

FIRE SAFETY CODE

PRIOR TO

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FIRE SAFETY CODE**GENERAL PROVISIONS**

Sec. 29-40-1. General application. This code shall specify reasonable minimum requirements for fire safety in buildings and facilities, except in private dwellings occupied by one or two families, premises used for manufacturing or places requiring special state license used for the exhibition of moving pictures. It should be noted, however, that municipalities may enact ordinances and orders relating to fire safety, if they specify requirements equal to, additional to or more stringent than those contained in this code.

Sec. 29-40-2. 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. 29-40-3. 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 satisfaction 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. 29-40-4. Definitions. Unless otherwise expressly stated, the following terms shall, for the purpose of this code, have the meanings indicated in this section:

(1) "Area of refuge" means 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 means 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.

(2) "Basement" means that portion of a building, the floor of which is at least two feet below the lowest adjacent grade or sidewalk.

(3) "Boarding home" means a building used in whole or in part as a place for the boarding and care of five or more persons, and shall include homes for the aged, but shall not include such places as are defined under the term "hospital," "convalescent home" or "rooming house."

(4) "Child day care center" means a room or group of rooms or spaces within a building used as a place for the care, guidance and/or supervision of a total of five or more children not of common parentage, which term shall include all such places known as day nurseries, nursery schools, kindergarten schools, play schools and pre-schools.

(5) "Classroom" means a room used by a group of students to receive instructions or pursue studies.

(6) "Combustible" means that which is not within the category of "noncombustible," as defined in subdivision (16) of this section.

(7) "Convalescent home" means a building used in whole or in part as a place for the lodging, care and treatment of five or more persons requiring license by

the state department of health as a "chronic and convalescent hospital." This shall include such places used for the lodging and care of the infirm and those receiving chronic or convalescent care, but shall not include such places as are defined in subdivision (12) under the term "hospital" which are equipped for general medical or surgical treatment and used for short-term care.

(8) "Exit" shall have the same meaning as "means of egress," as defined in subdivision (15) of this section.

(9) "Fire door" means 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.

(10) "Fire wall" means 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.

(11) "Horizontal exit" means 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.

(12) "Hospital" means a building used in whole or in part as a place for the lodging and care of five or more persons receiving diagnostic, medical or surgical treatment and requiring license by the state department of health as a hospital.

(13) "Hotel" means 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 twenty-five or more guests or employees of the management, or in which thirteen 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.

(14) "Liquified petroleum gas" and its symbol, "LP-Gas," as used in this code, means and includes 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.

(15) "Means of egress" means wall openings or other passageways considered as means of egress required by this code.

(16) "Noncombustible," when used in relation to any material thing, means that which will not readily ignite and burn when subject to fire. The term "noncombustible," when used in relation to buildings in general, means 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 twenty feet in height is of combustible material, provided such roofing is supported by steel and covered on the outside by fire-resistant material.

(17) "Occupancy" means the use of space or rooms within a building by a person or group of persons.

(18) "Place of assembly" means a room or space within a building in which more than seventy-five persons assemble for religious, recreational, educational, political, fraternal, social or amusement purposes, or for the consumption of food or drink, except school classrooms, libraries, courtrooms, places requiring special

state license used for the exhibition of moving 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.

(19) "Rooming house" means 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 guests or employees of the management exceeding four in number, but not exceeding twenty-four, or in which rooms not exceeding twelve in number are maintained for such guests or employees. Members of the management's family shall not be considered guests or employees.

(20) "School" means a room or group of rooms or spaces within a building used in whole or in part as a place for group instruction or study in any branch or branches of knowledge.

(21) "Smoke barrier" means 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. The barrier may have wire-glass panels, each not to exceed six square feet.

(22) "Sprinklered" means completely protected by an approved system of automatic sprinklers installed and maintained in accordance with proper standards.

(23) "Story" means 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 means 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 means a building with one story only, or a building containing a basement and one story above.

(24) "Winding stairs" means 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. 29-40-5. Application to new or existing structures. Unless otherwise expressly provided, all regulations contained in this code shall apply to all structures existing on or constructed after January 19, 1948. 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. 29-40-6. Conformity required. No person shall construct or cause to be constructed a building after January 19, 1948, and no person shall alter or cause to be altered a building existing on said date, 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.

ARTICLE I

PLACES OF ASSEMBLY

Sec. 29-40-7. General. (a) The regulations contained in this article shall apply to all places of assembly as defined in section 29-40-5, 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. 29-40-8. Egress facilities required. All places of assembly shall be provided with approved egress facilities as determined under the provisions of section 29-40-12, where practicable.

Sec. 29-40-9. 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 subsections (a) to (c), inclusive, of section 29-40-12, except that additional occupancy of standing patrons will be allowed in seated places of assembly in accordance with the provisions of section 29-40-10.

Sec. 29-40-10. Standing conditions. Standing patrons may be allowed in places of assembly at the rate of one person for each five square feet of area available for standing; provided aisle area, except rear cross aisles, shall not be considered in determining the number of standing patrons allowed.

Sec. 29-40-11. Admissions restricted and supervised. Admissions to all places of assembly shall be supervised by the responsible management, or by some person or persons delegated with such responsibility by such management, and such responsible person shall not allow admissions in excess of the maximum occupancy as provided in section 29-40-9.

Sec. 29-40-12. 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 one hundred persons, or fraction thereof, to be accommodated under conditions of possible occupancy, as determined under the provisions of subsections (b) and (c) of this section and in accordance with the following schedule: (1) Places of assembly in sprinklered buildings constructed entirely of noncombustible materials, twenty inches for each one hundred persons; (2) places in nonsprinklered buildings constructed entirely of noncombustible materials, twenty-two inches for each one hundred persons; (3) places in sprinklered buildings constructed wholly or in part of combustible materials, twenty-four inches for each one hundred persons; (4) places in nonsprinklered buildings constructed wholly or in part of combustible materials, thirty-six inches for each one hundred 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 six 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 ten 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 at the rate of eighteen inches in width for each person in bench or bleacher type seating, provided the total seating shall not exceed one person for each six 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. 29-40-13. Egress passageways. (a) The distance of travel from any point within such place of assembly to an approved egress opening therefrom shall not exceed one hundred feet.

(b) Each egress doorway from a place of assembly shall be at the assembly floor level in structures constructed after June 28, 1948, and as near thereto as practicable in all structures existing on said date.

(c) All new doorways and connecting passageways to the outside, to be considered as means of egress, shall be at least thirty-six inches in width and at least seventy-eight 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 thirty inches wide.

(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 thirty minutes, or an approved interior stairway, or 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 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, if 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. 29-40-14. Vertical openings. (a) Every interior stairway existing on September 29, 1947, and 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 thirty 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 the basement and other stories below shall be 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 places of assembly shall be enclosed throughout by material with a fire-resistant rating of not less than thirty minutes.

(b) All vertical openings, including stairways and passages to the outdoors, leading from a place of assembly in buildings constructed after September 29, 1947, shall be enclosed by material with a fire-resistant rating of at least two hours, provided 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 non-combustible 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 structures existing on September 29, 1947, under like conditions.

Sec. 29-40-15. 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 doors.

(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 six square feet.

(e) All egress doors leading from a place of assembly with a possible occupancy of five hundred or more persons, and all such doors in all new places of assembly, 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 doors and placed not less than thirty nor more than forty-four inches above the floor.

(f) All egress doors leading from a place of assembly with a maximum occupancy of less than five hundred may be equipped with panic hardware as required under subdivision (e) of this section. 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, 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. 29-40-16. 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 three feet in width, which stairs shall have one such handrail.

(b) All stairways existing on September 29, 1947, in approved egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. All stairways constructed after said date shall have such landings at least thirty-six inches in depth.

