

THE STATE FIRE MARSHAL

Fire Safety Code - 1949

The following regulations, Sections, 172-1-1 to 172-1-25, made by the State Fire Marshal, were filed with the Secretary of the State on September 23, 1947, approved by the Attorney General on September 23, 1947, published in the Connecticut Law Journal September 29, 1947, and were in effect on that date, unless otherwise indicated.

GENERAL PROVISIONS

SEC. 172-1-1. CODE ESTABLISHED

In accordance with the provisions of Public Act No. 419 of the Public Acts of 1947 (Sec. 3664-3679 of the General Statutes, 1949 Revision) a Fire Safety Code is herewith established.

SEC 172-1-2.* GENERAL APPLICATION

This Code shall specify reasonable minimum requirements for fire safety in new and existing buildings and facilities, except in private dwellings occupied by one or two families, one-story school buildings, premises used for manufacturing, or places requiring special state license used for the exhibition of motion pictures. It should be noted, however, that municipalities may enact ordinances and orders relating to fire safety provided they specify requirements equal to, additional to or more stringent than those contained in this Code.

SEC. 172-1-3. ARRANGEMENT OF CODE

Specific types of occupancies and general subjects are regulated under Article captions, and to further facilitate reference each section is titled and in numerical order.

SEC. 172-1-4. INTERPRETATIONS

a. The titles or headings of Articles contained in this Code shall be deemed to be a part of such Articles. The titles or headings of sections, however, shall not be considered a part thereof.

b. Where in this Code such terms as "proper," "adequate," "sufficient," "ample," "suitable," "substantial," "necessary," "dangerous" and the like, or derivatives thereof are used, they shall be understood to mean proper, adequate, etc. to the satis-

* As Amended June 28, 1948

faction or in the opinion of the authority having enforcement jurisdiction; and such terms as "where practicable," "where required," "as far as possible," shall have a like significance.

c. Where the term "approved" is used in this Code, it shall be understood to mean "in accordance with the specific provisions related to the particular subject as are contained in this Code, or as approved in particular by the State Fire Marshal."

SEC. 172-1-5.* DEFINITIONS

Unless otherwise expressly stated, the following terms shall for the purpose of this Code, have the meanings indicated in this section.

Ambulatory. The term "ambulatory" when used in relation to a person, shall mean one who, without the aid of another, is physically and mentally capable of walking a normal path to safety, including the ascent and descent of stairs.

Area of refuge. The term "area of refuge" shall mean a ground area, reasonably accessible from a building, of sufficient size and in safe condition for refuge by all building occupants at a safe distance from such building. When used in relation to areas within buildings this term shall mean an area beyond a fire wall or smoke barrier of sufficient size to offer refuge to all occupants on the same floor of the building.

Basement. The term "basement" shall mean that portion of a building, the floor of which is at least 2 feet below the lowest adjacent grade or sidewalk.

Bed patient. The term "bed patient" shall mean a hospital patient who is not ambulatory as defined in this section.

Combustible. The term "combustible" shall mean that which is not within the category of "noncombustible", as defined in this section.

Convalescent Home. The term "convalescent home" shall mean a building used as a place for the lodging, care and treatment of five or more persons suffering from abnormal physical conditions, requiring license by the State Department of Health as a "Chronic and Convalescent Home". This shall include places used for the lodging and long-term care of the infirm and those receiving chronic or convalescent care, but shall not include such places as are defined under the term "hospital" which are equipped for general medical or surgical treatment and are used for short-term care, the lodging and care of one's immediate family within his private dwelling or buildings used for the housing of insane persons or those confined in state prisons, jails or other public penal institutions.

Exit. The term "exit" shall have the same meaning as "means of egress", as defined in this section.

* As Amended June 28, 1948

Fire door. The term "fire door" shall mean a door and its assembly with jamb, so constructed and assembled in place as to have a fire-resistant rating of at least two hours.

Fire wall. The term "fire wall" shall mean a wall of brick or reinforced concrete which subdivides a building or separates buildings to restrict the spread of fire, and which starts at the foundation and extends continuously through all stories to and above the roof, except where the roof is fireproof or semi-fireproof and the wall is carried up tightly against the underside of the roof slab.

Horizontal exit. The term "horizontal exit" shall mean a doorway through or around a fire wall protected by a fire door, which door shall not be held in an open position by a device which will require more than one movement of normal strength to close. This term shall also include a bridge connecting two buildings whose outside walls are of masonry construction.

Hospital. The term "hospital" shall mean a building used as a place for the lodging, care and general medical or surgical treatment of five or more persons. A hospital shall not include a place used for the lodging or care of members of one's immediate family within his private dwelling, or buildings used for the housing of insane persons, or those confined in state prisons, jails or other public penal institutions.

Hotel. The term "hotel" shall mean a building or portion of a building used as a place where sleeping accommodations are furnished for hire or other consideration, with or without board, for 25 or more guests or employees of the management, or in which 13 or more sleeping rooms are maintained for such guests or employees. The term "hotel" shall include all clubs, schools, dormitories or other buildings which have similar sleeping accommodations, but shall not include apartment houses, hospitals, penal institutions or buildings housing the insane. Members of the management's family shall not be considered as guests or employees.

Liquefied petroleum gas. The term "liquefied petroleum gas" and its symbol, "LP-Gas", as used in this Code, shall mean and include any material which is composed predominantly of any of the following hydrocarbons, or mixtures of them: propane, propylene, butanes (normal butane or iso-butane), and butylenes.

Means of egress. The term "means of egress" shall mean wall openings or other passageways considered as means of egress required by this Code.

Noncombustible. The term "noncombustible", when used in relation to any material thing, shall mean that which will not readily ignite and burn when subject to fire.

June 28, 1948

The term "noncombustible", when used in relation to buildings in general, shall mean that type of structure which is constructed completely of masonry, metal and/or other noncombustible material. A building shall be termed "noncombustible" whether or not wood flooring has been laid over solid or slab masonry, whether or not door and window assemblies are of wood, and whether or not roofing over room enclosures which are at least 20 feet in height is of combustible material, provided such roofing is supported by steel and covered on the outside by fire-resistant material.

Place of Assembly. The term "place of assembly" shall mean a room or space within a building in which more than 75 persons assemble for religious, recreational, educational, political, fraternal, social or amusement purposes, or for the consumption of food or drink, except school classrooms, rooms or spaces within one-story school buildings, libraries, courtrooms, places requiring special state license used for the exhibition of motion pictures, or any portion of a private dwelling. Such room or space shall include adjacent rooms with intervening partitions, open or capable of being opened so as to allow for occupancy with a common purpose.

Rooming house. The term "rooming house" shall mean any building which is used in whole or in part as a place where sleeping accommodations are furnished for hire or other consideration, with or without board, for not more than 24 guests or employees of the management or in which 12 or less sleeping rooms are maintained for such guests or employees. This term shall include all tourist homes advertised as such, which have accommodations as aforesaid but shall not include private dwellings which accommodate not more than two habitational guests or employees, or an apartment house, hospital, or convalescent or nursing home, as defined in this Code. Members of the management's family shall not be considered as guests or employees.

Smoke Barrier. The term "smoke barrier" shall mean a partition with a fire-resistant rating of not less than one-half hour, equipped with a door and jamb of the same rating and hung so as to be reasonably smoke and gas tight when closed. The door shall not be fastened in an open position by a device which will require more than one movement of normal strength to swing such door to a closed position. Such barrier shall be located to provide ample area of refuge on each side of such partition for all occupants of the story served by the barrier.

June 28, 1948

The barrier may have wired-glass panels, each not to exceed 6 square feet.

Sprinklered. The term "sprinklered" shall mean "to be completely protected by an approved system of automatic sprinklers installed and maintained in accordance with proper standards."

Story. The term "story" shall mean that part of a building between a floor and the floor next above; and shall apply to the basement and other floor areas below. The first story shall be that story which is of such height above grade that it does not come within the definition of a basement or shall be that story located immediately above a basement. The second story shall mean the story located immediately above the first story, and upper stories shall be in numerical sequence accordingly. Stories below the basement shall be designated as "below"; and shall be in numerical sequence accordingly. A one-story building shall mean a building with one story only, or a building containing a basement and one story above.

Winding stairs. The term "winding stairs" shall mean a flight of two or more steps which, in changing direction, does so by benefit of variance in the width along each tread. This term shall not include such stairs as have treads of uniform width throughout and change direction by benefit of intermediate landings or platforms.

SEC. 172-1-6.* APPLICATION TO NEW OR EXISTING STRUCTURES.

Unless otherwise expressly provided, all regulations contained in this Code shall apply to all existing and new structures. When a change of use or type of occupancy is made in an existing building, such building shall conform to the requirements for new structures as related to the proposed use or type of occupancy.

SEC. 172-1-7.* CONFORMITY REQUIRED.

No person shall construct or cause to be constructed a new building, and no person shall alter or cause to be altered an existing building, except in conformity with the provisions of this Code. All existing buildings shall be maintained, or reconstructed and maintained, in conformity with this Code. Exemptions from compliance may be allowed by the State Fire Marshal where conformity is found impracticable, and where existing conditions are adjudged by him to provide equal and adequate safety from fire, smoke and panic therefrom.

*As Amended January 19, 1948

ARTICLE I

PLACES OF ASSEMBLY

SEC. 172-1-8. GENERAL

a. The regulations contained in this Article shall apply to all places of assembly as defined in Section 172-1-5, except only such places as are expressly exempt in accordance with the provisions of this Code.

b. Fire-escapes and other outdoor stairways, heating and ventilating facilities, and the use of electric wiring and appliances, shall be governed by special articles related thereto.

SEC. 172-1-9. EGRESS FACILITIES REQUIRED

All places of assembly shall be provided with approved egress facilities as determined under the provisions of Section 172-1-13, where practicable.

SEC. 172-1-10. MAXIMUM OCCUPANCY

No place of assembly shall have occupancy in excess of that for which adequate floor area is available or egress facilities provided in accordance with the provisions of Sections 172-1-13a to 172-1-13c inclusive, provided additional occupancy of standing patrons will be allowed in seated places of assembly in accordance with the provisions of Section 172-1-11 of this Code.

SEC. 172-1-11. STANDING CONDITIONS

Standing patrons may be allowed in places of assembly at the rate of one person for each 5 square feet of area available for standing; provided that aisle area, except rear cross aisles, shall not be considered in determining the number of standing patrons allowed.

SEC. 172-1-12. ADMISSIONS RESTRICTED AND SUPERVISED

Admissions to all places of assembly shall be supervised by the responsible management, or by such person or persons delegated with such responsibility by said management and such responsible person shall not allow admissions in excess of the maximum occupancy as provided in Section 172-1-10 of this Code.

SEC. 172-1-13. EGRESS FACILITIES DETERMINED

a. Each place of assembly shall have at least two approved ways of egress, remote from each other. Additional approved egress passages distributed as uniformly as practicable to effect a rapid discharge of occupants shall be provided on the basis of unobstructed horizontal width of such egress facilities for each 100 persons, or fraction thereof, to be accommodated under conditions of possible occupancy, as determined under the provisions of Sections 172-1-13b and 172-1-13c of this Code and in accordance with the following schedule:

(1) Places of assembly in sprinklered buildings constructed entirely of noncombustible materials, 20 inches for each 100 persons.

