SUMMARY: This proposed rule would amend the fire safety standards for Medicare and Medicaid participating hospitals, critical access hospitals (CAHs), long-term care facilities, intermediate care facilities for individuals with intellectual disabilities (ICF-IID), ambulatory surgery centers (ASCs), hospices which provide inpatient services, religious non-medical health care institutions (RNHCIs), and programs of all-inclusive care for the elderly (PACE) facilities. Further, this proposed rule would adopt the 2012 edition of the Life Safety Code (LSC) and eliminate references in our regulations to all earlier editions. It would also adopt the 2012 edition of the Health Care Facilities Code, with some exceptions. We are providing the LSC citation, a description of the 2012 requirement, and an explanation of its benefits for health care facilities, patients, staff, and visitors over the 2000 version in each occupancy section.


The Life Safety Code (LSC) is a compilation of fire safety requirements for new and existing buildings, and is updated and published every 3 years by the National Fire Protection Association (NFPA), a private, nonprofit organization dedicated to reducing loss of life due to fire. The LSC regulations adopted by Centers for Medicare & Medicaid Services (CMS) apply to hospitals, long-term care facilities (LTC), critical access hospitals (CAHs), ambulatory surgical centers (ASC), intermediate care facilities for individuals with intellectual disabilities (ICF-IIDs), hospice inpatient care facilities, programs for all inclusive care for the elderly (PACE), and religious non-medical health care institutions (RNHCIs). The Medicare and Medicaid regulations have historically incorporated by reference these requirements, along with Secretarial waiver authority. The statutory basis for incorporating NFPA's LSC for our providers and suppliers is the Secretary's authority to stipulate health and safety regulations for each type of Medicare and (if applicable)Medicaid-participating facilities, as well as the Secretary's general rulemaking authority set out at sections 1102 and 1871 of the Social Security Act (the Act).

In our regulations, issued pursuant to the Act, we have stated that we believe CMS has the authority to grant waivers of some provisions of the LSC when necessary; for instance, to hospitals under section 1861(e)(9) of the Act, and to LTC facilities at sections 1819(d)(2)(B) and 1919(d)(2)(B) of the Act. Currently, the Secretary may waive specific provisions of the LSC for any type of facility, if application of the rule would result in unreasonable hardship for the facility, and if the health and safety of its patients would not be compromised. We do not consider it always necessary for a facility to be cited for a deficiency before it can apply for or receive a waiver. This is particularly the case when we have evaluated specific provisions of the LSC, determined that a waiver would arguably apply to all similarly-situated facilities with respect to the LSC requirement in question, and issued a public communication describing the specifics of such a categorical waiver, including any particular requirements that must be met in order for the waiver to apply to a facility. Waiver approval in these instances would be subject to a review of documentation maintained by the facility, verification of the applicability of the waiver, and confirmation that the terms and requirements of the waiver have been implemented by the facility. In most cases such verification occurs when an onsite survey of the facility is conducted. We plan to continue this approach, but would like to clarify that in those cases where we have issued a prior public communication providing for a categorical waiver, an advance recommendation from a state survey agency or accrediting organization(as applicable), is not required in order for a waiver to be granted. We have issued categorical waivers of LSC requirements when newer editions of the LSC provided equally effective means of ensuring life safety compared to requirements of earlier LSC editions. When CMS has evaluated the alternative (such as examining the new fire safety research and technology), and concluded that the specific alternative would improve or maintain the safety of the residents or patients of the facility, CMS may defer to newer editions of the LSC. CMS requires that providers comply with applicable provisions of the version of the LSC referenced in the categorical waiver. In addition, the
Secretary may accept a state’s fire and safety code instead of the LSC if CMS determines that the protections of the state’s fire and safety code are equivalent to the protections offered by the LSC. Further, the NFPA’s Fire Safety Evaluation System (FSES), an equivalency system, provides alternatives to meeting various provisions of the LSC, thereby achieving the same level of fire protection as the LSC. These flexibilities mitigate the potential burdens of applying the requirements of the LSC to all affected health care facilities.

Health Care Occupancies

The following are provisions that appear in the 2012 edition of the LSC, but that did not exist in the 2000 edition of the LSC, for Chapter 18, “New Health Care Occupancies,” and Chapter 19, “Existing Health Care Occupancies.” We are providing the LSC citation, a description of the 2012 requirement, and an explanation of its benefits for health care facilities, patients, staff, and visitors over the 2000 version.

Both the 2000 and 2012 editions of the LSC classify a “Health Care Occupancy” as a facility having 4 or more patients on an inpatient basis. However, CMS does not apply this LSC standard with respect to patient census numbers. Unless specifically noted, the requirements, conditions of participation, and conditions for coverage for all Medicare and Medicaid-participating health care providers and suppliers subject to these rules would apply on a facility basis, regardless of the size of the facility or the facility’s patient census. These basic requirements are established to assure a core level of safety and quality for all patients, regardless of where they receive health care services. We believe that patients in small facilities should be assured the same level of fire safety as those in larger facilities. Therefore, the LSC exception for health care occupancy facilities with fewer than four occupants/patients would be inapplicable to the Medicare and Medicaid facilities affected by this proposed rule. All health care occupancies that provide care to one or more patients would be required to comply with the relevant requirements of the 2012 edition of the LSC. Sections 18.2.3.4(2) and 19.2.3.4(2) -

**Corridor projections**

This provision requires noncontinuous projections to be no more than 6 inches from the corridor wall. In addition to following the requirements of the LSC, health care facilities are also required to follow the requirements of the Americans with Disabilities Act (ADA). Section 307 of the “ADA Accessibility Guidelines for Buildings and Facilities”

2010 ADA requires that projections be no more than 4 inches from the corridor wall. Therefore, while the LSC allows facilities to have 6 inch projections, so long as the ADA standard is 4 inches then facilities should only have 4 inch projections to comply with the more stringent requirement set forth by the ADA. Sections 18.2.5.7 and 19.2.5.7 -

**Suites**

This new provision has enlarged the size of permissible sleeping suites for patients to potentially allow ‘more comfort and space for patients’ if the facilities choose to use the larger size patient rooms. The provision requires that new construction sleeping suites cannot exceed 7500 square feet. Previously sleeping suites could not exceed 5000 square feet. Sleeping suites greater than 7500 square feet, and not exceeding 10,000 square feet, may be permitted where there is direct visual supervision and a complete smoke detection system. This change allows health care facilities to have more patients in a single area, reducing the number of staff that are necessary to visually monitor patients and allowing facilities to accommodate additional pieces of medical equipment or visitor space. This could improve facility staffing flexibility and reduce costs by allowing this increase in size thereby reducing the number of suites to treat the same number of patients. Sections 18.7.5.7.2 and 19.7.5.7.2 -
Recycling

This new provision requires that containers used solely for recycling clean waste be limited to a maximum capacity of 96 gallons. If the recycling containers are located in a protected hazardous area, container size will not be limited. In the 2000 edition of the LSC, the container size was limited to 32 gallons. The larger containers allowed in the 2012 edition of the LSC require less frequent emptying, which could reduce housekeeping costs. Sections 18.3.6.3.9.1 and 19.3.6.3.5

Roller Latches

A roller latch is a type of door latching mechanism to keep a door closed. The 2012 edition of the LSC requires corridor doors to be provided with a means for keeping the door closed that is acceptable to the authority having jurisdiction. The LSC permits roller latches capable of keeping the door fully closed if a force of 5 pounds is applied at the latch edge or roller latches in fully sprinklered buildings. However, we would not adopt these standards from the 2012 LSC. Through fire investigations, roller latches have proven to be an unreliable door latching mechanism requiring extensive maintenance to operate properly. Many roller latches in fire situations failed to provide adequate protection to residents in their rooms during an emergency. Therefore, roller latches would be prohibited in existing and new Health Care Occupancies, and corridor doors would be required to have positive latching devices. Sections 18.4.2 and 19.4.2

Sprinklers in High-Rise buildings

This is a new provision for existing health care occupancies. This provision requires buildings over 75' (generally greater than 7 or 8 stories) in height to have automatic sprinkler systems installed throughout the building. The 2012 LSC allows 12-years from when the authority having jurisdiction (which in this case is CMS) officially adopts the 2012 edition of the LSC for existing facilities to comply with the sprinkle system installation requirement. Therefore, those facilities that are not already required to do so would have 12 years following publication of the final rule adopting the 2012 LSC to install sprinklers. We propose to adopt this new provision because high-rise buildings require more time to evacuate, and sprinklers would very likely allow additional time to safely evacuate a facility.

