

Life Safety Code

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Life Safety Code

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Life Safety Code

Adopted by Centers for Medicare and Medicaid Services (CMS)

Hospitals

Long Term Care Facilities

Ambulatory Surgical Centers

ICFs/MR

Life Safety Code

3/11/03 – final rule effective

9/11/03 – compliance required

3/13/06 – roller latches eliminated
emergency lighting 1½ hrs.

Life Safety Code

Chapter 18 – New Health Care
Occupancies

Chapter 19 – Existing Health Care
Occupancies

Renovations, Alterations, and Modernizations

■ 19.1.1.4.5

Where major renovations, alterations, or modernizations are made in a nonsprinklered facility, the remodeled smoke compartment must be protected with an automatic sprinkler system.

Renovations, Alterations, and Modernizations

Minor renovations do not trigger the requirement for installing sprinklers.

Every effort should be made to satisfy the criteria for new construction during a building alteration or the installation of new equipment.

Construction Type

■ 19.1.6.2

Type I

Masonry, concrete, brick, block, stone, clay tile, etc.

Type II

Steel beams, bar joists, studs, etc.

Construction Type

Type III

Combination of noncombustible and combustible

Type IV

Heavy timber

Construction Type

Type V

Combustible wood members

Construction Type

■ 19.1.6.3

All interior walls in noncombustible construction must be noncombustible or limited-combustible materials. Fire-retardant-treated wood studs may be used in non-load bearing partitions with a 1-hour fire-rating.

Means of Egress

■ 19.2.2.2.2

Locks are not permitted on resident sleeping room doors.

Means of Egress

Locks that restrict access to the room from the corridor are permitted.

Staff must have keys to operate the locks.

Locks must not restrict egress from the room.

Means of Egress

■ 19.2.2.2.4

Doors in a means of egress cannot be equipped with a latch or lock that requires the use of a tool or key or special knowledge from the egress side.

Means of Egress

Delayed egress locks are permitted, provided there is not more than one such device in any egress path.

Means of Egress

Delayed-egress locks:

The door must unlock upon activation of an automatic sprinkler system or fire alarm system.

The door must unlock upon loss of power to the lock.

Means of Egress

Delayed-egress locks:

The door must unlock within 15 seconds after force is applied to the release device.

The release process must activate an alarm in the vicinity of the door.

Means of Egress

Delayed-egress locks:

Once the door has been released, relocking is by manual means only.

A keypad system may substitute for the panic bar release mechanism.

Means of Egress

Delayed-egress locks:

A sign describing actions necessary to unlock the door must be posted adjacent to the release device.

Letters 1 in. high and 1/8 in. stroke width.

Means of Egress

■ 19.2.2.2.6

Any door in a exit passageway, stairway, horizontal exit, smoke barrier, or hazardous area can be held open only by an automatic release device.

Means of Egress

These doors must close upon activation of the automatic sprinkler system and fire alarm system or loss of power.

Means of Egress

■ 19.2.2.2.7

Where stairway doors are held open by an automatic release device, initiation of door closing on any level must cause doors in the stairway to close on all levels.

Means of Egress

■ 19.2.3.3

All corridors must be maintained in clear and unobstructed width.

Carts, equipment, lifts, etc. may not be stored in the exit corridors.



EXIT

NOTICE TO CUSTOMERS

Means of Egress

CMS will allow crash carts to be stored in the corridor due to the need for immediate access.

CMS will allow isolation carts to be located in the corridor outside resident rooms while in use.

Means of Egress

■ 19.2.3.5

The minimum clear width for doors in the means of egress shall be not less than 32 in. wide.

Means of Egress

■ 19.2.4

Not less than two exits, remotely located from each other, must be provided for each floor or fire section of the building.

Means of Egress

■ 19.2.5.1

Every habitable room must have an exit access door leading directly to an exit access corridor.

Means of Egress

■ 19.2.5.2

Any resident sleeping room or suite of sleeping rooms exceeding 1000 square feet must have not less than two exit access doors remotely located from each other.

Means of Egress

■ 19.2.5.3

Any room or suite of rooms, other than sleeping rooms, of more than 2500 square feet must have not less than two exit access doors remotely located from each other.