(2) Places in non-sprinklered buildings constructed entirely of noncombustible materials, 22 inches for each 100 persons.

(3) Places in sprinklered buildings constructed wholly or in part of combustible materials, 24 inches for each 100 persons.

(4) Places in non-sprinklered buildings constructed wholly or in part of combustible materials, 36 inches for each 100 persons.

b. In determining required egress facilities in places of assembly without fixed seating, possible occupancy shall be computed at the rate of one person for each 6 square feet of floor area within the room or combination of rooms under consideration, excluding only such stages and other permanent structures and areas as are not intended for patron occupancy. The rate to be used in places used for the consumption of food and drink shall be one person for each 10 square feet of such floor area.

c. In determining required egress facilities in places of assembly having fixed seating, possible occupancy shall be in accordance with the number of individual seats provided and at the rate of 18 inches in width for each person in bench or bleacher type seating, provided the total seating shall not exceed one person for each 6 square feet of floor area.

d. The entrance openings and passages to a place of assembly measured at the point of their least unobstructed width to the outside, shall be considered as approved width of egress.

e. Elevators, revolving doors and window openings shall not be considered in the computation of approved egress facilities.

SEC. 172-1-14. EGRESS PASSAGEWAYS

a. The distance of travel from any point within such place of assembly to an approved egress opening therefrom shall not exceed 100 feet.

b. Each egress doorway from a place of assembly shall be at the assembly floor level in new structures, and as near there to as practicable in all existing structures.

c.* All new doorways and connecting passageways to the outside, to be considered as means of egress, shall be at least 36 inches in width and at least 78 inches in height, and of such greater width as conditions require, except that each leaf of a double or mullioned door may be not less than 30 inches wide.

* As Amended June 28, 1948

d. All approved means of egress from a place of assembly shall open directly into the open air or to an inside passageway enclosed by material with a fire-resistant rating of not less than 30 minutes, or an approved interior stairway, or a combination of both, leading to the open air, provided one such passageway from each place of assembly may be through an open space or lobby with ample egress openings to the outside. Such enclosed passageway shall be equal in width to the most distant exit opening served thereby and increased by two-thirds of the width of any additional exits entering thereon, such increase to be made in the direction of exit travel.

e. Doorways leading from a place of assembly through a room or rooms of the same tenancy may be considered as approved means of egress, provided such room or rooms lead to the outside by means of doorways, approved passageways or stairways, or a combination of both, which are completely separate from other approved means of egress from such place of assembly. Provision shall be made for a clear and unobstructed passage through such room or rooms to the outside.

f. Walks of ample width and safe for pedestrian travel shall be provided from each outside egress opening to a public street or a suitable area of refuge.

g.* All egress openings and passageways leading from places of assembly shall be kept free from obstructions or encumbrances at all times and shall not be through a room used as a kitchen, bathroom or for any other purpose that may obstruct free passage.

SEC. 172-1-15. VERTICAL OPENINGS

a. Every existing interior stairway constituting part of an entrance or egress passage from a place of assembly shall be enclosed or be segregated from other portions of the building by materials with a fire-resistant rating of not less than 30 minutes. Partitioning at floor levels with materials of the same rating affecting a closure of such stairway opening between the floors of the second and third stories, and at each floor level above, shall constitute a proper enclosure in such buildings, provided that the basement and other stories below are segregated from the first story in the same manner. Where interior stairways constitute the entire means of egress, at least one such stairway, and additional stairways where necessary, shall lead directly to the outdoors or to an enclosed passageway leading to the outdoors constructed to resist fire to the same degree. One such stairway, where necessary, may be allowed to lead through an open space or lobby with ample egress openings to the outside. All other vertical openings exposing such place of assembly shall be enclosed throughout by material with a fire-resistant rating of not less than 30 minutes.

* As Amended June 28, 1948

b. All vertical openings, including stairways and passages to the outdoors, leading from a place of assembly in new buildings, shall be enclosed by material with a fire-resistant rating of at least 2 hours, provided that an enclosure shall not be required for a flight of stairs from the main entrance floor to the floor next above when such stairs are not a part of an approved means of egress, nor for a flight of stairs in a building constructed entirely of noncombustible materials when such stairs connect only one story with one other story immediately above or below it. The above allowances for open stairways between one story and one other story shall also apply to existing structures under like conditions.

SEC. 172-1-16. EGRESS DOORS

a. All egress doors opening from a place of assembly or in a passageway leading therefrom to the outside of the building shall be so hung as to open in the direction of exit travel, but this requirement shall not be construed to prohibit entrance doors swinging both inward and outward.

b. Egress doors into stairway enclosures, all doors serving other vertical openings, and doors in side wall openings of enclosed egress passages, shall be equipped with suitable self-closing devices.

c.* Doors in walls or partitions required to be fire-resistant for one-half hour shall be equally fire resistant, and doors in walls or partitions required to be of greater resistance shall be resistant to fire for not less than one hour.

d.* A door in a partition required to be fire resistant may contain wired glass, provided such glass shall not exceed 6 square feet.

e. All egress doors leading from a place of assembly with a possible occupancy of 500 or more persons, and all such doors in all new places of assembly shall be equipped with approved panic hardware which will release when normal pressure is applied to the releasing device in the direction of exit travel. Such releasing device may be a bar or panel extending not less than two-thirds of the width of the doors and placed not less than 30 nor more than 44 inches above the floor.

f. All egress doors leading from a place of assembly with a maximum occupancy of less than 500 may be equipped with panic hardware as required under Section 172-1-16e. Such egress doors not equipped with panic hardware shall be equipped with hardware which will insure opening of such door by a single motion in the turning of a knob or pressure of a latch with normal strength. No such door shall be equipped with a lock,

* As Amended June 28, 1948

latch, bolt or other fastening device which will allow for locking such door against opening from the place of assembly while occupied, or which will require a second operation or motion to open such door for egress purposes.

SEC. 172-1-17. STAIRS AND STAIRWAYS

a. All stairways in places of assembly and in passages leading therefrom shall have suitable handrails on both sides, except such stairs as are only 3 feet in width, which stairs shall have one such handrail.

b. All existing stairways in approved egress passages shall be provided with landings at least 30 inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. All new stairways shall have such landings at least 36 inches in depth.

c. Winding stairs shall not be allowed in approved ways of egress.

d. Stair treads in approved inside egress passages in existing structures shall be not less than 8 inches wide, exclusive of nosing, and risers shall not exceed $8\frac{1}{2}$ inches in height. In new buildings such stair treads shall be not less than $9\frac{1}{2}$ inches wide, excluding the nosing, and risers shall not exceed $7\frac{3}{4}$ inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

SEC. 172-1-18. AISLES AND SEATING

a. In each place of assembly where seating is provided, except where assembly is seated at tables, such seating shall be arranged in an orderly manner with ample provisions made for aisles leading to exits, and no aisle forming a part of the egress system of such place of assembly shall be obstructed or encumbered. No longitudinal aisle serving seats on one side shall be less than 30 inches in width, and no such aisle serving seats on both sides shall be less than 36 inches in width and shall be adequately increased according to the number of seats served thereby. Ample front, rear or through-section cross aisles at least 36 inches in width shall be provided where necessary for access to exit openings. Rows of seats between aisles shall have not more than 14 seats. Rows of seats opening onto an aisle at one end only shall have not more than 7 seats.

b. Tables arranged for dining or other purposes in places of assembly shall be so located in respect to exit openings and so spaced apart that sufficient means of access to exit openings is provided. Aisles in the direction of exits shall be at least 3 feet in width. Suitable access to aisles shall be provided from all tables.

September 29, 1947

SEC. 172-1-19.* EXIT SIGNS

a. Signs bearing the word "Exit" shall be placed at each exit doorway of a place of assembly and at the doorway in any passageway or stairway leading therefrom. Where an exit and its sign are not visible from every point in the passageway or from the assembly floor area served, an adequate number of directional signs shall be provided bearing the term "Exit" and an arrow pointing in the direction of such exit.

b. Exit and directional signs shall bear letters at least $4\frac{1}{2}$ inches in height with strokes not less than $\frac{3}{4}$ inch in width, and shall be of greater height and width when necessary for legibility.

c. Exit signs shall be clearly legible and properly illuminated during occupancy of the place of assembly.

d. Exit signs shall be maintained clearly legible by electric illumination or other adequate means for at least 30 minutes when the normal building illumination fails.

SEC. 172-1-20.* ILLUMINATION OF EXIT PASSAGES

a. Adequate facilities shall be provided for the lighting of all passageways, stairways and other means of egress.

b. An automatic auxiliary source of illumination shall be provided for the lighting of egress passageways, stairways and exit signs. This secondary lighting system shall be termed herein as "auxiliary emergency illumination".

Auxiliary emergency illumination shall not be required for places of assembly which are used exclusively for religious purposes, for places of assembly which are not used in the night season, or for places of assembly, other than eating and drinking establishments, which do not exceed 1500 square feet of floor area and are located in the first story or within 5 feet of grade level.

Auxiliary emergency illumination shall be from a source of power independent of that for the principle lighting, or by means of a special and separate circuit or feeder carried back as far as possible to the servicing meter. Such auxiliary illumination shall be controlled by an automatic device which will operate reliably to switch the power servicing such lights to the auxiliary service in the event of failure of the principle lighting service. When a separate circuit or feeder is used it may be kept in continuous service during occupancy of a place of assembly, under which conditions an automatic switching device shall not be required.

All equipment for auxiliary emergency illumination shall be constructed and permanently installed in accordance with accepted good practice, shall not be so located as to obstruct egress passage, and shall be reasonably safeguarded.

* As Amended June 28, 1948

When an independent source of power is provided for auxiliary emergency illumination, such power and service shall be maintained to provide not less than 30 minutes of adequate illumination at all locations required to be lighted under this section. Equipment for such power shall include a volt meter or hydrometer and a switch or other suitable equipment so arranged and located as to be reasonably convenient and reliable for the testing of available power. Extension lights from such power units shall not be in excess of the unit's capacity, and shall not be extended beyond reasonable distances.

Exceptions to the requirements for auxiliary emergency illumination may be allowed for existing buildings until July 1, 1949 by the State Fire Marshal in conformity with Section 172-1-7 of the general provisions of this Code.

SEC. 172-1-21.* EXTINGUISHING EQUIPMENT REQUIRED

Places of assembly shall be provided with proper fire extinguishing equipment adequate for the area involved and suitably located. The term "extinguishing equipment" as used in this section shall not include automatic sprinklers. (See Section 172-1-23)

SEC. 172-1-22.* DECORATIVE AND ACCOUSTICAL MATERIAL

All combustible decorative and accoustical material, including curtains, streamers, cloth, cotton batting, straw, vines, leaves, trees and moss, but not including floor coverings, shall be rendered and maintained flame resistant. This regulation shall not be construed to prohibit the use of wall or ceiling coverings affixed directly to the wall or ceiling, provided the surface will not be readily flammable and will not carry or communicate fire.

SEC. 172-1-23.* SPRINKLERS REQUIRED

All new buildings, other than those of noncombustible construction, containing places of assembly above the second story and existing buildings converted to such use, shall be protected by a system of automatic sprinklers installed and maintained in accordance with proper standards, provided adequate water service is available.

SEC. 172-1-24.* LOCATION OF PLACES OF ASSEMBLY

No place of assembly shall hereafter be constructed above the second story except in a sprinklered or noncombustible building.

