencies that Should never occur

- Oxygen Storage
- Portable Space Heaters
- Exit Signs
- Extension Cords
- Testing Emergency Lights





Maintenance Logs

- Have all Life Safety concerns together
- Don't use check marks
- Give location of equipment tested

Managing Fire Risk

- The written fire response plan describes the specific roles of staff and licensed independent practitioners at and away from a fire's point of origin, including when and how to sound fire alarms, how to contain smoke and fire, how to use a fire extinguisher and how to evacuate to areas of refuge

Fire Drills

- The hospital conducts fire drills once per shift per quarter in each building defined as a health care occupancy by the Life Safety Code.
- The hospital conducts quarterly fire drills in each building defined as an ambulatory health care occupancy by the Life Safety Code.
- The hospital conducts fire drills every 12 months from the date of the last drill in all freestanding buildings classified as business occupancies and in which patients are seen or treated.

Fire System Testing

Key Fire System Maintenance Requirements

- Every 12 months the hospital tests visual and audible fire alarms including speakers
- Every quarter the hospital tests fire alarm equipment for notifying offsite fire responders.
- At least quarterly the hospital tests supervisory signal devices.
- Every 12 months the hospital tests duct detectors, electromechanical releasing devices, heat detectors, manual fire alarm boxes and smoke detectors.
- Every 6 months the hospital tests valve tamper switches and water-flow devices.

Fire System Testing

Key Fire System maintenance Requirements

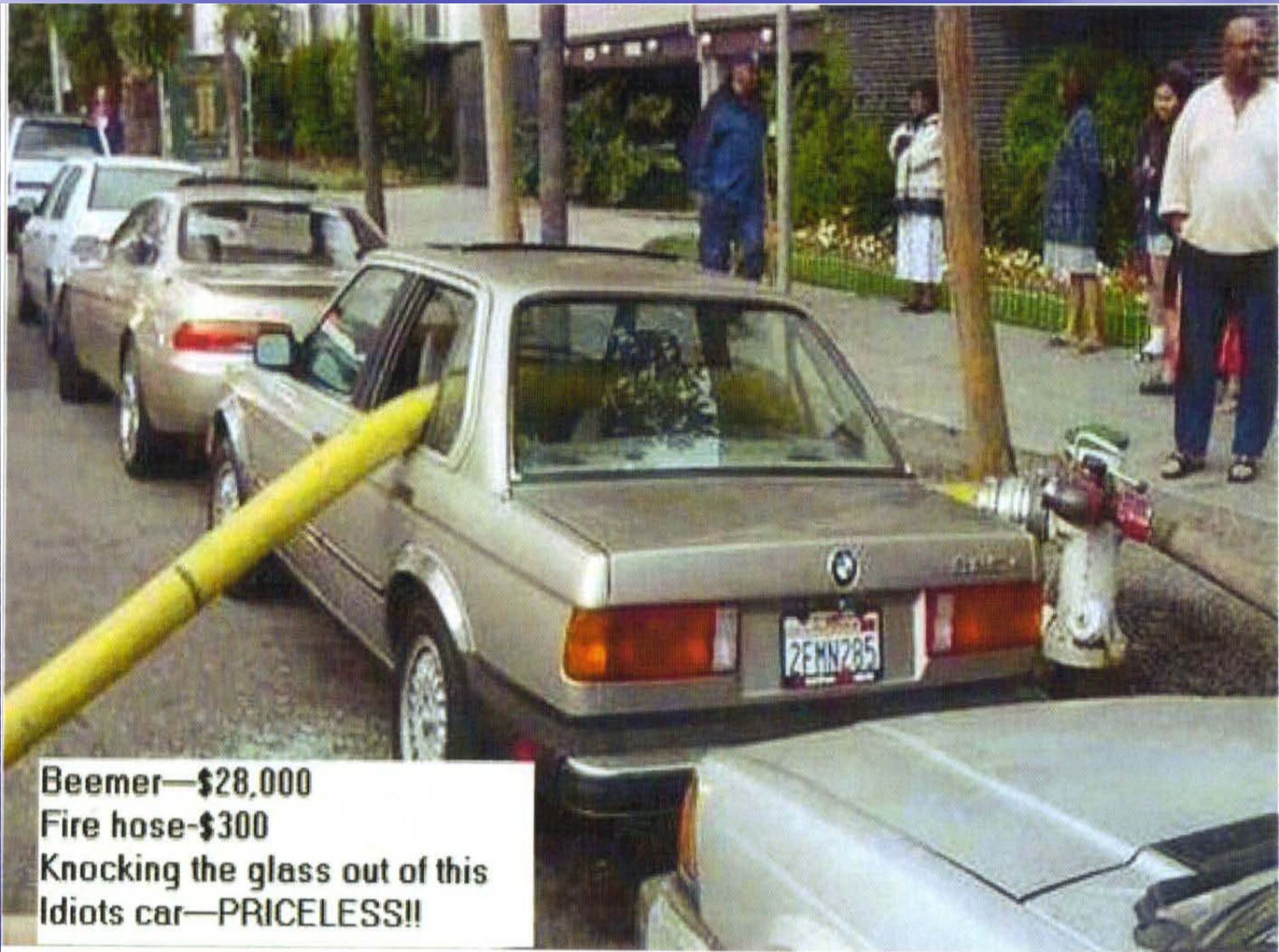
- At least monthly, the hospital inspects portable fire extinguishers
- Every 12 months the hospital performs maintenance on portable fire extinguishers
- The hospital operates fire and smoke dampers 1 year after installation and then at least every 6 years to verify that they fully close.
- Every 12 months the hospital tests automatic smoke-detection shutdown devices for air-handling equipment

Medical Equipment Maintenance

- Inspects, tests and maintains all life-support equipment.
- Inspects, tests and maintains non-life-support equipment identified on the medical equipment inventory.
- Performs equipment maintenance and chemical and biological testing of water used in hemodialysis.

Fire Code & ABHR

- Class IB: Flashpoint below 73F and having a boiling point above 100F
 - Isopropyl: Flashpoint 53F and boiling point 183F
- Maximum individual dispenser: 2.0L
- Maximum of 10G (37.85L) per smoke compartment
- The dispenser shall not be installed over or directly adjacent to an ignition source.
- ABHR dispensers must be mounted no less than 4 feet from each other, measured horizontally



Slide: Courtesy Ron Reynolds