2017

UPDATE

George Mills, Director
Engineering Department
The Joint Commission
JOINT COMMISSION HISTORY

1913 American College of Surgeons formed
1917 ACS develops one page Minimum Standard for Hospitals.
  □ Grows to 18 pages in 1926.
1950 Over 3200 hospitals have successful inspections
1951 Four societies join the ACS to create the Joint Commission on Accreditation of Hospitals (JCAH)
  □ American College of Physicians
  □ Canadian Medical Association
  □ American Hospital Association
  □ American Medical Association
1953  JCAH publishes its own standards
1963  JCAH begins charging for surveys
1964  HCFA (Health Care Finance Administration) established
1965  Congress passes Social Security Act of 1965 (SSA)
   - Created Health Care Finance Administration (HCFA)
     - Included is a provision that hospitals accredited by JCAH are “deemed” to be in Compliance
       - Deemed Status
JC HISTORY

1972 SSA is amended, resulting in validation surveys
1987 JCAH becomes Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
1995 Statement of Conditions™ introduced
2004 Shared Vision ~ New Pathways
2007 Name change: The Joint Commission
RELATIONSHIP OF THE CODE BODIES

- Centers for Medicare & Medicaid Services is also referred to as CMS
- CMS has contracted with the states to act as their agents
  - As an agent of CMS, the state must follow CMS’ Conditions of Participation (COP) K-Tags
  - This includes using the NFPA Life Safety Code (edition determined by the COP)
    - States may use other codes in enforcement, including creating their own
    - As an agent of CMS, the state must set aside their own codes, and use those determined by CMS
CODE EDITIONS

- In 1993 the JCAH adopted the 1991 edition of the LSC
- In 1995 the JCAHO created the Statement of Conditions™
- In 2003 both CMS and JCAHO adopted the 2000 edition of the LSC
- May 3, 2016 both CMS and The Joint Commission adopted the 2012 LSC, with a July 5, 2016 implementation date
  - CMS adopted NFPA codes, incorporating them into COP as K-Tags
  - Joint Commission created equivalent Elements of Performance
  - All referenced NFPA codes are based on the 2012 edition of the Life Safety Code, including
    - NFPA 99-2012, Health Care Facilities Code
    - NFPA 72-2010, National Fire Alarm Code
    - NFPA 25-2011, Standard for the Inspection, Testing & Maintenance of Water-Based Fire Protection Systems
    - NFPA 13-2010, Standard for the Installation of Sprinkler Systems
IMMEDIATE THREAT TO LIFE (ITL)

- Expedited decision of Preliminary Denial of Accreditation (PDA) issued by The Joint Commission President
- PDA remains in effect until corrective action is validated during on-site follow-up survey
- After corrective action is validated, organization’s accreditation status will change to Contingent Accreditation pending follow-up survey to assess ongoing implementation of corrective action
WHAT TRIGGERS ITL IN THE PHYSICAL ENVIRONMENT

- Significantly compromised fire alarm system
- Significantly compromised sprinkler system
- Significantly compromised emergency power supply system
- Significantly compromised medical gas master panel
- Significantly compromised exits
- Other situations that place patients, staff or visitors at extreme danger
Survey Analysis for Evaluating Risk (SAFER) Matrix

&

Post-Survey Follow-up

For more information see January 2017 Perspectives
A NEW SAFER MODEL

Immediate Threat to Life
(follows current ITL processes)

Likelihood to Harm a Patient/Visitor/Staff

HIGH

MODERATE

LOW

LIMITED
PATTERN
WIDESPREAD
HOW IS RISK DETERMINED?

