2018 Joint Commission Hospital Accreditation Update: Environment of Care and Life Safety

A JCR Custom Education Program for the New Jersey Hospital Association

October 31, 2018

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Joint Commission Resources, Inc.
Mobile Devices

- Please turn off audible ringers as a courtesy to other participants.

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  - Thomas Magliocchetti

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– inviting you to complete our evaluation form.
  – Please watch for it – it's not spam!
  – We want to know what we did right and what we can do better.
The Joint Commission Enterprise
The Joint Commission’s Mission and Vision Statements

- **Mission**: “To continuously improve health care for the public, in collaboration with other stakeholders, by evaluating health care organizations and inspiring them to excel in providing safe and effective care of the highest quality and value.”

- **Vision**: “All people always experience the safest, highest quality, best-value health care across all settings.”
Joint Commission Background

- Private, not-for-profit organization created & governed by health care professionals
- Accrediting Ambulatory Care since 1975. Accredit over 2,000 organizations representing 6,500 sites of care
- Wide variety of ambulatory settings, including Medical Group Practices and Federally Qualified Health Centers
The Joint Commission
Disclaimer Statement

- These slides are current as of **October 31, 2018**. Joint Commission Resources reserves the right to change the content of the information, as appropriate.

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Training and Workshop Goal

- The goal of the Joint Commission Resources, New Jersey Hospital Association training workshop is to provide NJHA professionals with information about Joint Commission, Environment of Care, Emergency Management and Life Safety accreditation standards. Thomas Magliocchetti will provide information about EC, EM and LS standards, elements of performance necessary to demonstrate standards compliance, frequent survey findings and challenging standards, and strategies and resources for effective continual standards compliance.
Objectives

1. Describe the most-cited EC and LS findings
2. Discuss accreditation changes for 2019
3. Discuss challenging standards and compliance strategies
4. Discuss challenges and compliance strategies within the Behavioral Health Environment of Care
5. Articulate strategies to engage leadership in continuous accreditation readiness
Environment of Care Chapter
Environment of Care Structure

– Plan (EC.01)

– Implement (EC.02)
  – Safety & Security
  – Hazardous Materials & Waste
  – Fire Safety
  – Medical Equipment
  – Utilities
  – Physical Environment Requirements

– Staff Demonstrate Competency (EC.03)

– Monitor and Improve (EC.04)
## Time Table

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>FLEXIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every 36 months/3 years</td>
<td>+/- 45 days</td>
</tr>
<tr>
<td>Every 12 months/annually</td>
<td>+/- 30 days</td>
</tr>
<tr>
<td>Every 6 months/semiannual</td>
<td>+/- 20 days</td>
</tr>
<tr>
<td>Every 3 months/quarterly (Fire Drills)</td>
<td>+/- 10 days</td>
</tr>
<tr>
<td>Every month/30 days/12 x year</td>
<td>Once per calendar month</td>
</tr>
<tr>
<td>Every week</td>
<td>Once per calendar week</td>
</tr>
</tbody>
</table>
Life Safety Chapter
Life Safety Standards

Introduction to the Life Safety Chapter

- Standards are arranged by types of “occupancies,” as defined in the National Fire Protection Association (NFPA) Life Safety Code®* (101-2012)
Life Safety Chapter

Chapter Design

Administrative Activities
LS.01.01.01
LS.01.02.01

Healthcare Occupancy
LS.02.01.10-
LS.02.01.70

Ambulatory Healthcare Occupancy
LS.03.01.10-
LS.03.01.70
Statement of Conditions
LS.01.01.01

- EP 1: Assigned individual to assess compliance with Life Safety Code (and Manage SOC)
  - A formal assignment should be routed through the EOC/Safety Committee

- EP 2: Perform Life Safety building assessment to determine compliance in time frames identified by the hospital
  - Consider completing this task every two years – define in management plan
  - Create an assessment tracking form that includes only the LS standards and EPs that apply to your hospital
  - Divide the building into life safety zones or smoke compartments
  - Schedule inspections so that all zones are assessed every two years
  - Assign LS standards and EPs to existing tasks such as tours
Standard Changes—2018

- 283 changes to EC and LS in January
- Introduced at last year’s conference
- 3 changes to EC and LS in March
- 2 changes to EC in July
January 2018

- Number of EPs touched

<table>
<thead>
<tr>
<th>Chapter</th>
<th>NEW</th>
<th>MOVED</th>
<th>REVISED</th>
<th>REVISED &amp; MOVED</th>
<th>DELETED</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>29</td>
<td>31</td>
<td>22</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>LS</td>
<td>49</td>
<td>86</td>
<td>15</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>78</strong></td>
<td><strong>117</strong></td>
<td><strong>37</strong></td>
<td><strong>47</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**TOTAL EP's Touched**

283
March 2018—EC.02.03.05 EP 25

- Added a clarification to door inspections
  - **Fire doors** must be inspected and tested *annually* by knowledgeable individuals
  - **Non-rated doors**, including corridor doors to patient care rooms and smoke barrier doors are **NOT** subject to annual inspection and testing requirements of either NFPA 80 or NFPA 105
  - For hospitals using Joint Commission accreditation for deemed status purposes; **non-rated doors** should be **routinely** inspected and maintained in accordance with the facility maintenance program
Areas designated for administration of general anesthesia (specifically, inhaled anesthetics) using medical gases or vacuum must meet the following requirements:

- HVAC is in accordance with ASHRAE Table 170
- Medical supply and equipment manufacturers’ IFUs are considered before reducing humidity levels to 20%
- Existing smoke control systems automatically vent smoke, prevent recirculation, and do not interfere with the exhaust system. New healthcare occupancies do not require smoke control systems
- For hospitals using Joint Commission for deemed status: Existing smoke control systems are maintained according to the edition of NFPA 101 adopted by CMS at the time of installation
In existing buildings, all corridor doors are constructed to resist the passage of smoke and by closing to a positive latch… (No Change)

Note 1: For existing doors, it is acceptable to use a device that keeps the door closed when a force of five pounds is applied to the edge of the door.

Powered corridor doors are equipped with positive latching hardware unless the organization can verify that this equipment is not an option per the door manufacturer. (Documentation is required)

In instances where positive latching hardware is not an available option provided by the manufacturer, the device used must be capable of keeping the door fully closed when a force of 5 pounds is applied at the latch edge and in any direction to a sliding or folding door, whether or not power
Note 2: For hospitals that use Joint Commission accreditation for deemed status purposes: Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces (except pantries) that do not contain flammable or combustible materials are not required to have a device capable of keeping the door fully closed if a force of 5 pounds is applied at the latch edge.

In these cases, roller latches on these doors that keep a door closed when a force of 5 pounds is applied are permissible.
July 2018—EC.02.02.01 EP 7 & 17

- EP 7: Added fluoroscopy to selection and use of imaging services that pose hazardous imaging services
  - NOTE: This includes *proper use of shielding* during fluoroscopic procedures

- EP 17: Expanded applicability of activities that require *dosimeter monitoring* for staff exposure to include fluoroscopy services
  - The results must be reviewed at least quarterly by the radiation safety officer, diagnostic medical physicist, or health physicist to assure staff exposure limits are As Low As Reasonably Achievable (ALARA)
Top Most-Cited Standards
## Top 2018 Findings – Hospital

<table>
<thead>
<tr>
<th>Code</th>
<th>%</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS.02.01.35</td>
<td>88%</td>
<td>The hospital provides and maintains systems for extinguishing fires.</td>
</tr>
<tr>
<td>EC.02.05.01</td>
<td>80%</td>
<td>The hospital manages risks associated with its utility systems.</td>
</tr>
<tr>
<td>IC.02.02.01</td>
<td>74%</td>
<td>The hospital reduces the risk of infections associated with medical equipment, devices, and supplies.</td>
</tr>
<tr>
<td>EC.02.06.01</td>
<td>73%</td>
<td>The hospital establishes and maintains a safe, functional environment. Note: The environment is constructed, arranged, and maintained to foster patient safety, provide facilities for diagnosis and treatment, and provide for special services appropriate to the needs of the community.</td>
</tr>
<tr>
<td>LS.02.01.30</td>
<td>72%</td>
<td>The hospital provides and maintains building features to protect individuals from the hazards of fire and smoke.</td>
</tr>
<tr>
<td>LS.02.01.10</td>
<td>69%</td>
<td>Building and fire protection features are designed and maintained to minimize the effects of fire, smoke, and heat.</td>
</tr>
<tr>
<td>LS.02.01.20</td>
<td>66%</td>
<td>The hospital maintains the integrity of the means of egress.</td>
</tr>
<tr>
<td>EC.02.05.05</td>
<td>64%</td>
<td>The hospital inspects, tests, and maintains utility systems. Note: At times, maintenance is performed by an external service. In these cases, hospitals are not required to possess maintenance documentation but must have access to such documentation during survey and as needed.</td>
</tr>
<tr>
<td>IC.02.01.01</td>
<td>61%</td>
<td>The hospital implements its infection prevention and control plan.</td>
</tr>
<tr>
<td>EC.02.02.01</td>
<td>61%</td>
<td>The hospital manages risks related to hazardous materials and waste.</td>
</tr>
</tbody>
</table>
# Top 2017, 2016 and 2015 Findings – Hospital

<table>
<thead>
<tr>
<th>Standard</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td>LS.02.01.35</td>
<td>86%</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>EC.02.05.01</td>
<td>73%</td>
<td>57%</td>
<td>58%</td>
</tr>
<tr>
<td>IC.02.02.01</td>
<td>72%</td>
<td>60%</td>
<td>59%</td>
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<tr>
<td>LS.02.01.30</td>
<td>72%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>EC.02.06.01</td>
<td>70%</td>
<td>68%</td>
<td>62%</td>
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<tr>
<td>LS.02.01.10</td>
<td>66%</td>
<td>48%</td>
<td>45%</td>
</tr>
<tr>
<td>EC.02.02.01</td>
<td>63%</td>
<td>47%</td>
<td>39%</td>
</tr>
<tr>
<td>EC.02.05.05</td>
<td>62%</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>LS.02.01.20</td>
<td>62%</td>
<td>49%</td>
<td>51%</td>
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<tr>
<td>EC.02.05.09</td>
<td>59%</td>
<td>29%</td>
<td>30%</td>
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# Most Cited Standards, 2017: # 1

<table>
<thead>
<tr>
<th>Standard</th>
<th>2017</th>
<th>% Non-compliant</th>
<th>EP</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS.02.01.35</td>
<td>1</td>
<td>59</td>
<td>4</td>
<td>Manage systems for extinguishing fires including the integrity (nothing supported by sprinkler piping, missing escutcheons)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41</td>
<td>5</td>
<td>Sprinkler heads are not damaged. They are free of corrosion, foreign materials, paint, and have necessary escutcheon plates installed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34</td>
<td>14</td>
<td>Other issues (catch all for NFPA 99, 2012)</td>
</tr>
</tbody>
</table>
Protection LS.02.01.35
The Basics

- Provide and maintain fire extinguishing systems (LS.02.01.35)
  - Fire alarm systems monitor activation equipment
  - **Automatic sprinklers support other utilities (EP 4)**
  - Sprinkler heads are not damaged. They are also free from corrosion, foreign materials, and paint and have necessary escutcheon plates installed. (EP 5)
  - Sprinkler heads maintained - 6 per type and temperature on site (EP 7)
  - Fire extinguisher; size, cabinet, mounting, inspections
  - Other gaseous extinguishers; FM 200, Carbon Dioxide
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## Most Cited Standards: #2

<table>
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<th>Standard</th>
<th>2017 Rank</th>
<th>% Non-compliant</th>
<th>EP</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC.02.05.01</td>
<td>2</td>
<td>45%</td>
<td>8</td>
<td>Labels utility system controls to facilitate partial or complete emergency shutdowns</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40%</td>
<td>15</td>
<td>In critical areas the organization manages risk associated with Utility Systems, including Pressure relationships, Filtration, Air Exchanges (ach), and Temperature and Humidity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25%</td>
<td>16</td>
<td>In non-critical areas the organization manages risk associated with Utility Systems, including Pressure relationships, Temperature and Humidity</td>
</tr>
</tbody>
</table>
Utilities Systems—The Basics

- Utility systems are extremely important when it comes to delivering safe and reliable care
- Patient care is maximized when systems are managed efficiently
- Improperly managed systems may result in severe consequences to the patient and/or environment
Utilities Systems—Key Concepts
EC.02.05.01

- EP 1: Design and install utility systems **according to National Fire Protection Association codes** to meet patient care and operational needs

- **Note:** All utility systems, such as the fire alarm system, HVAC system, medical gases and vacuum, and automatic sprinkler systems are designed and installed according to NFPA Codes
Utilities Systems—Key Concepts
EC.02.05.01

- EP 2: Building systems are designed to meet Categories 1 – 4 requirements:
  - These are established by formal and documented risk assessment procedures by qualified personnel

- NFPA 99
  - 4.2* Risk Assessment. Categories shall be determined by following and documenting a defined risk procedure.
  - See Chapter 4 for description of the four categories related to medical gas, vacuum, electrical and electrical equipment
Utilities Systems—Key Concepts
EC.02.05.01

- EP 2: Building systems are designed to meet Categories 1 – 4 requirements:

- 4.1.1* Category 1. Facility systems in which failure of such equipment or system is likely to cause major injury or death of patients or caregivers shall be designed to meet system Category 1 requirements as defined in this code.
Utilities Systems—Key Concepts

EC.02.05.01

A.4.1.1* Category 1

- Major injury can include the following:
  - (1) Any amputation
  - (2) Loss of the sight of an eye (whether temporary or permanent)
  - (3) Chemical or hot metal burn to the eye or any penetrating injury to the eye
  - (4) Any injury that results in electric shock and electric burns leading to unconsciousness and that requires resuscitation or admittance to a hospital for 24 hours or more
  - (5) Any other injury leading to hypothermia, heat induced illness, or unconsciousness requiring resuscitation or admittance to a hospital for 24 hours or more
  - (6) Loss of consciousness caused by asphyxia or lack of oxygen or exposure to a biological agent or harmful substance
  - (7) Absorption of any substance by inhalation, skin, or ingestion causing loss of consciousness or acute illness requiring medical treatment
  - (8) Acute illness requiring medical treatment where there is reason to believe the exposure was to biological agents, it toxins, or infected materials
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 2: Building systems are designed to meet Categories 1 – 4 requirements (cont.)**

- **4.1.2* Category 2.** Facility systems in which failure of such equipment is likely to cause minor injury to patients or caregivers shall be designed to meet system Category 2 requirements as defined in this code.
Utilities Systems—Key Concepts
EC.02.05.01

A.4.1.2, Category 2
A minor injury means not serious or involving risk of life.
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 2:** Building systems are designed to meet Categories 1 – 4 requirements (cont.)