We believe that this provision would mainly affect hospitals. However, we are specifically soliciting public comment to determine if other provider types are, or may be, located in a high-rise building. We would also like to solicit public comments regarding the phase-in period of 12 years, including if 12-years is enough time for the installation of sprinklers in high-rise buildings. Sections 18.2.2.5.2 and 19.2.2.5.2

Door Locking

This new provision requires that, where the special needs of patients require specialized protective measures for their safety, door-locking arrangements are permitted.

This provision allows interior doors to be locked to reduce the risk of infant abductions and individuals who may wander, subject to the following requirements: (1) all staff must have keys; (2) smoke detection systems must be in place; and (3) the facility must be fully sprinklered; (4) the locks are electrical locks that will release upon loss of power to the device and (5) the locks release by independent activation of the smoke detection system and the water flow in the automatic sprinkler system. This provision would improve the security of health care facilities with specialized needs and improve patient safety. Sections 18.3.2.6 and 19.3.2.6

Alcohol based hand rubs (ABHRs)

This provision now explicitly allows aerosol dispensers, in addition to gel hand rub dispensers.
The aerosol dispensers are subject to limitations on size, quantity, and location, just as gel dispensers are limited. Automatic dispensers are also now permitted in health care facilities, provided that the following requirements are met: (1) they do not release contents unless they are activated; (2) the activation occurs only when an object is within 4 inches of the sensing device; (3) any object placed in the activation zone and left in place must not cause more than one activation; (4) the dispenser must not dispense more than the amount required for hand hygiene consistent with the label instructions; (5) the dispenser is designed, constructed and operated in a way to minimize accidental or malicious dispensing; and (6) all dispensers are tested in accordance with the manufacturer's care and use instructions each time a new refill is installed. The provision further defines prior language regarding “above or adjacent to an ignition source” as being “within 1 inch” of the ignition source. These new provisions would allow for more hand hygiene dispenser options for all facilities. Sections 18.3.5 and 19.3.5

Extinguishment Requirements

This provision is related to sprinkler system requirements and cross references section 9.7 of the LSC, “Automatic sprinklers and other extinguishing equipment.” Section 9.7 further cross references the 2011 edition of NFPA 25, Standard for the Inspection, Testing and Maintenance of Water-based Fire Protection Systems. Section 9.7.5 of the LSC states “All automatic sprinkler and standpipe systems required by this Code shall be inspected, tested and maintained in accordance with NFPA 25...” Section 15.5.2, of the 2011 edition of NFPA 25, which is cross-referenced by the 2012 edition of the LSC, requires the evacuation of a building or the instituting of an approved fire watch when a sprinkler system is out of service for more than 10 hours in a 24-hour period until the system has been returned to service. However the 1998 edition of NFPA 25, which is cross-referenced by the 2000 edition of the LSC, has the same requirement when a sprinkler system is out of service for only 4 hours. Because of the increased reliance upon a facility sprinkler protection system in the 2012 edition of the LSC, and to ensure a facility is adequately monitored when a sprinkler system is out of service, we propose to retain the requirement for evacuation or a fire watch when a sprinkler system is out of service for more than 4 hours. This provision is set out in the applicable sections of this proposed rule.

Corridors

This new provision allows for storage of medical equipment in the corridors. Any equipment that is in use, including medical emergency equipment, and patient lift and transportation equipment is permitted to be stored in the corridors for more timely patient care. This provision also allows facilities to place fixed furniture in the corridors. This creates resting points in the corridors for patients and families in facilities and makes for a more home-like setting.

Cooking facilities

This provision is a new section, which further supports a more home-like setting in health care facilities. Cooking facilities are allowed in a smoke compartment where food is prepared for 30 individuals or fewer (by bed count). The cooking facility is permitted to be open to the corridor, provided that the following conditions are met:

- The area being served is limited to 30 beds or less;
- The area is separated from other portions of the facility by a smoke barrier;
- The range hood and stovetop meet certain standards
  - A switch must be located in the area that is used to deactivate the cook top or range whenever the kitchen is not under staff supervision
  - The switch also has a timer, not exceeding 120-minute capacity that automatically shuts off after time runs out
- Two smoke detectors must be located no closer than 20 feet and not further than 25 feet from the cooktop or range.
Furnishings & Decorations

This provision has been revised to allow combustible decor in any health care occupancy as long as they are flame-retardant or treated with approved fire-retardant coating that is listed and labeled, and meet fire test standards. The décor (such as photographs, paintings and other art) may be attached directly to the walls, ceilings, and non fire-rated doors as long as it does not interfere with the operation of the doors. Additionally, decor may not exceed—(1) 20 percent of the wall, ceiling and doors, in any room that is not protected by an approved automatic sprinkler system; (2) 30 percent of the wall, ceiling and doors, in any room that is not protected by an approved, supervised automatic sprinkler system; and (3) 50 percent of the wall, ceiling and doors, in any room with a capacity of 4 people (the actual number of occupants in the room may be less than its capacity) that is not protected by an approved, supervised automatic sprinkler system. These changes would allow individuals to bring in their own furnishings and decor, which helps to provide a more home-like setting. Sections 18.5.2.3 and 19.5.2.3

Fireplaces

This provision has been revised to allow direct-vent gas fireplaces in smoke compartments without the 1 hour fire wall rating. Fireplaces must not be located inside of any patient sleeping room. Solid fuel-burning fireplaces are permitted and can be used only in areas other than patient sleeping rooms, and must be separated from sleeping rooms by construction of no less than a 1 hour fire resistance wall rating. This provision allows for more options for the location of fireplaces in health care facilities, which makes the facilities feel more home-like.

Outside Window or Door Requirements

The 2000 edition of the LSC required that every health care occupancy patient sleeping room shall have an outside window or outside door, with new health care occupancies having an allowable sill height not to exceed 36 inches above the floor with certain exceptions. This requirement no longer exists in the 2012 edition of the LSC; however, as outside windows and doors may be used for smoke control, building entry, patient and resident evacuation, and other emergency forces operations during an emergency situation, we propose to retain this requirement. We propose the following exceptions to the outside window or door requirement, as included in the 2000 edition of the LSC:

- Newborn nurseries and rooms intended for occupancy for less than 24 hours have no sill height requirements.
- Windows in atrium walls shall be considered outside windows for the purposes of this requirement.
- The window sill height in special nursing care areas shall not exceed 60 inches above the floor.

Waiver Authority

We are proposing to retain our existing authority to waive provisions of the LSC under certain circumstances, further reducing the exposure to additional cost and burden for facilities with unique situations. A waiver may be granted for a specific LSC requirement if we determine that--(1) the waiver would not adversely affect patient/staff health and safety; and (2) it would impose an unreasonable hardship on the facility to meet a specific LSC requirement. We do not consider it always necessary for a facility to be cited for a deficiency before it can apply for or receive a waiver, and we have periodically issued communications regarding specific provisions of the LSC that we evaluated and for which we have determined that a waiver would generally apply, subject to documentation maintained by the facility and verification of the applicability of the waiver when
a survey of the facility is conducted. We plan to continue this approach.

In cases where a provider or supplier has been cited for a LSC deficiency, the provider or supplier may request a waiver from its State Survey Agency or Accrediting Organization (AO) with a CMS-approved Medicare and applicable Medicaid accreditation program. The State Survey Agency or AO reviews the request and makes a recommendation to the appropriate CMS Regional Office. The CMS Regional Office would review the waiver request and the recommendation and make a final decision. A waiver cannot be granted if patient health and safety is compromised.