Emergency Lighting

■ 19.2.9

Emergency lighting must be provided for 1½ hours.

Not less than an average of 1 ft-candle at any point.

Must include exit discharge.

Exit Marking

■ 19.2.10

Exit signs must be continuously illuminated.

Both bulbs in the sign must be functional at all times.

Hazardous Areas

■ 19.3.2.1

Hazardous areas must have a 1-hour fire resistance rating or sprinklers.

- (1) Boiler and fuel-fired heater rooms
- (2) Laundries larger than 100 sq ft
- (3) Paint shops
- (4) Repair shops

Hazardous Areas

- (5) Soiled linen rooms
- (6) Trash collection rooms
- (7) Rooms larger than 50 sq ft used for storage of combustibles
- (8) Laboratories using quantities of flammable or combustible materials

Interior Finish

■ 19.3.3.2

Interior finish on walls and ceilings:

Existing – Class A or Class B

New – Class A

Interior Finish

Class A – Flame spread 0-25

Smoke development 0-450

Class B – Flame spread 76-200

Smoke development 0-450

Interior Finish

New walls and ceilings - Class A or B interior finish in individual rooms not exceeding four persons capacity.

New corridor wall finish not exceeding 4 ft. in height must be Class A or B.

Interior Floor Finish

■ 19.3.3.3

Newly installed interior floor finish in corridors and exits - Class I.

In sprinklered smoke compartments, no interior floor finish requirements.

Fire Alarm

■ 19.3.4

Health care occupancies must be protected with a fire alarm system.

The fire alarm system shall be serviced annually.

Fire Alarm

The audible portion of the system must be tested monthly.

The fire alarm system must automatically transmit a signal to the local fire department.

Corridor Walls

■ 19.3.6.2.1

Corridor walls shall be continuous from the floor to the floor or roof deck above, through any concealed spaces, and through interstitial structural and mechanical spaces, and have a fire resistance rating of not less than $\frac{1}{2}$ hour.



Corridor Walls

Examples of acceptable partition assemblies would include 1/2 in. gypsum board, wood lath and plaster, gypsum lath, or metal lath and plaster.





12 1/2
78 1/2
90 5/8
1 1/8

29 1/2

Corridor Walls

In sprinklered smoke compartments, a corridor may be a non-fire-rated partition and terminate at the ceiling where the ceiling is constructed to limit the transfer of smoke.

Corridor Walls

A suspended ceiling with penetrating items such as sprinkler piping and sprinklers, ducted HVAC supply and return-air diffusers, speakers, and recessed lighting fixtures is capable of limiting the transfer of smoke.

Corridor Walls

A suspended ceiling with missing or broken tiles, egg crate grilles, or other open areas will not limit the transfer of smoke.

Corridor Walls

Existing corridor partitions can terminate at monolithic ceilings that resist the passage of smoke where there is a smoketight joint between the top of the partition and the bottom of the ceiling.

Corridor Walls

Monolithic ceilings are continuous horizontal membranes composed of noncombustible or limited-combustible materials, such as plaster or gypsum board, with seams or cracks permanently sealed.

Corridor Walls

- 19.3.6.2.2

Corridor walls must form a barrier to limit the transfer of smoke.

- 19.3.6.2.3

Fixed fire window assemblies are permitted in corridor walls.







Corridor Doors

■ 19.3.6.3.1

Doors protecting corridor openings must be 1³/₄ in. thick, solid-bonded core wood or of construction that resists fire for not less than 20 minutes and shall resist the passage of smoke.

Corridor Doors

Clearance between the bottom of the door and the floor covering not exceeding 1 in. is permitted for corridor doors.

Corridor Doors

In sprinklered smoke compartments, doors must be constructed to resist the passage of smoke.

Corridor Doors

Gasketing of doors should not be necessary to achieve resistance to the passage of smoke if the door is relatively tight-fitting.

Corridor Doors

■ 19.3.6.3.3

Hold-open devices that release when the door is pushed or pulled are permitted.

Corridor Doors

Doors should not be blocked open by furniture, door stops, chocks, tie-backs, drop-down or plunger-type devices, or other devices that necessitate manual unlatching or releasing action to close.