- Operational definitions and “anchors”
- Surveyor experience and expertise will provide the support to determine the “scope” and “likelihood to harm” for the finding
- Based on the context of the finding
- Discussion amongst the survey team
CUSTOMER IMPACTS AS OF 1/1/2017

- No more Direct and Indirect EP designations
- All ESC now 60-day time frame
  - Consolidated Evidence of Standards Compliance (ESC) into one time frame
- No more Measures of Success (MOS)
- No more Opportunities for Improvement (OFIs)
- See it / Cite it Survey Methodology
- No more ‘A’ or ‘C’ categories
## TOP 6 FINDINGS IN 2016

<table>
<thead>
<tr>
<th>Standard</th>
<th>% Non-compliant</th>
<th>2016 Rank</th>
<th>EP</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC.02.06.01</td>
<td>66%</td>
<td>1</td>
<td>1</td>
<td>Maintain a safe, functional environment</td>
</tr>
<tr>
<td>IC.02.02.01</td>
<td>59%</td>
<td>2</td>
<td>13</td>
<td>Maintain Ventilation, Temperature &amp; Humidity (for RH, see also S&amp;C 15-27)</td>
</tr>
<tr>
<td>EC.02.05.01</td>
<td>56%</td>
<td>3</td>
<td>15</td>
<td>Manage risk associated with Utility Systems, including - Supply, Exhaust, Filtration and Air Exchanges (ac/h)</td>
</tr>
<tr>
<td>LS.02.01.20</td>
<td>50%</td>
<td>4</td>
<td>1</td>
<td>Manage the Means of Egress, including door locking features &amp; corridor clutter</td>
</tr>
</tbody>
</table>
LS.02.01.20 EP 1 Exit Chained Shut
Doors in a means of egress are not equipped with a latch or lock that requires the use of a tool or key from the egress side

- Unless permitted by one of the following:
  1. Locking arrangements complying with 19.2.2.2.5
  2. Delayed Egress 18/19.2.2.2.4 & 7.2.1.6.1
  3. Access Controlled 18/19.2.2.2.4 & 7.2.1.6.2
  4. Elevator lobby exit access door 18/19.2.2.2.4 & 7.2.1.6.3
  5. Approved existing door-locking installations

- See also 18/19.2.2.2.5.1 & 18/19.2.2.2.5.2
- See also 18/19.2.2.2.6 locking related to patient special needs
The hospital maintains the integrity of the means of egress

Anything in the egress corridor more than 30 minutes is storage

Dead end corridors may be used for storage
  - Less than or equal to 50sqft space

Carts Allowed:
  - Crash Carts
  - Isolation Carts
  - Chemo Carts

Also Allowed:
  - Fixed Furnishings
  - Transport Equipment
    - Wheel Chairs
    - Lifts
### TOP 6 FINDINGS IN 2016 (CONTINUED)

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<tbody>
<tr>
<td>LS.02.01.35</td>
<td>47%</td>
<td>5</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></td>
<td>14</td>
<td>Other issues, including: ceiling tiles misplaced (LS.02.01.34 EP 3); K-Type Extinguisher signage (LS.02.01.35 EP 11); blocked access to fire extinguishers</td>
</tr>
<tr>
<td>LS.02.01.10</td>
<td>46%</td>
<td>6</td>
<td>7 &amp; 8</td>
<td>Building and fire protection general requirements: Fire-rated door</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9 &amp; 10</td>
<td>Building and fire protection general requirements: Barrier Penetrations</td>
</tr>
<tr>
<td>LS.02.01.30</td>
<td>46%</td>
<td>6</td>
<td>2</td>
<td>Building and fire protection features: Hazardous area doors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>Building and fire protection features: Corridor doors, such as doors to Suites</td>
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</table>
Building and fire protection features are designed and maintained to minimize the effects of fire, smoke, and heat.

- **EP 5** Door issues
- **EP 9** Fire Barrier Penetrations

**Barrier Management**
Smoke barriers extend from the floor slab to the roof slab above, through any concealed spaces (such as those above suspended ceilings and interstitial spaces), and extend continuously from exterior wall to exterior wall. All penetrations are properly sealed. (For full text, refer to NFPA 101-2012 18/19.3.7.3; 8.2.3; 8.5.2; 8.5.6; and 8.7).