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

(d) Stair treads in approved inside egress passages in structures existing on September 29, 1947, shall be not less than eight inches wide, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed after said date such stair treads shall be not less than nine and one-half inches wide, excluding the nosing, and risers shall not exceed seven and three-quarters inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

Sec. 29-40-17. 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 thirty inches in width, and no such aisle serving seats on both sides shall be less than thirty-six 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 thirty-six inches in width shall be provided where necessary for access to exit openings. Rows of seats between aisles shall have not more than fourteen seats. Rows of seats opening onto an aisle at one end only shall have not more than seven seats.

(b) The spacing of rows of seats from back to back shall be not less than thirty inches. There shall be a space of not less than twelve inches between the back of one seat and the front of the seat immediately behind it as measured between plumb lines. In every place of public assembly used principally for the presentation of theatrical performances or exhibitions, all seats in each row shall be fastened together and secured firmly to the floor.

(c) 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 three feet in width. Suitable access to aisles shall be provided from all tables.

Sec. 29-40-18. 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 four and one-half inches in height with strokes not less than three-quarters 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 thirty minutes when the normal building illumination fails.

Sec. 29-40-19. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all places of assembly, corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading direct to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all places of assembly and the corridors, passageways, stairways, ramps, fire-escapes and other means of egress direct to the outside from such places of assembly. This secondary lighting system shall be termed herein as emergency lighting.

(c) Emergency lighting 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 fifteen hundred square feet of floor area and are so located that at least one exit is direct to the outside and within five feet of grade.

(d) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts complete with automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(e) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects the places of assembly and all exit passageways, corridors, stairways, ramps, fire-escapes and all other means of egress direct to the outside from such places of assembly when the artificial lighting for any such area fails.

(f) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(g) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable 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.

(h) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction, adequately vented directly to the out-of-doors and secure against unauthorized entry.

(c) No living tree and no artificial noncombustible metal tree or other artificial tree that has been rendered flame-resistant shall be installed in any occupancy regulated by the Fire Safety Code unless such tree is: (1) Not in direct contact with electrical wiring or equipment of any kind and not lighted or illuminated by candle or open flame or by other than indirect electrical lighting. All electrical equipment used in indirect lighting or for independent decorative purposes shall meet the standards of a nationally recognized testing laboratory and shall be installed in accordance with the National Electrical Code (current edition); (2) not trimmed with any decoration or material that is flammable or combustible.

(d) This section shall not be construed as allowing the installation of a Christmas tree of any kind in any municipality in which the same is prohibited by ordinance or bylaw.

Sec. 29-40-22. Sprinklers required. All buildings constructed after June 28, 1948, other than those of noncombustible construction, containing places of assembly above the second story and buildings existing on said date and 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. 29-40-23. Location of places of assembly. No place of assembly shall, after June 28, 1948, be constructed above the second story except in a sprinklered or noncombustible building.

Sec. 29-40-24. 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

Sec. 29-40-25. General. (a) The regulations contained in this article shall apply to all hotels, as defined in subsection (13) of section 29-40-4, 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. 29-40-26. 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 seventy-five 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 one hundred feet and, in noncombustible buildings which are not sprinklered, this distance may be ninety feet.

(i) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated directly to the out-of-doors and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-20. 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 Reg. 29-40-22.)

Sec. 29-40-21. Decorative and acoustical material. (a) All combustible decorative and acoustical material, including curtains, streamers, cloth and cotton batting, straw vines, leaves, trees, moss, Christmas trees, natural or artificial, evergreen branches, wreaths, sprays and streamers, 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, if the surface will not be readily flammable and will not carry nor communicate fire. No decorative material shall be in direct contact with electrical wiring or equipment of any kind, or lighted by candle or open flame or by other than indirect electrical lighting.

(b) When, in the opinion of the fire marshal having jurisdiction, a natural Christmas tree is not unusually large in relation to the area in which it is displayed or does not constitute any other undue hazard and is to a large degree inherently flame-resistant, having met the following standards, said fire marshal may permit such tree to be used in occupancies defined by this code as "places of assembly": (1) Has been freshly cut within ten days prior to the first day of its use indoors. In no case, however, shall a tree be installed indoors before December first; (2) has a high moisture content; (3) is held in an upright position by a metal stand, tub or other container having a broad base and a water capacity adequate to replenish daily any lost moisture content; (4) is not in direct contact with electrical wiring or equipment of any kind, and is not lighted or illuminated by candle or open flame or by other than indirect electrical lighting. All electrical equipment used in indirect lighting or for independent decorative purposes shall meet the standards of a nationally recognized testing laboratory and shall be installed in accordance with the National Electrical Code (current edition); (5) is free, beyond a minimum of two feet, of the outer spread of any branch in any direction of flammable or combustible material; (6) does not block or obstruct any exit or passageway; (7) is not trimmed with any decoration or material that is flammable or combustible; (8) is a safe distance away from all sources of heat, such as fireplaces, radiators and heating units, and so located that standing or fallen it could not block the way out of a room or out of the building in case of fire; (9) the tree's trunk is sawed off at least one inch above and parallel to the original cut at the time the tree is set up, and the water level is kept above the cut the entire time the tree is indoors; (10) the tree's use is limited to the Christmas season, and it is taken outside for disposal no later than the following January second; (11) the supplier of any natural Christmas tree, permitted in accordance with the provisions of this section, has certified under the penalties of perjury the date on which such tree was originally felled and gives to the purchaser, at the time of purchase, a certificate to this effect; (12) such certificate shall be available for the inspection of the local fire marshal having jurisdiction.

(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.

Sec. 29-40-27. 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 buildings constructed after September 29, 1947, considered as approved means of egress shall be at least forty-two inches in width and seventy-eight inches in height and of such greater width as conditions require. All corridors and passageways existing on said date shall be at least twenty-eight inches in width and at least seventy-four 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 structures constructed after September 29, 1947, and as near thereto as practicable in structures existing on said date. 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 subsections (a) and (b) of section 29-40-29.

(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. 29-40-28. Transoms. Transoms and other openings in corridors or passageways shall not be allowed in construction after January 19, 1948. Transoms and like openings in corridors and passageways existing on said date shall be permanently sealed and made fire-resistant equal to the general side wall construction, except that transoms over sleeping room doors existing on said date may be allowed, if 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. 29-40-29. Stairways and other vertical openings. (a) Every interior stairway existing January 19, 1948, 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 thirty 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 the basement and other stories below shall be segregated from the first story in the same manner; provided such partitioning and segregation shall not be required in sprinklered, noncombustible buildings connecting three adjacent stories; and provided partitions or segregation shall not be required for a flight of stairs connecting two adjacent stories in a noncombustible 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 thirty minutes.

(See Reg. 29-40-31(b) 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 six square feet.

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

(d) Stairways in approved egress passages in hotels existing on January 19, 1948, shall be not less than twenty-eight inches in width and in new buildings, additions to existing buildings or buildings converted after January 19, 1948, for the purpose of a hotel, such stairways shall be not less than forty-two inches in width.

(e) Stairways existing on January 19, 1948, in approved egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. Stairways constructed thereafter shall have such landings at least thirty-six inches in depth.

(f) Stair treads in approved inside egress passages in structures existing on January 19, 1948, shall be not less than eight inches wide, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed after said date such stair treads shall be not less than nine and one-half inches wide, exclusive of nosing, and risers shall not exceed seven and three-quarters inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

(g) In buildings constructed after January 19, 1948, winding stairs with treads less than nine and one-half inches in width at any point shall not be considered as means of egress.

Sec. 29-40-30. 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 five square feet.

(e) Doors in approved egress passages existing on June 28, 1948, shall be not less than twenty-eight inches in width. When serving approved egress passages, new doors in structures existing on said date and all doors in structures constructed after said date shall be not less than thirty-six inches in width and seventy-eight inches in height, except that each leaf of a double or mullioned door may be not less than thirty 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 thirty inches nor more than forty-four inches above the floor.