Corridor Doors

■ 19.3.6.3.4

Door-closing devices are not required on corridor doors other than those to required exits, smoke barriers, vertical openings and hazardous areas.

Corridor Doors

■ 19.3.6.3.5

Nonrated, factory- or field-applied protective plates extending not more than 48 in. above the bottom of the door are permitted.

Corridor Doors

■ 19.3.6.3.6

Dutch doors are permitted.

Both the upper and lower leaf must be equipped with a latching device.

The meeting edges must have an astragal, rabbet, or bevel.

Corridor Doors

■ 19.3.6.3.7

Door frames must be labeled or be of steel construction.

Door frames located in sprinklered smoke compartments are exempt.

Corridor Doors

■ 19.3.6.3.8

Fixed fire window assemblies are permitted in corridor doors.

No restrictions in area and fire resistance of glass and frames in sprinklered smoke compartments.

Corridor Walls

■ 19.3.6.4

Transfer grilles, regardless of whether they are protected by fusible link-operated dampers, are not permitted in corridor walls and doors.

Corridor Walls

Doors to toilet rooms, bathrooms, shower rooms, sink closets, etc. that do not contain flammable or combustible materials may have louvers.

Corridor Wall Openings

■ 19.3.6.5

In smoke compartments that do not contain bedrooms, miscellaneous openings such as mail slots and pharmacy, laboratory, and cashier pass-through windows are permitted in windows or doors...

Corridor Wall Openings

provided that the area of openings per room does not exceed 20 sq in, and the openings are installed at or below half the distance from the floor to the room ceiling.

Corridor Wall Openings

For rooms protected throughout by a sprinkler system, the total area of openings per room cannot exceed 80 sq in.

Smoke Barriers

■ 19.3.7.1

Smoke barriers must be provided to divide every story with more than 30 residents into not less than two smoke compartments.

Smoke Barriers

The size of the smoke compartment cannot exceed 22,500 square feet.

The travel distance from any point to reach a smoke barrier cannot exceed 200 ft.

Smoke Barriers

■ 19.3.7.3

The smoke barrier must have a fire resistance rating of not less than $\frac{1}{2}$ hour.



Smoke Barriers

Dampers are not required in duct penetrations of smoke barriers in fully ducted HVAC systems where a sprinkler system has been provided for smoke compartments on both sides of the smoke barrier.



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TENA
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03

Smoke Barriers

■ 19.3.7.5

Openings in smoke barriers:

Fire-rated glazing

Wired glass and steel frames

1³/₄ in. thick, solid-bonded wood core or 20 minute rated doors



Smoke Barrier Doors

Nonrated, factory- or field-applied protective plates extending not more than 48 in. above the bottom of the door are permitted.

Smoke Barrier Doors

■ 19.3.7.6

Doors in smoke barriers must be self-closing or automatic closing.

Doors are not required to swing with exit travel.

Positive latching hardware is not required.

Patient Sleeping Rooms

■ 19.3.8

Every resident sleeping room must have an outside window or outside door.

Fire Drills

■ 19.7.1.2

Fire drills must include the transmission of a fire alarm signal and simulation of emergency fire conditions.

Fire Drills

Drills must be conducted quarterly on each shift to familiarize staff with the signals and emergency action required under varied conditions.

Fire Drills

A coded announcement is permitted when drills are conducted between 9:00 p.m. and 6:00 a.m.

Fire Drills

The purpose of the fire drill is to test and evaluate the efficiency, knowledge, and response of staff in implementing the fire emergency plan.

Its purpose is not to disturb or excite residents.

Fire Procedures

■ 19.7.2

R remove

A alarm

C confine

E evacuate

Fire Procedures

R A C E

Removal of all occupants directly involved with the fire emergency.

Fire Procedures

R A C E

Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff.

Fire Procedures

R A C E

Confinement of the effects of the fire by closing doors to isolate the fire area.

Fire Procedures

R A C E

Relocation of residents as detailed in the facility's fire safety plan.

Furnishings

■ 19.7.5.2

Newly introduced upholstered furniture must meet the criteria cited in 10.3.2(2) and 10.3.3.