- Polyurethane expanding foam is not an accepted fire-rated material for this purpose.

Barrier Management
Hospital has a written Interim Life Safety Measures (ILSM) policy.

- ILSM policy must cover both periods of construction AND times when Life Safety Code deficiencies cannot be immediately corrected.

- ILSM policy must include criteria for evaluating when and to what extent EP’s 2-15 are implemented.

  - Criteria includes assessment process to determine when to implement ILSM’s.
If the hospital's policy allows the use of other ILSMs not addressed in EPs 2–14, the other ILSMs used are documented in the "other" section of the hospital's Survey-Related Plan for Improvement (SPFI) within the Statement of Conditions™ (SOC).
Fire watch
Alternative exit route signage
Daily inspection of exits
Temporary but equivalent fire alarm/detection system
Additional fire fighting equipment
Temporary construction barriers
Increased surveillance
Storage, housekeeping, debris removal practices
Additional training
Additional fire drills
Inspection of temporary systems
Conducts education and training
Other
LS.01.02.01 ILSM

- Based on the outcome of ILSM assessment - EPs 2 – 15 should be implemented and documented.
  - *Start* and *End* of ILSM activities should be documented and reviewed as well.

- ILSM should be actively in use if:
  - During construction if life safety is compromised
  - Once a Life Safety Assessment has been completed, there may be areas compromising life safety that would require ILSMs
**Survey Activity**

- During survey when a Life Safety Chapter deficiency is identified the surveyor will create a Requirement for Improvement (RFI)
  - During discovery the surveyor will ask the organization what ILSM they plan to implement
    - The Surveyor can provide the summary list of EPs 2 – 15
    - The surveyor will then annotate the RFI with the identified ILSM
    - Any post-survey activity may review the implementation documentation of the ILSM identified during survey
When performing repairs or general maintenance activities, the hospital has a process to manage risks associated with air-quality requirements; infection control; utility requirements; noise, odor, dust, vibration; and other hazards that affect care, treatment, or services for patients, staff, and visitors.
When planning for demolition, construction, renovation, or general maintenance, the hospital conducts a preconstruction risk assessment for air quality requirements, infection control, utility requirements, noise, vibration, and other hazards that affect care, treatment, and services.

Note: See LS.01.02.01 for information on fire safety procedures to implement during construction or renovation.
Preconstruction Risk Assessment (PRA) Construction or renovation in occupied healthcare facilities can result in environmental problems such as:

- Noise
- Vibration
- Infection control (creation or spread of contaminants)
- Disruption of essential services
- Emergency Procedures
- Air quality
WHY DO WE NEED TO DO THIS?

According to the CDC every year hospital acquired infections

- 722,000 HAIs
- Kill approx. 75,000
- Adds more than $30 billion to health care costs
- Est. 5000* deaths per year from construction, renovation, and ITM related hazards

*Health Facilities Management, February 2002
RESOURCE:

JCPEP
Joint Commission Physical Environment Portal

http://www.jointcommission.org/topics/the_physical_environment.aspx
OVERVIEW OF THE EIGHT PEP STANDARDS

**Fire Safety**

- **LS.02.01.20** Maintain integrity of means of egress
- **EC.02.03.05** Maintain and test fire safety equipment
- **LS.02.01.35** Maintain systems for extinguishing fires

**Barriers**

- **LS.02.01.10** Building features designed and maintained to minimize effects of fire, smoke and heat
- **LS.02.01.30** Maintain features to protect individuals from fire and smoke

**Environment of Care**

- **EC.02.05.01** Manage risks with utility systems
- **EC.02.06.01** Maintain safe functional environment
- **EC.02.02.01** Manage risks for hazardous materials and waste
The purpose of this portal is to provide guidance and education to reduce instances of non-compliance with the top eight Environment of Care/Life Safety standards.