The LSC recognizes alternative systems, methods, or devices approved as equivalent by the authority having jurisdiction as being in compliance with the LSC. CMS, as the authority having jurisdiction for certification, will determine equivalency through the waiver approval process. State fire codes

In addition to the proposed waiver option, a state may request that its state fire safety requirements, imposed by state law, be used in lieu of the 2012 edition of the LSC, which we are proposing to adopt in this rule. The state must submit the request to the appropriate CMS Regional Office, and the Regional Office would forward the request to CMS central office for final determination. We would retain our authority to apply the Fire Safety Evaluation System (FSES) as an alternative approach to meeting the requirements of the LSC.

**2012 Edition of the Health Care Facilities Code**

The 2012 edition of the NFPA 99, “Health Care Facilities Code”, addresses requirements for both health care occupancies and ambulatory care occupancies, and serves as a resource for those who are responsible for protecting health care facilities from fire and associated hazards. The purpose of this Code is to provide minimum requirements for the installation, inspection, testing, maintenance, performance, and safe practices for health care facility materials, equipment and appliances. This Code is a compilation of documents that have been developed over a 40-year period by NFPA, and is intended to be used by those persons involved in the design, construction, inspection, and operation of health care facilities, and in the design, manufacture, and testing of appliances and equipment used in patient care areas of health care facilities. It provides information on subjects such as medical gas and vacuum systems, electrical systems, electrical equipment, and gas equipment.

The NFPA 99, which is a cross-referenced document in the LSC, has undergone some significant changes. The NFPA 99 has been upgraded from a standard to a code. A code, as used by the NFPA describes what to do, whereas a standard describes how to comply with the code. In addition to the upgrade, the format of the code has changed from specific provisions that are directed by different chapters in the NFPA 99 to provisions that apply to all health care facilities. The applicability of any specific provision is determined in accordance with the results of a risk based methodology. Previous editions utilized occupancy chapters to determine which systems were required in a health care facility. Requirements were applied based upon the facility type (that is, Hospital, Nursing Home, Limited Care Facility, Other Health Care Facilities). In the 2012 edition, requirements are based upon the possible risks to patients and residents, regardless of the type of facility.

Although NFPA 99 is a reference document of the 2012 edition of the LSC, the health care occupancy chapters of the LSC do not reference NFPA 99 requirements for all areas within a health care facility. In order to ensure the minimum level of protection afforded by NFPA 99 is applicable to all patient and resident care areas within a health care facility, CMS is proposing the adoption of the 2012 edition of NFPA 99, with the exception of chapters 7, 8, 12, and 13. In the following section, we describe the key provisions within the NFPA 99.

The first three chapters of the NFPA 99 address the administration of the NFPA 99, the referenced publications and also definitions.
Chapter 4 - Fundamentals

Chapter 4 is new to the 2012 edition and provides guidance on how to apply NFPA 99 requirements to health care facilities based upon “categories” determined when using a risk-based methodology. A risk-based approach allows for the application of requirements based upon the types of treatment and services being provided to patients or residents rather than the type of facility in which they are being performed. This approach will ensure that patients and residents in all types of health care facilities are provided with a minimum level of protection. In addition, the risk-based approach will allow a facility to determine the appropriate level of protection required in individual areas throughout a facility based upon each area’s risk to patients or residents, and would no longer require the facility to implement requirements in discriminately throughout an entire facility. Based upon a risk assessment conducted by qualified facility personnel, implementation of less stringent requirements may be appropriate for areas presenting a lower risk to patients or residents, while implementation of more stringent requirements is reserved for areas presenting a higher risk. This will allow health care facilities to apply the most appropriate level of protection in an efficient and economical manner.

There are four categories utilized in the risk assessment methodology, depending on the types of treatment and services being provided to patients or residents. Section 4.1.1 of NFPA 99 describes Category 1 as, “Facility systems in which failure of such equipment or system is likely to cause major injury or death of patients or caregivers....” Section A.4.1.1 provides examples of what a major injury could include, such as amputation or a burn to the eye. Section 4.1.2 describes Category 2 as, “Facility systems in which failure of such equipment is likely to cause minor injury to patients or caregivers....” Section A.4.1.2 describes a minor injury as one that is not serious or involving risk of life. Section 4.1.3 describes Category 3 as, “Facility systems in which failure of such equipment is not likely to cause injury to patients or caregivers, but can cause patient discomfort....” Section 4.1.4 describes Category 4 as, “Facility systems in which failure of such equipment would have no impact on patient care....”

Section 4.2 would require that each facility that is a health care or ambulatory occupancy define its risk assessment methodology, implement the methodology and document the results. We do not propose to require the use of any particular risk assessment procedure. Section A.4.2 provides examples of appropriate risk assessment procedures, such as ISO/IEC31010, Risk management- Risk Assessment, or NFPA 551, Guide for the Evaluation of Fire Risk Assessments.

Chapter 5 - Gas and Vacuum Systems

The hazards addressed in Chapter 5 include the ability of oxygen and nitrous oxide to exacerbate fires, safety concerns from the storage and use of pressurized gas, and the reliance upon medical gas and vacuum systems for patient care. Adopting Chapter 5 would ensure a minimal level of the performance, maintenance, installation, and testing of piped medical gas and vacuum systems in all patient and resident care areas (for example, operating rooms, intensive care units, critical care units, procedure rooms, and sleeping rooms). Chapter 5 would not mandate the installation of any systems; rather, if they are installed or are required to be installed, the systems would be required to comply with NFPA 99.

Chapter 5 covers the performance, maintenance, installation, and testing of the following:

- Nonflammable medical gas systems with operating pressure below a gauge pressure of 300 psi;
- Vacuum systems in health care facilities;
- Waste anesthetic gas disposal systems (WAGD); and
- Manufactured assemblies that are intended for connection to the medical gas, vacuum, or WAGD systems.
The NFPA 99 defines key terms that are used frequently throughout this chapter as follows:

Section 3.3.108- Medical gas systems
Medical gas systems are an assembly of equipment and piping for the distribution of nonflammable medical gases such as oxygen, nitrous oxide, compressed air, carbon dioxide, and helium. Section 3.3.110

Medical-surgical vacuum

Medical-surgical vacuum systems are used to provide a source of drainage, aspiration, and suction in order to remove body fluids from patients. Section 3.3.183

Waste anesthetic gas disposal systems (WAGD)

A WAGD system is the process of capturing and carrying gases vented from the patient breathing circuit during the normal operation of gas anesthesia or analgesia equipment. Section 3.3.111 - Medical-surgical vacuum system

A medical-surgical vacuum system is an assembly of central vacuum-producing equipment and a network of piping for patient suction in medical, surgical, and WAGD applications. Section 3.3.102- Manufactured assembly

A manufactured assembly is a factory-assembled product that contains medical gas or vacuum outlets, piping, or other devices related to medical gas.

Chapter 5 is organized by category as described in Chapter 4. The NFPA Technical Committee on Medical Gas did not find there was a need for Category 4 requirements, as Category 4 facilities would not ordinarily have piped medical gas or vacuums. Chapter 5 includes several sections, described below, which are significant to managing the hazards associated with gas and vacuum systems. Section 5.1.3

Category 1 Sources

This section includes information on the management of the sources for the medical gas, vacuum, WAGD, and instrument supply systems. It requires facilities to identify and label storage containers and other system components. It also contains requirements related to areas used to store gas and equipment, and how to handle gas cylinders and containers. Facilities would be required to design and construct systems and storage locations in accordance with the requirements for this section. This section also regulates the requirements for construction materials and placement of system components, and requirements for emergency power and quality assurance. Section 5.1.9 - Category 1 Warning Systems

This section includes information on the requirements for warning systems that monitor piped gas and vacuum systems. Warning systems monitor and alert the facility if a condition exists that could have a negative effect on the health and safety of patients, staff, and visitors. This section regulates the functions, capabilities, placement, labeling, emergency power, wiring, computer systems, initiating devices, and monitoring requirements for master, area, and local alarm systems. Section 5.1.10

Category 1 Distribution

This section includes information on the requirements for the piping system for medical gas, vacuum, and WAGD systems. It regulates piping system installation, location, assembly, cleaning, and materials of construction, inspection, and installer qualifications. Section 5.1.14
Category 1 Operation and Management

This section includes information on the operation and maintenance of medical gas, vacuum, WAGD and support gas systems. Issues addressed in this section include system limitations, maintenance programs, inspection and testing, management of flexible connections, piping and valve labeling, and recordkeeping. This section allows facilities flexibility in meeting the maintenance program requirements by focusing on the basic goals, timing, and qualifications for performing the work. NFPA 99 would not require a specific schedule, allowing a facility to determine the frequency of maintenance based on the original quality, age and longevity, and known characteristics of the equipment.