SEC. 172-1-25. HOUSEKEEPING

All places of assembly, egress passages therefrom, and adjacent rooms and spaces not segregated from such place of assembly or passage by closed fire-resistant construction, shall be kept

clean and in tidy condition, and free from combustible debris. No such premises shall contain storage of flammable liquids or liquefied petroleum gas, and no cooking or use of open flame or smoking shall be allowed without adequate provisions for protection of the premises and occupants against fire.

Article II

HOTELS

The following regulations, Sections 172-1-26 to 172-1-67, made by the State Fire Marshal were filed with the Secretary of the State on December 30, 1947, approved by the Attorney General on December 30, 1947, published in the Connecticut Law Journal on January 19, 1948 and were in effect on that date, unless otherwise indicated.

SEC. 172-1-26. GENERAL

a. The regulations contained in this Article shall apply to all hotels, as defined in Section 5, except such places as are expressly exempt in accordance with the provisions of this Code.

b. Fire-escapes and other outdoor stairways, heating, cooking and ventilating facilities and the use of electric wiring and appliances shall be covered by special Articles related thereto.

SEC. 172-1-27. EGRESS FACILITIES REQUIRED

a. All hotels shall be provided with approved egress facilities as required under the provisions of this Code.

b. No less than two approved means of egress shall be provided from every story of every building.

c. Exits from each floor shall be so arranged that it will not be necessary to travel more than 75 feet from the door of any guest room, or from any point in a building or section not divided into rooms to reach the nearest approved means of egress from that story. In noncombustible buildings which are sprinklered this distance may be 100 feet, and in noncombustible buildings which are not sprinklered this distance may be 90 feet.

d. Exits shall be located remote from each other, providing the best practicable means of egress for all guests in the event fire renders one exit impassable.

January 19, 1948

* As Amended June 28, 1948

SEC. 172-1-28. EGRESS PASSAGEWAYS

a. Access to all interior and outside stairways, to fire-escapes and other exits considered as approved means of egress, shall be unobstructed and shall not be through a room used as a bedroom, bathroom or kitchen, or for any other purpose that may obstruct free passage, nor shall access be veiled from open view by ornamentation, curtains or other appurtenances.

b. All corridors and passageways in new buildings considered as approved means of egress, shall be at least 42 inches in width and 78 inches in height, and of such greater width as conditions require. All corridors and passageways now existing shall be at least 28 inches in width and at least 74 inches in height in order to be considered as approved means of egress.

c. All doorways which are of themselves, or are a part of, approved means of egress, shall be at floor level in new structures, and as near thereto as practicable in existing structures. Windows shall not be considered as approved means of egress.

d. Passageways from inside stairways to the outside shall have the same fire-resistant quality as required of the connecting stairways in accordance with Sections 30a and 32b of this Code.

e. All approved egress passageways shall at all times provide free, unobstructed and safe passage to the street or to a ground area of refuge.

SEC. 172-1-29. TRANSOMS

Transoms and other openings in corridors or passageways shall not be allowed in new construction. Existing transoms and like openings in corridors and passageways shall be permanently sealed and made fire resistant equal to the general side wall construction, except that existing transoms over sleeping room doors may be allowed, provided they are constructed to resist fire to the same degree as the related door and are equipped with proper closing devices to allow instant closing by persons inside the room. Notice shall be posted adjacent to all such transoms reading "Close transom in case of fire."

SEC. 172-1-30. STAIRWAYS AND OTHER VERTICAL OPENINGS

a. Every existing interior stairway constituting approved egress passage from any story of a hotel shall be enclosed or be segregated from other portions of the building by material with a fire-resistant rating of not less than 30 minutes. Partitioning at floor levels with materials of the same rating effecting a closure of such stairway opening between floors shall constitute a proper enclosure in such building; provided that the basement and other stories below are segregated from the first

story in the same manner; provided ~~that~~ such partitioning and segregation shall not be required in ~~sprinklered~~, noncombustible buildings connecting three adjacent ~~stories~~; and provided that partitions or segregation shall not be required for a flight of stairs connecting two adjacent stories in a non-combustible building which is not sprinklered. At least one such stairway, and additional stairways where necessary, shall lead directly to the outdoors or to an enclosed passageway leading to the outdoors, constructed to resist fire to the same degree. One stairway, where necessary, may be allowed to lead through an open space or lobby with ample egress openings to the outside. All other vertical openings throughout such buildings shall be enclosed by material with a fire-resistant rating of not less than 30 minutes. (See Section 172-1-32b for new construction requirements.)

b.* Elevators will not be considered as approved means of egress, and all elevator shafts shall be enclosed by noncombustible materials with a fire-resistant rating of not less than two hours. No opening shall be allowed through the side wall enclosures for ventilating or other purposes. All doors servicing elevators shall be of closed or solid construction and such doorways shall be made smoke-tight when doors are closed. Such doors, lintels and panels above shall be constructed to resist fire for two hours, but such doors may have wired glass not to exceed 6 square feet.

c. All stairways in approved egress passages shall have suitable handrails on both sides, except such stairs as are less than 3 feet in width, which stairs shall have one such handrail.

d. Stairways in approved egress passages in existing hotels shall be not less than 28 inches in width and in new buildings, additions to existing buildings, or buildings hereafter converted for the purpose of a hotel, such stairways shall be not less than 42 inches in width.

e. Existing stairways in approved egress passages shall be provided with landings at least 30 inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. New stairways shall have such landings at least 36 inches in depth.

f. Stair treads in approved inside egress passages in existing structures shall be not less than 8 inches wide, exclusive of nosing, and risers shall not exceed 8½ inches in height. In new buildings such stair treads shall be not less than 9½ inches wide, exclusive of nosing, and risers shall not exceed 7¾ inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

g.* In new buildings winding stairs with treads less than 9½ inches in width at any point shall not be considered as means of egress.

SEC. 172-1-31. EGRESS DOORS

a. Doors in approved egress passages into stairways and to the outside shall be so hung as to open in the direction of exit travel, but this requirement shall not be construed to prohibit ground floor entrance doors swinging both inward and outward. Such doors shall not be so hung as to obstruct egress passage.

b. Doors into required stairway enclosures, all doors serving other vertical openings, and doors in side wall openings in enclosed egress passages, except doors to the outside, shall be equipped with suitable self-closing devices, maintained in operating condition. Such doors shall not be equipped with devices intended for holding such doors in an open position.

c. Doors and jambs in walls or partitions required to be fire-resistant shall be equally fire-resistant, and shall be constructed and maintained close fitting and reasonably smoke tight.

d. Doors in a partition required to be fire resistant may contain a single wired-glass panel where necessary, provided such glass shall not exceed 5 square feet.

e.* Doors in existing approved egress passages shall be not less than 28 inches in width. When serving approved egress passages, new doors in existing structures and all doors in new structures shall be not less than 36 inches in width and 78 inches in height, except that each leaf of a double or mullioned door may be not less than 30 inches wide.

f. Egress doors leading to the outside or into an enclosed passageway leading to the outside, except doors on the ground floor normally used for entrance, shall be equipped with panic hardware which will release when normal pressure is applied to the releasing device in the direction of exit travel. Such releasing device may be a bar or panel extending not less than two-thirds of the width of the door and placed not less than 30 inches nor more than 44 inches above the floor.

g. Revolving doors shall not be considered as approved means of egress.

SEC. 172-1-32. CONSTRUCTION

a. Every hotel hereafter constructed, every addition hereafter made to any hotel, and every building hereafter converted for the purposes of a hotel, shall be of noncombustible construction if more than three stories above the basement of any portion of such hotel building is used or intended for use by guests or hotel employees. Additions to hotels of such height shall be segregated from existing combustible construction by fire walls with openings protected by fire doors.

* As Amended June 28, 1948

b. All vertical openings, including stairways and passageways to the outdoors, in all new buildings, additions to existing buildings or buildings hereafter converted for the purpose of a hotel shall be enclosed by material with a fire-resistant rating of at least two hours, except that an enclosure shall not be required for a flight of stairs in a noncombustible building when such stairs connect only one story with one other story immediately above or below it, and provided that at least one passageway for each floor of such hotel shall lead directly to the outdoors by stairways or passageways, or a combination of both, enclosed completely by fire-resistant material of such rating. Outside stairways shall not be allowed as approved means of egress from new hotels, in accordance with Section 172-1-43 of this Code.

SEC. 172-1-33. HAZARDOUS OCCUPANCIES

No combustible building shall contain a Class 1, 2 or 3 dry cleaning establishment as defined in special regulations governing same, or other commercial occupancy using flammable liquids, or any other storage of materials or equipment of high hazard unless such occupancy is completely segregated from the hotel premises by unpierced walls with a fire-resistant rating of not less than two hours and by ceilings and floors of material with the same fire-resistant rating.

SEC. 172-1-34. FIRE WALLS AND SMOKE BARRIERS

The installation of fire walls or smoke barriers, or both, additional to those specifically required in this Code, may be ordered by the Building Inspector having jurisdiction or State Fire Marshall, upon certification of the proper inspecting authority that same is necessary as a minimum requirement for safety.

SEC. 172-1-35. FIRE-STOPPING

Exterior walls of frame construction and interior stud partitions shall be fire-stopped at each floor level by a 2-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another, except that existing buildings shall be required to have such fire-stopping at the ceiling level of the basement and second story and each story above the second, but will not be required to fire-stop at the ceiling of the first story.

SEC. 172-1-36. EXIT SIGNS

a. Signs bearing the word "Exit" shall be placed at each approved egress doorway and so installed as to be legible from the direction of travel thereto. Where such doorways and signs are not readily discernible from guest room doorways, an adequate number of additional signs shall be provided bearing the term "Exit," and an arrow pointing in the direction of such exit.

b. Exit signs shall bear letters at least $4\frac{1}{2}$ inches in height with strokes not less than $\frac{3}{4}$ inch in width.

c. All exit and directional signs shall be maintained clearly legible by electric illumination or other adequate means when natural light fails.

d. Exit signs shall not be required at the normal ground floor entrances to hotel premises.

e. Passageways, including doors and stairways, which do not provide free and unobstructed passage to the street or to an outside ground area of refuge, but which are so located and arranged as to be likely mistaken as exits shall be legibly marked "Not an Exit" with letters of the same size as required for "Exit" signs.

SEC. 172-1-37. ILLUMINATION OF EXIT PASSAGES

a.* Adequate facilities shall be provided for the lighting of all passageways, stairways and other means of egress.

b.* An automatic auxiliary source of illumination shall be provided for the lighting of egress passageways, stairways and exit signs. This secondary lighting system shall be termed herein as "auxiliary emergency illumination".

Auxiliary emergency illumination shall be from a source of power independent of that for the principal lighting, or by means of a special and separate circuit or feeder carried back as far as possible to the servicing meter. Such auxiliary illumination shall be controlled by an automatic device which will operate reliably to switch the power servicing such lights to the auxiliary service in the event of failure of the principal lighting service. When a separate circuit or feeder is used it may be kept in continuous service during the dark season, under which conditions an automatic switching device shall not be required.

All required exit signs shall be so constructed, or shall be serviced through auxiliary emergency illumination so as to assure their legibility for 30 minutes after failure of the principal lighting service.

All equipment for auxiliary emergency illumination shall be constructed and permanently installed in accordance with accepted good practice, shall not be so located as to obstruct egress passage, and shall be reasonably safeguarded.