- **4.1.3 Category 3.** Facility systems in which failure of such equipment is **not likely to cause injury** to patients or caregivers, but can cause patient discomfort, shall be designed to meet system Category 3 requirements as defined in this code.
Utilities Systems—Key Concepts

EC.02.05.01

- **EP 2: Building systems are designed to meet Categories 1 – 4 requirements (cont.)**

- **4.1.4 Category 4.** Facility systems in which failure of such equipment would have no impact on patient care shall be designed to meet system Category 4 requirements as defined in this code.
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 2**: Building systems are designed to meet Categories 1 – 4 requirements (cont.)
- 4.3 Application. The Category definitions in Chapter 4 shall apply to Chapters 5 through 11.
- Chapter 5 Gas and Vacuum Systems
- Chapter 6 Electrical Systems
- Chapter 7 Information Technology and Communications Systems for Health Care Facilities (N/A)
- Chapter 8 Plumbing (N/A)
- Chapter 9 Heating, Ventilation, and Air Conditioning (HVAC)
- Chapter 10 Electrical Equipment
- Chapter 11 Gas Equipment
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 21**: Electrical distribution in the hospital is based on the following categories:
  - Category 1: Critical care rooms served by a Type 1 essential electrical system
    - (EES) in which electrical system failure is likely to cause major injury or death to patients, including all rooms where electric life support equipment is required.
  - Category 2: General care rooms served by a Type 1 or Type 2 EES in which electrical system failure is likely to cause minor injury to patients.
  - Category 3: Basic care rooms in which electrical system failure is not likely to cause injury to patients. Patient care rooms are required to have a Type 3 EES where the life safety branch has an alternate source of power that will be effective for 1½ hours.
Utilities Systems—Key Concepts
EC.02.05.01

- EP 7: Qualified individuals must determine what equipment can be moved to an Alternate Equipment Maintenance (AEM) program
- EP 8: Equipment included in an AEM must be identified on an inventory
Utilities Systems—Key Concepts
EC.02.05.01

- EP 9: Utility system controls are labeled to facilitate partial or complete emergency shut down. New language includes:
  - Utility source valves
  - Utility system main switches and valves
  - Individual circuits in electrical distribution panel
  - Fire Alarm Circuit is clearly labeled as such and is marked in red
    - Disconnect method (i.e. circuit breaker)
    - Restricted access
    - Information where the dedicated branch is located in the FA control unit
Utilities Systems—Key Concepts
EC.02.05.01

- EP 14: Pathogenic biological agents are minimized
  - Develop a water management program to reduce Legionella growth and spread in buildings. Water management is not limited to cooling towers. The CDC states:
  - “Legionella, the bacterium that causes a type of serious lung infection known as Legionnaires’ disease, grows best in building water systems that are not well maintained. Some water systems in buildings have a higher risk for Legionella growth and spread than others. Legionella water management programs are now an industry standard for large buildings in the United States (ASHRAE 188: Legionellosis: Risk Management for Building Water Systems June 26, 2015. ASHRAE: Atlanta).”
Utilities Systems—Key Concepts
EC.02.05.01

Use the CDC Tool Kit:

“Use the toolkit’s yes/no worksheet to find out if your building or certain devices in your building need a water management program.”
Utilities Systems—Key Concepts
EC.02.05.01, EP 15

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, *temperature* and *humidity* in high-risk critical care areas
  - Develop and inventory of all areas where high risk air pressures, temperatures and humidity levels are monitored:
    - Operating rooms, openings into clean corridors, sterile processing, decontamination, bronchoscopy procedure rooms, negative pressure (AII) patient isolation rooms*, cath labs, IR, protective isolation rooms (BMT)
    - *All patient isolation rooms are required to be maintained no less than -0.01 inches of water column (in. W.C.). Maintain the room at -0.03 in. W.C. Set the alarm at -0.01 in. W.C. For guidance refer to the 2014 Guidelines for Design and Construction of Hospitals and Outpatient Facilities – The Facility Guidelines Institute, 7.2.1 Exception e. & f.*
Utilities Systems—Key Concepts
EC.02.05.01

- EP 16: Ventilation system provide appropriate pressure relationship, temperature and humidity in non-critical care areas.

- Non-high risk locations often checked during surveys may include medication rooms, soiled utility rooms and clean supply rooms.
Utilities Systems—Key Concepts

EC.02.05.01

- EP 18: Medical gas storage rooms and transfer and manifold rooms comply with NFPA 99-2012: 9.3.7.5 - .8

- EP 19: EPSS equipment and environment are maintained per manufacturer recommendations including:
  - Ambient temperature of at least 40-degree Fahrenheit
  - Ventilation supply and exhaust
  - Water jacket temperature requirements
  - Crankcase heater
Utilities Systems—Key Concepts
EC.02.05.01

- EP 20: Operating rooms are considered wet procedure locations, unless otherwise determined by a risk assessment conducted by the facility governing body


- EP 22: Hospital-grade receptacles at patient bed locations and where deep sedation or general anesthesia is administered are tested after initial installation, replacement or servicing. Tamper-resistant outlets are required in pediatric locations & inpatient behavioral areas?

- Note: Non-hospital grade outlets are tested annually
Utilities Systems—Key Concepts
EC.02.05.01

EP 23: Power strips used in patient care vicinities are used for patient equipment only and are listed as UL 1363A UL60601-1 or

- Power strips used in patient room but outside of patient care vicinity must be listed as UL 1363
- In non-patient care rooms, power strips must meet other UL standards
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 25:** Areas designated for administration of general anesthesia (spherically inhaled anesthetics) using medical gases or vacuum are in accordance with NFPA 101-2012:8.7 and NFPA 99-2012 as follows:
  - Zones valves are immediately outside each location, readily available/accessible and shutting off one will not affect others
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 26**: Areas designed for administration of general anesthesia are in accordance with NFPA 101-2012: 8.7 and NFPA 99-2012 as follows:
  - The essential electrical system’s (EES) critical branch supplies power for:
    - Task illumination
    - Fixed equipment
    - Select receptacles
    - Select power circuits
  - The EES equipment system supplies power to the ventilation system.
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What’s wrong with this picture?

Endoscopy room used for bronchoscopy
<table>
<thead>
<tr>
<th>Standard</th>
<th>2017 Rank</th>
<th>% Non-compliant</th>
<th>EP</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC.02.02.01</td>
<td>3</td>
<td></td>
<td>1</td>
<td>The hospital implements infection prevention and control activities when doing the following: Cleaning and performing <strong>low-level disinfection</strong> of medical equipment, devices, and supplies. *</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>The hospital implements infection prevention and control activities when doing the following: Performing <strong>intermediate and high-level disinfection</strong> and sterilization of medical equipment, devices, and supplies. * (See also EC.02.04.03, EP 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3, 4</td>
<td>The hospital implements infection prevention and control activities when doing the following: <strong>3. Disposing</strong> of or <strong>4. Storing</strong> medical equipment, devices, and supplies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>When reprocessing <strong>single-use devices</strong>, the hospital implements infection prevention and control activities that are consistent with regulatory and professional standards.</td>
</tr>
</tbody>
</table>
What’s wrong with this picture?
What’s wrong with this picture?
# Most Cited Standards: #4

<table>
<thead>
<tr>
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<th>2017 Rank</th>
<th>% Non-compliant</th>
<th>EP</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS.02.01.30</td>
<td>4</td>
<td>38%</td>
<td>3</td>
<td>Building and fire protection features: Existing Hazardous Areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32%</td>
<td>18</td>
<td>Smoke Barrier integrity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30%</td>
<td>11</td>
<td>Corridor doors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20%</td>
<td>19</td>
<td>Smoke barrier doors</td>
</tr>
</tbody>
</table>
Protection LS.02.01.30 – Overview

- Maintain building features (LS.02.01.30)
  - Vertical Openings (stairs, utility chases, elevator shafts, etc.) (EP 1)
  - Hazardous Areas (EP 2,3,4)
  - Installation of hand sanitizers (alcohol based) (EP 6)
  - Interior finished (Class A or B)—smoke development and flame rating (EP 7, wood on walls?)
Protection LS.02.01.30 – Overview

- Maintain building features (LS.02.01.30 cont.)
  - Corridor Smoke Partitions & Corridor Doors (EP 9-16)
  - Smoke Barriers (New - 1 hr. walls vs Existing – 30 min)
  - Smoke compartments (EP 17-18)
    - New construction – two per sleeping floor. Two per floor where occupant load is 50 or more regardless of use. Space on both sides of the smoke barrier to accommodate occupants from adjoining smoke barrier.**
    - Existing construction – no more than 30 patients in a smoke compartment. Space on both sides of the smoke barrier to accommodate occupants from adjoining smoke barrier. **
Protection LS.02.01.30, EP 17-18 (cont.)

- Maintain building features (LS.02.01.30 cont.)
  - New construction – two per sleeping floor. Two per floor where occupant load is 50 or more regardless of use. Space on both sides of the smoke barrier to accommodate occupants from adjoining smoke barrier. **

- **19.3.7.5.1 Not less than 30 net ft2 (2.8 net m2) per patient in a hospital or nursing home, or not less than 15 net ft2 (1.4 netm2) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier.
Protection  LS.02.01.30, EP 17-18 (cont.)

– Maintain building features (LS.02.01.30 cont.)
  – Existing construction – no more than 30 patients in a smoke compartment. Space on both sides of the smoke barrier to accommodate occupants from adjoining smoke barrier. **

– **19.3.7.5.2 On stories not housing bedridden or litter borne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be provided on each side of the smoke barrier for the total number of occupants in adjoining compartments.
Protection LS.02.01.30 New

- **EP 2 & 3:**

- **Note: For hospitals that use Joint Commission accreditation for deemed status purposes:**

  - Doors to rooms containing flammable or combustible materials are provided with positive latching hardware.
  
  - Roller latches are prohibited on such doors.

This note does not reference a size of the room that contains flammable or combustible storage! Applies to new and existing construction.
Protection LS.02.01.30 New

- **EP 6: Alcohol based hand rubs are stored and handled in accordance with NFPA 101-2012: 8.7.3.1 UNLESS the following condition are met:**
  - Corridors are 6-feet wide
  - ABHR does not exceed 95% alcohol
  - Maximum individual dispenser is less than 0.32 gallons of fluid (0.53 gallon is suites)
  - Dispensers have a minimum of 4-ft horizontal spacing between them
  - Dispensers are not installed within 1-inch of ignition source
  - If floor is carpeted, the building must be fully sprinkled
  - Dispenser protected against inappropriate access
  - No more than aggregate of 10-gallons per smoke compartment
  - Storing of more than 5-gallons must meet NFPA 30
What’s wrong with these pictures?
What’s wrong with this picture?
What’s wrong with this picture?
What’s wrong with this picture?
## Most Cited Standards: 2017 #5 and #6

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<td>7</td>
<td>Building and fire protection general requirements: Fire-rated door</td>
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<td>10</td>
<td>Building and fire protection general requirements: Barrier Penetrations</td>
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Safe, Functional Environment—
Key Concepts EC.02.06.01

- EP 1: Interior spaces are safe and suitable to the care, treatment and services provided (CATCH ALL)
  - This is where behavioral health ligature, patient self-harm and staff harm risks are scored
  - This is where non-high risk (not in ORs or Sterile Processing related) environmental problems are identified such as – stained ceiling tile; damaged walls – ceilings – floors; door damage; door frame paint chipped; laminate broken off; raw wood; rusted surfaces

Note: Environmental problems in ORs or in Sterile Processing are identified in IC.02.01.01, EP 1. Environmental problems in the kitchen or food service areas are identified in PC.02.02.03, EP 6 when associated with food preparation or EP 11 when associated with food storage.
What’s wrong with this picture?
What’s wrong with these pictures?

Behavioral Health, Patient Room Bathroom
What’s wrong with this picture?
Most Cited Standards: 2017 #5 and #6

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General Building Requirements
LS.02.01.10—The basics

– Barriers must have protection from outside wall to outside wall, and from floor to rated ceiling or overhead deck.

– Access to these barriers should be limited to avoid inadvertent breaches, which include holes (penetrations) **Above ceiling permit?**

– Barriers must be properly repaired using proper materials to maintain protection. Are staff trained? **Easy to spot during an inspection. Mixing fire stop materials is/is not OK?**
General Building Requirements
LS.02.01.10

– **EP 1:** *Buildings meet requirements for construction type and height*
  – Types I and II construction, alternative protection measures are permitted to be substituted for sprinkler protection in specific areas where state or local regulations prohibit sprinklers (elevator shafts, main switch gear – must have documentation)
  – All new buildings are sprinkled
  – Existing buildings require sprinklers as required by construction type (high rises)
## General Building Requirements

### LS.02.01.10 EP 1

<table>
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<tr>
<th>Occupancy</th>
<th>Purpose</th>
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<td>Ambulatory health care</td>
<td>Provides services or treatment to four or more patients at the same time that either: (1) renders them incapable of providing their own means of self-preservation in an emergency or (2) provides outpatient surgical treatment requiring general anesthesia.</td>
</tr>
<tr>
<td>Business</td>
<td>Provides outpatient care, treatment, day treatment, or other services that do not meet the criteria in the ambulatory health care occupancy definition (for example, three or fewer individuals at the same time who are either rendered incapable of self-preservation in an emergency or are undergoing general anesthesia).</td>
</tr>
<tr>
<td>Health care</td>
<td>For purposes such as medical or other treatment or care of persons suffering from physical or mental illness, disease, or infirmity; and for the care of infants, convalescents, or infirm aged persons. Health care occupancies provide sleeping facilities for four or more occupants and are occupied by persons who are mostly incapable of self-preservation because of age, physical or mental disability, or security measures not under the occupant’s control. Health care occupancies include hospitals, critical care access hospitals, skilled nursing homes, and limited care facilities.</td>
</tr>
<tr>
<td>Residential</td>
<td>Provides sleeping accommodations for normal residential purposes and includes all buildings designed to provide sleeping accommodations.</td>
</tr>
</tbody>
</table>
General Building Requirements
LS.02.01.10

EP 2-5: Use of NFPA 101-2012: Chapter 43 for change of occupancy and when repairs, changes or additions are made to buildings

Who should be aware of the Chapter 43 requirements?
- Architectural firms
- Construction Managers
- Planning and Development
- Facilities & Engineering
- Hospital Leadership
General Building Requirements
LS.02.01.10

  – When you change an occupancy type (HC to BO for example) you must comply with NFPA 101-2012: 43.7, unless permitted by NFPA 101-2012:18/19.1.1.4.2.
  – 43.7.2 Change of Occupancy Classification. Where the occupancy classification of an existing building or portion of an existing building is changed, in other than historic buildings, the building shall meet the requirements of 43.7.2.1 or 43.7.2.3.
General Building Requirements
LS.02.01.10

EP 2-5: Use of NFPA 101-2012: Chapter 43 (cont.)