Section 5.2 Category

2 Piped Gas and Vacuum Systems and 5.3 Category 3 Piped Gas and Vacuum Systems

Category 2 requirements apply to facilities treating patients who might require the gases occasionally, but ordinarily would not require them. When the use of gas is required for patient care, the need is short term. The provisions for Category 2 are virtually the same as for Category 1, except some equipment is permitted to be simplex rather than duplex. Category 3 applies to office-based care, where gases are used in such a manner that the life of the patient is never at issue in the event of failure of gas. Many requirements in the Category 3 section are similar to the requirements in Category 1 and Category 2. Chapter 6

Electrical Systems

The hazards addressed in Chapter 6 are related to the electrical power distribution systems in health care facilities, and address issues such as electrical shock, power continuity, fire, electrocution, and explosions that might be caused by faults in the electrical system. Although these threats are present in any facility, the vulnerabilities of patients or residents in health care facilities, coupled with the complexity of the systems involved, create a need for distinct considerations.

Chapter 6 covers the performance, maintenance, and testing of both the normal and essential electrical systems (EES) in health care facilities. The normal electrical system is comprised of a normal power supply, typically provided by a public utility, connected to the facility electrical distribution system and ancillary equipment. The normal electrical system supplies power to the health care facility under normal operating conditions. An EES is comprised of an alternate source of power, typically a generator, connected to the facility's separate essential electric distribution systems and ancillary equipment. An EES is designed to ensure continuity of electrical power to designated areas and functions of a health care facility during a disruption of the normal power sources, and also to minimize disruptions with the internal wiring system (3.3.48).

Certain provisions in Chapter 6 related to the normal power system are defined by category as described in Chapter 4; however, all EES provisions are organized by “Type.” Category 1 systems are the most reliable and complex, because patients being served by these systems are the most dependent on this system to function properly and will be at the greatest risk if the system fails. Category 2 systems are a step down from Category 1 systems, and Category 3 systems are another step down. Critical care rooms (Category 1) would be required to be served by a Type 1 EES, general care rooms would be required to be served by a Type 1 or Type 2 EES, and basic care rooms and non-patient care rooms are not required to be served by any EES.

Chapter 6 includes several sections, which are significant to managing the hazards associated with the normal electrical system. Subject areas include: Section 6.3.1 - Sources
This section requires each line-powered electrical appliance in a health care facility to be supported by sources and distribution systems that provide power adequate for each service. 

Section 6.3.2 - Distribution

This section includes information on the electrical distribution systems within a health care facility. Some of the issues addressed include:

- Electrical system installation;
- Specific requirements for patient care rooms (circuits, overcurrent protection, receptacles, wet locations);
- Ground-fault protection; and
- Isolated power systems.

Section 6.3.3- Performance Criteria and Testing

This section includes information on electrical system performance criteria.

Electrical systems that support patient rooms would be required to be tested in order to ensure that they are safe and reliable. Some of the issues addressed include:

- Grounding system testing;
- Voltage measurements;
- Impedance measurements;
- Testing equipment;
- Receptacle testing;
- Isolated power systems testing; and
- Ground-fault protection testing.

Section 6.4.1- Sources (Type 1 EES)

This section includes specific information for on-site generators used as an alternate source of power. Generator requirements focus on design considerations, generator types, allowable uses, generator placement and protection, capacity, rating, heating, cooling, ventilating, battery maintenance, fuel supply, and generator monitoring.

In addition, this section addresses batteries used as alternate sources of power, as permitted. Section 6.4.2 - Distribution (Type 1 EES)

This section includes information on the EES distribution systems and ancillary equipment in a health care facility. It covers topics such as transfer switches; division of distribution system into three branches- life safety, critical, and equipment; and wiring requirements. Section 6.4.3 - Performance Criteria and Testing (Type 1 EES)

This section includes information on EES performance criteria to assure that the EES is safe and reliable. It includes a requirement that all functions of the life safety branch and critical branches must be automatically restored to operation within 10 seconds after interruption of the normal power source. It also includes specific transfer switch requirements related to placement, voltage drop, load transfer, and normal power restoration. Section 6.4.4 - Administration (Type 1 EES)
This section includes general information on the maintenance, inspection and testing of the EES alternate power source, including generator testing criteria, test conditions, and testing personnel qualifications. Specific maintenance, inspection and testing requirements are also required through reference to NFPA 110, Standard for Emergency and Standby Power Systems. In addition, this section addresses the maintenance and testing of EES circuitry and record keeping requirements.

Section 6.5- Essential Electrical System Requirements- Type 2 Section 6.5 addresses Type 2 EES requirements, which share many of the Type 1

EES requirements related to maintenance, inspection, and testing. The major difference between a Type 1 and Type 2 EES is that a Type 2 EES only requires two separate branches- a Life Safety branch and an Equipment branch. A Type 2 EES does not require a branch to supply a limited amount of lighting and power service that is considered essential for life safety and effective operation to critical care areas during the time the normal electrical service is interrupted.

Section 6.6- Essential Electrical System Requirements- Type 3 Section 6.6 addresses Type 3 EES requirements, which share many of the Type 1

EES requirements related to maintenance, inspection, and testing. The major difference between a Type 1 or Type 2 EES and a Type 3 EES system is that a Type 3 EES system comprises only one electrical branch to supply a limited amount of lighting and power service that is considered essential for life safety and orderly cessation of procedures during the time normal electrical service is interrupted. Type 3 EES systems are not permitted in areas where surgery is performed. In addition, the alternative power for a Type 3 system can be a generator, battery system, or self-contained battery integral with the equipment.

Chapter 9- Heating, Ventilation, and Air Conditioning (HVAC)

Chapter 9 is a newly added chapter to the 2012 edition of the NFPA 99 and requires HVAC systems serving spaces or providing health care functions to be in accordance with the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Standard 170-Ventilation of Health Care Facilities (2008 edition) (http://www.ashrae.org). The purpose of a HVAC system is to create acceptable indoor air quality. Heating is the process of bringing heat to different spaces using a variety of sources. Ventilating is the process of removing or changing air in a space to create a different temperature or to reduce or remove moisture, odors, smoke, dust, gases and microbes within a space. Air conditioning is the removal of heat from a space.

Chapter 9 does not apply to existing HVAC systems, but would apply to the construction of new health care facilities, and the altered, renovated, or modernized portions of existing systems or individual components. Chapter 9 would ensure minimum levels of heating, ventilation and air conditioning performance in patient and resident care areas. Some of the issues discussed in Chapter 9 are:

- HVAC system energy conservation;
- Commissioning;
- Piping;
- Ductwork;
- Acoustics;
- Requirements for the ventilation of medical gas storage and trans-filling areas;
- Waste anesthetic gases;
- Plumes from medical procedures;
- Emergency power system rooms; and
- Ventilation during construction. Chapter 9 includes several sections, which are of significant importance to managing the hazards associated with HVAC systems, including but not
limited to

Section 9.3.1- Heating, Cooling, Ventilating, and Process Systems

The purpose of this section is to define design requirements for ventilation systems in order to assure an environment that is comfortable and clean, and that minimizes odors in health care facilities. These requirements also apply to patient care areas and other related support areas within a health care facility. This section considers chemical, physical and biological contaminants that can affect the delivery of medical care to patients, the recovery of patients, and the safety of patients, health care workers, and visitors.