When an independent source of power is provided for auxiliary emergency illumination such power and service shall be maintained to provide not less than 30 minutes of adequate illumination at all locations required to be lighted under this section. Equipment for such power shall include a volt meter or hydrometer, and a switch so arranged and located as to be

* As Amended June 28, 1948

reasonably convenient and reliable for the testing of available power. Extension lights from such power units shall not be in excess of the unit's capacity and shall not be extended beyond reasonable distances.

Exceptions to the requirements for auxiliary emergency illumination may be allowed for existing buildings until July 1, 1949 by the State Fire Marshal in conformity with Section 172-1-7 of the general provisions of this Code.

SEC. 172-1-38.* EXTINGUISHING EQUIPMENT REQUIRED

All hotels shall be provided with proper fire extinguishing equipment adequate for the area involved and suitably located. The term "extinguishing equipment" as used in this section shall not include automatic sprinklers. (See Sec. 172-1-39.)

SEC. 172-1-39.* SPRINKLERS REQUIRED

a. All new hotels, every addition hereafter made to a hotel, and every building hereafter converted for the purposes of a hotel, which are more than two stories in height above the basement and which are not constructed of noncombustible materials, shall be protected by an approved system of automatic sprinklers installed and maintained in accordance with proper standards, provided adequate water service is available. An attic or space immediately below a roof shall not be considered as a story in the application of this section.

b. All existing hotels constructed wholly or in part of combustible materials, which have sleeping accommodations for guests or employees above the third story, shall be completely protected by an approved system of automatic sprinklers.

SEC. 172-1-40.* DECORATIVE AND ACOUSTICAL MATERIAL

All combustible decorative and acoustical material, including curtains, streamers and other paper and decorative materials, but not including floor coverings, located in all corridors, passageways, and in lobbies and other rooms or spaces for general guest or public use, shall be rendered and maintained flame resistant. This regulation shall not be construed to prohibit the use of wall or ceiling coverings affixed directly to the wall or ceiling, provided the surface will not be readily flammable and will not carry or communicate fire.

SEC. 172-1-41. ALARMS

An alarm system shall be provided with sounding devices of such character and so located as to arouse all occupants of the building or section thereof endangered by fire. Adequate switches or other alarm sending devices shall be suitably located on each floor, convenient for operation by all occupants, arranged so as to give alarm to the supervisor or automatically to

* As Amended June 28, 1948

all occupants of such places as are not under constant and immediate supervision. Each switch or alarm sending device shall be distinctly marked "Fire alarm," and no person shall use same for any other purpose. Inter-hotel telephones shall not be considered as required alarm sending devices. (See Section 172-1-66 for other alarm devices required).

SEC. 172-1-42. HOUSEKEEPING

All hotel premises and other occupancies within buildings containing hotels shall be kept clean and in tidy condition, and free from accumulation of combustible debris or other waste material.

Article III

OUTSIDE STAIRWAYS

SEC. 172-1-43. USE ON NEW BUILDINGS

The use of outside stairways as approved means of egress shall not be allowed on new structures regulated by this Code, except as normal entrances to the first and second stories of apartment or lodging houses.

SEC. 172-1-44. USE ON EXISTING BUILDINGS

a. Outside stairways may be used as approved means of egress on existing buildings only wherever enclosed inside stairways of the required qualifications are found impracticable.

b. Outside stairways shall not constitute more than 60 per cent of the width of approved egress passage from any location within a building.

SEC. 172-1-45. WINDING STAIRS

Winding stairs, as defined in Section 172-1-5, shall not be used or allowed to continue in use as any portion of approved egress passage.

SEC. 172-1-46. CONSTRUCTION

a. Outside stairways as approved egress passages shall be constructed completely of iron or other noncombustible material, except existing stairways and those erected on existing buildings, which serve the first and second floors only of convalescent homes, apartment houses and lodging houses.

b. An outside stairway constituting an approved means of egress shall be designed, constructed and maintained to sustain a live load of 100 pounds per square foot on platforms and landings, and a concentrated load of 400 pounds on stair treads.

c. Supporting members for platforms, landings and stairs, which are in tension and are fastened directly to the building shall pass through the wall and be securely fastened on the

opposite side, or they shall be securely fastened to the framework of the building. Wherever practicable, all outside stairways shall be self-supporting.

SEC. 172-1-47. PLATFORMS OR LANDINGS

On an outside stairway, each landing or platform adjacent to an exit doorway of the building shall be as near the sill level of such doorway as is practicable, but not more than 8 inches below. Each such landing or platform shall be at least the full width of the doorway it serves, and its depth shall be not less than the width of the widest outside stairway which leads directly to or from it. Such landings or platforms shall be so designed and constructed that exit doors, when open, will not decrease the required unobstructed width of the platform or stairs. When same are constructed of iron grill or are perforated in any form, openings shall not exceed one inch in width or diameter for existing landings or platforms and $\frac{3}{4}$ of an inch for new construction.

SEC. 172-1-48. LEAD TO GROUND

a. Outside stairways considered as approved means of egress shall lead to the street or ground level and to a ground area of refuge, and the last step in descent to the ground shall not exceed the height of other steps immediately above. Where it is impracticable to have permanent construction of stairs to the ground, the lower section thereof may be a counterbalanced swinging stair which shall meet all requirements of this Code for outside stairs, including railings. Counterweights shall be affixed permanently to the swinging stair construction without the use of cables, and shall provide for positive and easy lowering of same to the ground by persons descending, without the unfastening of a latch or lock of any kind. The path to the ground for swinging stairs shall be unobstructed at all times. No temporary or portable object (i. e., an awning or a parked vehicle) shall be allowed in its path for possible obstruction.

b. A ladder of any type affixed in any manner shall not be used or considered as an approved means of egress. No ladder shall be used as any portion of an approved means of egress.

SEC. 172-1-49. RAILINGS

All new outside stairs shall be provided with handrails on both sides 33 inches above the forward edge of the tread, except that on elementary schools or other places attended by small children, this height shall be 27 inches. All existing outside stairways shall be provided with handrails on both sides not less than 27 inches nor more than 36 inches above the forward edge of the stair tread.

SEC. 172-1-50. TREADS

a. Treads on existing outside stairways shall be not less than 8 inches wide and on new stairways not less than $9\frac{1}{2}$ inches, both exclusive of nosing.

b. When treads are constructed of iron grill or are perforated in any form, openings shall not exceed one inch in width or diameter for existing stairways and $\frac{3}{4}$ of an inch for new stairways.

c. Where the tread or platform surface is such as to involve danger of slipping, suitable nonslip surface shall be provided.

d. Treads shall include an additional width of one inch as nosing when stairs are constructed with risers.

SEC. 172-1-51. RISE OF STAIRS

The rise of stairs on existing stairways shall be not more than $8\frac{1}{2}$ inches, and on new stairways not more than $7\frac{3}{4}$ inches.

SEC. 172-1-52. HEIGHT OF STAIR RUNS

The maximum vertical distance between platforms or landings in any flight of existing stairs shall not exceed 15 feet, and in new construction shall not exceed 12 feet.

SEC. 172-1-53. WIDTH OF STAIRWAYS

a. The required width of outside stairways shall vary according to the use and occupancy of the building being served and, except for egress stairways from places housing the ill, infirm or children under four years of age, their width shall be regulated for single or double units or files in accordance with the number of persons to be served. A single file is considered as requiring 24 inches of width between the handrails, and a double file 42 inches.

b. *Apartments and lodging houses.* Outside stairways serving apartment buildings and lodging houses shall be not less than 24 inches in width, and not less than 42 inches in width when serving above the third story on non-sprinklered, combustible buildings.

c. *Hotels.* Outside stairways from hotels shall be not less than 24 inches in width, and not less than 42 inches in width when serving above the second story on non-sprinklered, combustible buildings.

d. *Mercantile establishments.* Outside stairways serving mercantile establishments shall be not less than 24 inches in width, and not less than 42 inches when serving above the second story in non-sprinklered, combustible buildings, or when serving a possible occupancy in excess of 500 persons, except that existing iron stairways at least 36 inches in width shall be allowed for service from the second story with a possible occupancy of not more than 500 for that floor and above.

January 19, 1948

e. *Offices.* Outside stairways serving offices shall be not less than 24 inches in width. Stairways in non-sprinklered, combustible buildings serving floors with a total possible occupancy in excess of 100, and stairways in buildings of other construction with a total possible occupancy of 300 or more, shall be not less than 42 inches in width.

f. *Places of assembly.* Outside stairways leading from places of assembly shall be at least 24 inches wide when serving exit doorways with a total width not greater than 36 inches. When serving exits of greater width, new stairways shall be at least 42 inches in width and existing stairways at least 36 inches.

g. *Places for housing of ill, infirm and children.* Outside stairways for hospitals, convalescent homes and all other places regulated in this Code for the housing or care of the ill, infirm and children under four years of age shall be at least 36 inches in width.

h. *Schools.* Outside stairways serving all school premises shall be not less than 24 inches when serving exit doorways with a total width not greater than 36 inches. When serving exits of greater width, new stairways shall be at least 42 inches in width and existing stairways at least 36 inches.

SEC. 172-1-54. PROTECTION OF OUTSIDE STAIRWAYS

Outside stairways as approved egress passages shall be protected against fire in the building being served or adjacent buildings, by blank or closed side walls directly under same and for a distance of 6 feet in all other directions. Windows may be allowed within this area provided they are stationary and glazed with wired glass. Exception will be allowed from this requirement when all stairs are at least 3 feet distant from the side walls and there are no such wall openings within 6 feet of exit landings or platforms. Fire and smoke barriers under existing stairways, platforms or landings, extending 2 feet beyond each exposed side, shall also exempt outside stairways from the above closed side wall requirement.

SEC. 172-1-55. SLIDE OR CHUTE ESCAPES

Slides or chutes as approved means of egress shall not be allowed except by special approval of the State Fire Marshal for specific installations.

SEC. 172-1-56. MAINTENANCE

Outside stairways considered as approved egress passages, and access therefrom to a ground area of refuge, shall be maintained in safe condition for their intended use at all times. No person shall place an obstruction upon or within such stairways or entrances thereto or combustible debris or other waste material under or adjacent to same.

January 19, 1948

Article IV

HEATING AND COOKING FACILITIES

SEC. 172-1-57. ENCLOSURES FOR NEW BUILDINGS

In new buildings containing places of assembly, schools with accommodations for 75 or more students or with school facilities above the first story, hospitals and convalescent homes and hotels, central heating plants and steam boilers shall be within rooms or compartments segregated from the rest of the building by noncombustible walls, ceiling and floor with a fire-resistant rating of not less than two hours, providing a reasonably smoke-tight enclosure. In all other buildings regulated by this Code such central heating plants and steam boilers shall be mounted on the ground or on floors of noncombustible construction with noncombustible flooring and surface finish.

SEC. 172-2-58.* ENCLOSURES AND PROTECTION FOR EXISTING BUILDINGS

In existing buildings containing places of assembly, schools with accommodations for 75 or more students or with school facilities above the first story, hospitals and convalescent homes, hotels and buildings converted to such use, central heating plants and steam boilers shall be within rooms or compartments segregated from the rest of the building by noncombustible walls, ceiling and floor, with a fire-resistant rating of not less than 30 minutes, providing a reasonably smoke-tight enclosure. In all other existing buildings regulated by this Code such central heating plants and steam boilers shall be mounted on the ground or on floors of noncombustible construction with noncombustible flooring and surface finish.