43.1.1 Classification of Rehabilitation Work Categories. Rehabilitation work on existing buildings shall be classified as one of the following work categories:

43.2.2.1.2 Renovation. The replacement in kind, strengthening, or upgrading of building elements, materials, equipment, or fixtures, that does not result in a reconfiguration of the building spaces within.
43.1.1 Classification of Rehabilitation Work Categories.
Rehabilitation work on existing buildings shall be classified as one of the following work categories:

43.2.2.1.3 Modification. The reconfiguration of any space; the addition, relocation, or elimination of any door or window; the addition or elimination of load-bearing elements; the reconfiguration or extension of any system; or the installation of any additional equipment.
43.1.1 Classification of Rehabilitation Work Categories.
Rehabilitation work on existing buildings shall be classified as one of the following work categories:

43.2.2.1.4* Reconstruction. The reconfiguration of a space that affects an exit or a corridor shared by more than one occupant space; or the reconfiguration of a space such that the rehabilitation work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained.
43.1.1 Classification of Rehabilitation Work Categories. Rehabilitation work on existing buildings shall be classified as one of the following work categories:

43.2.2.1.5 Change of Use. A change in the purpose or level of activity within a structure that involves a change in application of the requirements of the Code.
43.1.1 Classification of Rehabilitation Work Categories. Rehabilitation work on existing buildings shall be classified as one of the following work categories:

43.2.2.1.7 Addition. An increase in the building area, aggregate floor area, building height, or number of stories of a structure.
General Building Requirements
LS.02.01.10

- **EP 2-5: Use of NFPA 101-2012: Chapter 43 (cont.)**

Issues over the years with hospital modifications, changes and renovations

1. Wall and barrier changes (ratings requirements) without regard for barrier protection requirements

2. Fire sprinkler coverage requirements not included in the scope of a project

3. Utility requirements not considered: heating, ventilation and air conditioning not included in the scope of the project

4. Fire alarm activation and notification requirements not in the scope of the project
General Building Requirements
LS.02.01.10

- What can happen when chapter 43 is not followed for the design and construction of a renovation project:

- Scenario – a nurse station served two inpatient units in different smoke compartments. A decision was made to open the nurse station and create a centralized nurse station that served the two inpatient units.

- A part of the smoke barrier was removed at the nurse station to enhance the open concept. The demolition of the smoke barrier at the nurse station resulted in eliminating part of the required protective smoke barrier. Following the guidelines in chapter 43 would have prevented the non-compliant building modifications.
General Building Requirements
LS.02.01.10

- EP 7: Common walls are fire rated for 2-hours that are within building (occupancy separations, between buildings (two healthcare occupancies) or the building has common wall with a nonconforming building (healthcare occupancy and a business occupancy)

- EP 8: Note 2: Outpatient surgical departments are classified as ambulatory health care occupancy regardless of the number of patients served
What’s wrong with this picture?

It’s Not Considered ART!
What’s wrong with this picture?

Where is the 2 Hr Fire Barrier??
What’s wrong with this picture?
What’s wrong with this picture?
What’s wrong with this picture?
Why so much focus on doors?
They work!
Most Cited Standards: 2017 # 7 & # 8

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Hazardous Materials and Waste— The Basics  EC.02.02.01

- EP 1 The hospital maintains a written, current inventory of hazardous materials and waste that it uses, stores, or generates.

- (ADDRESSED BY LAW AND REGULATION)

- Multiple hazards are present in healthcare environments

- Not just chemicals?
Hazardous Materials and Waste—
The Basics  EC.02.02.01

– EP 1 The hospital maintains a written, current inventory of hazardous materials and waste that it uses, stores, or generates.

– There is a single inventory that identifies all HM&W addressed by law and regulation:
  – 1. OSHA regulates hazardous chemicals – specifically corrosives including – disinfectants, formaldehyde (formalin)
  – 2. Hazardous pharmaceuticals - RCRA
  – 3. Radioactive materials and gases
  – 4. Biohazard waste – trash, sharps, chemo
    – Are biohazard trash collection rooms required to be locked?
  – 5. Waste anesthesia gases
Waste Stream Analysis

Recommend performing an assessment of hazardous materials and waste addressed by law and regulation from arrival to final disposition focusing on storing, handling and transporting to determine if regulatory compliance is in place.
Hazardous Materials and Waste—Key Concepts

- EP 5: *Chemicals*
- EP 6: *Radioactive materials*
- EP 7: *Hazardous energy sources (lasers & cauterizers)*
- EP 8: *Hazardous medications*
- EP 9: *Hazardous gases and vapors*
Emergency Eyewash and Shower Equipment Federal Regulation

- Score Eyewash issues at EC.02.02.01 EP 5
- OSHA 29 CFR 1910.151 (c) “where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use
  - Risk Assessment
  - Reduce the risk [i.e. change in process, personal protective equipment (PPE)]
Emergency Eyewash and Shower Equipment Federal Recommendation

- Eyewash Station OSHA “recommends” ANSI Z358.1-2014
  - 10 seconds, unobstructed (door is considered an obstruction, ref. B5) where corrosive chemicals are used
  - One action to activate
  - Mixing valve for tepid water (60 – 100 F.), cold water requires a risk assessment
  - Weekly flush until clear, 3 minutes (Is this in the water management program?)
  - Annual inspection to ensure the system is fully functional
Controlled, low velocity flow completely rinses eyes and face and is not injurious to user. (Section 6.1.1)

Unit must deliver at least 3.0 gallons (11.4 liters) of water per minute for 15 minutes. (Section 6.1.6, 6.4.5)

Outlet heads shall be positioned between 33° (83.8 cm) and 45° (114.3 cm) from the floor and at least 6" (15.3 cm) from the wall or nearest obstruction. (Section 6.4.4)

Location
Install eye/face wash unit within 10 seconds of hazard, on the same level as hazard and with unobstructed travel path. (Section 6.4.2)

Water Temperature
Water delivered by eye/face wash shall be tepid (lukewarm). (Section 6.4.6)

Training
Instruct all employees in the location and proper use of eye/face washes. (Section 6.5.4)

Maintenance/Inspection
Activate eye/face wash at least weekly. (Section 6.5.2) Inspect annually for compliance with standard. (Section 6.5.5)

Protect spray heads from airborne contaminants. (Section 6.1.3)

Valve actuator shall be easy to locate and readily accessible to user. (Section 6.2)

"Hands-free" stay-open valve shall activate in one second or less. (Section 6.1.4, 6.2)

Connect unit to uninterruptible water supply delivering at least 3.0 GPM. (Section 6.4.5)

Identification
Identify eye/face wash with highly visible sign. Area around eye/face wash shall be well lighted. (Section 6.4.3)
Eyewash OSHA Regulation Requirements

- Medical services and first aid 1910.151(c)
  - The eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

- Formaldehyde 1910.1048(i)(3)
  - If there is any possibility that an employee's eyes may be splashed with solutions containing 0.1 percent or greater formaldehyde, the employer shall provide acceptable eyewash facilities within the immediate work area for emergency use.
Hazardous Materials and waste

  – How secure and safe is the isotope delivery process?
  – Have you had a radioactive spill exercise?

– EP 7: minimize risks associated with hazardous energy sources

Note 1: Hazardous energy is produced by both ionizing equipment (for example, radiation and x-ray equipment) and nonionizing equipment (for example, lasers and MRIs).

Note 2: This includes the use of proper shielding during fluoroscopic procedures.
Personal Protective Equipment & Testing

LEAD APRONS

DOSIMETRY BADGES

- Accurate inventory
- Testing frequencies (based on policy)
- Training for PPE users
Can lead aprons be scored because they are not properly placed on hangers?

Only if two aprons that are improperly stored are inspected and cracked lead is found in at least two improperly stored aprons.

What are the outcomes of your lead shielding inspection program? Failure rate? Reason for failures?
Hazardous Materials & Waste Management

- EP 8: Manage hazardous medication disposal risks
  - Inventory
  - EPA RCRA

- Segregated into toxic or ignitable
  - **P**: includes epinephrine, nicotine, and warfarin
  - **U**: includes cyclophosphamide, lindane, melphalan, and mitomycin C
  - Heavy metals and mercury
    - e.g. vaccines, eye/ear drops, barium
  - Ignitable - > 24% alcohol
Hazardous Materials and Waste—

- **EP 9: Hazardous gases and vapors** – Modified to include Waste Anesthetic Gas Disposal (WAGD) and Lab rooftop discharge signage
Gases & Vapors

EP 9: Minimize risks associated with hazardous gases and vapors

Note: Hazardous gases and vapors include, but are not limited to, ethylene oxide and nitrous oxide gases; vapors generated by glutaraldehyde; cauterizing equipment, such as lasers; waste anesthetic gas disposal (WAGD); and laboratory rooftop exhaust. (For full text, refer to NFPA 99-2012: 9.3.8; 9.3.9)

NFPA 45-2011, 13.2: Exhaust systems used for the removal of hazardous materials shall be identified to warn personnel of the possible hazards.
Hazardous Materials and Waste—Key Concepts

- **EP 9: Managing Hazardous gases and vapors?**
  - *Put a biohazard symbol on all hazardous exhaust discharge?*
    - *True or False?*
  - *Is Xenon a hazardous gas?*
  - *What sign is placed on a hazardous discharge exhaust?*

Patient isolation rooms; Lab hood exhaust (if exhausted to the outside); Surgical vacuum; Hot lab; Negative pressure room where xenon is administered.

False – Label for what is being discharged
Gases & Vapors

- EP 10: Gases and vapors that are monitored include, but are not limited to:
  - Formaldehyde
  - Ethylene Oxide (EtO)
  - Glutaraldehyde
  - Waste anesthetic gases
  - Acetic Acid
  - Methyl/Ethyl Alcohol
**Law**

- EP 11: The organization complies with Law, and has the appropriate
  - Permits/Licenses – EPA, DOT, etc.
  - Manifests - DOT
  - Safety Data Sheets – OSHA Hazard Communication
Applicable Laws and Regulations

- OSHA Hazard Communication Standard
- OSHA Blood borne Pathogens Standard
- OSHA Formaldehyde Standard
- OSHA Ethylene Oxide Standard
- OSHA Personal Protective Equipment Standard
- OSHA Occupational Exposure to Hazardous Chemicals in Laboratories
- EPA Regulations
- DOT Regulations
- NRC Regulations
Hazardous Materials & Waste Labeling

- **EP 12**: The hospital labels hazardous materials and waste. Labels identify the contents and hazard warning signs
  - The OSHA 29 CFR 1910.1200 (HAZCOM) requirements were replaced with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
    - Labeling Requirements
      - Transfer Containers
      - Secondary Containers
      - Clear and Legible
      - Written in English
Hazardous Materials & Waste Labeling

- Globally Harmonized System of Classification and Labeling of Chemicals (Globally Harmonized System of Classification and Labeling of Chemicals (GHS))
  - Secondary Containers
    - Sections 1910.1200(f)(6) through 1910.1200(f)(11) address the employers responsibilities to workplace labeling
    - Secondary containers only allows the employer to utilize alternative methods on individual stationary process containers [1910.1200(f)(7)]
    - Does not require labeling for portable containers in which the hazardous chemical has been transferred to and is intended for immediate use [1910.1200 (f)(8), please refer to the OSHA Hazard Communication standard for the definition of immediate use]
Hazardous Materials & Waste

EP 17: For hospitals that provide computed tomography (CT), positron emission tomography (PET), or nuclear medicine (NM) services or fluoroscopy services:

The results of staff dosimetry monitoring are reviewed at least quarterly by the radiation safety officer, diagnostic medical physicist, or health physicist to assess whether staff radiation exposure levels are “As Low As Reasonably Achievable” (ALARA) and below regulatory limits.
EC.02.02.01, EP 18

- For hospitals that use Joint Commission for deemed status purposes: Radiation workers are checked periodically, by use of meters or badge tests for the amount of exposure:
  - United States Nuclear Regulatory Commission (USNRC) 10 CFR 20.1502 requirements of monitoring occupational exposure of radiation
  - Minimize risk (EPs 6 & 7)
Hazardous Materials and Waste Disposal
EC.02.02.01, EP 19

- For hospitals that use Joint Commission for deemed status purposes: The hospital has procedures for the proper routine storage and prompt disposal of trash
  - Is staging of red bagged biohazard waste on the floor outside an operating room an issue?
What’s wrong with this picture?
What’s wrong with this picture?
What’s wrong with this picture?
## Most Cited Standards: 2017 # 7 & # 8

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Utilities Systems—Key Concepts
EC.02.05.05

- EP 1: *When performing repairs or maintenance activities, a process is used to manage risks associated with the following:*
  - Air quality requirements
  - Infection control
  - Noise
  - Odor
  - Dust
  - Vibration
  - Other hazards

- EP 2: Utility system components on the inventory are tested before initial use. *Dates and test results are documented*
Utilities Systems—Key Concepts
EC.02.05.05

Inspection, testing and maintenance on the following:

– EP 6: Non-high-risk utility system components on the inventory *(100% completion rate)*

– EP 7: *Line isolation monitors (LIM), if installed are tested monthly, annually and after any repair or renovation to the electrical distribution system. Records are maintained*

– EP 10: *The hospital meets NFPA 99-2012: Health Care Facilities Code requirements related to electrical systems and HVAC. Chapters 6 and 9 (and Tentative Interim Amendments (TIAs) 12-2 and 12-3*
# Most Cited Standards: 2017 #9 and #10

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<td>Medical gas shut off valves labeled and accessible</td>
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Means of Egress Observations
LS.02.01.20 – General Conditions

- Requirements for locking an elevator lobby – for example behavioral & infant security
- Door locking mechanisms
- Stairs and ramps have handrails
- Stairwell signage (5 or more floors)
- Exit enclosures/stairwells not used for storage
Means of Egress Observations
LS.02.01.20 – General Conditions (cont.)