Section 9.3.3-Commissioning

This section requires HVAC system commissioning to follow ASHRAE Guideline 0, The Commissioning Process, and ASHRAE Guideline 1.1, HVAC & R Technical Requirements for the commissioning process, or other publically viewed documents acceptable to the authority having jurisdiction. Commissioning is a quality- oriented process for verifying new HVAC systems and assemblies meet performance objectives and criteria. For purposes of this rule, we would consider ASHRAE Guideline 0 and ASHRAE Guideline 1.1 as the only acceptable documents guiding the commissioning process.

Section 9.3.5- Ductwork

This section requires health care facilities to use ductwork systems that comply with NFPA 90, Standard for the Installation of Air-Conditioning and Ventilation Systems or other mechanical codes. NFPA 90 covers the construction, installation, operation, and maintenance of HVAC systems to protect life and property from fire, smoke, and gases resulting from a fire. NFPA 90A is also cross-referenced in the 2012 edition of the LSC.

Section 9.3.7- Medical Gas Storage or Transfilling

This section addresses the ventilation requirements for both medical gas storage and transfilling areas. Transfilling is the process of transferring a medical gas in gaseous or liquid state from one container or cylinder to another container or cylinder (3.3.176). Some of the requirements included in this section are for natural and mechanical ventilation.

Section 9.3.8- Waste Gas

This section requires the removal of gases vented from the patient breathing circuit during the normal operation of gas anesthesia or analgesia equipment by a WAGD system, as described in chapter 5, or by an active or passive scavenging ventilation system.

Section 9.3.10- Emergency Power System Room

This section requires operation of the emergency power supply to be in accordance with NFPA 110, Standard for Emergency and Standby Power Systems. NFPA 110 addresses ventilation requirements including, maintaining room temperature, adequate supply of air for generator combustion and cooling, air supply quality, and generator radiator and exhaust discharge. NFPA 110, in its entirety, is also cross- referenced in the 2012 edition of the LSC.

Chapter 10- Electrical Equipment

Chapter 10 covers the performance, maintenance, and testing of electrical equipment in health care facilities. Much of this chapter applies to requirements for portable electrical equipment in health care facilities, but there are also requirements for fixed-equipment and information on administrative issues. There has been an increased need for electrical equipment safety.
requirements due to the increase in the use of electrical circuits and multiple appliances that are
located close to the patient’s body, including situations where they enter the patient’s body (such
as internal defibrillators, and neurostimulators). Chapter 10 includes several sections, which may
reduce the instances of patient injuries and death due to electrical appliances and equipment,
including, but not limited to: Section 10.2 - Performance Criteria and Testing for Patient Care-
Related Electrical Appliances and Equipment

This section includes information on the connection of equipment, grounding of equipment, power
cords, and the proper use of electrical plug adapters and extension cords. This section also
discusses the proper materials to use to ensure electrical safety.

Section 10.3- Testing Requirements- Fixed and Portable

This section discusses the proper testing procedure for patient care electrical equipment, both
visually and physically, to ensure that leakage currents, which may cause electrical shocks, are
minimized or eliminated.

Section 10.4- Nonpatient Electrical Appliances and Equipment This section discusses the proper
testing procedure of equipment that may not be patient care related, but may be in the vicinity of
the patient and could pose an electrical hazard to the patient, if not properly inspected.
Nonpatient electrical appliances may include: entertainment devices, computers, displays and
such.

Section 10.5- Administration

This section requires facilities to ensure that there are policies in place for the testing and
maintenance of equipment, for the proper use of electrical equipment in the administration of
oxygen therapy, and for the proper use of electrical equipment in an oxygen enriched
environment. This section also includes requirements for the use, inspection, and maintenance of
equipment found in laboratories. Section 10.5.6 requires that a facility would keep records related
to the performance testing and repairs of patient care equipment. Section 10.5.8 would require
that equipment be used and maintained by qualified and trained personnel.

Chapter 11- Gas Equipment

The hazards addressed in Chapter 11 relate to general fire, explosions, and mechanical issues
associated with gas equipment, including compressed gas cylinders. Fire and explosions may be
caused by incidents involving oxygen, frequently used in health care facilities, or nitrous oxide,
frequently used as an inhalation anesthetic. Many materials commonly used in health care
facilities are not flammable in room air, but become flammable or extremely flammable when the
concentration of oxygen is raised in a room. Mechanical hazards are often associated with
compressed gas cylinders, which are generally under high pressures and are very heavy in
weight. The cylinders can cause injury, if not properly secured or mishandled. If there is physical
damage to regulators or valves, such damage may cause escaping gas to propel the cylinder.
Use of Chapter 11 would ensure a minimal level of performance, maintenance, testing, storage,
and management of gas equipment in all patient and resident care areas.

Chapter 11 includes several sections, which may reduce the instances of patient injuries and
death due to gas equipment. The following are important provisions of this section

Section 11.1- Applicability

This section includes information on the types of medical gases included in this chapter such as
nonflammable medical gases, and vapors and aerosols Section 11.2 - Cylinder and Container
Source
This section includes information on the proper connection of regulators and gauges to various types of gas sources to prevent cross connections and leakage.

Section 11.3- Cylinder and Container Storage Requirements

This section includes information on the proper storage of cylinders and containers, including cryogenic liquid containers. It discusses the types of enclosures required for storage and signage that facility must display.

Section 11.4- Performance Criteria and Testing

This section includes information on the proper testing of portable patient care gas equipment that is found in health care facilities, proper handling of gas containers for respiratory therapy, and non-patient gas equipment safety procedures. The section also addresses special requirements regarding the proper handling of gas equipment in laboratories.

Section 11.5- Administration

This section includes requirements for the elimination of potential sources of ignition, as well as the servicing and maintenance of equipment. There are also special handling requirements in this section for gases in cylinders, liquefied gases in containers, and transfilling of cylinders, including the transfilling of liquid oxygen.

Section 11.6- Operation and Maintenance of Cylinders

This section includes requirements for the proper procedures for safe handling of cylinders and containers. This section also requires special precautions for handling oxygen cylinders and manifolds, and making cylinder and container connections.

Section 11.7- Liquid Oxygen Equipment

This section includes information on the safe storage and handling of liquid oxygen portable containers and base reservoir containers.

Chapter 14- Hyperbaric Facilities

Hyperbaric facilities house hyperbaric chambers and auxiliary equipment. Hyperbaric medicine is the medical use of oxygen at a level higher than atmospheric pressure. The hyperbaric chamber is necessary to adjust the ambient pressure required for hyperbaric oxygen therapy. Chapter 14 addresses the hazards associated with hyperbaric facilities in health care facilities, including electrical, explosive, implosive, as well as fire hazards. Chapter 14 sets forth minimum safeguards for the protection of patients and personnel administering hyperbaric therapy and procedures.

Chapter 14 contains requirements for hyperbaric chamber manufacturers, hyperbaric facility designers, and personnel operating hyperbaric facilities. It also contains requirements related to construction of the hyperbaric chamber itself and the equipment used for supporting the hyperbaric chamber, as well as administration and maintenance. Many requirements in this chapter are applicable only to new construction and new facilities. However, there are some requirements, ones that are generally operational in nature, that are applicable to existing facilities. The 2000 edition of the LSC required that all occupancies containing hyperbaric facilities must comply with NFPA 99; therefore, Chapter 14 is not expected to impose a significant burden upon existing health care facilities.

Hyperbaric chambers are classified according to the number of human occupants in order to
establish appropriate minimum safeguards in construction and operation. Class A chambers have multiple occupants, Class B chambers are single occupancy, and Class C chambers are for animals only (no human occupancy ever).

Chapter 14 includes several sections, which are important to managing the hazards associated with hyperbaric facilities, including, but not limited to:

Section 14.2- Construction and Equipment

This section includes information on the construction and management of hyperbaric facilities and hyperbaric chambers, including topics such as:

- Fabrication of the hyperbaric chamber;
- Illumination;
- Ventilation;
- Fire protection;
- Electrical wiring;
- Electrical equipment;
- Communication systems;
- Gas detection and monitoring; and
- Chamber equipment and fixtures.  