SEC. 172-1-59. ENCLOSURE DOORS

Doorways and other openings through required furnace enclosures shall be closed by doors and jambs of the same fire-resistant quality as is required of the enclosure, so hung as to be reasonably smoke-tight and equipped with adequate self-closing devices.

SEC. 172-1-60. OIL BURNERS

a. Only such oil burners as are approved for make and type by the Commissioner of State Police in accordance with Section 3682 of the General Statutes, 1949 Revision, having a fuel container with a capacity of more than 20 gallons connected directly therewith, which appear on the published list of approved burners by name of submitter and model, shall be used for obtaining warmth in buildings.

* As Amended June 28, 1948

b. Such oil burners shall be installed and maintained in accordance with the pertinent requirements appearing on the State Police list of approvals, and otherwise in accordance with local ordinances and the manufacturer's instructions and recommendations.

c. Fuel oil storage shall be in accordance with the regulations of the State Police Commissioner on the storage and transportation of flammable liquids.

d. Oil-burning floor furnaces or wall heaters, self-contained heating units suspended from the floor of the space being heated, with means for observing flame and lighting same from such space, shall not be used in buildings regulated by this Code, except for heating the first story of buildings containing not more than six dwelling units and no other occupancy or first story mercantile establishment in buildings containing not more than four dwelling units with no other occupancy.

e. Oil burners shall be equipped with proper devices for automatic lighting, controls for oil flow and temperature, and other proper safety devices.

SEC. 172-1-61. SPACE HEATERS

a. Space heaters or above-the-floor devices for direct heating of the space in and adjacent to that in which the device is located, without external heating pipes or ducts, shall not be used in buildings regulated by this Code, excepting apartment and lodging houses, the first story of existing mercantile and office establishments having a total possible occupancy of not more than 75 persons and existing schools having not more than two classrooms and/or total accommodations for 75 students.

b. Space heaters shall be suitably installed in accordance with safe practices and when fuel oil is used it shall be stored in accordance with the regulations governing the storage and transportation of flammable liquids.

SEC. 172-1-62. AIR VENTS

Furnace rooms or enclosures shall be provided with an air vent to the outside sufficient for proper combustion and exhaust. Additional openings and/or a separate vent by duct to the close proximity of oil burners when used, may be required to provide air for proper combustion. Such air vents shall be maintained in an open position by louvers or controlled for automatic opening by fusible links or other approved devices, at a temperature of 165 degrees Fahrenheit or less within the enclosure.

SEC. 172-1-63. CHIMNEYS AND FLUES

Furnaces and other fired units shall be vented by smoke pipes to a chimney constructed of brick, solid block masonry or reinforced concrete, with suitable flue lining, properly erected and maintained in safe condition.

January 19, 1948

SEC. 172-1-64. COOKING APPLIANCES

a. Cooking appliances, to include laundry stoves and water heaters, shall be suitably installed in accordance with safe practices.

b. All such cooking devices shall be installed upon flooring with a fire-resistant surface. Such a surface may be required to extend beyond such equipment or for the entire room enclosure when deemed necessary.

SEC. 172-1-65. EXTINGUISHING EQUIPMENT REQUIRED

All rooms and enclosures containing heating and cooking appliances shall be provided with proper fire extinguishing equipment, manually operated, adequate for the conditions involved and suitably located. Such fire extinguishers shall not be placed in close proximity to fired units or in any other position affecting their availability in the event of fire at a high hazard location. Additional extinguishing devices of the automatic type are not prohibited.

SEC. 172-1-66.* ALARM DEVICES

a. Rooms or enclosures containing central heating furnaces in combustible and/or non-sprinklered buildings shall be equipped with automatic alarm systems, controlled by heat-actuated devices properly located in close proximity to fired units and arranged to operate such alarm at a temperature not to exceed 165 degrees Fahrenheit. Such system shall include sounding devices so arranged as to give alarm to occupants of the building.

b. Alarm devices as required in subsection (a) shall be provided for rooms or enclosures containing cooking appliances, laundry stoves and water heaters, in all combustible and/or non-sprinklered buildings, except apartment and lodging houses. The requirements of this section shall not apply to installations of hot plates, coffee urns, toasters, warmers and similar portable equipment.

SEC. 172-1-67. LIQUEFIED PETROLEUM GAS

a.* *General.* Liquefied petroleum gas may only be used for warmth in buildings, water heating, refrigeration and cooking when all pertinent regulations herein are fully complied with.

b. *Odorization.* All LP-Gas used for warmth in dwellings, for cooking or other purposes shall be effectively odorized.

c. *Construction and safety devices.* No container for LP-Gas shall be used except those constructed and loaded in accordance with the specifications of the Interstate Commerce Commission for containers in interstate traffic, or fabricated in accordance with accepted standards of safety. All such containers shall be provided with safety devices as required by said Commission or by such standards.

* As Amended June 28, 1948

d. *Installation and testing.* All installations for use of LP-Gas shall be in accordance with the accepted standards of safety, and all new installations shall be tested for leaks by the installer after assembly, but such tests shall not be made with flame.

e.* *Location.* Containers for LP-Gas and first-stage regulating equipment shall be located outside of buildings or in separate structures especially provided for this purpose only. Each individual container for use or storage of LP-Gas shall be located with respect to the nearest building or portion thereof regulated by this Code, and in respect to other containers in accordance with the following table:

Water Capacity Per Container	Distance from Bldg.	Dist. Bet. Containers
Less than 125 gallons	None	None
125 to 500 gallons	10 feet	3 feet
501 to 1200 gallons	25 feet	3 feet
Over 1200 gallons	50 feet	5 feet

No container shall be installed or kept within 5 feet on the same level with a building opening, nor at any distance directly above a building opening, nor in any other hazardous location. Where installations are made within 5 feet of alleys or other vehicle passageways, such installations shall be suitably protected from damage by vehicles.

f.* *Buried Containers.* Only such containers as are especially fabricated for such purpose in accordance with accepted standards of safety, shall be buried below ground. Underground containers shall be so placed that the top of the container is below the established frost line and in no case less than 2 feet below the surface of the ground. When necessary to prevent floating, containers shall be securely anchored or weighted.

g. *Mounting.* All containers shall be mounted on foundations of masonry or other firm construction, or securely fastened to prevent leakage of the line in case of ground settling. Dependence shall not be placed in flexible tubing or in piped connections for security in the mounting or fastening of containers.

h. *Protection.* The cylinder valves, manifold and regulator assembly for each LP-Gas system shall be protected by a ventilated metal or fire-resistant covering which shall be securely fastened in place.

i.* *Changing and Charging.* The changing or charging of LP-Gas containers shall not be done within 10 feet of open flame or any electric or other device which may cause sparks and ignition, unless completely segregated by a reasonably gas-tight structure.

* As Amended June 28, 1948

j. *Flammable material.* Readily ignitable material, such as weeds and long grass shall be removed for a distance of 10 feet from any such container.

k. *Enclosures.* All containers with a water capacity of 501 gallons shall be enclosed by a suitable nonflammable fence at least 5 feet in height with a locked gate. Such fence shall be located at least 5 feet in all directions from such containers and appurtenances, and shall bear signs legible from all directions bearing the word "Danger" in letters at least 4 inches in height with strokes at least 1 inch in width. The surface of the ground inside such enclosures, and beyond for a distance of 5 feet shall be paved or otherwise treated to prevent the growth of vegetation, and shall be kept free of all flammable materials at all times.

l.* *Equipment Specifications.* All shut-off valves and accessory equipment shall be of a type substantial for use with liquefied petroleum gases and capable of withstanding the maximum pressure to which they may be subjected.

ARTICLE V

HOSPITALS

The following regulations, Sections 172-1-68 to 172-1-134 were made by the State Fire Marshal, filed with the Secretary of the State on June 9, 1948, approved by the Attorney General June 16, 1948 published in the Connecticut Law Journal on June 28, 1948 and were effective as of that date unless otherwise indicated.

SEC. 172-1-68. GENERAL

a. The regulations contained in this article shall apply to all hospitals as defined in Section 172-1-5, except such places as are expressly exempt in accordance with the provisions of this Code.

b. Fire-escapes and other outdoor stairways, heating, cooking and ventilating facilities and the use of electric wiring and appliances shall be covered by special related articles. (See also General Provisions of Code.)

SEC. 172-1-69. CONSTRUCTION

a. Every hospital hereafter constructed and every addition hereafter made to a hospital shall be of noncombustible materials if more than one story in height above the basement.

* As Amended June 28, 1948

b. Every building hereafter converted for the purpose of a hospital which has more than two stories above the basement shall be constructed of noncombustible materials. An attic or space immediately below a roof shall not be considered as a story in the application of this section.

SEC. 172-1-70. USE OF COMBUSTIBLE BUILDINGS

In existing combustible buildings, only the first story may be used to house patients, except that in buildings completely sprinklered the second and third stories may be so used.

SEC. 172-1-71. ADJACENT BUILDINGS

No hospital shall be located within 10 feet of another building of combustible construction unless the exposed walls and doors of such hospital are of material rated fire resistant for one-half hour, and all exposed windows are of wired glass, or unless the exposed face of such hospital building is protected by an adequate sprinkler system.

SEC. 172-1-72. OTHER OCCUPANCY

Hospital buildings shall not contain an occupancy which is not within immediate control of the hospital management, or which is not incident to administrative convenience or necessity or pertinent to public health.

SEC. 172-1-73. ROOFING

Roofs of hospitals shall be covered with roofing which is not readily flammable and does not carry or communicate fire.

SEC. 172-1-74. MAXIMUM POSSIBLE OCCUPANCY

The number of patients housed in each room or compartment shall not exceed the rate of one for each 75 square feet therein and/or one child in a junior size bed for each 40 square feet and/or one infant in a bassinet for each 24 square feet. The total patient occupancy for each story as determined in this manner shall be termed as the maximum possible occupancy.

SEC. 172-1-75. EGRESS FACILITIES REQUIRED

a. Exits shall be located remote from each other, providing the best practicable means of egress for all patients in the event fire renders one exit impassable.

b. Each story of every building used as a hospital shall have at least two means of egress to the outside. Each patient-occupied room shall have at least one doorway opening directly to the outside or to a corridor leading directly, or by stairway, to the outside, or an opening without a door into one adjacent room which leads to the outside in the same manner.

June 28, 1948

c. Means of egress in addition to the minimum of two required from each story under Sec. 172-2-75b shall be required when the maximum possible occupancy exceeds 80 patients. There shall be at least one additional means of egress for each 40 additional patients, located to give adequate passage from all areas, each by separate stairways and/or passages to the outside. Exits shall be of such number and so arranged that it will not be necessary to travel more than 100 feet from the door of a patient-occupied room to reach the nearest approved means of egress from that story.