About this Portal

The Joint Commission has identified several Standards that have been frequently cited during survey activity over the past few years. This portal, in partnership with the American Society for Healthcare Engineering (ASHE), will provide information to reduce findings of non-compliance.

Focus of the Portal:

- Eight identified Standards
- Each Standard will be addressed over two months;
  - First month - requirements and compliance
  - Second month – Leadership, evaluating organization level compliance
- Improved patient safety with;
  - Best practices in the patient care environment
  - High Reliability practices for leadership to assess and ensure compliance

Get e-Alerts on the Physical Environment  Sign up here
Utility Systems EC.02.05.01

EC.02.05.01: The hospital manages risks associated with its utility systems

### Standard Scoring Analysis

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<td>15</td>
<td>Air pressure, filtration and air changes in critical care areas such as the OR</td>
<td>32.78</td>
<td>$482.42 (A-0747)</td>
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<td></td>
<td>8</td>
<td>Label utility system controls for partial or complete emergency shutdown</td>
<td>21.39</td>
<td>$48241(a) (A-0701)</td>
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<td></td>
<td>1</td>
<td>Design and Installation of utilities to meet patient care and operational needs</td>
<td>10.39</td>
<td>$482.41 (A-0700)</td>
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An example of improved compliance for EP 1 and EP 15:

**Issue:** Protect Patients from Airborne Contaminates

**Risk:** Hospital Acquired Infections

**Impact:** Harm to the Patients

**Mitigation:** Ensure Utilities Equipment effectively meets clinical needs

Aging ventilation systems resulting in the inability to deliver desired air volume or quality, results in non-compliance identified during survey, scored at EC.02.05.01 EP 15.

Inability of the utility systems to operate as expected may result in air-borne contaminates negatively impacting an already compromised patient.

Patients are not protected from airborne contaminants, and the organization is not considered to be a highly reliable organization.

Equipment systems condition and reliability is evaluated by Facilities with Leadership, a strategic capital plan is created, and replacement equipment is scheduled and installed. Compliant at future surveys.

Additional Videos
- Tour: Inside an Air Handler
- George Mills explains Ventilation
- Tour: Discussing Pressure Differentials

Joint Commission Resources
- The Top Five Hot Button Issues in EC: Ventilation
- The Role of HVAC Systems in Preserving Patient Safety
EC.02.05.01 - Clinical Impact

This content includes information linking Environment of Care and Life Safety Code deficiencies and their impact on patient care and patient safety.

Standard Scoring Analysis - EC.02.05.01: The hospital manages risks associated with its utility systems

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According to the Centers for Disease Control (CDC), “There were an estimated 722,000 HAIs [Healthcare-Associated Infections] in U.S. acute care hospitals in 2011. About 75,000 hospital patients with HAIs died during their hospitalizations. More than half of all HAIs occurred outside of the intensive care unit.” [CDC Data & Statistics Web Page, 5/13/2015]

The CDC National Healthcare Safety Network (NHSN) Web Page, dated 5/13/2015 stated in the summary of the HAI Action Plan the following:

Healthcare-associated infections, or HAIs, are infections that people acquire while they are receiving treatment for another condition in a health care setting. HAIs can be acquired anywhere health care is delivered, including inpatient acute care hospitals. HAIs may be caused by any infectious agent, including bacteria, fungi, and viruses, as well as other less common types of pathogens. These infections are associated with a variety of risk factors, including:

- Use of indwelling medical devices such as bloodstream, endotracheal, and urinary catheters
- Surgical procedures
- Injections
- Contamination of the health care environment
- Transmission of communicable diseases between patients and healthcare workers
- Overuse or improper use of antibiotics

Contamination of the physical environment is fourth on the list in the CDC action plan.