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

Sec. 29-40-31. Construction after September 29, 1947. (a) Every hotel constructed after September 29, 1947, every addition thereafter made to any hotel and every building thereafter 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 combustible construction existing on said date by fire walls with openings protected by fire doors.

(b) All vertical openings, including stairways and passageways to the outdoors, in all buildings constructed after September 29, 1947, additions to buildings existing on said date or buildings thereafter 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 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 29-40-42.

Sec. 29-40-32. Hazardous occupancies. No combustible building shall contain a Class I, II or III dry cleaning establishment, as defined in section 29-67-1, 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. 29-40-33. 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 the state fire marshal, upon certification of the proper inspecting authority that the same is necessary as a minimum requirement for safety.

Sec. 29-40-34. Fire-stopping. Exterior walls of frame construction and interior stud partitions shall be fire-stopped at each floor level by a two-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another, except that buildings existing on September 29, 1947, 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. 29-40-35. 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 four and one-half inches in height with strokes not less than three-quarters-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 that they are likely to be mistaken as exits shall be legibly marked "Not an Exit" with letters of the same size as required for "Exit" signs.

Sec. 29-40-36. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading direct to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress direct to the outside. This secondary lighting system shall be termed herein as emergency lighting.

(c) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts complete with automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(d) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects the corridors, passageways, stairways, ramps, fire-escapes and all other means of egress direct to the outside when the artificial lighting for any such areas fails.

(e) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(f) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable illumination of 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.

(g) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction adequately vented directly to the out-of-doors and secure against unauthorized entry.

(h) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated directly to the out-of-doors and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-37. 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 Reg. 29-40-38.)

Sec. 29-40-38. Sprinklers required. (a) Each hotel constructed after June 28, 1948, each addition thereafter made to a hotel, and each building thereafter converted for the purposes of a hotel, which is more than two stories in height above the basement and which is 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 hotels existing on June 28, 1948, 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. 29-40-39. 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 and 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, if the surface will not be readily flammable and will not carry or communicate fire.

Sec. 29-40-40. 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 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 the same for any other purpose. Inter-hotel telephones shall not be considered as required alarm-sending devices.

(See Reg. 29-40-65 for other alarm devices required.)

Sec. 29-40-41. 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. 29-40-42. Use on buildings constructed after September 29, 1947. The use of outside stairways as approved means of egress shall not be allowed on struc-

tures constructed after September 29, 1947, regulated by this code, except as normal entrances to the first and second stories of apartment or lodging houses.

Sec. 29-40-43. Use on buildings existing on September 29, 1947. (a) Outside stairways may be used as approved means of egress on buildings existing on September 29, 1947, only wherever enclosed inside stairways of the required qualifications are found impracticable.

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

Sec. 29-40-44. Winding stairs. Winding stairs, as defined in subsection (24) of section 29-40-4, shall not be used or allowed to continue in use as any portion of approved egress passage.

Sec. 29-40-45. Construction. (a) Outside stairways as approved egress passages shall be constructed completely of iron or other noncombustible material, except stairways existing on September 29, 1947, and those erected on buildings existing on said date, 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 one hundred pounds per square foot on platforms and landings, and a concentrated load of four hundred 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. 29-40-46. 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 eight 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 the same are constructed of iron grill or are perforated in any form, openings shall not exceed one inch in width or diameter for landings or platforms existing on September 29, 1947, and three-quarters of an inch for construction after said date.

Sec. 29-40-47. 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 the 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. 29-40-48. Railings. All outside stairs constructed after September 29, 1947, shall be provided with handrails on both sides thirty-three inches above the forward edge of the tread, except that, on elementary schools or other places attended by small children, this height shall be twenty-seven inches. All outside stairways existing on September 29, 1947, shall be provided with handrails on both sides not less than twenty-seven inches or more than thirty-six inches above the forward edge of the stair tread.

Sec. 29-40-49. Treads. (a) Treads on outside stairways existing on September 29, 1947, shall be not less than eight inches wide and on stairways constructed after said date not less than nine and one-half 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 stairways existing on said date and three-quarters of an inch for stairways constructed after said date.

(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. 29-40-50. Rise of stairs. The rise of stairs on stairways existing on September 29, 1947, shall be not more than eight and one-half inches, and on stairways constructed after said date not more than seven and three-quarters inches.

Sec. 29-40-51. Height of stair runs. The maximum vertical distance between platforms or landings in any flight of stairs existing on September 29, 1947, shall not exceed fifteen feet, and in construction thereafter shall not exceed twelve feet.

Sec. 29-40-52. Width of stairways. (a) General. 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 twenty-four inches of width between the handrails and a double file, forty-two inches.

(b) Apartments and lodging houses. Outside stairways serving apartment buildings and lodgings houses shall be not less than twenty-four inches in width, and not less than forty-two 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 twenty-four inches in width, and not less than forty-two 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 twenty-four inches in width, and not less than forty-two inches when serving above the second story in non-sprinklered, combustible buildings, or when serving a possible occupancy in excess of five hundred persons, except that iron stairways existing on September 29, 1947, at least thirty-six inches in width

shall be allowed for service from the second story with a possible occupancy of not more than five hundred for that floor and above.

(e) Offices. Outside stairways serving offices shall not be less than twenty-four inches in width. Stairways in non-sprinklered, combustible buildings serving floors with a total possible occupancy in excess of one hundred, and stairways in buildings of other construction with a total occupancy of three hundred or more, shall be not less than forty-two inches in width.

(f) Places of assembly. Outside stairways leading from places of assembly shall be at least twenty-four inches wide when serving exit doorways with a total width not greater than thirty-six inches. When serving exits of greater width, stairways constructed after September 29, 1947, shall be at least forty-two inches in width and stairways existing on said date, at least thirty-six 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 thirty-six inches in width.

(h) Schools. Outside stairways serving all school premises shall be not less than twenty-four inches when serving exit doorways with a total width not greater than thirty-six inches. When serving exits of greater width, stairways constructed after September 29, 1947, shall be at least forty-two inches in width and stairways existing on said date at least thirty-six inches.

Sec. 29-40-53. 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 the same and for a distance of six feet in all other directions. Windows may be allowed within this area if they are stationary and glazed with wired glass. Exception will be allowed from this requirement when all stairs are at least three feet distant from the side walls and there are no such wall openings within six feet of exit landings or platforms. Fire and smoke barriers under stairways, platforms or landings, extending two feet beyond each exposed side, existing on September 29, 1947, shall also exempt outside stairways from the above closed side wall requirement.

Sec. 29-40-54. 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. 29-40-55. 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 the same.

ARTICLE IV

HEATING AND COOKING FACILITIES

Sec. 29-40-56. Enclosures for buildings constructed after December 15, 1953. In buildings containing places of assembly, hospitals, convalescent homes and hotels constructed after December 15, 1953, 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. 29-40-57. Enclosures and protection for buildings existing on December 15, 1953. In buildings containing places of assembly, hospitals, convalescent homes, hotels and buildings converted to such use, existing on December 15, 1953, 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 thirty minutes, providing a reasonably smoke-tight enclosure. In all other buildings existing on said date 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. 29-40-58. 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. 29-40-59. Oil burners. (a) Only such oil burners as are approved for make and type by the commissioner of state police in accordance with section 29-59 of the general statutes, having a fuel container with a capacity of more than twenty 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.

(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 regulations of the state police commissioner on the storage and transportation of flammable liquids.

(See Reg. 29-62-1 et seq.)

(d) Oil-burning floor furnaces or wall heaters, selfcontained heating units suspended from the floor of the space being heated, with means for observing flame and lighting the 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. 29-40-60. Space heaters. 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, except apartment and lodging houses, the first story of mercantile establishments existing on December 15, 1953, and office establishments existing on said date and having a total possible occupancy of not more than seventy-five persons.