SEC. 172-1-76. EGRESS PASSAGEWAYS

a. Corridors and passageways from patient-occupied rooms leading to egress stairways and thence to the outside, to the outside from the first story and to areas of refuge, shall be not less than 72 inches in width in new buildings or additions to existing buildings, and not less than 36 inches in existing buildings, and shall be of such greater width as is necessary for free passage of beds with patients to the outside or to an approved area of refuge.

b. Corridors and passageways considered as approved means of egress shall be at least 78 inches in height.

c. Access to all interior and outside stairways, to fire-escapes and other exits considered as approved means of egress, shall be unobstructed, and shall not be through a bathroom or kitchen or a room used for any other purpose that may obstruct free passage, nor shall access be veiled from open view by ornamentation, curtains or other appurtenances.

d. Passageways from inside stairways to the outside shall have the same fire-resistant quality as required of the connecting stairways in accordance with Sections 172-1-78b and 172-1-78c of this Code.

e. All egress passageways shall at all times provide unobstructed and safe passage to a suitable area of refuge.

f. In non-sprinklered combustible buildings at least one means of egress shall be provided from each patient-occupied room of the first story to an outside area of refuge by means of platform, bridge or ramp, to allow free passage of beds with patients. Such means of egress shall be directly to the outside from each patient-occupied room or to a corridor leading to the outside or an opening without a door into one adjacent room which leads to the outside. Ramp grades shall not exceed one foot in 10 if more than 12 feet in length. Such platforms, bridges or ramps shall be at least 4 feet in width and shall have a wheel or a caster guard at each side at least 6 inches in height.

June 28, 1948

SEC. 172-1-77. TRANSOMS

Transoms and other similar openings in corridors or passageways shall not be allowed in new construction. Existing transoms and like openings in corridors and passageways shall be permanently sealed and made fire-resistant equal to the related door construction.

SEC. 172-1-78. STAIRWAYS AND OTHER VERTICAL OPENINGS

a. In all buildings at least one passageway from each story shall lead directly to the outdoors or through an enclosed stairway or enclosed passageway or a combination of such a stairway and passageway which lead to the outdoors. One other enclosed stairway, where necessary, may be allowed to lead into an open space or lobby which has ample egress openings to the outside.

b. In combustible buildings interior stairways constituting approved egress passages shall be enclosed or be segregated from other portions of the building by material with a fire-resistant rating of not less than one-half hour. Partitioning at floor levels with materials of the same rating effecting a closure of such stairway opening between floors shall constitute a proper enclosure in such buildings. All other vertical openings throughout such buildings shall be enclosed by material with a fire-resistant rating of one-half hour.

c. In noncombustible buildings all interior stairways constituting approved egress passages and all other vertical openings shall be enclosed as required under section 172-1-78b for combustible buildings, except that all such enclosures shall have a fire-resistant rating of not less than two hours.

d. Elevators shall not be considered as means of egress, and all elevator shafts shall be enclosed by noncombustible materials with a fire-resistant rating of not less than two hours. No opening shall be allowed through the side wall enclosures for ventilating or other purposes. All doors servicing elevators shall be of closed or solid construction, reasonably smoke-tight when doors are closed. Such doors, lintels and panels above shall be constructed to resist fire for two hours, but where necessary such doors may have wired-glass not to exceed 6 square feet.

e. All stairways in egress passages shall have suitable handrails on both sides.

f. Stairways in egress passages in existing buildings shall be not less than 36 inches in width, and in new buildings and additions to existing buildings such stairways shall be not less than 44 inches in width.

June 28, 1948

g. Existing stairways in egress passages shall be provided with landings at least 30 inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. New stairways shall have such landings at least 44 inches in depth.

h. Stair treads in inside egress passages in existing structures shall be not less than 8 inches wide exclusive of nosing, and risers shall not exceed $8\frac{1}{2}$ inches in height. In new buildings such stair treads shall be not less than $9\frac{1}{2}$ inches wide, exclusive of nosing, and risers shall not exceed $7\frac{3}{4}$ inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

SEC. 172-1-79. DOORS AND DOORWAYS

a. All doorways which are of themselves, or are a part of means of egress, shall be at floor level in new structures and as near thereto as practicable in existing structures. Windows shall not be considered as means of egress.

b. All egress doors to the outside or into stairways or passages leading to the outside shall open out or in the direction of egress travel, but this regulation shall not be construed to prevent ground floor entrance doors swinging both inward and outward, or as requiring doors from patient-occupied rooms to open into corridors. Such doors shall not be so hung as to obstruct egress passage. There shall be no obstruction at any time to the opening or closing of egress doors or doors from patient-occupied rooms into corridors.

c. All doorways from patient-occupied rooms and in egress passages to areas of refuge and to the outside shall be at least 74 inches in height in existing buildings and 78 inches for new construction, and of such greater height as will allow for free passage of beds and attached medical equipment where required.

d. Egress doors for the passage of beds as required in Section 172-1-76f, from patient-occupied rooms to areas of refuge as required in Section 172-1-80, from patient-occupied rooms into corridors in new buildings and in additions to existing buildings, into corridors from ward rooms occupied by three or more patients, shall be at least 42 inches in width and of sufficient additional width to allow for free passage of beds with patients. Egress doors designated for use and used only by ambulatory patients and employees shall be at least 30 inches in width. All other egress doors from patient-occupied rooms and to the outside shall be at least 36 inches in width.

e. Egress doors into stairway enclosures, doors in side wall openings of enclosed egress passages and all doors serving stair-

June 28, 1948

ways and other vertical openings shall be equipped with self-closing devices designed, installed and maintained to automatically close such doors when not in use. Such doors shall be so hung as to allow for convenient manual opening and closing at all times.

f. Doors and jambs in walls and partitions required to be fire-resistant, except doors in outside walls, shall have a fire-resistant rating of not less than one-half hour, and shall be constructed and maintained close fitting and reasonably smoke-tight.

g. A door in a partition required to be fire resistant may contain wired-glass when necessary, provided such glass shall not exceed 6 square feet.

h. All egress doors from patient-occupied rooms and to the outside shall be equipped with hardware which will ensure opening of such doors by a single motion, such as in the turning of a knob or pressure of a latch with normal strength, or equipped with panic hardware which will release when normal pressure is applied to the releasing device in the direction of exit travel. No such door shall be equipped with a lock, latch, bolt or other fastening device which will allow for locking such door against opening from within, or which will require a second operation or motion to open such door for egress purposes, except those from rooms especially designated and equipped for the care of psychiatric patients.

i. Revolving doors shall not be considered as approved means of egress.

j. All doorways entering upon common use corridors or egress passages shall be protected by a substantial door so constructed as to provide a reasonably smoke and gas-tight closure.

k. No egress doors from patient-occupied rooms or to the outside, or other doors entering upon common use corridors or egress passages, shall be held in an open position at any time by an under-door wedge or be fastened in an open position by a device which will require more than one movement of normal strength to swing such door to a closed position. No such wedge or door holding device shall be placed in close proximity to such a door or allowed to remain in such a position.

SEC. 172-1-80. FIRE WALLS AND SMOKE BARRIERS

Hospitals shall have fire walls or smoke barriers through each patient-occupied story which is not ramped to the outside for bed passage, and which has a maximum occupancy in excess of 24 bed patients. Such walls or barriers shall be located so as to provide ample area of refuge within the building on each side of such wall or barrier, for all beds with patients located in each story.

June 28, 1948

SEC. 172-1-81. FIRE-STOPPING

Exterior walls of frame construction and interior stud partitions shall be fire-stopped at each floor level by a 2-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another.

SEC. 172-1-82. CLOSETS AND STOREROOMS

All closets or compartments which are used for the storage of cleaning or polishing compounds or implements shall be flame resistant for at least one-half hour from within such closet or compartment including the door thereof, or shall be equipped with proper and adequate automatic fire extinguishing equipment and alarm devices.

SEC. 172-1-83. INCINERATORS

Incinerators within buildings or a part thereof shall be constructed in accordance with accepted good practice. Those within buildings shall be loaded and fired from a vestibule or compartment segregated from the rest of the building by construction with a fire-resistant rating of two hours, having a fire door equipped with a suitable self-closing device.

SEC. 172-1-84. EXIT SIGNS

a. Signs bearing the word "Exit" shall be placed at each egress doorway, except at doors of patient-occupied rooms entering upon common use corridors or passageways, and shall be so installed as to be legible from the direction of travel thereto. Where such doorways and signs are not readily discernible from patient-room doorways an adequate number of additional signs shall be provided bearing the term "Exit" and an arrow pointing in the direction of such exit.

b. Exit signs shall bear letters at least $4\frac{1}{2}$ inches in height with strokes not less than $\frac{3}{4}$ inch in width.

c. All exit and directional signs shall be maintained clearly legible by electric illumination or other adequate means when natural light fails.

SEC. 172-1-85. ILLUMINATION OF EXIT PASSAGES

a. Adequate facilities shall be provided for the lighting of all corridors, stairways and egress passages at all times.

b. A secondary source of illumination shall be provided for all locations cited in subsection (a) in hospitals housing 25 or more patients and arranged to assure continued adequate illumination in cases of emergency caused by failure of the principal lighting service as a result of fire within the building. Such a secondary source of illumination shall be termed herein as "auxiliary emergency illumination".

Auxiliary emergency illumination shall be from a source of power independent of that for the principal lighting, or by means of a special and separate circuit or feeder carried back

June 28, 1948

as far as possible to the servicing meter. Such auxiliary illumination shall be controlled by an automatic device which will operate reliably to switch the power servicing such lights to the auxiliary service in the event of failure of the principal lighting service. When a separate circuit or feeder is used it may be kept in continuous service during the dark season, under which conditions an automatic switching device shall not be required.

All required exit signs shall be so constructed or shall be serviced through auxiliary emergency illumination so as to assure their legibility for 30 minutes after failure of the principal lighting service.

All equipment for auxiliary emergency illumination shall be constructed and permanently installed in accordance with accepted good practice, shall not be so located as to obstruct egress passage, and shall be reasonably safeguarded against malicious damage.

When an independent source of power is provided for auxiliary emergency illumination, such power and service shall be maintained to provide not less than 30 minutes of adequate illumination at all locations required to be lighted under this section. Equipment for such power shall include a volt-meter or hydrometer and a switch so arranged and located as to be reasonably convenient and reliable for the testing of available power. Extension lights from such power units shall not be in excess of the unit's capacity, and shall not be extended beyond reasonable distances.

Exceptions to the requirement for auxiliary emergency illumination may be allowed for existing buildings until July 1, 1949 by the State Fire Marshal in conformity with Section 172-1-7 of the general provisions of this Code.

SEC. 172-1-86. OXYGEN

a. Cylinders containing compressed oxygen shall not be stored within 10 feet of a desk, table, smoking stand, heating unit or any other fixture or article of furniture which may contain an ash tray or other source of ignition, except while being administered to a patient.

b. Oxygen cylinders shall be secured at all times against falling or damage by collision.

c. Oxygen shall not be stored in the same room with ether, ethylene or ethyl chloride.

d. Smoking shall not be permitted within a room in which compressed oxygen is used or stored.

SEC. 172-1-87. NITROUS OXIDE

Nitrous oxide shall not be stored in the same room with ether, ethylene or ethyl chloride.

June 28, 1948

SEC. 172-1-88. FLAMMABLE AND EXPLOSIVE COMPOUNDS

Ether and other flammable or explosive compounds or materials shall be stored in suitable buildings, rooms or compartments used for no other purpose, which rooms or compartments shall be reasonably gas tight and lighted by electricity employing an incandescent lamp in a vapor-proof globe controlled by a switch outside the room. Oxygen and nitrous oxide shall not be stored with flammable compounds or materials.