- Corridors not cluttered; >50 sq. ft. of storage = hazardous in corridors (alcoves) or a room >50 sq. ft.
- Corridor projections not to exceed 6-inches (LSC), 4-inches (ADA; CMS?)
- Dead end corridors limits
- Corridor walls, barriers and doors must resist the passage of smoke
Means of Egress Observations
LS.02.01.20 – General Conditions (cont.)

– Means of egress must be adequately illuminated (2 bulbs - ?; inside vs. outside?)

– Signs are adequately lit and have letters that are four or more inches high – externally or internally lighted?

– NO (2 in.) EXIT (1 in.) signs – Where? Why?
Means of Egress Requirements
LS.02.01.20, EP 1

EP 1: Door locking in a path of egress – references delayed egress hardware

Can doors be locked in a path or egress in a health care occupancy for security reasons other than based on the patient population being served?

Yes:______

Yes, but:______

No:______

Maybe:______
General Building Requirements, Doors
LS.02.01.20, EP 1 (cont.)

– Doors

  – Locking Mechanisms: Access control, delayed egress and patient/security needs
    – Where can compliant access control door locking devices be placed? Card readers, coded push buttons.
    – Any cross corridor double doors?
    – Doors in a secured area such as behavioral and as part of an infant security system (When locking elevator lobbies check for additional requirements to prevent entrapment)
    – Anywhere as long as they are not locked in the direction of egress travel?
    – Emergency department lock-down (review LSC for lock down requirements)?
    – Surgery department security access control?
General Building Requirements, Doors
LS.02.01.20, EP 1 (cont.)

- Doors
  - **Locking Mechanisms:** Access control, delayed egress and patient/security needs
  - Doors locked (access control) in a path of egress (identified with an exit sign) require the following:
    1. Push to exit button within 5 feet of the doors
    2. Motion sensor to deactivate the locks
    3. Drop out on fire alarm activation
    4. Unlock on loss of power
    5. When activated lock remains unlocked for at least 30 seconds
    6. Drop out on sprinkler system activation
    7. Emergency egress lighting on the egress side or sides of the doors
Doors

Doors locked with delayed egress hardware in a path of egress (identified with an exit sign) are require to have deactivate:
1. Upon activation of the fire sprinkler system
2. With no more than one heat detector
3. With no more than two smoke detectors
4. Unlock on loss of power
5. Irreversible locking after activation (15-30 seconds)
6. No more than 15 lb. to activate
7. Activation hold time not more than 3 seconds
8. Compliant instructional signs on doors
9. Relocking in manual
10. Emergency egress lighting same side as lock
Means of Egress Requirements
LS.02.01.20

- EP 11: The capacity of the means of egress shall be in accordance with 7.3. (For full text refer to NFPA 101-2012: 18/19.2.3.1)

- 7.3.1.3.1 The occupant load in any building or portion thereof shall be permitted to be increased from the occupant load established for the given use in accordance with 7.3.1.2 where all other requirements of this Code are also met, based on such increased occupant load.
Means of Egress Requirements
LS.02.01.20, EP 11

- **EP 11:** The capacity of the means of egress shall be in accordance with 7.3. (For full text refer to NFPA 101-2012: 18/19.2.3.1)
  - Review Table 7.3.1.2 when considering an increase in the number of occupants in an area such as treatment areas or sleeping areas.
Means of Egress Requirements
LS.02.01.20, EP 25

- Dead end corridors limits
  - New construction – 30 feet
  - Existing construction – unlimited with the intent to correct a length in excess of 30 feet if or when a project involves egress where the dead in corridor exceeding 30 feet is located
  - CANNOT CREATE A NEW DEAD END CORRIDOR WHERE ONE DID NOT EXIST PREVIOUSLY. Consult with your architect.
Means of Egress Requirements
LS.02.01.20

– EP 38 Means of egress must be adequately illuminated (2 bulbs required per fixture - ?)
  – The life safety codes references light levels not bulbs.
    (1) During conditions of stair use, the minimum illumination for new stairs shall be at least 10 ft-candle (108 lux), measured at the walking surfaces.
    (2) The minimum illumination for floors and walking surfaces, other than new stairs during conditions of stair use, shall be to values of at least 1 ft-candle (10.8 lux), measured at the floor.

– EP 39 Illumination in the means of egress, including exit discharges, is arranged so that failure of any single light fixture or bulb will not leave the area in darkness (less than 0.2 foot candles).
Means of Egress Requirements
LS.02.01.20, EP 40

– EP 40: Exit signs are visible when the path to the exit is not readily apparent
  – 7.10.5 Illumination of Signs
  – 7.10.5.2* Continuous Illumination
  – 7.10.6 Externally Illuminated Signs
  – 7.10.7 Internally Illuminated Signs
  – 7.10.7.2** Photoluminescent Signs

*Cannot be freely switched off – restricted
**Specific types of illumination are required by manufacturer
Means of Egress Requirements
LS.02.01.20, EP 40 (cont.)

EP 40: Exit signs are visible when the path to the exit is not readily apparent

Signs required on fire exit doors (NEW CONSTRUCTION):

7.10.1.3 Exit Door Tactile Signage. Tactile signage shall be provided to meet all of the following criteria, unless otherwise provided in 7.10.1.4:

1. Tactile signage shall be located at each exit door requiring an exit sign.
2. Tactile signage shall read as follows: EXIT.
3. Tactile signage shall comply with ICC/ANSI A117.1,

Focus on Doors
The reason...
Means of Egress Requirements
LS.02.01.20

- EP 28-36 Address suite requirements
  - Non-sleeping up to 10,000 square feet
  - Patient sleeping
    - At least one egress door in every suite regardless of size exits into a corridor
    - Over 1,000 has two remote exits
    - Over 5,000 to 7,500: approved sprinkler and total coverage smoke detection system
    - Over 7,500 to 10,000: approved sprinkler and total coverage smoke detection system AND direct visual supervision
Means of Egress Requirements
LS.02.01.20

– Suite and corridor doors – Effective March 2018

– Patient sleeping and non-sleeping suite corridor doors will be required to have positive latching hardware. Door closers or automatic door opening features that keep corridor doors closed with at least five ft. lb. of force will no longer be acceptable.
What’s wrong with this picture?
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### Most Cited Standards: 2017 #9 and #10

<table>
<thead>
<tr>
<th>Standard</th>
<th>2017 Rank</th>
<th>% Non-compliant</th>
<th>EP</th>
<th>Summary</th>
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</thead>
<tbody>
<tr>
<td>LS.02.01.20</td>
<td>9</td>
<td>32%</td>
<td>11</td>
<td>Means of egress clear and unobstructed</td>
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<tr>
<td></td>
<td></td>
<td>18%</td>
<td>1</td>
<td>Locking arrangements</td>
</tr>
<tr>
<td>EC.02.05.09</td>
<td>10</td>
<td>37%</td>
<td>6</td>
<td>Medical gas cylinder management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25%</td>
<td>5</td>
<td>Medical gas shut off valves labeled and accessible</td>
</tr>
</tbody>
</table>
Utilities Systems—Key Concepts
EC.02.05.09

- **EP 1:** Medical gas, medical air, surgical vacuum, WAGD, and air supply systems are risk assessed and designated as category 1–3

- **EP 2:** Master, area and local alarms used for medical gas and vacuum systems comply with category 1-3 warnings

- **EP 3:** Containers, cylinders and tanks are designed, fabricated, tested and marked in accordance with NFPA 99—Chapter 5
Utilities Systems—Key Concepts
EC.02.05.09

- **EP 3:** Containers, cylinders and tanks are designed, fabricated, tested and marked in accordance with NFPA 99—Chapter 5

- **5.1.3.1.2** Cylinder contents shall be identified by attached labels or stencils naming the contents in accordance with CGA C-7, *Guide to the Preparation of Precautionary Labeling and Marking of Compressed Gas Containers.*
Utilities Systems—Key Concepts
EC.02.05.09

- EP 4: Locations containing medical gases must be properly labeled:
  - Oxygen or medical air gases only: “Medical Gases, No Smoking or Open Flames”
  - Other gases: “Positive Pressure Gases, No Smoking or Open Flames, Room May Have Insufficient Oxygen. Open Door and Allow Room to Ventilate Before Opening”

- Note EP 4: 5.1.1.1 These requirements shall apply to health care facilities that require Category 1 systems as referenced in Chapter 4.

- EP 4 labeling applies to: 5.1.3.1 Central Supply System Identification and Labeling. See also 5.1.3.5 Central Supply System
Utilities Systems—Key Concepts
EC.02.05.09

- **EP 4: Locations containing medical gases must be properly labeled:**

- **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
Utilities Systems—Key Concepts EC.02.05.09

– **EP 4: Locations containing medical gases must be properly labeled (cont):**

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

  Medical Gases
  NO Smoking or Open Flame
Utilities Systems—Key Concepts
EC.02.05.09

EP 5: Precautionary sign readable from five feet away on each door or gate of a cylinder storage room. Sign, at a minimum requires:

– “Caution: Oxidizing Gas(es) Stored Within, No Smoking”
– Cylinders are used in the order received First In, First Out
– Only cylinder and reusable shipping containers and their accessories are permitted to be stored in rooms containing central supply systems or gas cylinders
Utilities Systems—Key Concepts
EC.02.05.09

- **EP 6**: When the hospital uses cylinders with an integral pressure gauge, a threshold pressure considered empty is established.

- **EP 7**: Inspects, tests and maintains critical components of the piped medical gas and vacuum systems (time frame based on hospital policy)
  - In 2017, Clarifies inspection and testing: the source, distribution, inlets/outlets, and alarms that protect the piped medical gas systems.
Utilities Systems—Key Concepts
EC.02.05.09

EP 8: *Bulk oxygen above the ground must meet the following:*
- Maintained in a locked enclosure
- At least 10-feet from vehicles and sidewalks
- Required sign: “Oxygen—No Smoking—No Open Flames” signage (may be needed on all sides of the enclosure)

EP 9: *An auxiliary emergency oxygen supply connection is available for a source to connect*
Utilities Systems—Key Concepts
EC.02.05.09

EP 11: The hospital makes main supply and area shutoff valves for piped medical gas and vacuum system accessible and clearly identified as follows:

- Piping is labeled by stencil or adhesive markers identifying the gas or vacuum system, including the name of the system or chemical symbol, color code and operating pressure if other than standard
- Labels are at intervals of 20-feet or less and are in every room, at both sides of wall penetrations and on every story traversed by riser
- Piping is not painted
- Shutoff valves are identified per dash one above, room or area served and “caution, do not use valve except in emergency”
Utilities Systems—Key Concepts
EC.02.05.09

- EP 12: A policy on all cylinders within the hospital includes:
  - Proper handling and transporting
  - Physically segregating full and empty cylinders from each other
  - Labeling empty cylinders

- EP 13: Transfilling of containers is done in an area within the hospital where patients are not housed

- EP 14: Meet all code requirements for gas and vacuum systems, and gas equipment, as related to NFPA 99—2012, Chapter 5 & 11
What’s wrong with these pictures?
What’s wrong with this picture?
What’s wrong with this picture?
What’s Trending and 2019
What’s Trending?
Behavioral Health—Why all the focus?

- There is a wide range of suicide rates
  - Between 5 and 80 per 100,000 psychiatric admissions in the United States
  - An estimated 12 to 25 attempted suicides occur for every suicide death
  - Suicide is among the Top 5 sentinel events in The Joint Commission’s database
  - A Joint Commission review of inpatient suicides found that 75% involve hanging and another 20% result from patients jumping from a roof or window
What’s Trending?
Behavioral Health—Why all the focus?

- VHA facilities suicide study
  - 52% happen on inpatient psychiatric units
  - 31.4% the method was hanging (with jumping #2)
  - 41% of hanging were from doors or cabinets
  - Bedding was the ligature 40% of the time

- A separate study showed that 50% of hangings had attachment points below waist level (THE IS NOT A SAFE ZONE!)

- The “Zero Suicide” campaign has set a new bar to eliminate suicides in health care facilities
What’s Trending
Behavioral Health – Survey Process Change

– As of March 1, 2017 – surveyors have placed added emphasis on the assessment of ligature, suicide and self-harm observations in psychiatric hospitals and inpatient psychiatric patient areas in general hospitals
What’s Trending?
NFPA 99 – Chapter 4 Risk Assessment

- Design, installation and maintenance of utility systems is based on risk to patients and NOT NFPA 101 occupancy types

- The following standards required risk assessments:
  - EC.02.05.01 EP 2: Utility systems (note: HVAC is not yet called out)
  - EC.02.05.01 EP 21: Electrical distribution
  - EC.02.05.09 EP 1: Medical gas, medical air, vacuum and WAGD systems
Rehabilitation work in existing buildings must be classified using the following definitions:

- Repair
- Renovation
- Modification
- Reconstruction
- Change of use of occupancy classification
- Addition

NOTE: Major rehabilitation (modification of more than 50% or 4500 sq. ft. of the smoke compartment)
What’s Trending
NFPA 101-2012: Chapter 43

– Make sure architects, contractors and project manager are on board

– Update construction program documents to include Chapter 43 definitions
What’s Trending
Hospital has an Emergency Operations Plan

- EM.02.01.01 EP 12, EOP includes a continuity of operations plan that covers:
  - Succession plan that lists who replaces key leaders.
  - Delegation of authority plan for authorized successors.

Note: Continuity of operations plan is an essential component of emergency management planning…
What’s Trending
Hospital has an Emergency Operations Plan

- EM.02.01.01 EP 13, If hospital has one or more transplant centers:
  - Representatives included in development and maintenance of EOP.
  - Must develop and maintain mutually agreed upon protocols that address the duties and responsibilities of the hospital, each transplant center, and the organ procurement organization (OPE) for the donation service area where the hospital is situated unless granted a waiver to go work with another OPO, during and emergency.
What’s Trending
Hospital has an Emergency Operations Plan

- EM.02.01.01 EP 14, EOP includes a continuity of operations plan that covers:
  - Hospital has a procedure for requesting an 1135 waiver for care and treatment at an alternative care site.