Section 14.3- Administration and Maintenance

This section includes information on the administration and maintenance of hyperbaric facilities and hyperbaric chambers, including topics such as:

- Recognition of hazards associated with hyperbaric facilities;
- Establishing programs and assigning responsibilities to ensure safety;
- Restrictions on ignition sources;
- Limitations on flammables;
- Antistatic procedures and grounding;
- Limitations on combustibles;
- Restrictions and compatibility of equipment;
- Proper handling of gases;
- Installation, inspection, and maintenance of chamber equipment; and
- Electrical and electrostatic safeguards.  The hazards involved in the use of hyperbaric facilities can be mitigated successfully only when all of the areas of hazard are fully recognized by all personnel and when the physical protection provided is complete and is augmented by attention to detail by all personnel of administration and maintenance having any responsibility for the functioning of the hyperbaric equipment. This section addresses the administration and maintenance of the hyperbaric chamber with requirements such as the having a Safety Director, developing management policies and emergency procedures, and fire training of personnel involved with the use of the chamber. This section also includes policies describing what types of medical devices or equipment can be used in the chamber, along with the safe use of medical gases, electrical equipment, and fire protection equipment used within the chamber itself.

Chapter 15- Features of Fire Protection  

Chapter 15 covers the performance, maintenance, and testing of fire protection equipment in health care facilities. Issues addressed in this chapter range from the use of flammable liquids in an operating room to special sprinkler protection. These fire protection requirements are independent of the risk-based approach, as they are applicable to all patient care areas in both new and existing facilities.

- Chapter 15 has several sections taken directly from the NFPA 101, including requirements for the following:
- Construction and compartmentalization of health care facilities;
- Laboratories;
• Utilities;
• Heating, ventilation and air conditioning systems;
• Elevators;
• Escalators;
• Conveyors;
• Rubbish Chutes;
• Incinerators;
• Laundry Chutes;
• Fire detection, alarm and communication systems;
• Automatic sprinklers and other extinguishing equipment;
• Compact storage including mobile storage and maintenance; and
• Testing of water based fire protection systems. These sections have requirements for inspection, testing and maintenance which would apply to all facilities, as well as specific requirements for existing systems and equipment that would also apply to all facilities. Section 15.13 addresses fire loss prevention in operating rooms. This section includes requirements for a hazard assessment, fire prevention procedures, procedures for handling flammable germicides and antiseptics, emergency procedures, and orientation and training. This section sets out requirements that may reduce the risk of surgical fires, as described below:

Section 15.13.1 – Hazard Assessment. This section includes information on the assessment of hazards that a facility could encounter during a surgical procedure, and the periodic review of surgical operations and procedures.

Section 15.13.2 – Fire Prevention Procedures

This section requires that fire prevention procedures be established in facilities, but does not prescribe any particular procedures. The exact procedures to be used are left to the discretion of each facility based on its unique circumstances, features, and needs, and applicable State licensure laws and local ordinances.

Section 15.13.3 – Germicides and Antiseptics

This section includes information on the procedures for the safe handling of flammable materials in operating rooms. This section also outlines operational procedures to address the fire hazards of these flammable materials, including packaging and material handling, removing solution-soaked materials, preventing pooling of material, preoperative “time-out” period to allow for drying before patient draping, and establishing policies and procedures to outline safety precautions.

Section 15.13.3.9 – Emergency Procedures

This section requires emergency procedures to be in place in case of fire, or chemical spills in the operating room, as well as the procedures for alarm activation, evacuation and equipment shutdown. Section 15.13.3.10 – Orientation and Training

This section includes requirements for the orientation and training of new operating room/surgical suite staff for issues such as:

• Safe practices related to the area and equipment;
• Continuing education;
• Incident reviews;
• Procedure updates; and
• Fire drills

. 6. Long -Term Care Facilities: Condition of Participation: Physical Environment (§483.70)
We propose to retain most of the provisions of the existing final regulation for long-term care facilities published in the Federal Register on January 10, 2003 (68 FR 1374) regardless of the number of residents the facility serves. We propose to retain the requirements at §483.70(a)(1)(ii) related to the prohibition of roller latches in health care facilities. We are proposing to update the LSC chapter reference from “19.3.6.3.2 exception number 2” to “19.3.6.3.5 numbers 1 and 2 and 19.3.6.3.6 number 2.”

We propose to retain the provision at §483.70(a)(2) and (3) related to the Secretary’s waiver authority and state imposed codes. We do not propose to make any changes to this section.

We propose to remove the requirements at §483.70(a)(4) related to the phase-in period for compliance with emergency lighting. In the 2003 final rule, we allowed facilities until March 13, 2006, to upgrade their emergency lighting equipment. This phase-in period has now expired and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

We also propose to remove the requirements at §483.70(a)(5) related to the phase-in period for the prohibition of roller latches in health care facilities. In the 2003 final rule, we allowed facilities until March 13, 2006, to upgrade their door latching equipment. This phase-in period has now ended and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

We propose to modify the requirements specific to ABHRs since most of the requirements are now included in the 2012 edition of the LSC. Specifically, we propose to remove the requirements at §483.70(a)(6)(i), (ii), (iv) and (v). We propose to retain the requirement at §483.70(a)(6)(iii) related to protection against inappropriate access, and would redesignate it at §483.70(a)(4).

We propose to retain the requirements at §483.70(a)(7)(i), (ii), (iii), (A) and (B) related to installation, inspection, testing and maintenance of battery operated single station smoke alarms, without changes. We are proposing to redesignate these requirements at §483.70(a)(5) (i), (ii), (iii) (A) and (B). In addition, we propose to retain the requirements at §483.70(a)(8)(i) and (ii) related to the installation of supervised automatic sprinklers and the testing, inspection and maintenance of the sprinkler system. We propose to redesignate these requirements as §483.70(a)(6)(i) and (ii), without changes.

We also propose to add a new requirement at §483.70(a)(7) that would retain the 36 inch window sill requirement that was in the 2000 edition of the LSC.

We are proposing to add a new paragraph at §483.70(b) that would require LTCs to comply with the 2012 edition of the NFPA 99. We propose that chapters 7, 8, 12, and 13 would not apply to LTCs. We also propose to allow for waivers of these provisions under the same conditions and procedures that we currently use for waivers of applicable provisions of the LSC. 7. Interm ediate Care Facilities for Individuals with Intellectual Disabilities: Condition of Participation: Physical Environment (§483.470)

We propose to retain most of the provisions of the existing regulation for ICFs/IID. ICFs/IID would continue to be permitted to meet either the Residential Board and Care Occupancies chapter or the Health Care Occupancy chapter of the LSC, as appropriate, regardless of the number of patients the facility serves.

However, we propose not to adopt the provisions at Chapters 32.3.2.11.2 and 33.3.2.11.2, related to “lockups.” This is a new provision that has not been addressed in this chapter in prior editions of the LSC. Lock-ups are incidental use areas where occupants are secluded or
restrained, and; therefore, incapable of self-preservation in any emergency situation because of security measures and other circumstances no longer under the person’s control. We do not believe that lock-ups as described in the LSC are appropriate under any circumstances for board and care facilities.

In addition, we propose to retain the requirements at §483.470(j)(1)(ii) related to the prohibition of roller latches in health care facilities. We are proposing to update the LSC chapter reference from “19.3.6.3.2 exception number 2” to “19.3.6.3.5 numbers 1 and 2 and 19.3.6.3.6 number 2.”

We propose to retain the requirements at §483.470(j)(2), (3), and (4). We do not propose any changes to the content of these sections.

We propose to remove the requirements at §483.470(j)(5) related to the phase-in period for compliance with emergency lighting. In the 2003 final rule, we allowed facilities until March 13, 2006, to upgrade their emergency lighting equipment. This phase-in period has expired and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

We propose to remove §483.470(j)(6) related to the phase-in period for the prohibition of roller latches in health care facilities. In the 2003 final rule, we allowed facilities until March 13, 2006, to upgrade their door latching equipment. This phase-in period has now ended and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

We also propose to retain the provision at §483.470(j)(7)(A) and (B) related to the Secretary’s waiver authority and state imposed codes. We propose to redesignate these provisions at §483.470(j)(5)(A) and (B) without change.