Sec. 29-40-61. **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 openings by fusible links or other approved devices, at a temperature of 165°F. or less within the enclosure.

Sec. 29-40-62. **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.

Sec. 29-40-63. **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. 29-40-64. **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 a fire at a high hazard location. Additional extinguishing devices of the automatic type are not prohibited.

Sec. 29-40-65. **Alarm devices.** (a) Rooms or enclosures containing central heating furnaces in combustible and/or nonsprinklered 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°F. 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 nonsprinklered 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.

ARTICLE V

HOSPITALS

Sec. 29-40-66. **General.** (a) The regulations contained in this article shall apply to all hospitals as defined in subsection (12) of section 29-40-4, 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. 29-40-67. Construction after August 27, 1957. (a) Every hospital constructed after August 27, 1957, every addition thereafter made to an existing hospital and any building thereafter converted for use in whole or in part as a hospital shall be of noncombustible construction throughout, having a fire-resistant rating of not less than two hours, if more than one story above the basement or ground.

(b) Hospitals not more than one story above the basement or ground shall be of noncombustible construction throughout, having a fire-resistant rating of not less than one hour.

Sec. 29-40-68. Use of hospital buildings of combustible construction existing on August 27, 1957. All buildings of combustible construction used in whole or in part as a hospital shall be completely protected by a system of automatic sprinklers installed and maintained in accordance with proper and accepted standards.

Sec. 29-40-69. Adjacent buildings. No hospital shall be located within ten 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. 29-40-70. 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. 29-40-71. Roofing. Roofs of hospitals shall be covered with roofing which is not readily flammable and does not carry or communicate fire.

Sec. 29-40-72. Maximum possible occupancy. The number of patients housed in each room or compartment shall not exceed the rate of one for each seventy-five square feet therein and/or one child in a junior size bed for each forty square feet and/or one infant in a bassinet for each twenty-four square feet. The total patient occupancy for each story as determined in this manner shall be termed as the maximum possible occupancy.

Sec. 29-40-73. 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.

(c) Means of egress in addition to the minimum of two required from each story under subsection (b) shall be required when the maximum possible occupancy exceeds eighty patients. There shall be at least one additional means of egress for each forty 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 one hundred feet from the door of a patient-occupied room to reach the nearest approved means of egress from that story.

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Sec. 29-40-74. 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 seventy-two inches in width in new buildings constructed after June 28, 1948, or additions to buildings existing on said date, and not less than thirty-six inches in buildings existing on said date, 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 seventy-eight 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 subsections (b) and (c) of section 29-40-76.

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

Sec. 29-40-75. Transoms. Transoms and other similar openings in corridors or passageways shall not be allowed in new construction after September 29, 1947. Transoms and like openings in corridors and passageways existing on said date shall be permanently sealed and made fire-resistant equal to the related door construction.

Sec. 29-40-76. 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 stairway and passageway which leads 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 subsection (b) 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 wire-glass not to exceed six square feet.

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

(f) Stairways in egress passages in buildings existing on September 29, 1947, shall be not less than thirty-six inches in width, and in buildings constructed after said date and additions to buildings existing on said date, such stairways shall be not less than forty-four inches in width.

(g) Stairways existing on September 29, 1947, in egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. Stairways constructed thereafter shall have such landings at least forty-four inches in depth.

(h) Stair treads in inside egress passages in structures existing on September 29, 1947, shall be not less than eight inches wide, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed thereafter such stair treads shall be not less than nine and one-half inches wide, exclusive of nosing, and risers shall not exceed seven and three-quarters inches in height. Tread and risers shall be of uniform width and height in each individual stairway.

Sec. 29-40-77. Doors and doorways. (a) All doorways which are of themselves, or are a part of, means of egress shall be at floor level in structures constructed after June 28, 1948, and as near thereto as practicable in structures existing on said date. 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 seventy-four inches in height in buildings existing on June 28, 1948, and seventy-eight inches for new construction after said date, 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 subsection (f) of section 29-40-74, from patient-occupied rooms to areas of refuge as required in section 29-40-78, from patient-occupied rooms into corridors in buildings constructed after June 28, 1948, and in additions to buildings existing on said date, into corridors from ward rooms occupied by three or more patients, shall be at least forty-two 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 thirty inches in width. All other egress doors from patient-occupied rooms and to the outside shall be at least thirty-six 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 six 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. 29-40-78. 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 twenty-four 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. 29-40-79. Fire-stopping. Exterior walls of frame construction and interior stud partitions shall be fire-stopped at each floor level by a two-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another.

Sec. 29-40-80. 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. 29-40-81. 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. 29-40-82. 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 four and one-half inches in height with strokes not less than three-quarters 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. 29-40-83. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading direct to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading directly to the outside from hospitals housing twenty-five or more patients. This secondary lighting system shall be termed herein as emergency lighting.

(c) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts complete with automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(d) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects the corridors, passageways, stairways, ramps, fire-escapes and all other means of egress direct to the outside when the artificial lighting for any such areas fails.

(e) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(f) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable 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.

(g) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction adequately vented directly to the out-of-doors and secure against unauthorized entry.

(h) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated directly to the out-of-doors and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-84. Oxygen. (a) Cylinders containing compressed oxygen shall not be stored within ten 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. 29-40-85. Nitrous oxide. Nitrous oxide shall not be stored in the same room with ether, ethylene or ethyl chloride.

Sec. 29-40-86. 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. 29-40-87. 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. 29-40-88. 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. 29-40-89. 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. 29-40-90. Extinguishing equipment required. All hospitals shall be provided with proper fire extinguishing equipment adequate for the conditions involved and suitably located.

Sec. 29-40-91. 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. 29-40-92. 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 will not be readily flammable and will not carry or communicate fire.

Sec. 29-40-93. 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 two inches in outside diameter and free wheeling.

Sec. 29-40-94. 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. 29-40-95. 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.

(Sec Regs. 29-40-65; 29-40-80 for other alarm devices required.)

Sec. 29-40-96. Attendants required. (a) Each hospital housing fifteen or fewer 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 two hundred feet of such building 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 fifteen and not more than twenty-nine, and one additional for each fifteen patients or part in excess thereof. Such additional on-duty attendants shall only be required at the rate of one for each fifty patients in excess of fifty where an inspection is made hourly throughout the premises by a special watchman service.

(b) Attendants as required herein shall be at least eighteen years of age and capable of performing the duties of evacuation as required under section 29-40-97. No person other than the management or a person under management control shall be considered as an attendant.

(c) In noncombustible buildings or combustible buildings completely protected by a system of automatic sprinklers, installed and maintained in accordance with accepted standards, there shall be one attendant on duty, awake and dressed at all times for each fifteen patients or numerical fraction thereof.

Sec. 29-40-97. 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. 29-40-98. Smoking. Smoking in hospitals shall be permitted only where proper facilities are provided and proper precautions have been taken against fire.

(Sec Reg. 29-40-84(d).)

Sec. 29-40-99. 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. 29-40-100. General. (a) The regulations contained in this article shall apply to all convalescent homes as defined in subsection (7) of section 29-40-4, 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. 29-40-101. Construction. (a) Every convalescent home constructed after August 27, 1957, and every addition thereafter made to an existing convalescent home, and any building thereafter converted for use in whole or in part as a convalescent home shall be of noncombustible construction throughout, having a fire-resistant rating of not less than two hours, if more than one story above the basement or ground.

(b) Convalescent homes not more than one story above the basement or ground shall be of noncombustible construction throughout, having a fire-resistant rating of not less than one hour, or be completely protected by a system of automatic sprinklers installed and maintained in accordance with proper and accepted standards.