Note: The 1135 waivers are granted by the federal government during declared public health emergencies; these waivers authorize modifications of certain federal regulatory requirements.
What’s Trending
Hospital has an Emergency Operations Plan

- EM.02.01.01 EP 15, EOP includes a continuity of operations plan that covers:
  - EOP describes a means to shelter patients, staff and volunteers on site who remain in the facility.
What’s Trending
Hospital has an Emergency Operations Plan

– EM.02.01.01 EP 16, EOP includes a continuity of operations plan that covers:
  – Hospital has one or more emergency management policies based on the emergency plan, risk assessment and communications plan.
  – Procedures guiding implementation are defined in the emergency management plan, continuity of operations plan and other preparedness and response protocols.
  – Annually reviewed (Format of document at discretion of hospital)
What’s Trending
Hospital prepares how it will communicate during emergencies

- EM.02.02.01 EP 20, Hospital maintains reliable communications capabilities:
  - Maintains names and contact lists

- EM.02.02.01 EP 21, Hospital maintains reliable communications capabilities:
  - Process for communicating about general condition of patients and location.
  - Process in the event of an evacuation to release patient information to families, patient representatives, or others responsible for care of patients.
What’s Trending
Hospital prepares how it will communicate during emergencies

- EM.02.02.01 EP 20, Hospital maintains reliable communications capabilities:
  - Organization maintains documentation of completed and attempted contacts with local, state, tribal, regional, and federal emergency preparedness officials in its service area.
What’s Trending

If hospital is part of a system that has integrated emergency preparedness program, participates in planning, preparedness, and response activities with the system.

- EM.04.01.01 EP 1, demonstrates its participation:
  - staff members who will collaborate.
  - Has reviewed community based risks.
  - Hospital’s individual risk assessment is incorporated.
  - Hospital patient population, services offered and any unique circumstances are reflected in system plan.
  - Integrated communications
  - Annual review.

Note: Continuity of operations plan is an essential component of emergency management planning...
What’s Trending

If hospital is part of a system that has integrated emergency preparedness program, participates in planning, preparedness, and response activities with the system.

– EM.04.01.01 EP 2, demonstrates its participation:
  – Has implemented communications for planning and response activities in coordination with system plan.
What’s Trending

If hospital is part of a system that has integrated emergency preparedness program, participates in planning, preparedness, and response activities with the system.

- EM.04.01.01 EP 3, Integrated emergency management policies, procedures or plans address the following:
  - Identification of hospital’s emergency preparedness, response and recovery activities that can be coordinated with system plan.
  - Hospital’s communications with local, tribal, regional, state or federal officials through system plan.
  - Coordination of continuity of operations planning.
  - Plans and procedures for integrated training and exercise activities.
What’s Trending
Line Isolation Monitors

– EC.02.05.01 EP 20: Operating rooms are considered wet procedure locations, unless otherwise determined by a risk assessment
  – Wet environments are protected by either isolated power or ground-fault circuit interrupters
What’s Trending
Water Management Programs

- Legionella—EC.02.05.01 EP 14
  - Ref: S & C 17-30- Hospitals, Critical Access Hospitals and Nursing Homes issued June 02, 2017
  - Training: September 22, 2017
  - Article in EC News: September 2017
What’s Trending
Water Management Programs

CMS S&C Legionella Memo

Expectations for Healthcare Facilities and Surveyors

Review policies and procedures and reports documenting water management implementation results to verify that the facility has:

- Conducted risk assessment for potential areas of growth and spread.
- Implemented a water management program that considers the ASHRAE industry standard and CDC toolkit and that includes control measures (e.g., physical controls, temperature management, disinfectant level control, visual inspections, and environmental testing).
- Specified testing protocols and acceptable ranges for control measures and documented the results of testing and corrective actions taken when control limits are not maintained.

ASHRAE 188

Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings

A PRACTICAL GUIDE TO IMPLEMENTING INDUSTRY STANDARDS

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What’s Trending
Focus on Surgical Site Fires & Prevention Standards

– The hospital manages fire risks (EC.02.03.01 EP 11)
  – Periodic evaluations of potential fire hazards during surgical procedures
  – Written fire prevention and response procedures include use of flammable germicides or antiseptics

Airway Surgical Fire
What’s Trending
Focus on Surgical Site Fires & Prevention Standards

– The hospital manages fire risks (EC.02.03.01 EP 12)

– The following is required when using flammable germicides or antiseptics AND electrosurgery, cauterity, or lasers
  – Nonflammable packaging
  – Unit dose applicators
  – “Time-out” prior to initiating surgical procedure to verify
    – Application site is dry prior to draping
    – Pooling of solutions has not occurred or corrected
    – Solution soaked materials removed from the room prior to draping
Standard EC.02.04.03 (Pre Publish 2019)
Elements of Performance for EC.02.04.03

- For diagnostic computed tomography (CT) services: At least annually, a diagnostic medical physicist conducts a performance evaluation of all CT imaging equipment. The evaluation results, along with recommendations for correcting any problems identified are documented. The evaluation includes the use of phantoms to assess the following imaging metrics:
  - Image uniformity
  - Scout prescription accuracy
  - Alignment light accuracy
  - Table travel accuracy
  - Radiation beam width
For diagnostic computed tomography (CT) services: At least annually, a diagnostic medical physicist conducts a performance evaluation of all CT imaging equipment. The evaluation results, along with recommendations for correcting any problems identified, are documented. The evaluation includes the use of phantoms to assess the following imaging metrics:

- High-contrast resolution
- Low-contrast detectability
- Geometric or distance accuracy
- CT number accuracy and uniformity
- Artifact evaluation
Standard EC.02.04.03 (Pre Publish 2019)
Elements of Performance for EC.02.04.03

– Note 1: This element of performance does not apply to dental cone beam CT radiographic imaging studies performed for diagnosis of conditions affecting the maxillofacial region or to obtain guidance for the treatment of such conditions.

– Note 2: Medical physicists are accountable for these activities. They may be assisted with the testing and evaluation of equipment performance by individuals who have the required training and skills, as determined by the physicist. (For more information, refer to HR.01.02.01, EP 1; HR.01.02.05, EP 20; HR.01.02.07, EPs 1 and 2; HR.01.06.01, EP 1; LD.03.06.01, EP 4.)
Important Topics and Significant Challenges with Standards and Elements of Performance
**Important Topics**

**Life Safety Code Surveyor Days Onsite**

<table>
<thead>
<tr>
<th>Gross Building Square Footage</th>
<th>LSCS Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 1,000,000</td>
<td>2 LSCS Days</td>
</tr>
<tr>
<td>1,000,000 – 1,500,000</td>
<td>3 LSCS Days</td>
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<tr>
<td>&gt;1,500,000</td>
<td>LSC FD Review</td>
</tr>
</tbody>
</table>

**Non Hospital Life Safety Code Surveyor Days - 2018**

<table>
<thead>
<tr>
<th>Gross Building Square Footage</th>
<th>LSCS Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHC / ASC</td>
<td>1 LSCS Day</td>
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<tr>
<td>Med Def</td>
<td>1 LSCS Day</td>
</tr>
<tr>
<td>SSU / OQPS</td>
<td>1 LSCS Day</td>
</tr>
</tbody>
</table>
Important Topics

LSC Surveyor Pre Survey Review

- Statement of Conditions (SOC) and Basic Building Information (BBI)
- Previous report and Evidence of Standards Compliance (ESC)
- Public Website
- Surveyor Resources
## Important Information

### LSC Surveyor Agenda

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<th>Day 1</th>
<th>Day 2</th>
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</thead>
<tbody>
<tr>
<td><strong>0800 - 0900</strong> Facility Orientation</td>
<td><strong>0800 - 0815</strong> Day #1 Morning Briefing</td>
</tr>
<tr>
<td><strong>0900 – 0930</strong> Opening Conference/Introductions Only</td>
<td><strong>0815 – 1200</strong> Building Tour Cont’d</td>
</tr>
<tr>
<td><strong>0930 – 1045ish</strong> Document Review</td>
<td><strong>1200 – 1230</strong> Lunch</td>
</tr>
<tr>
<td><strong>1045 – 1200</strong> Pressure Relationships (OR’s/SPD)</td>
<td><strong>1230 – 1430</strong> EC/EM Sessions (Separate)</td>
</tr>
<tr>
<td><strong>1200 – 1230</strong> Lunch</td>
<td><strong>1430 – 1530</strong> Enter day #2 Findings into report</td>
</tr>
<tr>
<td><strong>1230 – 1600</strong> Building Tour (End of day Findings)</td>
<td><strong>1530 – 1600</strong> Interim LSCS Exit/Team Exit</td>
</tr>
</tbody>
</table>
Important Topics
Life Safety Code Surveyor—Day One—Morning

- Upon arrival, complete a tracer on the Main Fire Alarm Panel
  - Verify the panel is functional (trouble/supervisory/bypass)
  - Check labeling for location of panel
  - Trace to panel and breaker
Important Topics
LSCS—Day One—Morning—Facility Orientation

- Review Life Safety Drawings to become oriented to the layout of the building
- Review documentation supporting approved Equivalencies or Waivers
- Discuss Barrier Management Program & above the ceiling work
Important Topics
LSCS—Day One—Morning—Facility Orientation

- Visit generators
  - Obtain name plate info, look for EPO

- Visit fire pump room
  - Electric or diesel (Day tank at least 2/3 full)
  - Spare Sprinkler Heads and Tool 100-degrees F
Important Topics
LSCS—Day One—Document Review

- Paper or electronic
- 90-minutes is the goal!
- Same checklist for LSCS/Hospital

Lists Standards, EP and time frequency
Open Book Test
Important Topics
LSCS—Day One—Document Review

- Policies and procedure for Interim Life Safety Measures (ILSM)
- Written fire response plan—place a copy in PBX or Security
- Evaluations of fire drills conducted for the past 12-months—complete fire drill matrix
- Maintenance records for fire protection & suppression equipment
- Maintenance records for emergency power systems
- Maintenance records for piped medical gas and vacuum systems
## Important Topics

### LSCS—Day One—Document List & Review Tool

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<tr>
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</thead>
<tbody>
<tr>
<td>EC.02.03.05</td>
<td></td>
<td>Fire Protection and Suppression Testing and Inspection</td>
<td>Quarterly</td>
<td></td>
<td></td>
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<tr>
<td>EP 1</td>
<td></td>
<td>Supervisory Signals-including: Control valves; pressure supervisory; pressure tank, pressure supervisory for a dry pipe (both high and low conditions), steam pressure; water level supervisory signal initiating device; water temperature supervisory; and room temperature supervisory</td>
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<tr>
<td>EP 2</td>
<td></td>
<td>Diesel-engine driven fire pumps tested under no-flow conditions</td>
<td>Weekly</td>
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<td>EP 3</td>
<td></td>
<td>Water storage tank high and mandatory alarms</td>
<td>Semiannually</td>
<td></td>
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<td></td>
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<tr>
<td>EP 9</td>
<td></td>
<td>Water storage tank low water alarm (cold weather only)</td>
<td>Monthly</td>
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<td>EP 10</td>
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<td>Sprinkler systems main drain tests on all levels</td>
<td>Annually</td>
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<td>EP 12</td>
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<td>Fire department connections inspected (Fire hose connections N/A)</td>
<td>Quarterly</td>
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<td>EP 13</td>
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<td>Fire pump(s) tested – under flow</td>
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<td>EP 14</td>
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<td>Standpipe flow test every 5 years</td>
<td>5 Years</td>
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<td>EP 15</td>
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<td>Intermittent sprinkler semi-annual testing</td>
<td>Semiannually</td>
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<td>EP 16</td>
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<td>Galbade extinguishing systems inspected (no discharge req.)</td>
<td>Annually</td>
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<td>EP 17</td>
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<td>Portable fire extinguishers inspected monthly</td>
<td>Monthly</td>
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<td>EP 18</td>
<td></td>
<td>Portable fire extinguishers maintained annually</td>
<td>Annually</td>
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<tr>
<td>EP 19</td>
<td></td>
<td>Fire hoses hydro tested 5 years after install; every 5 years thereafter</td>
<td>5 Years / 5 Years</td>
<td></td>
<td></td>
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<tr>
<td>EP 20</td>
<td></td>
<td>Smoke and fire sprinkler tested to verify full closure</td>
<td>At least every 5 years thereafter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP 21</td>
<td></td>
<td>Smoke detection shutdown devices for HVAC tested</td>
<td>Annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP 22</td>
<td></td>
<td>All horizontal and vertical roller and glass doors tested</td>
<td>Annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP 23</td>
<td></td>
<td>Inspection and testing of door assemblies by qualified person</td>
<td>Annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP 24</td>
<td></td>
<td>Documentation of maintenance testing and inspection activities for items 1, 20 and 24 includes: activity name; date; inventory or devices, equipment or other items; frequency; contact info for person performing activity; NFPA standard; activity results</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Important Topics

**LSCS—Day One—Fire Drill Matrix**

<table>
<thead>
<tr>
<th>Hospital Name:</th>
<th>Score at EC.02 03.03 EP3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quarterly Hospital Fire Drills</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Day = M, Tu, W, Th, F, Sa, Su</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Time: 24 hour formatted</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location/Building</strong></td>
<td>Day</td>
<td>Date</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td><strong>1st Shift</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LSM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location/Building</strong></td>
<td>Day</td>
<td>Date</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td><strong>2nd Shift</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LSM</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Location/Building</strong></td>
<td>Day</td>
<td>Date</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td><strong>3rd Shift</strong></td>
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<td></td>
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</tr>
<tr>
<td><strong>LSM</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location/Building</strong></td>
<td>Day</td>
<td>Date</td>
<td>Time</td>
<td></td>
</tr>
</tbody>
</table>

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# Important Topics

## LSCS—Day One—Building Tour Guidance Document

<table>
<thead>
<tr>
<th>Construction Areas</th>
<th>LS.01.02.01</th>
<th>EC.02.06.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify implementation of ILSMs at demolition, construction and renovation locations within the facility</td>
<td>LS.01.02.01</td>
<td>LS.02.01.34</td>
</tr>
<tr>
<td><strong>MAIN Fire Alarm Control Panels</strong></td>
<td>LS.01.02.01 EP1</td>
<td>LS.02.01.34 EP2</td>
</tr>
<tr>
<td>a. If panel is not working/in trouble without staff knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Installed in properly protected area</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAIN Piped Medical Gas Panels</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Working condition of main medical gas alarm panels (i.e., trouble indications)</td>
<td>EC.02.05.09 EP 7</td>
<td></td>
</tr>
<tr>
<td>b. Not at a continuously attended location (e.g., PBX, ED, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bulk Oxygen/Medical Gas Tank Farm or Main Medical Gas Storage Area</strong></td>
<td>EC.02.05.09 EP1</td>
<td></td>
</tr>
<tr>
<td>a. Condition of equipment – status, open valves, piping, tanks flexible attached connections</td>
<td>EC.02.05.09 EP 7</td>
<td></td>
</tr>
<tr>
<td>b. Storage configuration and labeling (i.e., cylinder, precautionary room/are signage, full/empty)</td>
<td>EC.02.05.09 EP 7</td>
<td></td>
</tr>
<tr>
<td>c. Outdoor storage (weather protection for outside cylinders)</td>
<td>EC.02.05.09 EP5</td>
<td></td>
</tr>
<tr>
<td>d. Proper labeling and accessibility of main control and source valves</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OR Suite</strong></td>
<td>EC.02.05.01 EP15</td>
<td></td>
</tr>
<tr>
<td>a. Pressure relationships (check during survey), air exchange rates (balance reports)</td>
<td>EC.02.05.01 EP 15</td>
<td></td>
</tr>
<tr>
<td>b. Temperature/humidity levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Surgical fire prevention activities</td>
<td>EC.02.03.01 EP1</td>
<td></td>
</tr>
</tbody>
</table>
Important Topics
LSCS—Day One—Morning—Pressure Relationships