In addition, we propose to modify the requirements specific to ABHRs since most of the requirements are now included in the 2012 edition of the LSC. Specifically, we proposed to remove the requirements at §483.470(j)(7)(ii)(A), (B), (D) and (E). We propose to retain the requirements at §483.470(j)(7)(ii)(C) related to protection against inappropriate access, and would redesignate it at §483.470(j)(5)(ii).

We propose to add a new requirement at §483.470(j)(5)(iii) that would require a facility with a sprinkler system that is out of service for more than 4 hours in a 24-hour period to evacuate the building or portion of the building affected by the system outage, or establish a fire watch until the system is back in service, notwithstanding the lower standard of the 2012 LSC.

We are proposing to add a new paragraph at §483.470(j)(5)(iv) that would require ICF-IIDs to comply with the 2012 edition of the NFPA 99. We propose that chapters 7, 8, 12, and 13 would not apply to ICF-IIDs. We also propose to allow for waivers of these provisions under the same conditions and procedures that we currently use for waivers of applicable provisions of the LSC. 8. Critical Access Hospitals: Condition of Participation: Physical Plant and Environment (§485.623)

We propose to retain most of the provisions of the existing final regulation for Critical Access Hospitals (CAHs) published in the Federal Register on January 10, 2003 (68 FR 1374), regardless of the number of patients the facility serves. Specifically, we propose to retain the requirements at §485.623(d)(1)(ii) related to the prohibition of roller latches in health care facilities. We are proposing to update the LSC chapter reference from “19.3.6.3.2 exception number 2” to “19.3.6.3.5 numbers 1 and 2 and 19.3.6.3.6 number 2.”

We propose to retain the requirements at §485.623(d)(2) through (d)(4). We do not propose to make any changes to these sections.
We propose to remove the requirement at §485.623(d)(5) related to the phase-in period for compliance with emergency lighting. In the 2003 final rule, we allowed facilities until March 13, 2006, to upgrade their emergency lighting equipment. This phase-in period has now expired and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

We propose to remove the requirement at §485.623(d)(6) related to the phase-in period of the prohibition on roller latches in health care facilities. This provision allowed CAHs a 3 year period to replace all existing roller latches. This phase-in period has also expired and all facilities should be in compliance. Therefore, this phase-in provision is no longer a necessary regulatory requirement.

In addition, we propose to modify the requirements specific to ABHRs since most of the requirements are now incorporated in the 2012 edition of the LSC. Specifically, we proposed to remove the requirements at §485.623(d)(7)(i), (ii), (iv) and (v). We propose to retain the requirement at §485.623(d)(7)(iii) related to protection against inappropriate access, and would redesignate it at §485.623(d)(5).

We are proposing to add a new requirement at §485.623(d)(6) that would require a facility with a sprinkler system that is out of service for more than 4 hours in a 24-hour period to evacuate the building or portion of the building affected by the system outage, or establish a fire watch until the system is back in service, notwithstanding the lower standard of the 2012 LSC.

We are proposing to add a new requirement at §485.623(d)(7) that would require facilities with windowless anesthetizing locations to have a supply and exhaust system that automatically vents smoke and products of combustion, prevents recirculation of smoke originating within the surgical suite, and prevents the circulation of smoke entering the system intake.

We also propose to add a new requirement at §485.623(d)(8) that would retain the 36 inch window sill requirement that was in the 2000 edition of the LSC. With the exception of newborn nurseries and rooms intended for occupancy for less than 24 hours, every sleeping room must have an outside window or outside door, and the sill height must not exceed 36 inches above the floor. Special nursing care areas shall not exceed 60 inches. Windows in atrium walls are considered outside windows for the purposes of this requirement.

We are proposing to add a new paragraph at §485.623(e) that would require CAHs to comply with the 2012 edition of the NFPA 99. We propose that chapters 7, 8, 12, and 13 would not apply to CAHs. We also propose to allow for waivers of these provisions under the same conditions and procedures that we currently use for waivers of applicable provisions of the LSC.

III. Collection of Information Requirements

This proposed rule does not impose any new reporting, recordkeeping or third-party disclosure requirements. However, this proposed rule does reference the NFPA 99 that has several recordkeeping requirements for medical gas and vacuum systems, and electrical equipment. We believe that documenting maintenance and testing is a usual and customary business practice in accordance with 5 CFR 1320.3(b)(2), and would not impose any additional information collection burden beyond that associated with the normal course of business. Consequently, it need not be reviewed by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995.

IV. Response to Comments

Because of the large number of public comments we normally receive on Federal Register documents, we are not able to acknowledge or respond to them individually. We will consider all
comments we receive by the date and time specified in the "DATES" section of this preamble, and, when we proceed with a subsequent document, we will respond to the comments in the preamble to that document.

V. Regulatory Impact Statement

In accordance with the provisions of Executive Order 12866, this regulation was reviewed by the Office of Management and Budget.

A. Overall Impact

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. A regulatory impact analysis (RIA) must be prepared for major rules with economically significant effects ($100 million or more in any 1 year). The overall economic impact for this rule is estimated to be $41,437,279 in the first year of implementation and $7,109,914 after the first year of implementation, and annually thereafter for an 11 year period. Therefore, this is not an economically significant or major rule.

C. Anticipated Effects

3. Intermediate Care Facilities for Individuals with Intellectual Disabilities

Sections 32.2.3.5.7 and 33.2.3.5.7 of the LSC requires attics of new and existing facilities to be sprinklered if the attic space is used for living purposes, including storage and fuel fired equipment. Facilities that do not use their attics for living purposes may choose to install a heat detection system in place of the sprinklers. This provision was added to the LSC in 2012. Since this is a new provision for the 2012 edition of the LSC, only 3 states have adopted this requirement, accounting for 78 ICF-IIDs. We are not including those 78 facilities in our analysis. For purposes of this analysis only, we assume that about 10 percent (639) of facilities will install a heat detection system because they do not use the attic for living purposes. As of December 2012, there were 6,460 total Medicare participating ICF-IIDs. After excluding those facilities located in states that have already adopted this requirement and those that would install a heat detection system instead of sprinklers, the 5,743 remaining facilities would be required to install sprinklers in their attics to meet this requirement. Installing sprinklers into an unfinished attic is less complicated than installing sprinklers in a finished hospital, therefore the cost per square foot would be less to install in attics than hospitals. The estimated cost per square foot to install sprinklers in an attic is $3.00, and the average estimated square footage per attic per facility is 1500 square feet, for a total of $4,500 per ICF-IID. We estimate that all ICF-IIDs would spend $25,843,500 to install sprinklers in their attic spaces.

Facilities that do not use their attics for living purposes may choose to install a heat detection system in the attic instead of sprinklers. We assume that 639 facilities will install a heat detection system. We estimate the cost to install a heat detection system to be $1,000 per facility. The anticipated cost would be $639,000 for all affected facilities to install heat detection systems.

Section 33.3.3.2.3 of the LSC requires all hazardous areas in existing facilities with impractical evacuation capabilities to be separated from other parts of the building by a smoke partition. This provision was added to the LSC in 2012 and we anticipate there being a cost associated with installing the smoke partition. Since this is a new provision for 2012, only 3 states have adopted this requirement, accounting for 78 ICF-IIDs. As of December 2012, there were 6,460 total Medicare and applicable Medicaid participating ICF-IIDs. We do not collect data regarding the
evacuation capability of each ICF-IID. Therefore, for purposes of this analysis only, we assume that the 6,382 remaining facilities will need to install a smoke partition around all hazardous areas to meet this requirement. The estimated cost per smoke partition is $500, and we assume that an average ICF-IID would need to install 2 smoke partitions for a total of $1,000 per facility. The anticipated cost is $6,382,000.