Sec. 29-40-102. Use of convalescent homes of combustible construction existing on August 27, 1957. (a) All buildings of combustible construction used in whole or in part as a convalescent home shall be completely protected by a system of automatic sprinklers installed and maintained in accordance with proper and accepted standards.

(b) Occupancy of any area above the second story shall be restricted to employees, owners and members of their households.

Sec. 29-40-103. Adjacent buildings. No convalescent home shall be located within ten 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. 29-40-104. 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. 29-40-105. Roofing. Roofs of convalescent homes shall be covered with roofing which is not readily inflammable.

Sec. 29-40-106. Maximum possible occupancy. The number of patients housed in each room or compartment shall not exceed the rate of one for each

seventy-five square feet therein and/or one child in a junior size bed for each forty square feet and/or one infant in a bassinet for each twenty-four square feet. The total patient occupancy for each story as determined in this manner shall be termed as the maximum possible occupancy.

Sec. 29-40-107. Egress facilities required. (a) Exits shall be located remote from each other, providing the best practicable means of egress for all patients if 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 subsection (b) shall be required when the maximum possible occupancy exceeds eighty patients. There shall be at least one additional means of egress for each forty 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 one hundred feet from the door of a patient-occupied room to reach the nearest approved means of egress from that story.

Sec. 29-40-108. 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 seventy-two inches in width in buildings constructed after June 28, 1948, or additions to buildings existing on said date, and not less than thirty-six inches in buildings existing on said date, 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 seventy-eight 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 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 subsections (b) and (c) of section 29-40-110.

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

Sec. 29-40-109. Transoms. Transoms and other similar openings in corridors or passageways shall not be allowed in construction after June 28, 1948. Transoms and like openings existing in corridors and passageways on said date shall be permanently sealed and made fire-resistant equal to the related door construction.

Sec. 29-40-110. 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 subsection (b) 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 six square feet.

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

(f) Stairways in egress passages in buildings existing on June 28, 1948, shall be not less than thirty-six inches in width, and in buildings constructed after said date and additions to such existing buildings such stairways shall be not less than forty-four inches in width.

(g) Stairways existing on June 28, 1948, in egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom stair and the next parallel partition or door. Stairways constructed after said date shall have such landings at least forty-four inches in depth.

(h) Stair treads in inside egress passages in structures existing on June 28, 1948, shall be not less than eight inches wide, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed after said date such stair treads shall be not less than nine and one-half inches wide, exclusive of nosing, and risers shall not exceed seven and three-quarters inches in height. Treads and risers shall be of uniform width and height in each individual stairway.

Sec. 29-40-111. Doors and doorways. (a) All doorways which are of themselves, or are a part of, means of egress shall be at floor level in structures constructed after June 28, 1948, and as near thereto as practicable in structures existing on said date. 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 seventy-four inches in height in buildings existing on June 28, 1948, and seventy-eight inches for construction thereafter, 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 subsection (f) of section 29-40-108, from patient-occupied rooms to areas of refuge as required in section 29-40-112, from patient-occupied rooms into corridors in buildings constructed after June 28, 1948, and in additions to buildings existing on said date, into corridors from ward rooms occupied by three or more bed patients, shall be at least forty-two 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 thirty inches in width. All other egress doors from patient-occupied rooms and to the outside shall be at least thirty-six 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 six 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 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. 29-40-112. 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 twenty-four 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. 29-40-113. Fire-stopping. Exterior walls of frame construction and inte-

rior stud partitions shall be fire-stopped at each floor level by a two-inch thick plate or masonry filling, completely closing any possible vertical opening from one story to another.

Sec. 29-40-114. 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. 29-40-115. 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. 29-40-116. 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 four and one-half inches in height with strokes not less than three-quarters 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. 29-40-117. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading direct to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading directly to the outside from convalescent homes housing twenty-five or more patients. This secondary lighting system shall be termed herein as emergency lighting.

(c) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts complete with automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(d) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects all corridors, passageways, stairways, ramps, fire-escapes and all other means of egress direct to the outside when the artificial lighting from any such areas fails.

(e) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(f) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable illumination of 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.

(g) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction adequately vented directly to the out-of-doors and secure against unauthorized entry.

(h) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated directly to the out-of-doors and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-118. Oxygen. (a) Cylinders containing compressed oxygen shall not be stored within ten 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. 29-40-119. Nitrous oxide. Nitrous oxide shall not be stored in the same room with ether, ethylene or ethyl chloride.

Sec. 29-40-120. 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. 29-40-121. Extinguishing equipment required. All convalescent homes shall be provided with proper fire extinguishing equipment adequate for the conditions involved and suitably located.

Sec. 29-40-122. Decorative and acoustical material. All combustible decora-

tive 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. 29-40-123. 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. 29-40-124. 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 two inches in outside diameter and free wheeling.

Sec. 29-40-125. 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. 29-40-126. 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.

(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 Regs. 29-40-65, 29-40-80 for other alarm devices required.)

Sec. 29-40-127. Attendants required. (a) Each convalescent home housing fifteen or fewer 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 two hundred 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 fifteen and not more than twenty-nine, and one additional for each fifteen patients or part in excess thereof. Such additional on-duty attendants shall only be required at the rate of one for each fifty patients in excess of fifty where an inspection is made hourly throughout the premises by a special watchman service.

(b) Attendants as required herein shall be at least eighteen years of age and capable of performing the duties of evacuation as required under section 29-40-128. No person other than the management or a person under management control shall be considered as an attendant.

(c) In noncombustible buildings or combustible buildings completely protected by a system of automatic sprinklers, installed and maintained in accordance with accepted standards, there shall be one attendant on duty, awake and dressed at all times, for each fifteen patients or numerical fraction thereof.

Sec. 29-40-128. 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. 29-40-129. Smoking. Smoking in convalescent homes shall be permitted only where proper facilities are provided and proper precautions have been taken against fire.

(See Reg. 29-40-118(d).)

Sec. 29-40-130. 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.

ARTICLE VII

SCHOOLS

Sec. 29-40-131. General. (a) The regulations contained in this article shall apply to all buildings or portions thereof used for school or classroom purposes, as defined in subsections (5) and (20) of section 29-40-4.

(b) Fire-escapes and other outdoor stairways, oil burners, heating, cooking and ventilating facilities, and the use of electric appliances, shall be in accordance with separate articles of this code as well as with provisions for same.

Sec. 29-40-132. Construction of buildings (including additions to existing buildings) after September 29, 1957. (a) Buildings more than two stories in height. Buildings more than two stories in height above the basement or ground shall be constructed as follows: (1) Construction shall be noncombustible throughout; (2) stairways shall be enclosed in noncombustible construction having a fire-resistant rating of not less than forty-five minutes, except as noted in subsection (c) of section 29-40-142; (3) corridors shall be enclosed in noncombustible construction having a fire-resistant rating of not less than forty-five minutes, except as noted in subsections (d), (e) and (f) of section 29-40-139; (4) flooring over accessible spaces which are more than five feet in clear height shall have a fire-resistant rating of not less than forty-five minutes.

(b) Buildings two stories in height. Buildings two stories in height above the basement or ground shall be constructed as follows: (1) Exterior load bearing walls and/or structural supporting members shall be of noncombustible construction; (2) stairways shall be enclosed in noncombustible construction having a fire-resistant rating of not less than forty-five minutes, except as noted in subsection (c) of section 29-40-142; (3) corridors shall be enclosed in noncombustible construction having a fire-resistant rating of not less than forty-five minutes, except as noted in subsections (d), (e) and (f) of section 29-40-139; (4) flooring over accessible spaces which are more than five feet in clear height shall have a fire-resistant rating of not less than thirty minutes.

(c) Buildings only one story in height. Buildings only one story in height above the basement or ground shall be constructed as follows: (1) Corridors shall be enclosed at the sides and beneath by construction having a fire-resistant rating of not less than forty-five minutes, except when all pupil occupancies have direct means of egress to the outside, independent of all corridors; (2) flooring over accessible spaces which are more than five feet in clear height shall have a fire-resistant rating of not less than thirty minutes.