- OR’s—Positive to adjacent
- SPD—Decontamination—Negative to adjacent
- SPD—Prep/Pack, Sterilizing, Sterile storage—Positive to adjacent
- AIIR’s—Negative to corridor, .01” W.C.
- Soiled Utility—Negative to corridor

**TIPS FOR SUCCESS:** When you announce The Joint Commission in-house—someone, please check the critical pressure relationships
Important Topics
LSCS—Day One—Afternoon—Building Tour
Important Topics
LSCS—Day One—Building Tour

- FD’s—Label, Gap, Close, Latch, Plates
- SD’s—Close, Gap
- Corridor doors, latching hardware, no more 5lb exception
- Above ceiling—sprinkler pipes, barriers, j-box, medial gas piping
- Entire building for EC, Hospital and Ambulatory for LS
- ILSM’s must be completed for all LS deficiencies
## Important Topics

### LSCS—Average Number of RFI’s per Survey

<table>
<thead>
<tr>
<th>Year</th>
<th>SAFER (N)</th>
<th>“C” Category RFI’s (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 YTD</td>
<td>15.01</td>
<td>6.02</td>
</tr>
<tr>
<td>N = 632</td>
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<tr>
<td>2017</td>
<td>12.84</td>
<td></td>
</tr>
<tr>
<td>N = 1448</td>
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<td>2016</td>
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<tr>
<td>N = 1448</td>
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<tr>
<td>2015</td>
<td>5.48</td>
<td></td>
</tr>
<tr>
<td>N = 1457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>6.02</td>
<td></td>
</tr>
<tr>
<td>N = 1241</td>
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<td></td>
</tr>
</tbody>
</table>

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Important Topics
Survey Related Plan for Improvement (SPFI) Required
Important Topics
Time Limited Waiver (TLW)

**TIP**
Time Limited Waivers may also be created by going directly to the Time Limited Waiver / Equivalency tab and selecting “Add New Time Limited Waiver/Equivalency”.

---

**Summary of Time Limited Waiver/Equivalency Items:**

- **Add New Time Limited Waiver/Equivalency**

<table>
<thead>
<tr>
<th>View/Edit</th>
<th>ID</th>
<th>FFIS/SPFI</th>
<th>Requestor</th>
<th>Submit Date</th>
<th>Status</th>
<th>Doc’s Received?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No records to display.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Request Information**

- **Request Type**
  - Time Limited Waiver
  - Fire Safety Evaluation System (FSES)
  - Traditional Equivalency

- **Purpose**
  - None Submitted
  - Previously Denied
  - Previously Accepted

- **Survey Date** (if applicable)

- **LSC Occupancy**
  - Classification: Health Care, Ambulatory, Residential, Business

- **LSC Section**
  - Section 18/19.1.1 Applications

---

**LSM Implementation as per Policy**

- [ ]

- **Request Summary (Include Timeline and Deliverables)**

- **Proposed Corrective Action**

---

**Upload Equivalency Documents**

- **Upload New Document**

<table>
<thead>
<tr>
<th>File Name</th>
<th>Fire Description</th>
<th>Uploaded By</th>
<th>Delete</th>
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</thead>
<tbody>
<tr>
<td>No records available to</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Important Topics

### Follow Up Surveys—Hospital Programs

<table>
<thead>
<tr>
<th></th>
<th>2018 YTD</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 508</td>
<td>N = 1264</td>
<td>N = 1241</td>
</tr>
<tr>
<td>51.57%</td>
<td>48.97%</td>
<td>31.5%</td>
<td></td>
</tr>
</tbody>
</table>
Fire Safety Equipment
EC.02.03.05

- EPs 1-27  Possible fire equipment or fire safety building

Regardless of building size or occupancy; if the equipment is installed, it must be maintained and documented (EC.02.03.05 EP 1-28)
EC.02.03.05, EP18
Fire Dampers

- Stops the passage of fire through ventilation ductwork
- Activated by fusible link
- Inspected and tested within one year after installation and every six years thereafter
  - Non-hospital 4 years
EC.02.03.05, EP18
Smoke Dampers

- Stops the passage of smoke through ventilation ductwork
- Activated by external smoke detector
- Must be installed within 24 inches of smoke partitions
- Inspected and tested within one year after installation and every six years thereafter
  - Non-hospital 4 years
- Smoke dampers are not required by 2012 NFPA 101, if your hospital is fully sprinkled & has ducted supply and return HVAC system
EC.02.03.05, EP19
Ventilation Shut-Down Devices

- If smoke is sensed, device stops ventilation fans from spreading smoke throughout the building
- Located in air handler equipment room in the ductwork of ventilation units
- Must be tested annually
Duct Detector Testing
Air Handler Shut Down

Best Practices
Use Building Automation to Document
- Alarm Activation
- Fan status (supply and return)
- Return to normal

This form documents detector testing only – Not compliant
EC.02.03.05
Fire Safety Equipment

- EP 25: The hospital has written documentation of annual inspection and testing of door assemblies
  - Testing must be performed by individuals who can demonstrate knowledge and understanding of the operating components
  - Testing begins with a pre-test visual inspection; testing includes both sides of the (door) opening

Note: For additional guidance on testing of door assemblies, see NFPA 101-2012: 7.2.1.5.10.1; 7.2.1.5.11, 7.2.1.15; NFPA 80-2010: 4.8.4; 5.2.1; 5.2.3; 5.2.4; 5.2.6; 5.2.7; 6.3.1.7; NFPA 105-2010: 5.2.1.
Fire Safety Equipment
EC.02.03.05

EP 25: The hospital has written documentation of annual inspection and testing of door assemblies

New in 2018:
- Addition of 7.2.1.15:
  - **7.2.1.15.1** Where required by Chapters 11 through 43, the following door assemblies shall be inspected and tested not less than annually in accordance with 7.2.1.15.2 through 7.2.1.15.8:
    1. Door leaves equipped with panic hardware or fire exit hardware in accordance with 7.2.1.7
    2. Door assemblies in exit enclosures
    3. Electrically controlled egress doors
    4. Door assemblies with special locking arrangements subject to 7.2.1.6
Fire Safety Equipment
EC.02.03.05

EP 25: The hospital has written documentation of annual inspection and testing of door assemblies

CMS Issues Memo on Fire and Smoke Doors

The 2012 code includes provisions under Section 7.2.1.15 (Inspection of Door Openings) for the annual inspection and testing of certain fire doors and smoke doors assemblies pursuant to the 2010 editions of NFPA 80–Standard for Fire Doors and Other Opening Protectives and NFPA 105–Standard for Smoke Door Assemblies and Other Opening Protectives.

These provisions require certain fire door and smoke door assemblies to be inspected and tested annually in accordance with the NFPA 80 and NFPA 105. However, section 7.2.1.15.1 states that these requirements only apply where required by Chapters 11 through 43. Therefore, these new annual inspection and testing requirements do not apply to structures classified in the Life Safety Code as health care occupancies. Smoke doors and corridor doors are not required to be included in the annual fire rated door inspection process.
Fire Safety Equipment
EC.02.03.05

EP 28: Documentation requirements
- Name of activity
- Date of activity
- Inventory of devices
- Required frequency of activity
- Name and contact information, including affiliation, of the person doing the work
- NFPA standard(s) referenced for the activity
- Results of the activity

This includes contracted testing and should include in-house testing
Utilities Systems—Key Concepts

EC.02.05.01, EP 15

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, temperature and humidity in high-risk critical care areas
  - Develop and inventory of all areas where high risk air pressures, temperatures and humidity levels are monitored:
    - Operating rooms, openings into clean corridors, sterile processing, decontamination, bronchoscopy procedure rooms, negative pressure (AII) patient isolation rooms*, cath labs, IR, protective isolation rooms (BMT)
    - *All patient isolation rooms are required to be maintained no less than -0.01 inches of water column (in. W.C.). Maintain the room at -0.03 in. W.C. Set the alarm at -0.01 in. W.C. For guidance refer to the 2014 Guidelines for Design and Construction of Hospitals and Outpatient Facilities – The Facility Guidelines Institute, 7.2.1 Exception e. & f.
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, *temperature* and *humidity* in high-risk critical care areas.

- When a building automation program is used for continuing monitoring of air pressure, temperature and/or humidity produce a snapshot of a point in time for all monitored points.
  - A written procedure needs to be available in the monitored areas and at the monitoring location that describes each step that takes place when an alarm occurs. Alarms need to be documented and a method developed that can support all steps were taken up to and including resolution of the alarm condition.
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, temperature and humidity in high-risk critical care areas.

- It is highly recommended that manual verification of air pressure differentials in high risk areas is checked monthly even when using continuous monitoring by a building automation system.

- It may not be possible to maintain the correct air pressure differential in a room if all openings are not continuously monitored or manually tested.

  - Note: It is possible to have a Test and Balance (T&B) report that identifies a room as having positive pressure based on calculations alone and the room is not positive at all openings. Always have a the T&B company check air pressures across every opening and record the differential at each opening.
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, **temperature** and **humidity** in high-risk critical care areas

- When an incorrect air pressure condition occurs in a high-risk area, corrective action should be immediate.
  - On a survey corrective actions may be permitted to be corrected and a recheck done by the surveyor before the end of the survey.
  - Once corrections are made check any surrounding spaces to verify that the corrective actions did not compromise any associated space.
  - Recheck the space where corrections were made daily for a week and weekly for a month to verify corrective actions were sustained.
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, **temperature** and **humidity** in high-risk critical care areas.

- Can temperature and humidity be lowered below the adopted range? Yes, based on hospital policy.
  - Refer to ASHRAE table 7.1 in the 2014 FGI design guidelines:
    Note (o): Surgeons or surgical procedures may require room temperatures, ventilation rates, humidity ranges and/or air distribution methods that exceed the minimum indicated ranges.
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

- EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, **temperature** and **humidity** in critical care areas.

- A written step-by-step process is required that describes how infection control systems (on inventory) are managed during a failure, outage, and scheduled maintenance activities.
  - If exhaust is lost for a negative pressure (All) room or operating room how is notification of staff accomplished (24/7)
  - If there are air handler issues with an OR air handler how is notification of staff accomplished (24/7)
  - If the exhaust fan in the sterilizer equipment room fails how is notification of SPD staff accomplished (24/7)
Utilities Systems—Key Concepts
EC.02.05.01, EP 15 (cont.)

– EP 15: Ventilation system provides appropriate pressure relationship, air exchange rates, filtration efficiencies, temperature and humidity in critical care areas

– Can sterile packs be stored in rooms and locations where pressure, temperature and humidity are not monitored?
  – Based on hospital policy developed by IPC
    – Develop and inventory of all locations where sterile packs are stored such as ED trauma rooms, L&D, Anesthesia work room, Clean supply storage rooms, Endoscopy procedure rooms, IR, Cath Lab
    – IPC needs to validate storage locations are acceptable
    – Written procedures outline – packs are stored to prevent tampering or damage; visual inspection of outer wrap before opening; careful inspection of contents when opened.
Utilities Systems—Key Concepts

EC.02.05.01

- EP 16: Ventilation system provide appropriate pressure relationship, temperature and humidity in non-critical care areas.
- Non-high-risk locations often checked during surveys may include medication rooms, soiled utility rooms and clean supply rooms.
Utilities Systems—Key Concepts
EC.02.05.01

- EP 18: Medical gas storage rooms and transfer and manifold rooms comply with NFPA 99-2012: 9.3.7.5 - .8

- EP 19: EPSS equipment and environment are maintained per manufacturer recommendations including:
  - Ambient temperature of at least 40-degree Fahrenheit
  - Ventilation supply and exhaust
  - Water jacket temperature requirements
  - Crankcase heater
Utilities Systems—Key Concepts
EC.02.05.01

- **EP 20:** Operating rooms are considered wet procedure locations, unless otherwise determined by a risk assessment conducted by the facility governing body

- **EP 21:** Electrical distribution in the hospital is based on the categories outlined in NFPA 99-2012 edition

- **EP 22:** Hospital-grade receptacles at patient bed locations and where deep sedation or general anesthesia is administered are tested after initial installation, replacement or servicing. Tamper-resistant outlets are required in pediatric locations & inpatient behavioral areas?