Section 33.3.3.4.6.2 of the LSC requires that, when an existing facility installs a new fire alarm system, or the existing fire alarm system is replaced, notification of emergency forces should be handled in accordance with section 9.6.4, which states that notification of emergency forces should alert the municipal fire department and fire brigade (if provided) of fire or other emergency. This provision was added to the LSC in 2012 and we anticipate there being a cost associated with upgrading a new or existing fire alarm system. Since this is a new provision for 2012, only 3 states have adopted this requirement, accounting for 78 ICF-IIDs. As of December 2012, there were 6,460 total Medicare participating ICF-IIDs. The 6,382 remaining facilities would be required to add emergency notifications capabilities when they choose to update or install a new fire alarm system. The estimated cost per upgrade is $1000. For purposes of this analysis only, we assume that about 8.3 percent (532) of facilities will do this in any given year, for an annual cost of $532,000 over a 12 year period. ($1,000 per upgraded alarm system x 532 facilities in any given year = 532,000)

Table 1—Total cost for implementation in years

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Provider type affected</th>
<th>Cost per affected provider</th>
<th>Cost for all providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprinklers in Attics (used for living purposes, storage or fuel fired equipment)</td>
<td>Intermediate care for individuals with intellectual disabilities</td>
<td>$4,500</td>
<td>$25,843,500</td>
</tr>
<tr>
<td>Heat detection systems in attics (not used for living purposes)</td>
<td>Intermediate care for individuals with intellectual disabilities</td>
<td>$1,000</td>
<td>$639,000</td>
</tr>
<tr>
<td>Hazardous areas separated by smoke partitions</td>
<td>Intermediate care for individuals with intellectual disabilities</td>
<td>$1,000</td>
<td>$6,382,000</td>
</tr>
<tr>
<td>Upgrade existing or install new fire alarm system with emergency forces notification capabilities*</td>
<td>Intermediate care for individuals with intellectual disabilities</td>
<td>$1,000</td>
<td>$532,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$41,437,279</td>
</tr>
<tr>
<td>Upgrade existing or install new fire alarm system with emergency</td>
<td>Intermediate care for individuals</td>
<td>$1,000</td>
<td>$532,000</td>
</tr>
</tbody>
</table>
forces notification capabilities with intellectual disabilities

TOTAL ANNUALLY $7,109,914

OVERALL TOTAL YEARS 2-12 $78,209,054

PART 483—REQUIREMENTS FOR STATES AND LONG TERM CARE FACILITIES

13. The authority citation for part 483 continues to read as follows:

Authority: Secs. 1102, 1128l and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395hh).

§483.15 [Amended]

14. In §483.15, amend paragraph (h)(4) by removing the reference “§483.70(d)(2)(iv)” and by adding in its place the reference “§483.70(e)(2)(iv)”.

15. Amend §483.70 by—
A. Revising paragraph (a)(1)(i). B. Am ending paragraph (a)(1)(ii) by removing the reference to “Chapter 19.3.6.3.2, exception number 2” and adding in its place “Chapter 19.3.6.3.5 numbers 1 and 2 and Chapter 19.3.6.3.6 number 2”.
C. Removing paragraphs (a)(4) and (5).
D. Redesignating paragraphs (a)(6) through (8) as paragraphs (a)(4) through (6), respectively.
E. Revising newly redesignated paragraphs (a)(4). F. Adding new paragraph (a)(7). G. Redesignating paragraphs (b) through (h) as paragraphs (c) through (i). H. Adding new paragraph (b). The revisions read as follows:

§ 483.70 Physical environment

**(a)(1)*** (i) Except as otherwise provided in this section, the long term care facility must meet the applicable provisions of the 2012 edition of the Life Safety Code of the National Fire Protection Association, regardless of the number of residents served. The Director of the Office of the Federal Register has approved the NFPA 101®2012 edition of the Life Safety Code, issued August 11, 2011, for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the Code is available for inspection at the CMS Information Resource Center, 7500 Security Boulevard, Baltimore, MD or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. If any changes in this edition of the Code are incorporated by reference, CMS will publish notice in the Federal Register to announce the changes.

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(4) A long-term care facility may install alcohol-based hand rub dispensers in its facility if the dispensers are installed in a manner that adequately protects against inappropriate access.
(7) Every sleeping room must have an outside window or outside door, and the sill height must not exceed 36 inches above the floor. Windows in atrium walls are considered outside windows for the purposes of this requirement.

(b) Standard: building safety. Except as otherwise provided in this section, the long term care facility must meet the applicable provisions of the 2012 edition of the Health Care Facilities Code of the National Fire Protection Association, regardless of the number of residents served. The Director of the Office of the Federal Register has approved the NFPA 99®2012 edition of the Health Care Facilities Code, issued August 11, 2011, for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the Code is available for inspection at the CMS Information Resource Center, 7500 Security Boulevard, Baltimore, MD or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. If any changes in this edition of the code are incorporated by reference, CMS will publish notice in the Federal Register to announce the changes.

(1) Chapters 7, 8, 12, and 13 of the adopted Health Care Facilities Code do not apply to a long term care facility.

(2) If application of the Health Care Facilities Code required under paragraph (b) of this section would result in unreasonable hardship upon the long term care facility, CMS may waive specific provisions of the Health Care Facilities Code, but only if the waiver does not adversely affect the health and safety of residents.

16. Amend §483.470 by —

A. Revising paragraph (j)(1)(i).

B. Removing paragraph (j)(1)(ii) by removing the reference to “Chapter 19.3.6.3.2, exception number 2” and adding in its place “Chapter 19.3.6.3.5 numbers 1 and 2 and Chapter 19.3.6.3.6 number 2”.

C. Adding a new paragraph (j)(1)(iii).

D. Removing paragraphs (j)(5) and (6).

E. Designating paragraph (j)(7) as paragraph (j)(5).

F. Revising newly redesignated paragraph (j)(5). The revisions and additions read as follows:

§483.470 Condition of participation: Physical environment

(i) Except as otherwise provided in this section, the facility must meet the applicable provisions of either the Health Care Occupancies Chapters or the Residential Board and Care Occupancies Chapter of the 2012 edition of the Life Safety Code of the National Fire Protection Association, regardless of the number of clients served. The Director of the Office of the Federal Register has approved the NFPA 101®2012 edition of the Life Safety Code, issued August 11, 2011, for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the Code is available for inspection at the CMS Information Resource Center, 7500 Security Boulevard, Baltimore, MD or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. If any changes in this edition of the Code are incorporated by reference, CMS will publish notice in the Federal Register to announce the changes.
(iii) Chapters 32.3.2.11.2 and 33.3.2.11.2 of the adopted 2012 LSC do not apply to a facility.

(5) Facilities that meet the LSC definition of a health care occupancy. (i) After consideration of State survey agency recommendations, CMS may waive, for appropriate periods, specific provisions of the Life Safety Code if the following requirements are met:

(A) The waiver would not adversely affect the health and safety of the clients.

(B) Rigid application of specific provisions would result in an unreasonable hardship for the facility.

(ii) A facility may install alcohol-based hand rub dispensers if the dispensers are installed in a manner that adequately protects against inappropriate access.

(iii) When a sprinkler system is out of service for more than 4 hours in a 24-hour period, the facility must:

(A) Evacuate the building or portion of the building affected by the system outage until the system is back in service, or

(B) Establish a fire watch until the system is back in service.

(iv) Except as otherwise provided in this section, ICF-IIDs must meet the applicable provisions of the 2012 edition of the Health Care Facilities Code of the National Fire Protection Association, regardless of the number of clients served. The Director of the Office of the Federal Register has approved the NFPA 99®2012 edition of the Health Care Facilities Code, issued August 11, 2011, for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the Code is available for inspection at the CMS Information Resource Center, 7500 Security Boulevard, Baltimore, MD or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. If any changes in this edition of the Code are incorporated by reference, CMS will publish notice in the Federal Register to announce the changes.

(A) Chapter 7,8,12 and 13 of the adopted Health Care Facilities Code does not apply to an ICF-IID. (B) If application of the Health Care Facilities Code required under paragraph

(iv) of this section would result in unreasonable hardship upon the ICF-IID, CMS may waive specific provisions of the Health Care Facilities Code, but only if the waiver does not adversely affect the health and safety of clients.

Dated: August 22, 2013
Approved: March 7, 2014
Marilyn Tavenner,
Administrator, Centers for Medicare & Medicaid Services.
Kathleen Sebelius,
Secretary, Department of Health and Human Services.