(d) Adjacent buildings. No school building shall be constructed within ten feet of another building of combustible construction, unless the exposed walls, sash and doors of such school are of noncombustible construction and all exposed glazing is of wired glass, or unless the exposed walls of such school building are protected by an approved sprinkler system or water curtain.

(e) Roofing. Roofs of school buildings shall be covered with roofing which is not readily flammable and does not carry or communicate fire.

Sec. 29-40-133. Heating equipment. (a) Central heating plants, steam boilers and oil-fired water heaters shall be segregated from all other occupancies by noncombustible construction having a fire-resistant rating of not less than two hours, and which provides a reasonably smoke-tight enclosure.

(b) Such enclosures for heating equipment and incinerator enclosures shall be provided with adequate vents direct to the outside, sufficient for proper combustion and exhaust. Ventilating openings shall be provided having a total area equivalent to not less than twice the area of the flue outlet of the heating plant. Such openings shall be maintained in an open position with fixed louvers.

(c) Heater rooms shall only contain equipment for heating, hot water supply, switchboard or facilities for unloading an incinerator and shall not be used for any other purposes.

(d) Interior doors shall be Class B type doors swinging into the heater room and equipped with a positive self-closing device without a hold-open device. Frames of doors shall be kalamein, steel buck or structural steel.

(e) Furnaces, boilers and other fired units shall be vented by means of reasonably gas-tight smokepipes or breechings connected properly to a chimney constructed of brick, solid block masonry or reinforced concrete, with suitable flue lining, properly erected and maintained in safe condition.

(f) Oil burners. (See Reg. 29-40-59.)

Sec. 29-40-134. Service areas. Certain spaces shall be segregated from pupil-occupied spaces, as follows: (1) Incinerators within buildings shall be segregated from all other occupancies by noncombustible construction having a fire-resistant rating of not less than two hours, with a Class B type door having a positive closing device. Access to incinerator rooms for loading and firing the same shall not be permitted through heater rooms. Frames of doors shall be kalamein, steel buck or structural steel; (2) spaces used for storage of tractors, power mowers or other equipment having an internal combustion engine shall be segregated from all other occupancies by noncombustible construction having a fire-resistant rating of not less than two hours and be accessible only from outside the building; (3) maintenance and storage rooms for maintaining combustible materials shall be segregated from all other occupancies by construction having a fire-resistant rating of not less than one hour; (4) trash or rubbish chutes not connected directly to an incinerator shall not be permitted.

Sec. 29-40-135. Elevators and dumbwaiters. Shafts and control rooms thereof shall be of noncombustible construction, having a fire-resistant rating of at least two hours. No opening shall be allowed through the shaftway for ventilating or other purposes except necessary doors. All doors shall be of closed or solid construction and reasonably smoke-tight when closed.

(Note: State department of labor regulations pertaining to the construction, operation and maintenance of elevators and dumbwaiters must also be complied with. See Reg. 19-410-A1 et seq.)

Sec. 29-40-136. Vertical openings. (a) Vertical interior openings. No vertical interior opening will be permitted in any shaft except for elevator doors, dumb-waiter doors and doors to pipe shafts. Pipe shafts shall be enclosed with forty-five minute fire-resistant construction and doors to pipe shafts one and three-quarters inches thick solid core or of noncombustible construction. (For elevator and dumb-waiter doors see Note, Reg. 29-40-135.)

(b) Ventilating ducts. Except in one-story school buildings all flues shall be of noncombustible material and shall be continuous from room grills to points of intake and all exhaust outside of the building. Flexible connections shall be of flame-proof material.

Sec. 29-40-137. Gymnasiums. Gymnasiums, whether or not provided with spectator seating, auditoriums and cafeterias are classed as "places of assembly" and are to be in accordance with article I of this code.

(Note: Auditoriums or other spaces where it is intended to show 35 mm. moving pictures must be in accordance with the "Rules and Regulations Governing Moving Picture Exhibitions" as published by the State Department of Police. See Regs. 29-109-1 et seq.)

Sec. 29-40-138. Exits. (a) Each floor level of a school shall have exits or stairs in sufficient total width to fulfill the requirements of section 29-40-144. (Exit determination).

(b) Exits or stairways shall be so located that no doorway of a pupil-occupied space shall be more than one hundred feet from such exit or stairway and so that there is a minimum of two such stairways or exits from each story, located as remotely as possible from each other. The one hundred foot requirement will be waived only in cases where all pupil-occupied areas have direct means of egress to the outside.

(c) All classrooms designed as industrial arts shops shall have two separate and distinct means of egress, one of which shall be direct to the outside or through an adjoining room and thence to the outside. The other means of egress may be by common use corridor to the outside.

(d) Homemaking kitchens, chemistry laboratories, arts and crafts rooms, and all classrooms designed to accommodate forty or more persons, shall have two separate means of egress, remote as practicable from each other, which lead to the common use corridor or to an adjoining room and thence to the corridor.

(e) In one-story buildings having corridor partitions or floors of non-rated construction, there shall be at least two means of egress from each classroom, reasonably remote from each other, one of which shall be direct to the outside, or through an adjoining room and thence directly to the outside. The other means of egress may be by common use corridor to the outside.

(f) No pockets or dead ends shall be permitted in corridors, except that, when all stairways are enclosed at that floor level, such pockets or dead ends may be permitted when they do not exceed forty feet in length and do not serve a total occupancy of more than sixty pupils.

(g) Multiple story fire-escapes on the exterior of a building constructed after December 15, 1953, shall not be permitted.

(h) Where courts occur enclosed on all sides and required exits from rooms or spaces exit into the court, an exit from the court to the exterior perimeter of the building shall be provided. This exit shall be segregated from all building occupancies

by noncombustible construction having a fire-resistant rating of not less than forty-five minutes.

Sec. 29-40-139. Corridors (including egress passageways). (a) Corridors used as means of egress from pupil-occupied areas shall be not less than six feet in unobstructed width. This minimum width shall exist at all points measured at right angles to the length of the corridor and to the nearest point of extended locker doors, fully opened doors from occupied spaces, drinking fountains, fire extinguishers or other projecting objects. Clear headroom shall be at least seven feet six inches.

(b) All corridors served by stairs unenclosed at that level and being over three hundred feet in length shall be divided into approximately equal sections not over three hundred feet in length by smoke barriers. Such barriers shall be similar in construction to the partitions and doors separating stairways from corridors, except that fifty per cent of the doors therein shall swing in each direction.

(c) Stairs of less than three risers shall not be used in corridors. Ramps shall be used for necessary small changes in level. Where ramps are used, the rise shall not exceed one foot per ten feet of run.

(d) Where corridor walls of schoolrooms are required to have fire-resistant rating, transoms or similar openings in corridor walls of schoolrooms shall not be used except as follows: Glazing of wired glass in panes not exceeding nine square feet in area each and securely mounted in noncombustible frames, or glass blocks set in noncombustible frame and mortar will be permissible. Such glazing shall be not more than thirty-six inches in height nor be below four feet from the finished corridor floor. The total area of such glazing shall not exceed twenty-five per cent of the area of a corridor partition of the classroom, the height being measured from the corridor side. This does not apply to corridor walls of offices, cafeterias or libraries.

(e) Corridor walls of offices may be constructed of glass unlimited in area and type.

(f) Corridor walls of cafeterias and libraries may be constructed of glass unlimited in area. Such glass, however, shall be wired glass in panes not to exceed nine square feet each in area and set in noncombustible frames.

(g) All combustible decorative and acoustical material, including textile floor coverings and curtains located in corridors, passageways, stairways and lobbies, 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, if the surface will not be readily flammable and will not carry or communicate fire.