10.3.2(2)...NFPA 261 or sprinklers

10.3.3.....ASTM E 1537 or sprinklers

Furnishings

■ 19.7.5.3

Newly introduced mattresses must meet the criteria cited in 10.3.2(3) and 10.3.4.

10.3.2(3)...16 CFR 1632 or sprinklers

10.3.4.....ASTM E 1590 or sprinklers

Furnishings

■ 19.7.5.5

Soiled linen or trash collection receptacles cannot exceed 32 gal in capacity. The average density of container capacity in a room or space cannot exceed 0.5 gal/sq ft. A capacity of 32 gal cannot be exceeded within any 64 sq ft area.

Furnishings

Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal must be located in a room protected as a hazardous area when not attended.

Container size and density are not be limited in hazardous areas.

Construction

■ 19.7.9.2

The means of egress in any area undergoing construction, repair, or improvements must be inspected daily to insure the means of egress is maintained free of all obstructions and must also comply with NFPA 241.

Automatic Sprinkler System

Must be serviced annually.

Water flow alarms must be tested quarterly.

18 in. clearance must be maintained.

Automatic Sprinkler System

At least 6 spare sprinklers of each type used in the facility and a sprinkler wrench must be kept on hand.





Portable Fire Extinguishers

Must be checked monthly.

Must be serviced annually.

Emergency Generator

Must be checked weekly.

Must be run monthly under load for a minimum of 30 minutes and annually for a continuous time not less than 90 minutes.

Emergency Generator

Battery powered lighting units must be provided at emergency generator locations.

Battery Pack Lights

Must be tested monthly for at least 30 seconds and annually for a continuous time not less than 90 minutes.

The equipment must be functional for the duration of the test.

Alcohol-based Hand Rub Dispensers

■ Alcohol Hand Gel Dispensers

CMS will not permit dispensers containing alcohol-based hand sanitizers to be located in the exit corridor. They may be located within individual rooms.



STERIS®

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Antimicrobial Activity
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Kills Microbes on Petrolatum

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Alcohol-based Hand Rub Dispensers

■ Effective *May 24, 2005*

A long term care facility may install alcohol-based hand rub dispensers in its facility.

Alcohol-based Hand Rub Dispensers

The dispensers must be installed to minimize leaks and spills that could lead to falls.

The dispensers must be installed to adequately protect against access by vulnerable populations.

Alcohol-based Hand Rub Dispensers

Where dispensers are installed in a corridor, the corridor must have a minimum width of 6 ft.

Alcohol-based Hand Rub Dispensers

The maximum individual dispenser fluid capacity must be:

0.3 gallons for dispensers in rooms, corridors, and areas open to corridors

0.5 gallons for dispensers in suites of rooms

Alcohol-based Hand Rub Dispensers

The dispensers must have a minimum horizontal spacing of 4 ft from each other.

Alcohol-based Hand Rub Dispensers

Not more than an aggregate 10 gallons of solution may be in use in a single smoke compartment outside of a storage cabinet.

Alcohol-based Hand Rub Dispensers

Storage of quantities greater than 5 gallons in a single smoke compartment must meet the requirements of NFPA 30, *Flammable and Combustible Liquids Code*.

Alcohol-based Hand Rub Dispensers

The dispensers cannot be installed over or directly adjacent to an ignition source.

Dispensers installed directly over carpeted surfaces are permitted only in sprinklered smoke compartments.

Smoke Detectors

- Effective **May 24, 2006** a long term care facility must:

Install battery-operated smoke detectors in resident sleeping rooms and public areas.

Have a program for testing, maintenance, and battery replacement.

Smoke Detectors

Exceptions:

The facility has a hard-wired AC smoke detection system in resident rooms and public areas.

The facility has a sprinkler system throughout.

Smoke Detectors

- Smoke detector sensitivity testing must be done within the first year after installation and every alternate year thereafter. Can be extended to 5 year intervals.

Dampers

■ Fire and Smoke Dampers

At least every 4 years:

- (1) Fusible links must be removed.
- (2) All dampers must be operated.
- (3) The latch must be checked.
- (4) Moving parts must be lubricated.

Kitchen Hood

■ Hood Extinguishing Systems

Kitchen hood extinguishing systems must be in compliance with UL 300.

The extinguishing system must be serviced every 6 months.