Note: Non-hospital grade outlets are tested annually
Utilities Systems—Key Concepts
EC.02.05.01

- EP 25: Areas designated for administration of general anesthesia (spherically inhaled anesthetics) using medical gases or vacuum are in accordance with NFPA 101-2012:8.7 and NFPA 99-2012 as follows:
  - Zones valves are immediately outside each location, readily available/accessible and shutting off one will not affect others
Utilities Systems—Key Concepts

EC.02.05.01

- **EP 25:** Areas designated for administration of general anesthesia (spherically inhaled anesthetics) using medical gases or vacuum are in accordance with NFPA 101-2012:8.7 and NFPA 99-2012 as follows (cont.):

  - Alarm sensors are installed either on the sources side of the individual room zone valve box assemblies or on the patient/use side
Utilities Systems—Key Concepts
EC.02.05.01

EP 26: Areas designed for administration of general anesthesia are in accordance with NFPA 101-2012: 8.7 and NFPA 99-2012 as follows:

- The essential electrical system’s (EES) critical branch supplies power for:
  - Task illumination
  - Fixed equipment
  - Select receptacles
  - Select power circuits
- The EES equipment system supplies power to the ventilation system
Utilities Systems—Key Concepts
EC.02.05.03

- **EP 1:** Facilities constructed or having occupancy change or major renovations after 1983 must have essential electrical system divided into three branches (life safety, critical and equipment)
Life Safety Standards

Introduction to the Life Safety Chapter

- Standards are arranged by types of “occupancies,” as defined in the National Fire Protection Association (NFPA) Life Safety Code®* (101-2012).
Life Safety Chapter

Chapter Design

Administrative Activities
LS.01.01.01
LS.01.02.01

Healthcare Occupancy
LS.02.01.10-
LS.02.01.70

Ambulatory Healthcare Occupancy
LS.03.01.10-
LS.03.01.70
Statement of Conditions
LS.01.01.01

- EP 1: Assigned individual to assess compliance with Life Safety Code (and Manage SOC)
  - A formal assignment should be routed through the EOC/Safety Committee

- EP 2: Perform Life Safety building assessment to determine compliance in time frames identified by the hospital
  - Consider completing this task every two years – define in management plan
  - Create an assessment tracking form that includes only the LS standards and EPs that apply to your hospital
  - Divide the building into life safety zones or smoke compartments
  - Schedule inspections so that all zones are assessed every two years
  - Assign LS standards and EPs to existing tasks such as tours
Statement of Conditions
LS.01.01.01

- EP 3: Current and accurate Life Safety drawings include:
  - Areas of the building that are fully sprinkled (if the building is partially sprinkled)
  - Locations of all hazardous storage areas
    - Soiled utility rooms (any size) and storage rooms greater than 50 sq. ft.
  - Locations of all fire-rated barriers
  - Locations of all smoke-rated barriers
  - Sleeping and non-sleeping suite boundaries, including the size of the identified suites
    - Identify suite egress doors
  - Locations of designated smoke compartments
  - Locations of chutes and shafts
Statement of Conditions
LS.01.01.01

- EP 4: SPFI – Survey Related Plan For Improvement (60-days)
- EP 5: Maintain documentation of inspections and approval made by state or local fire control agencies
- EP 6: Existing Life Safety features cannot be removed or minimized
  - Or can they? Downgraded 2 hour walls that have become smoke barriers because of becoming sprinkled
  - What about down grading fire rated doors in barriers that are no longer required to be rated? If hardware that is not required is installed on doors, it has to be maintained
Changes to the Statement of Conditions

- Why the changes?

- Effective August 1 2016, the Joint Commission, in order to meet the CMS federal rule Condition of Participation §488.28(d), will no longer recognize the PFI (Plan for Improvement) section of the Statement of Conditions (SOC) in the survey process.
Changes to Statement of Conditions

- What are the changes?
  - Surveyors will only have access to a hard copy of the Basic Building Information (BBI)
    - The BBI is populated from the hospital's electronic application (eAPP). If information is not correct on the eAPP, it will not be correct in the BBI
  - Hospitals are no longer required to maintain the electronic Statement of Conditions
Plan for Improvement (PFI)

- PFI(s) will no longer be accepted during the survey process, considered for evidence of standards compliance (ESC) resolution.
- The PFI section is now an internal tool for organizations – use at your own risk.
- Surveyors will not have access to this internal management tool.
- Organizations will have full editing rights of the PFIs.
Plan for Improvement
Survey Related Plan for Improvement (SPFI)

- Life Safety Code deficiency cited during a survey will result in a Requirement for Improvement (RFI)

- The organization will have 60 days from the last day of survey to resolve within the evidence of standards (ESC) process.

- Deficiencies that CANNOT be corrected within 60 days will require submission of a Survey-Related Plan for Improvement (SPFI) and Time-Limited Waiver (TLW)

- The SPFI must be approved by The Joint Commission in time to submit the organization's Evidence of Standards Compliance
Time Limited Waiver (TLW)

**Tip:** Time Limited Waivers may also be created by going directly to the Time Limited Waiver/Equivalency tab and selecting “Add New Time Limited Waiver/Equivalency.”

---

**Summary of Time Limited Waiver/Equivalency Items:**

- **Organization Information**
  - **NICU:** 337564
  - **Address 1:**
  - **Address 2:**
  - **City:**
  - **State:** Select State
  - **Zip Code:**

- **Program Type**
  - IHP, CAM, OBS, OAH, OCCC, OCBS, OHOME

- **CN:**
  - **Facility Contact:**
  - **Primary Phone:**
  - **Secondary Phone:**

- **Submitter Information**
  - **Submitter Name:**
  - **Email:**
  - **Secondary Phone:**

- **Request Information**
  - **Request Type:**
    - Time Limited Waiver
    - Fire Safety Evaluation System (FSES)
    - Traditional Equivalency
  - **Reason:**
    - New Submission
    - Previously Denied
    - Previously Accepted
  - **Survey Date (of applicable):**
  - **FSES/FEE Unique Id:**

- **LSC Occupancy Classification**
  - **Health Care:**
  - **Ambulatory:**
  - **Residential:**
  - **Business:**
    - **LSC Chapter:**
      - **SECTION 1519.1 GENERAL REQUIREMENT**
      - **SECTION 1519.2 1.1 Applications**
  - **Construction Type:**
    - **New:**
    - **Existing:**

- **ILM Implementation as per Policy**

- **Request Summary (Include Timeline and Deficiencies):**

- **Proposed Corrective Action:**

- **Upload Equivalency Documents**
  - **File Name:**
  - **File Description:**
  - **Uploaded By:**
  - **Delete:**

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Moving Forward

– You may continue to use the SOC PFI as an internal management tool (always have a backup)
  – Enter self identified deficiencies
  – Complete ILSM section
  – Completion dates may be edited at any time

– Use SPFI for deficiencies (RFIs) cited during a survey
  – Enter the SPFIs immediately if corrective action will take >60 days

– After RFI has been cited and SPFI entered, request a Time Limited Waiver (TLW)

– Report the SPFI and request for TLW to The Joint Commission as soon as possible – the clock is ticking
Interim Life Safety Measures
LS.01.02.01

- EP 1: ILSM policy must cover both **periods of construction AND times when Life Safety Code deficiencies cannot be immediately corrected**
  
  - Life safety deficiencies *not corrected immediately* require and ILSM risk assessment: failed fire alarm system activation and notification devices, inventory of all fire sprinkler heads not on site, failed fire pump or churn test, damper failures, deficiencies identified on the annual door inspection, building damage to life safety features, LS deficiencies identified during inspections and rounds, etc.
  
  - Notify all LS testing and inspection vendors and advise them they must notify the hospital of any identified LS deficiencies before leavings the hospital at the end of the work day
Interim Life Safety Measures (ILSM)

- The hospital has a written interim life safety measure (ILSM) policy that covers situations when Life Safety Code deficiencies cannot be immediately corrected or during periods of construction

  - Define immediately
    - Most often defined as end of shift or end of day
    - Do not exceed 24 hours

  - Update your ILSM policy to include this reference
Interim Life Safety Measures
LS.01.02.01

– EP2: The hospital either evacuates the building or notifies the fire department and initiates a fire watch when the fire alarm is out of service more than 4-hours in a 24-hour period or a sprinkler system is out of service for more than 10-hours in a 24-hour period in an occupied building.

– Fire watch training required. Why am I doing Fire Watch?

– AHJ mandated fire watch and frequency

– Risk-based fire watch
  – Frequency changes as the risks in the environment change
  – Notification and fire watch times are documented
  – Staff training required in the area where fire watch is implemented (this could be the entire hospital) – Document everything.
Interim Life Safety Measures
LS.01.02.01

- EP 3-15 must be included in the ILSM policy and include criteria for evaluating when and to what extent interim measures will be implemented (15 is other measures)
  - The ILSM risk assessment identifies what the deficiency is and the EPs are the temporary implementations required to compensate for the life safety deficiency or construction activity
  - What = the deficiency
  - To What Extent = the EP(s) you choose to implement based on the deficiency. For example: a blocked exit always generates the need for an extra fire drill at the location of the blocked exit (unless the duration the exit is blocked is very short)
  - EP 15 is cited for LS deficiencies identified during a survey when the LS deficiency is not corrected immediately
Challenges and Compliance Strategies within Behavioral Health, Environment of Care
A Case Study
Behavioral Health Settings

Inpatient psychiatric units and general/acute care settings
Inpatient Psychiatric Units

- **Recommendation #1**: Settings must be ligature resistant in the following areas:
  - Patient rooms
  - Patient bathrooms
  - Patient corridors
  - Common patient care areas

In an inpatient psychiatric unit, nursing stations within an **unobstructed** view (so that a patient attempt at self-harm at nursing station would be easily seen and interrupted) and areas behind self-locking doors will not be cited for ligature risks.
Doors

- **Recommendation #2**: Doors between patient rooms and hallways must contain ligature resistant hardware which includes but may not be limited to, hinges, handles, and locking mechanisms.

- **Recommendation #3**: Healthcare organizations should **not** be required to have risk-mitigation devices installed to decrease the chance that the top of a corridor door will be used as a ligature attachment point.
  - Organizations may choose to do this
Transition Zone

- **Recommendation #4**: The transition zone between patient rooms and patient bathrooms must be ligature-free or ligature-resistant
  - This may be accomplished with mechanical or behavioral solutions
    - Mechanical is adding an alarm or making a modification to the door
    - Behavioral is keeping the bathroom locked and only allowing access if staff is present
Support for Recommendation #4: This may be accomplished with mechanical or behavioral solutions. Examples of mechanical solutions include removing the bathroom door, placing an alarm on the door to prevent inappropriate use, and using a special door designed to prevent using the top to support a ligature (for example, an angled upper edge or breakaway magnetic hinges). The most common behavioral solution is denying access to the bathroom unless staff is present; this still requires having the profile of the door be ligature-resistant in the closed arrangement. Note that some states do not allow modifications or removal of doors due to privacy concerns, including the state of Virginia’s Human Rights Office, the Agency for HealthCare Administration in Florida, and the Department of Mental Health in Massachusetts. In such instances, surveyors must survey to state regulations.

Note: State requirements should be identified in the environmental behavioral risk assessment.
Ceilings

- **Recommendation #5**: Patient rooms and bathrooms must have a solid ceiling—NO DROP CEILINGS.

- **Recommendation #6**: Drop ceilings can be used in hallways and common patient care areas as long as all aspects of the hallway are fully visible and there are no objects that patients could easily use to climb up to the drop ceiling, remove a panel, and gain access to ligature risk points in the space above the drop ceiling.

Note: A climbing risk assessment should be performed in all areas even if solid ceiling are present. Also, reference any locations where ceiling tile are secured in place and not removable without special tools or knowledge.
Patient Beds

– **Recommendation #7**: Medical needs and the patients’ risk for suicide should be carefully assessed and balanced to determine the optimal type of patient bed utilized to meet both medical and psychiatric needs.

– For patients who require medical beds with ligature points, there must be appropriate mitigation plans and safety precautions in place.

Note: The use of medical beds should require the patient room to be locked when the patient is not in the room. Additionally, 1:1 observation should be initiated when the patient is in the room with the medical bed.
Toilet Seats

- **Recommendation #8**: Standard toilet seats with a hinged seat and lid are not a significant risk for suicide attempts or self-harm; they should not be cited during survey event and do not need to be noted on a risk assessment.
Behavioral Health Settings
General and Acute Inpatient Settings
General/Acute Healthcare Settings

- **Recommendation #9**: This setting does not need to meet the same standards as an inpatient psychiatric unit to be a ligature-resistant environment.

- **Fixed** ligature risks, including bathroom fixtures and doors, will not be cited on survey in these areas.
General/Acute Healthcare Settings

- **Recommendation #10:** If a patient requiring admission to a general acute inpatient setting has serious suicidal ideation, all objects that pose a risk for self-harm that can be removed without adversely affecting the ability to deliver medical care should be removed.

- Mitigating strategies must be put into place and documented. This includes:
  - One-to-one (1:1) monitoring
  - Careful assessment of objects brought into the room by visitors
  - Protocols for transporting patients to other parts of the hospital (such as radiology).
  - Policies, procedures, training, and monitoring systems in place to ensure these are done reliably.
Behavioral Health Settings

Emergency Departments
Emergency Departments

- **Recommendation #11**: Emergency departments do not need to meet the same standards as an inpatient psychiatric unit to be a ligature-resistant environment.

- Fixed ligature risks, including bathroom fixtures and doors, will not be cited on survey in these areas.

  Note 1: Ceilings with removable tiles are not required to be fixed in place. However, the risks above the ceiling must be included in the risk assessment. For example: cables and wires used as ligatures; ligature attachments such as pipes, conduit, ducts.

  Note 2: More clarification will be coming from the expert panel in regard to ED rooms designed as SAFE rooms or designated to behavioral health patients. See CMS letter dated December 29, 2017.
Emergency Departments

Recommendation #12: There are two main strategies to keep patients with serious suicide ideation safe:

- Place the patient in a “safe room” (dedicated) that is ligature-resistant or that can be made ligature-resistant by having a system that allows fixed equipment that could serve as a ligature point to be excluded from the patient care area (for example, a locking cabinet, roll-down shutter/door)

- Keep the suicidal patient in the main area of the emergency department, initiate continuous 1:1 monitoring, and remove all objects that pose a risk for self-harm that can be easily removed without adversely affecting the ability to deliver medical care.

- Organizations should have policies, procedures, training, and monitoring systems in place to ensure these are done reliably. Refer to the risk assessment tool.
All Areas

- Recommendation **#13**: Patients with serious suicidal ideation must be placed under demonstrably reliable monitoring
  - (1:1 continuous monitoring, observations allowing for 360-degree viewing, continuously monitored video – must reference immediate intervention described in policy).

- The monitoring must be linked to the provision of immediate intervention by a qualified staff member when called for.

- The organization has a defined policy that includes this detail.
Today’s Direction
Surveyors will Evaluate:

- Policies and procedures on mitigation of risks and effectiveness
- Adequacy of staffing patterns, communication, and practice to support these mitigation efforts
- The patient suicide risk assessment process including 1:1 observer training about a specific patient risks
- Organization’s policies and practices related to implementing safety precautions for those identified at risk
- Organization’s internal performance improvement
CMS December 29, 2017

- CMS Manual System
  - Department of Health & Human Services (DHHS)
- Pub. 100-07 State Operations
- Provider Certification
  - Centers for Medicare & Medicaid Services (CMS)
- Transmittal 176 Date: December 29, 2017

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CMS Revisions to Interpretative Guidelines

- §482.13(c)(2) –
- The patient has the right to receive care in a safe setting.
- Interpretive Guidelines §482.13(c)(2)
CMS Revisions to Interpretative Guidelines – Highlights

- The focus for a ligature “resistant” or ligature “free” environment is that of psychiatric units of acute care hospitals and psychiatric hospitals and does not apply to non-psychiatric units of acute care hospitals that provide care to those at risk of harm to self or others, e.g. emergency departments, intensive care units, medical-surgical units, and other inpatient and outpatient locations.