Sec. 29-40-140. Doors. (a) All doors from pupil-occupied spaces, except toilets, shall swing in the direction of egress travel with hinges on the jamb nearest to the closest stairway or exit. Minimum door dimensions shall be thirty-six inches wide, except that doors in multiple may be thirty inches wide.

(b) Locks on interior doors from all pupil-occupied spaces shall be of the "schoolhouse type"; that is, they shall lock by key only and shall be operative from the inside at all times by the turning of the knob only.

(c) No sliding door, vertical-lift door, revolving door or folding partition shall be used as a closure for a required means of egress, except that folding gates may be used to segregate portions of the building.

(d) Doors swinging in two directions, known as "double-swing," shall not be used as closures for required means of egress.

(e) All interior egress doors, providing access to corridors, which are required to have a fire-resistant rating, shall be forty-five minute fire resistant. Such doors may be of solid wood planking or built-up plywood with solid core, not less than one and three-quarters inches thick. Wired glass one-quarter inch thick, in single pane or smaller panes totaling not over six square feet, may be used in such doors.

(f) Egress doors from corridors or stairway enclosures, which have locking or latching devices, shall have panic hardware which will permit the door to open with a single motion when pressure is applied to the releasing device in the direction of egress travel.

(g) Where double-leaf doorways are used in stairway enclosures, they shall be equipped with a mullion or astragal which will provide reasonably tight closure, but which will not interrupt a complete self-closing operation.

(h) Interior doors to stairways shall provide as a minimum one thirty-inch leaf for each twenty-two inches of stairway width.

(i) Doors from corridors into stair enclosures shall be forty-five-minute fire resistant. Such doors may be of solid wood planking or built-up plywood with solid core, not less than one and three-quarters inches thick. Wired glass one-quarter of an inch thick in single pane or smaller panes totaling not over six square feet may be used in such doors. These doors shall be equipped with suitable self-closing devices, maintained in operating condition to keep the doors closed. No such door shall be equipped with a device for holding it in an open position. Double-leaf doorways shall be equipped with a mullion or astragal which will provide reasonably tight closure, but which will not interrupt a complete self-closing operation.

Sec. 29-40-141. Stairways. (a) All required stairways shall lead directly to an outside area having unrestricted access to the exterior perimeter of the building.

(b) All stairs (and platforms, landings, etc. used in connection therewith) shall be of noncombustible construction throughout. Treads of stairs and landings shall be solid (without perforations). Handrails are exempted from the above requirements, also short non-exit stairs serving stages, platforms, etc.

(c) There shall be no variation in the width of treads and the height of risers in any flight. Where variation in riser heights in different flights is necessary because of varying story heights, such variation shall not exceed three-sixteenths of an inch. All treads shall be not less than ten inches in width, exclusive of nosing, and risers shall be not more than seven inches in height. In general, treads and risers shall be so proportioned that the sum of two risers and one tread, exclusive of nosing, is not more than twenty-five inches and not less than twenty-four inches.

(d) Treads and landings shall have non-slip surfaces.

(e) There shall be no occupied spaces, closets or other storage areas within stair enclosures. Spaces shall be left entirely open or shall be entirely enclosed, without door or other opening into the enclosure. Access doors to pipe-tunnels and similar non-storage spaces will be permitted, if they are of forty-five-minute fire-resistant construction and kept locked.

(f) No arrangement of treads known as "winders" shall be allowed.

(g) Where doors open into stairways, there shall be a minimum clearance of eighteen inches between the edge of the door in any position and the nosing of a riser.

(h) All egress stairways shall have suitable handrails on both sides and at the center of stairs wider than eighty-eight inches. There shall be no more than sixty-

six inches between adjacent handrails. Balustrades shall be not less than three feet high, and handrails shall be attached at a height of between two feet six inches and two feet nine inches vertically above intersections of treads and risers.

(i) No stairway shall be less than forty-four inches in width, and no flight of stairs shall have a vertical rise of more than nine feet.

(j) Landings at turns shall be at least forty-four inches in length, measured along the line of travel, and eighteen inches from the inside handrail, except that right angle turns may be made with a square platform the width of the stairway. Intermediate landings on straight stairs shall have a length of at least forty-four inches.

(k) Ramps may be substituted for stairs, provided surfaces are non-slip and the rise does not exceed one foot in ten feet of run.

Sec. 29-40-142. Stairway enclosures. (a) Stairways serving one or more stories above the first shall be segregated from corridors at all floor levels.

(b) Stairways from basements shall be segregated from first floor corridors and means of egress by a smoke barrier.

(c) The smoke barrier between stairways and corridors shall be constructed of noncombustible materials and may have securely mounted wired glass panes not exceeding nine square feet each in area.

Sec. 29-40-143. Stages. (a) Auditorium stages having a fly loft or grid above or below the structural opening between the stage and the auditorium, dressing rooms or storage rooms on the stage shall be built of noncombustible construction throughout. The structure supporting the stage flooring above the normal auditorium floor level may be of combustible construction. Ventilation shall be provided by means of louvers in the side walls or collapsible skylight in the roof, having an area equal to at least ten per cent of the floor area within the stage walls.

(b) All drapes and scenery shall be rendered and maintained flame resistant.

Sec. 29-40-144. Exits determination. Required widths of exits and stairs shall be computed in accordance with the following:

(1) Occupancy shall be determined by actual count of pupils or, where this is impracticable, assume one pupil for forty square feet of gross floor area, not including places of assembly (which are to be computed according to article I of this code).

(2) Stairs shall provide total aggregate width in twenty-two-inch increments, in accordance with the following table:

Number of Pupils in Area of Greatest Occupancy Served by Stairs	Total Width of Stairs
120	44"
180	66"
240	88"
300	110"
360	132"
420	154"
480	176"
540	198"
600	220"
660	242"
720	264"
780	286"

(3) Exits to the outside shall provide one door for each one hundred persons or major fraction thereof on that floor, plus one door for each one hundred persons or major fraction thereof that required stairs are designed to accommodate.

(4) No required exit doorway serving a stairway or corridor shall consist of less than two thirty-inch leaves.

(5) Exits required for places of public assembly may, if appropriately located, be used jointly as required exits for ordinary school occupancy where total occupancy of the building at any one time will not exceed the largest capacity calculated under either article I or this article.

Sec. 29-40-145. Fire alarm systems. (a) A fire alarm system shall be installed in every school building.

(b) All fire alarm systems shall be of the closed circuit type, supervised against opens and grounds, and shall function as follows: (1) The operation of any manual fire alarm sending station or automatic fire detecting unit shall cause the simultaneous operation of all alarm-sounding devices continually until the tripped station is restored to normal operation or until the simultaneous operation of all alarm-sounding devices for a complete cycle of not less than thirty seconds has taken place; (2) the power supply shall be taken from a point located between the meter and main switch; (3) all wiring for fire alarm systems shall be run in raceways properly protected from vandalism or injury.

(c) Alarm-sending stations shall be located in each corridor of each story so that from any corridor door not more than one hundred feet will have to be traversed in order to reach a sending station. In buildings of more than one hundred feet in length, alarm-sending stations shall be located at exits in the natural path of egress from the building.

(d) All manual sending stations shall be located not more than five feet above the floor and at ready, accessible and visible points which shall not be obstructed. All alarm-sending stations shall be clearly marked "FIRE ALARM" and shall be painted a distinctive red color.

(e) An alarm-sending station shall also be provided adjacent to the places of assembly and on all stages near the stage lighting control board.

(f) Automatic fire detectors shall be installed in boiler rooms, kitchens and other hazardous areas where it is deemed necessary. Automatic fire detectors will not be required in buildings completely protected by an automatic sprinkler system.

(g) Alarm sounding devices shall be horns used for no other purpose and of such character and so located as to be effectively heard above all other sounds by all occupants in every occupied space in the building.