SEC. 172-1-89. X-RAY FILM

Nitro-cellulose film shall not be used or stored in a hospital except in an approved noncombustible vault or under other specifically approved conditions.

SEC. 172-1-90. OPERATING ROOM

Operating rooms shall be properly located and segregated from patient-occupied rooms and public use corridors by a vestibule or the equivalent of two flame resistant and reasonably gas-tight partitions. Smoking shall not be allowed within such operating rooms or the adjoining vestibules or compartments, and all reasonable precautions shall be taken against fire or explosions within such rooms.

SEC. 172-1-91. LABORATORY AND PHARMACY

Laboratories and pharmacies shall be suitably located and shall be segregated from adjacent areas vertically and horizontally by construction with a fire-resistant rating of not less than one hour. Explosive and flammable compounds or materials kept therein shall be in closed containers properly marked as explosive or flammable, and such storage shall not exceed that quantity necessary for efficient operation.

SEC. 172-1-92. EXTINGUISHING EQUIPMENT REQUIRED

All hospitals shall be provided with proper fire extinguishing equipment adequate for the conditions involved and suitably located.

SEC. 172-1-93. SPRINKLERS REQUIRED

Hospitals of combustible construction which are occupied by bed patients above the first story, or buildings more than three stories in height above the basement shall be protected by a system of automatic sprinklers installed and maintained in accordance with proper standards. (See Section 172-1-70).

SEC. 172-1-94. DECORATIVE AND ACOUSTICAL MATERIAL

All combustible decorative and acoustical material, including textile floor coverings and curtains located in corridors, passageways and in lobbies and other rooms or spaces for general patient or public use, shall be rendered and maintained flame-resistant.

June 28, 1948

SEC. 172-1-95. WALL AND CEILING SURFACES

The wall and ceiling surfaces of all corridors, egress passages and stairway enclosures shall be of such material or so treated that they shall not be readily flammable and will not carry or communicate fire.

SEC. 172-1-96. BED CASTERS

All beds and such equipment affixed to patients as is necessary to sustain life shall be equipped with roller casters at each floor contact, which casters shall be at least 2 inches in outside diameter and free wheeling.

SEC. 172-1-97. HAZARDOUS OCCUPANCIES

No motor vehicle, or other device or material which may originate or communicate fire, not necessary for patient treatment or care or building maintenance, shall be stored or used within a hospital. All such devices and materials necessary for use within hospitals shall be used and stored with reasonable regard for safety from fire.

SEC. 172-1-98. ALARMS

a. An alarm system shall be provided with suitable signalling devices of such character and so located as to be visible or audible throughout the corridors and non-patient areas of the hospital and in hospital living quarters of employees. Adequate switches or other alarm-sending devices shall be suitably located on each floor, convenient for operation by occupants and arranged so as to give immediate alarm throughout the building, or signal a supervisor who shall actuate the necessary alarm. Telephone or public address systems may be considered as suitable alarm devices.

b. A telephone or other suitable alarm-sending device shall be provided as a means of communicating an alarm of fire to the fire department. Pay station telephones will not be approved for this purpose. (See Sections 172-1-66 and 172-1-82 for other alarm devices required.)

SEC. 172-1-99. ATTENDANTS REQUIRED

a. Each hospital housing 15 or less patients shall have at least one attendant on duty therein at all times. At least one other stand-by attendant shall be available for emergency service within 200 feet of such home and within hearing of all emergency alarms required for such building. Additional on-duty attendants with an equivalent number of stand-by attendants shall be required for each building at the rate of one additional for more than 15 and not more than 29, and one additional for each 15 patients or part in excess thereof. Such additional on-duty attendants shall only be required at the rate of one for each 50 patients in excess of 50 where an inspection is made hourly throughout the premises by a special watchman service.

June 28, 1948

b. Attendants as required herein shall be at least 18 years of age and capable of performing the required duties of evacuation. No person other than the management or a person under management control shall be considered as an attendant.

SEC. 172-1-100. EVACUATION PLAN AND DRILLS

Each hospital shall formulate a plan for the protection of all patients in the event of fire and their evacuation to areas of refuge or from the building when necessary. All employees shall be instructed and kept informed respecting their duties under the plan.

SEC. 172-1-101. SMOKING

Smoking in hospitals shall be permitted only where proper facilities are provided and proper precautions have been taken against fire. (See Section 171-1-86d).

SEC. 172-1-102. HOUSEKEEPING

All hospital premises and other occupancies within buildings containing hospitals shall be kept clean and in tidy condition, and free from accumulation of combustible debris or other waste material.

ARTICLE VI

CONVALESCENT HOMES

SEC. 172-1-103. GENERAL

a. The regulations contained in this article shall apply to all convalescent homes as defined in Section 172-1-5, except such places as are expressly exempt in accordance with the provisions of this Code.

b. Fire-escapes and other outdoor stairways, heating, cooking and ventilating facilities and the use of electric wiring and appliances shall be covered by special related articles. (See also General Provisions of Code.)

SEC. 172-1-104. CONSTRUCTION

a. Every convalescent home hereafter constructed and every addition hereafter made to a convalescent home shall be of non-combustible materials if more than one story in height above the basement.

b. Every building hereafter converted for the purpose of a convalescent home which has more than two stories above the basement shall be constructed of noncombustible materials. An attic or space immediately below a roof shall not be considered as a story in the application of this section.

SEC. 172-1-105. USE OF COMBUSTIBLE BUILDINGS

In existing combustible buildings, only the first story may be used for bed patients, except that in buildings completely sprinklered the second story may be so used for bed patients.

June 28, 1948

SEC. 172-1-106. ADJACENT BUILDINGS

No convalescent home shall be located within 10 feet of another building of combustible construction unless the exposed walls and doors of such convalescent home are of material rated fire-resistant for one-half hour, and all exposed windows are of wired glass, or unless the exposed face of such convalescent home building is protected by an adequate sprinkler system.

SEC. 172-1-107. OTHER OCCUPANCY

Convalescent home buildings shall not contain an occupancy which is not within immediate control of the convalescent home management, or which is not incident to administrative convenience or necessity or pertinent to public health.

SEC. 172-1-108. ROOFING

Roofs of convalescent homes shall be covered with roofing which is not readily flammable.

SEC. 172-1-109. MAXIMUM POSSIBLE OCCUPANCY

The number of patients housed in each room or compartment shall not exceed the rate of one for each 75 square feet therein and/or one child in a junior size bed for each 40 square feet and/or one infant in a bassinet for each 24 square feet. The total patient occupancy for each story as determined in this manner shall be termed as the maximum possible occupancy.

SEC. 172-1-110. EGRESS FACILITIES REQUIRED

a. Exits shall be located remote from each other, providing the best practicable means of egress for all patients in the event fire renders one exit impassable.

b. Each story of every building used as a convalescent home shall have at least two means of egress to the outside. Each patient-occupied room shall have at least one doorway opening directly to the outside or to a corridor leading directly, or by stairway, to the outside, or an opening without a door into one adjacent room which leads to the outside in the same manner.

c. Means of egress in addition to the minimum of two required from each story under Section 172-1-110b shall be required when the maximum possible occupancy exceeds 80 patients. There shall be at least one additional means of egress for each 40 additional patients, located to give adequate passage from all areas, each by separate stairways and/or passages to the outside. Exits shall be of such number and so arranged that it will not be necessary to travel more than 100 feet from the door of a patient-occupied room to reach the nearest approved means of egress from that story.

June 28, 1948

SEC. 172-1-111. EGRESS PASSAGEWAYS

a. Corridors and passageways from patient-occupied rooms leading to egress stairways and thence to the outside, to the outside from the first story and to areas of refuge, shall be not less than 72 inches in width in new buildings or additions to existing buildings, and not less than 36 inches in existing buildings, and shall be of such greater width as is necessary for free passage of beds with patients to the outside or to an approved area of refuge.

b. Corridors and passageways considered as approved means of egress shall be at least 78 inches in height.

c. Access to all interior and outside stairways, to fire-escapes and other exits considered as approved means of egress, shall be unobstructed, and shall not be through a bathroom or kitchen or a room used for any other purpose that may obstruct free passage, nor shall access be veiled from open view by ornamentation, curtains or other appurtenances.

d. Passageways from inside stairways to the outside shall have the same fire-resistant quality as required of the connecting stairways in accordance with Sections 172-1-113b and 172-1-113c of this Code.

e. All egress passageways shall at all times provide unobstructed and safe passage to a suitable area of refuge.

f. In non-sprinklered combustible buildings at least one means of egress shall be provided from each patient-occupied room of the first story to an outside area of refuge by means of platform, bridge or ramp, to allow free passage of beds with patients. Such means of egress shall be directly to the outside from each patient-occupied room or to a corridor leading to the outside or an opening without a door into one adjacent room which leads to the outside. Ramp grades shall not exceed one foot in 10, if more than 12 feet in length. Such platforms, bridges or ramps shall be at least 4 feet in width and shall have a wheel or caster guard at each side at least 6 inches in height.

SEC. 172-1-112. TRANSOMS

Transoms and other similar openings in corridors or passageways shall not be allowed in new construction. Existing transoms and like openings in corridors and passageways shall be permanently sealed and made fire-resistant equal to the related door construction.

SEC. 172-1-113. STAIRWAYS AND OTHER VERTICAL OPENINGS

a. In all buildings at least one passageway from each story shall lead directly to the outdoors or through an enclosed stairway or enclosed passageway or a combination of such a stair-

June 28, 1948

way and passageway which lead to the outdoors. One other enclosed stairway, where necessary, may be allowed to lead into an open space or lobby which has ample egress openings to the outside.

b. In combustible buildings interior stairways constituting approved egress passages shall be enclosed or be segregated from other portions of the building by material with a fire-resistant rating of not less than one-half hour. Partitioning at floor levels with materials of the same rating effecting a closure of such stairway opening between floors shall constitute a proper enclosure in such buildings. All other vertical openings throughout such buildings shall be enclosed by material with a fire-resistant rating of one-half hour.

c. In noncombustible buildings all interior stairways constituting approved egress passages and all other vertical openings shall be enclosed as required under section 172-1-113b for combustible buildings, except that all such enclosures shall have a fire-resistant rating of not less than two hours.

d. Elevators shall not be considered as means of egress, and all elevator shafts shall be enclosed by noncombustible materials with a fire-resistant rating of not less than two hours. No opening shall be allowed through the side wall enclosures for ventilating or other purposes. All doors servicing elevators shall be of closed or solid construction, reasonably smoke-tight when doors are closed. Such doors, lintels and panels above shall be constructed to resist fire for two hours, but where necessary such doors may have wired-glass not to exceed 6 square feet.

e. All stairways in egress passages shall have suitable handrails on both sides.

f. Stairways in egress passages in existing buildings shall be not less than 36 inches in width, and in new buildings and additions to existing buildings such stairways shall be not less than 44 inches in width.

g. Existing stairways in egress passages shall be provided with landings at least 30 inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. New stairways shall have such landings at least 44 inches in depth.

h. Stair treads in inside egress passages in existing structures shall be not less than 8 inches wide exclusive of nosing, and risers shall not exceed 8½ inches in height. In new buildings such stair treads shall be not less than 9½ inches wide, exclusive of nosing, and risers shall not exceed 7¾ inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