  However, a risk assessment is still required.
CMS Revisions to Interpretative Guidelines – Highlights

Therefore, non-psychiatric settings of all hospitals where patients with psychiatric conditions may be cared for must also identify patients at risk for intentional harm to self or others and mitigate environmental safety risks. Psychiatric patients requiring medical care in a non-psychiatric setting (medical inpatient units, ED, ICU, etc.) must be protected when demonstrating suicidal ideation or harm to others.
CMS Revisions to Interpretative Guidelines – Highlights

- What needs to be done in areas that are outside inpatient psychiatric care units?

- The protection would be that of utilizing safety measures such as 1:1 monitoring with continuous visual observation, removal of sharp objects from the room/area, or removal of equipment that can be used as a weapon.
CMS Revisions to Interpretative Guidelines – Highlights

Although all risks cannot be eliminated, hospitals are expected to demonstrate how they identify patients at risk of self-harm or harm to others and steps they are taking to minimize those risks in accordance with nationally recognized standards and guidelines. The potential risks include but are not limited to those from ligatures, sharps, harmful substances, access to medications, breakable windows, accessible light fixtures, plastic bags (for suffocation), oxygen tubing, bell cords, etc.
CMS Revisions to Interpretative Guidelines – Highlights

- What should the risk assessment look like?
- There are numerous models and versions of patient risk assessment tools available to identify patients at risk for harm to self or others. No one size fits all tool is available. Therefore, the type of patient risk assessment tool used should be appropriate to the patient population, care setting and staff competency. All hospitals are expected to implement a patient risk assessment strategy, but it is up to the hospital to implement the appropriate strategies. For example, a patient risk assessment strategy in a post-partum unit would most likely not be the same risk assessment strategy utilized in the emergency department.
The Environmental Risk Assessment

The hospital must implement environmental risk assessment strategies appropriate to the specific care environment and patient population. That does not mean that a unit which does not typically care for patients with psychiatric conditions is not expected to conduct environmental risk assessments.
In areas outside inpatient psychiatric units the risk assessment is used to determine what can stay in the room and what is not needed for the patients care and can be removed such as:

- Supplies not secured; non-essential medical equipment; chairs; plastic trash liners; tall trash cans; phones and cords; oxygen flow meter; vacuum regulator; IV pole on stretcher; stretcher; BP cuff (bring in as needed); clock on wall (consider recessed as mitigation); linen sheets; pillows (consider disposable if they are breathable; digital thermometers (bring in as needed; glove boxes (bring in as needed); etc.

- 1:1 surveillance is still required since not all risks are removed
The Environmental Risk Assessment

- What about a restroom in an ED that an at risk patient (suicide, violent & aggressive) would use?
  - All risks that are not mitigated will be on the risk assessment such as: sink faucet; under-sink plumbing; open grab bars; soap-paper towel-toilet paper dispensers; light fixtures; sprinkler head; HVAC vents; plastic trash liners; tall trash cans; non-tamper resistant outlets; etc.
  - 1:1 surveillance is still required since not all risks are removed
The Environmental Risk Assessment

- The clinical risk assessment is merged with the environmental risk assessment:
  - To be used for staff training and awareness
  - The environmental risk assessment may need to be updated depending on the patients diagnosed condition for medical treatment
The Environmental Risk Assessment

Suggested guidelines:


Patient Safety Standards, Materials and Systems Guidelines, Recommended by the New York State Office of Mental Health, 18th Edition Published July 31, 2017

Department of Veterans Affairs, Office of Construction and Facilities Management design guide, December 2010 updated 8/1/2014
Conduct Risk Assessments
# The Environmental Risk Assessment – Sample

<table>
<thead>
<tr>
<th>Observation</th>
<th>Ligature Risk</th>
<th>Risk to Patient Self-harm</th>
<th>Risk to Staff</th>
<th>Non-dedicated Risks Removed Y / N</th>
<th>Risk Level I - V</th>
<th>Design Guide Reference</th>
</tr>
</thead>
<tbody>
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</table>
Ligature & Risk Information

Inpatient Suicides and Hangings

- 1,500 inpatient US hospital suicides in 2003 with 1/3rd occurring while patient was on 15-minute checks
- 5-80 suicides per 100,000 US psychiatric admissions
- Veterans Affairs (VA) inpatient suicide study revealed 2.3 per 100,000 psychiatric admissions
- The Joint Commission (TJC) inpatient suicide review found 75% involved hanging
- VA inpatient suicide study indicated doors and cabinets accounted for 41% of anchor points when hanging was method of self-harm
- 50% of all hanging suicides have a ligature point below the head

<table>
<thead>
<tr>
<th>Pressure To Close Off</th>
<th>Jugular v.</th>
<th>Carotid a.</th>
<th>Trachea</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg (lbs)</td>
<td>2 (4.4)</td>
<td>5 (11)</td>
<td>15 (33)</td>
</tr>
</tbody>
</table>

Tom.Larson@dhhs.nc.gov
Ligature & Risk Information

Bathroom Door
Hanging Hazards in
Inpatient Psychiatric
Hospitals

Tom Larson MD
RJ Blackley Center
Tom.Larson@dhhs.nc.gov
Ligature Risk Information

What is SO special about a Bathroom Door as opposed to other doors?

Fundamentally NOT much; however, bathroom door alternatives do exist and can be implemented without compromising fire safety requirements nor patient dignity. Consequently, TJC is requiring environmental change where change can be made. Traditional arguments regarding assessment and patient observations are NO longer sufficient without environmental change.
Is it Reasonable to Think a Patient Will Have Access to

Anchor: knot, hand towel, sock, underwear, wadded paper towels, shoe, etc.

Shoe lace, string, belt, etc.

Door Jam Wedge: folded paper, coins, small piece of cloth
Ligature & Risk Information

Saloon Door with non-Traditional Hardware

- Knotted stringwedged then door closed
- String tied to hinge
- Anchor, string, and door jam +/- wedge
- Anchor
- Patient on other side of door and no wedge needed.
- Wedge defeats roller ball latch
- Roller Ball Hinge with Recessed Latch Receiver
- Severe Top Slope
- Piano Hinge
- Remove Handle
- Raise the bottom of Door 10+ Inches

The Joint Commission
# Ligature & Risk Information

<table>
<thead>
<tr>
<th>“Bathroom Door Options”</th>
<th>Privacy of Sight</th>
<th>Privacy of Sound</th>
<th>Privacy of Smell</th>
<th># of Bathroom Door Anchor Points</th>
<th>Retro Correct Per Door $ / Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Bathroom Door</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>7</td>
<td>n/a</td>
</tr>
<tr>
<td>No Door: Single Occupancy Room with Hallway Door</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0</td>
<td>$0 / 5 min</td>
</tr>
<tr>
<td>No Door: Multi-Occupancy Room with Hallway Door</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>0</td>
<td>$0 / 5 min</td>
</tr>
<tr>
<td>“Saloon” Door with non-Traditional Hardware</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>4</td>
<td>$500 / 60 min</td>
</tr>
<tr>
<td>Soft Suicide Prevention Door</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>0</td>
<td>$495 / 5 min</td>
</tr>
<tr>
<td>Curtain</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>0 - 1</td>
<td>$45 / 15 min</td>
</tr>
</tbody>
</table>
Ligature & Risk Information

**Soft Suicide Prevention Door**

[Image of a door with a field and sky background]

**SuicideProofing.com**

- Magnetic hinge breaks away with vertical pressure
- Shred proof
- Non-flammable
- Cleanable to hospital standards

Potential safety shield for staff?
Potential for Patient Destruction / Misuse?

[Logo of The Joint Commission]
Ligature & Risk Information

Privacy Curtain

- Velcro tabs pull from curtain and/or track with vertical pressure
- Non-flammable
- Lauder able to hospital standards

Consider, a curtain is another implement of ligature but so is the shower curtain and the sheets and towels. Removal of anchor points warrants addition of another ligature element?

Track close up. A possible anchor point? Breakaway screws vs. Velcro strip?
During the Survey

- Surveyors will document all observations of ligature or self-harm risks in “dedicated” and “non-dedicated” spaces for the treatment of psychiatric patients

- Surveyors will:
  - Determine if the facility has previously identified these risks
  - Evaluate existing plans the facility has for removing these risks
  - Evaluate the organization’s environmental risk assessment process
Environmental Risk Assessment
Dedicated vs. Non-dedicated Spaces

“Dedicated”

– Needs to be ligature or suicide resistant
– Regardless of whether the space is a psychiatric hospital, a psychiatric unit in a general acute care hospital, or another room/space in a general acute care hospital, such as an ED.

“Non-Dedicated”

– As many as possible ligature risks are to be removed.
– Reasonable measures are to be implemented to mitigate any remaining risks for self-harm based on the patient’s assessment and condition.

NOTE: Not only patients with psychiatric diagnoses attempt suicide.
Surveyors Will Evaluate:

- Policies and procedures on mitigation of risks and effectiveness
- Adequacy of staffing patterns, communication and practice to support these mitigation efforts
- The patient suicide risk assessment process
- Organization’s policies and practices related to implementing safety precautions for those identified at risk
- Organization’s internal performance improvement
Findings of Noncompliance in Dedicated Spaces for Psychiatric Patients

- Each observation of a ligature or suicide risk will be a Requirement for Improvement (RFI) and will be:
  - Documented, according to standard procedure, using quantification, precise description and all required elements of documentation
  - Scored at EC 02.06.01, EP 1
Findings of Noncompliance in Dedicated Spaces for Psychiatric Patients (continued)

- RFIs of observations will be rated on the SAFER Matrix™ at High due to risk of suicide and according to the number of occurrences (Limited, Pattern, or Widespread).

- RFIs of observations will be cross-walked to Condition of Participation at 482.41 at the Condition-Level.
Findings of Noncompliance in Non-Dedicated Spaces for Psychiatric Patients

- The amount and conditions of use for psychiatric patients will be determined.
- Observations of ligature or suicide risks in the space will be discussed with the facility to assess awareness and mitigation efforts.
- Organization’s reasonable efforts to remove the risk will be assessed.
- Ongoing environmental risks will be documented as RFIs along with organization’s efforts to mitigate.
Findings of Noncompliance in Non-Dedicated Spaces for Psychiatric Patients (continued)

- Ongoing environmental risks will be documented as RFIs at EC 02.06.01 along with organization’s efforts to mitigate.

- Scoring on SAFER Matrix™ will be determined after consideration of all survey data.

- A Condition-Level Deficiency will be cited based on manner and degree.
Challenges and Compliance Strategies within Behavioral Health, Environment of Care
A Case Study
Ligature Risks

- A Sub-Committee was formed to review all physical building elements to remove any potential ligature risks from the Psychiatric in-patient settings. The Sub-Committee involves input from Psychiatric staff, Facilities, Architects, and Construction related personal.

- The Sub-Committee discusses potential issues and solutions for the identified ligature risks. Physical samples are then purchased and brought to the team for review prior to implementation.
Examples of our findings have included the following:

- Soap Dispensers
- Paper Towel Dispensers
- Toilet Paper Dispensers
- Bathroom Doors
- Toilets
- Sinks
- Faucets
- Hinges / Astragals2
- Med Gas Covers
- Shower Heads
- Fire Door on BH units
- Card Swipe
- Door Hardware
- Misc. Screws, covers
Mitigation Plans have been put into place

- All Staff have been trained on the Mitigation Plans.
- All Bathrooms have been locked.
- Patients have to request access to the bathrooms. Staff unlocks and monitors the bathroom activity.
- All Patients are on specific observation levels.
- Dedicated Staff Members monitor the Patients based on the observation levels - 24/7/365.
Recommendations have been brought to Sub-committee for review – Toilet Fixtures

New Ligature Resistant Toilet with integral toilet seat

New Ligature Resistant Sink with integral faucet

New Ligature Resistant Shower Heads

New Ligature Resistant faucet
Recommendations have been brought to Subcommittee for review – Door Hardware & systems

- New Ligature resistant Paper Towel Dispenser
- New Ligature resistant Toilet Paper Dispenser
- New Ligature resistant Soap Dispenser
Recommendations have been brought to Subcommittee for review – Door Hardware & systems

New Ligature resistant Door Hardware

New Ligature resistant Badge Reader

New Ligature resistant Bathroom Door
Where there was no product available due to complexity or size/shape, we have developed custom enclosures and sinks as needed.

Custom Built Corian Sink and cabinet to fit in Small Locations

Medical Gas Covers
There are certain products that claim to be Ligature Resistant but the Sub-Committee had found Ligature points. Not selected
Strategies to Engage Leadership in Continuous Accreditation Readiness
Strategies to Engage Leadership in Continuous Accreditation Readiness

- Involvement in regularly scheduled accreditation and regulatory readiness meetings.
- Participation in Environmental rounding,
- Participation in risk assessments.
- Participation in Hazard Vulnerability Analysis (HVA).
- Planning for major capital expenditures (Life safety building updates).
- Review of Fire Safety Equipment and Building Features maintenance data. *Potential leadership finding during survey.*
In Closing…

Some final survey hints!!
Important Topics
10 things surveyors want you to know

– Triennial 4 hours generator run applies to all HAP/AHC
– Written surgical fire risk assessment and plan are REQUIRED (EC.02.03.01 EP 11)
– Conduct EXIT sign testing on those with batteries (EC.02.05.07 EP 1)
– Document fire fighter operations monthly test (EC.02.03.05 EP 27)
– Line Isolation Monitors (LIM’s) or Risk Assessment (EC.02.05.05 EP 7)
Important Topics
10 things surveyors want you to know

- Documented fire response plan, include LIP, have a copy at operator or security (EC.02.03.01 EP 9)
- Stairwell signage (floor information) tactile (EC.02.01.20 EP 10)
- Kitchen Hood Extinguishing (FA, Energy/Fans) (EC.02.03.05 EP 13)
- Succession plan and delegation of authority (EM.02.01.01 EP 12)
- Generator EPO remote/not on exterior enclosures (EC.02.05.03 EP 11)
- Corridor/Suite perimeter doors (LS.02.01.30 EP 13)
Questions

tmagliocchetti@jcrinc.com
Thank You!