Research:
Air changes per hour (ACH) is a measure of how many times the air in a defined space is replaced. Studies have shown a relationship between ACH and infectious
Utility Systems EC.02.05.01

EC.02.05.01: The hospital manages risks associated with its utility systems

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Example of Improved Compliance for EP 1 and 15

**Issue**: Protect Patients from Air-borne Contaminates

- Properly designed and installed ventilation system reduces the concentration of airborne contaminates through dilution, filtration and pressurization.
- Inability of the utility systems to operate as expected may result in air-borne contaminates negatively impacting an already compromised patient.
- Airborne contaminates are a significant source of Healthcare-Associated Infections (HAI). HAI may adversely impact patients during their hospital stay.
- Properly designed, installed and maintained ventilation systems contribute to reduction of HAI. Environmental controls will create a compliant patient care setting resulting in high reliability.

Example of Improved Compliance for EP 8

**Issue**: Risk: Hospital Acquired Infections

**Impact**: Harm to the Patients

**Mitigation**: Ensure Utilities Equipment effectively meets clinical needs

Visit ASHE FOCUS on Compliance for more physical environment tools and resources.
ASHE FOCUS ON COMPLIANCE

EC.02.05.01 - THE HOSPITAL MANAGES RISKS ASSOCIATED WITH ITS UTILITY SYSTEMS

The following elements of performance are the most common reasons why hospitals are cited for EC.02.05.01. ASHE has provided resources to help hospitals address each of these elements of performance. Please note that additional resources will be added to this page throughout August and September 2015.

#1 - Inappropriate Room Pressurization [EP15]
#2 - Failure to Label Electric Panel [EP8]
#3 - Lack of Emergency Lighting [EP1]
#4 - Failure to Label Utilities [EP8]
#5 - Inappropriate Electrical Issues [EP1]
ROOM PRESSURIZATION

Certain rooms within a healthcare building should be positively or negatively pressurized with respect to surrounding areas. Positively pressurized rooms are usually designed to protect a patient, clean supplies, or equipment within the room. Negative pressure is used to contain airborne contaminants within a room. The 2014 FGI Guidelines/Standard 170-2013 provides lists of rooms that should be positively or negatively pressurized with respect to surrounding areas. The following are examples:

- Operating rooms
- Delivery rooms
- Trauma rooms
- Newborn intensive care
- Laser eye rooms
- Protective environment rooms
- Pharmacy
- Laboratory, media transfer
- Clean central medical and surgical supply rooms

A room may be pressurized so that it is positive with respect to adjacent areas for several reasons. It may be done to protect patients in operating rooms and protective environment rooms from airborne pathogens that may be present in adjacent areas. It may be done to protect sterile medical and surgical supplies in supply rooms from airborne contaminants that may be present in adjacent rooms. If these rooms are not properly pressurized, airborne contaminants from adjacent areas may be pulled into them. Increased concentrations of airborne bacteria, fungi, and viruses within these rooms may contaminate clean equipment or promote increases in nosocomial infections. Positively pressurized rooms are usually the cleanest environments in a hospital. Loss of positive pressure compromises the aseptic environment within the room.

According to the FGI Guidelines, the following are examples of rooms in hospitals and outpatient facilities that should be negatively pressurized with respect to adjacent areas:

- ER waiting rooms
- Radiology waiting rooms
- Triage
- Toilet rooms
- Airborne infection isolation (AII) rooms
- Darkrooms
- Cytology, glass washing, histology, microbiology, nuclear medicine, pathology, and sterilizing laboratories
- Autopsy rooms
- Soiled workrooms or holding rooms
- Soiled or decontamination room for central medical and surgical supply
- Soiled linen and trash chute rooms
- Janitors’ closets

Rooms such as airborne infection isolation rooms are negatively pressurized with respect to adjacent areas to prevent airborne contaminants (e.g., microbial pathogens, chemicals) from drifting to other areas. Loss of negative pressure within these rooms allows unpleasant odors to migrate through the building and may promote the spread of airborne contaminants. One common use of airborne infection isolation rooms is for patients with active tuberculosis, a disease caused by the bacteria Mycobacterium.
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