June 28, 1948

SEC. 172-1-114. DOORS AND DOORWAYS

a. All doorways which are of themselves, or are a part of means of egress, shall be at floor level in new structures and as near thereto as practicable in existing structures. Windows shall not be considered as means of egress.

b. All egress doors to the outside or into stairways or passages leading to the outside shall open out or in the direction of egress travel, but this regulation shall not be construed to prevent ground-floor entrance doors swinging both inward and outward, or as requiring doors from patient-occupied rooms to open into corridors. Such doors shall not be so hung as to obstruct egress passage. There shall be no obstruction at any time to the opening or closing of egress doors or doors from patient-occupied rooms into corridors.

c. All doorways from patient-occupied rooms and in egress passages to areas of refuge and to the outside shall be at least 74 inches in height in existing buildings and 78 inches for new construction, and of such greater height as will allow for free passage of beds and attached medical equipment where required.

d. Egress doors for the passage of beds as required in Sec. 172-1-111f, from patient occupied rooms to areas of refuge as required in Sec. 172-1-115, from patient occupied rooms into corridors in new buildings, and in additions to existing buildings, into corridors from ward rooms occupied by three or more bed patients, shall be at least 42 inches in width and of sufficient additional width to allow for free passage of beds with patients. Egress doors designated for use and used only by ambulatory patients and employees shall be at least 30 inches in width. All other egress doors from patient occupied rooms and to the outside shall be at least 36 inches in width.

e. Egress doors into stairway enclosures, doors in side wall openings of enclosed egress passages and all doors serving stairways and other vertical openings shall be equipped with self-closing devices designed, installed and maintained to automatically close such doors when not in use. Such doors shall be so hung as to allow for convenient manual opening and closing at all times.

f. Doors and jambs in walls and partitions required to be fire-resistant, except doors in outside walls, shall have a fire-resistant rating of not less than one-half hour, and shall be constructed and maintained close fitting and reasonably smoke-tight.

g. A door in a partition required to be fire-resistant may contain wired-glass when necessary, provided such glass shall not exceed 6 square feet.

June 28, 1948

h. All egress doors from patient occupied rooms and to the outside shall be equipped with hardware which will ensure opening of such doors by a single motion, such as in the turning of a knob or pressure of a latch with normal strength, or equipped with panic hardware which will release when normal pressure is applied to the releasing device in the direction of exit travel. No such door shall be equipped with a lock, latch, bolt or other fastening device which will allow for locking such door against opening from within, or which will require a second operation or motion to open such door for egress purposes.

i. Revolving doors shall not be considered as approved means of egress.

j. All doorways entering upon common use corridors or egress passages shall be protected by a substantial door so constructed as to provide a reasonably smoke and gas-tight closure.

k. No egress doors from patient-occupied rooms or to the outside, or other doors entering upon common use corridors or egress passages, shall be held in an open position at any time by an under-door wedge or be fastened in an open position by a device which will require more than one movement of normal strength to swing such door to a closed position. No such wedge or door-holding device shall be placed in close proximity to such a door or allowed to remain in such a position.

SEC. 172-1-115. FIRE WALLS AND SMOKE BARRIERS

Convalescent homes shall have fire walls or smoke barriers through each patient-occupied story which is not ramped to the outside for bed passage, and which has a maximum occupancy in excess of 24 bed patients. Such walls or barriers shall be located so as to provide ample area of refuge within the building on each side of such wall or barrier, for all beds with patients located in each story.

SEC. 172-1-116. FIRE-STOPPING

* Exterior walls of frame construction and interior stud partitions shall be fire-stopped at each floor level by a 2-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another.

SEC. 172-1-117. CLOSETS AND STOREROOMS

All closets or compartments which are used for the storage of cleaning or polishing compounds or implements shall be flame resistant for at least one-half hour from within such closet or compartment including the door thereof, or shall be equipped with proper and adequate automatic fire-extinguishing equipment and alarm devices.

June 28, 1948

SEC. 172-1-118. INCINERATORS

Incinerators within buildings or a part thereof shall be constructed in accordance with accepted good practice. Those within buildings shall be loaded and fired from a vestibule or compartment segregated from the rest of the building by construction with a fire-resistant rating of two hours, having a fire door equipped with a suitable self-closing device.

SEC. 172-1-119. EXIT SIGNS

a. Signs bearing the word "Exit" shall be placed at each egress doorway, except at doors of patient-occupied rooms entering upon common use corridors or passageways, and shall be so installed as to be legible from the direction of travel thereto. Where such doorways and signs are not readily discernible from patient-room doorways an adequate number of additional signs shall be provided bearing the term "Exit" and an arrow pointing in the direction of such exit.

b. Exit signs shall bear letters at least $4\frac{1}{2}$ inches in height with strokes not less than $\frac{3}{4}$ inch in width.

c. All exit and directional signs shall be maintained clearly legible by electric illumination or other adequate means when natural light fails.

SEC. 172-1-120. ILLUMINATION OF EXIT PASSAGES

a. Adequate facilities shall be provided for the lighting of all corridors, stairways and egress passages at all times.

b. A secondary source of illumination shall be provided for all locations cited in subsection (a) in convalescent homes housing 25 or more patients, and arranged to assure continued adequate illumination, in cases of emergency caused by failure of the principal lighting service as a result of fire within the building. Such a secondary source of illumination shall be termed herein as "auxiliary emergency illumination."

Auxiliary emergency illumination shall be from a source of power independent of that for the principal lighting, or by means of a special and separate circuit or feeder carried back as far as possible to the servicing meter. Such auxiliary illumination shall be controlled by an automatic device which will operate reliably to switch the power servicing such lights to the auxiliary service in the event of failure of the principal lighting service. When a separate circuit or feeder is used it may be kept in continuous service during the dark season, under which conditions an automatic switching device shall not be required.

All required exit signs shall be so constructed or shall be serviced through auxiliary emergency illumination so as to assure their legibility for 30 minutes after failure of the principal lighting service.

June 28, 1948

All equipment for auxiliary emergency illumination shall be constructed and permanently installed in accordance with accepted good practice, shall not be so located as to obstruct egress passage, and shall be reasonably safeguarded against malicious damage.

When an independent source of power is provided for auxiliary emergency illumination, such power and service shall be maintained to provide not less than 30 minutes of adequate illumination at all locations required to be lighted under this section. Equipment for such power shall include a volt-meter or hydrometer and a switch so arranged and located as to be reasonably convenient and reliable for the testing of available power. Extension lights from such power units shall not be in excess of the unit's capacity, and shall not be extended beyond reasonable distances.

Exceptions to the requirement for auxiliary emergency illumination may be allowed for existing buildings until July 1, 1949 by the State Fire Marshal in conformity with Section 172-1-7 of the general provisions of this Code.

SEC. 172-1-121. OXYGEN

a. Cylinders containing compressed oxygen shall not be stored within 10 feet of a desk, table, smoking stand, heating unit or any other fixture or article of furniture which may contain an ash tray or other source of ignition, except while being administered to a patient.

b. Oxygen cylinders shall be secured at all times against falling or damage by collision.

c. Oxygen shall not be stored in the same room with ether, ethylene or ethyl chloride.

d. Smoking shall not be permitted within a room in which compressed oxygen is used or stored.

SEC. 172-1-122. NITROUS OXIDE

Nitrous oxide shall not be stored in the same room with ether, ethylene or ethyl chloride.

SEC. 172-1-123. FLAMMABLE AND EXPLOSIVE COMPOUNDS

Ether and other flammable or explosive compounds or materials shall be stored in suitable buildings, rooms or compartments used for no other purpose, which rooms or compartments shall be reasonably gas tight and lighted by electricity employing an incandescent lamp in a vapor-proof globe controlled by a switch outside the room. Oxygen and nitrous oxide shall not be stored with flammable compounds or materials.

SEC. 172-1-124. EXTINGUISHING EQUIPMENT REQUIRED

All convalescent homes shall be provided with proper fire extinguishing equipment adequate for the conditions involved and suitably located.

June 28, 1948

SEC. 172-1-125. SPRINKLERS REQUIRED

Convalescent homes of combustible construction which are occupied by bed patients above the first story, or buildings more than three stories in height above the basement shall be protected by a system of automatic sprinklers installed and maintained in accordance with proper standards. (See Section 172-1-105).

SEC. 172-1-126. DECORATIVE AND ACOUSTICAL MATERIAL

All combustible decorative and acoustical material, including textile floor coverings and curtains located in corridors, passageways and in lobbies and other rooms or spaces for general patient or public use, shall be rendered and maintained flame-resistant.

SEC. 172-1-127. WALL AND CEILING SURFACES

The wall and ceiling surfaces of all corridors, egress passages and stairway enclosures shall be of such material or so treated that they shall not be readily flammable and will not carry or communicate fire.

SEC. 172-1-128. BED CASTERS

All beds and such equipment affixed to patients as is necessary to sustain life shall be equipped with roller casters at each floor contact, which casters shall be at least 2 inches in outside diameter and free wheeling.

SEC. 172-1-129. HAZARDOUS OCCUPANCIES

No motor vehicle, or other device or material which may originate or communicate fire, not necessary for patient treatment or care or building maintenance, shall be stored or used within a convalescent home. All such devices and materials necessary for use within convalescent homes shall be used and stored with reasonable regard for safety from fire.

SEC. 172-1-130. ALARMS

a. An alarm system shall be provided with suitable signalling devices of such character and so located as to be visible or audible throughout the corridors and non-patient areas of the convalescent home and in convalescent home living quarters of employees. Adequate switches or other alarm-sending devices shall be suitably located on each floor, convenient for operation by occupants and arranged so as to give immediate alarm throughout the building, or signal a supervisor who shall actuate the necessary alarm. Telephone or public address systems may be considered as suitable alarm devices.

June 28, 1948

b. A telephone or other suitable alarm-sending device shall be provided as a means of communicating an alarm of fire to the fire department. Pay station telephones will not be approved for this purpose. (See Sections 172-1-66 and 172-1-82 for other alarm devices required).

SEC. 172-1-131. ATTENDANTS REQUIRED

a. Each convalescent home housing 15 or less patients shall have at least one attendant on duty therein at all times. At least one other stand-by attendant shall be available for emergency service within 200 feet of such home and within hearing of all emergency alarms required for such building. Additional on-duty attendants with an equivalent number of stand-by attendants shall be required for each building at the rate of one additional for more than 15, and not more than 29, and one additional for each 15 patients or part in excess thereof. Such additional on-duty attendants shall only be required at the rate of one for each 50 patients in excess of 50 where an inspection is made hourly throughout the premises by a special watchman service.

b. Attendants as required herein shall be at least 18 years of age and capable of performing the required duties of evacuation. No person other than the management or a person under management control shall be considered as an attendant.

SEC. 172-1-132. EVACUATION PLAN AND DRILLS

Each convalescent home shall formulate a plan for the protection of all patients in the event of fire and their evacuation to areas of refuge or from the building when necessary. All employees shall be instructed and kept informed respecting their duties under the plan.

SEC. 172-1-133. SMOKING

Smoking in convalescent homes shall be permitted only where proper facilities are provided and proper precautions have been taken against fire. (See Section 172-1-121d).

SEC. 172-1-134. HOUSEKEEPING

All convalescent home premises and other occupancies within buildings containing convalescent homes shall be kept clean and in tidy condition, and free from accumulation of combustible debris or other waste material.

June 28, 1948