(h) All sounding devices in the alarm system shall be of the same type and all fire-alarm-sounding devices shall be used for fire alarm purpose only. No fire-alarm-sounding device shall be located in places of public assembly except those so located in buildings on December 15, 1953.

(i) Bells or gongs, distinctive in tone and pitch from other sounding devices, will be approved in systems existing on December 15, 1953, or in extensions to such systems where such equipment was in use on said date.

(j) Connections of school fire alarm systems to municipal alarm systems, central stations or direct connected supervised systems shall be located on the outside of the building. If located in the building, the alarm-sending station shall be designed to sound the school alarm system when actuated.

(k) Fire drills shall be conducted at least once each month, by use of the fire alarm system.

Sec. 29-40-146. Exit signs. (a) For places of assembly see section 29-40-18.

(b) Signs bearing the word "EXIT" shall be placed at each exit from a corridor. Where an exit and/or its sign are not clearly visible from every point in the corridors served, an adequate number of directional signs shall be provided bearing the word "EXIT" and an arrow pointing in the direction of such exit.

(c) Exit and directional signs shall have letters at least four and one-half inches high, with strokes and arrows at least three-quarters of an inch in width.

(d) Exit and directional signs shall be clearly legible at all times.

Sec. 29-40-147. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all places of assembly, corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading direct to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all places of assembly and the corridors, passageways, stairways, ramps, fire-escapes and other means of egress direct to the outside from such places of assembly. This secondary lighting system shall be termed herein as emergency lighting.

(c) Emergency lighting shall not be required for places of assembly which are not used in the night season, or for places which do not exceed fifteen hundred square feet of floor area and so located that at least one exit is direct to the outside and within five feet of grade.

(d) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts, operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts, complete with automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(e) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects the places of assembly and all exit passageways, corridors, stairways, ramps, fire-escapes and all other means of egress direct to the outside from such places of assembly when the artificial lighting for any such areas fails.

(f) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(g) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable 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.

(h) In battery systems of over fifty volts the battery and charging equipment shall be housed in a separate room of noncombustible construction, adequately vented directly to the out-of-doors and secure against unauthorized entry.

(i) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated directly to the out-of-doors, and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-148. Housekeeping. All school buildings shall be kept clean and in tidy condition and free from accumulation of combustible debris or other waste material.

Sec. 29-40-149. Storage of flammable liquids. See Regulations Covering the Storage and Transportation of Flammable Liquids, Department of State Police, Sec. 29-62-1 et seq.

Sec. 29-40-150. Fire extinguishers. (a) A two and one-half gallon soda acid or equivalent Class A fire extinguisher shall be located in corridors so that a person will not have to travel more than one hundred feet from any room door to reach the nearest extinguisher.

(b) A two and one-half gallon soda acid or equivalent Class A fire extinguisher shall be located on the stage and in the boiler room; except that, in boiler rooms using oil-fired equipment, a two and one-half gallon foam or equivalent Class B extinguisher shall be provided.

Sec. 29-40-150a. Private schools for trade instruction. Buildings used as private schools for trade instruction as defined by section 10-8 of the 1969 supplement to the general statutes that do not comply with the provisions of sections 29-40-131 to 29-40-150 shall meet the following requirements:

(a) **Construction.** No occupancy shall be permitted above the second floor except in a building of at least two-hour fire-resistive construction unless such building is protected by a complete system of automatic sprinklers, installed and maintained in accordance with recognized standards.

(b) **Capacity.** The maximum permitted occupancy shall be based on one person per one hundred square feet of gross floor area.

(c) **Exits.** There shall be not less than two approved, independent exits, separate and remote from each other and accessible to all occupants. Travel distance to an exit in a non-sprinklered building shall not exceed one hundred fifty feet and shall not exceed two hundred feet in buildings with complete automatic sprinkler protection.

(d) **Minimum width of corridors or passageways.** Any corridor or passageway serving as a means of travel to or from an exit shall be not less than forty inches in clear width. Twenty-two inches of exit width shall be provided for each sixty persons or fraction thereof reasonably expected to use such corridor.

(e) **Stairways.** All stairways and other vertical openings shall be enclosed with materials having a fire-resistive rating of not less than forty-five minutes. Each open-

ing into such stairways shall be protected by a Class C rated door assembly listed and labeled by a nationally recognized testing laboratory. Such doors shall be so hung as to open in the direction of exit travel and shall be equipped with self-closing devices. Stairways shall meet the following requirements: (1) They shall be not less than thirty-six inches in width; (2) risers shall not exceed eight inches in height; (3) minimum width of tread, exclusive of nosing or projection, shall be not less than nine inches; (4) maximum height between landings shall not exceed twelve feet; (5) doors shall swing on a landing; (6) when open, stair exit doors shall not reduce the width of landings to less than thirty-six inches.

(f) **Locks and fastenings on required exit doors.** Locks and fastenings on required exit doors shall be capable of being readily opened at all times from the side from which egress is to be made. Such locks shall be designed so as not to require the use of a key for operation.

(g) **Exit illumination.** (1) Emergency exits and the necessary ways of access thereto shall be illuminated to facilitate egress. Such illumination shall be continuous during the time the premises are occupied. (2) Adequate artificial lighting shall be provided for the lighting of all corridors, passageways and stairways and other means of egress leading directly to the outside. (3) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all corridors, passageways, stairways and other means of egress leading directly to the outside to provide for the necessary illumination in the event of failure of the normal source of power. (4) Every required exit shall be marked with a sign bearing the word "EXIT," illuminated and clearly legible at all times.

(h) **Fire extinguishers.** Fire extinguishing devices, adequate in number and of a type and rating specified by the local or state fire marshal, shall be provided.

(i) **Interior finish materials.** All interior finish materials shall be either non-combustible or have a flame-spread rating no greater than that of Class B, except that in sprinklered buildings Class C material may be used.

(j) In addition to the above provisions, buildings used as private schools for trade instruction shall meet requirements of the Fire Safety Code, Article III covering outside stairways, and Article IV covering heating and cooking facilities.

(Effective September 3, 1968.)

ARTICLE VIII

SCHOOL BUILDINGS EXISTING ON DECEMBER 15, 1953.

Sec. 29-40-151. Construction. No building not a school building on December 15, 1953, may thereafter be converted for school purposes unless it complies, after conversion, with the provisions of article VII for new buildings, sections 29-40-131 to 29-40-150, inclusive.

Sec. 29-40-152. Sprinkler requirements. (a) All school buildings existing on December 15, 1953, wholly or in part of combustible construction, which have student occupancy above the second story, shall be protected by a system of automatic sprinklers, installed and maintained in accordance with proper standards.

(b) Such buildings having noncombustible construction of forty-five-minute fire-resistant rating enclosing all required stairways and protecting corridors at the sides and beneath shall be exempt from the requirements for sprinklers.

Sec. 29-40-153. Heating equipment. (a) Central heating plants, steam boilers and oil-fired water heaters shall be segregated from all other occupancies by walls, ceiling and floor having a fire-resistant rating of not less than thirty minutes, which shall provide a reasonably smoke-tight enclosure.

(b) Such enclosures for heating equipment and incinerators shall be provided with adequate vents direct to the outside, sufficient for proper combustion and exhaust. Ventilating openings shall be provided having a total area equal to not less than twice the flue outlet of the heating plant. Such openings shall be maintained in an open position with fixed louvers.

(c) Heater rooms shall only contain equipment for heating, water supply, switchboard or facilities for unloading an incinerator and shall not be used for any other purpose.

(d) Interior doors to heater rooms shall be of the same fire resistancy required for the segregating partitions and shall be equipped with a positive self-closing device. Such doors shall have no hold-open devices and shall be kept closed at all times.

(e) Furnaces, boilers and other fired units shall be vented to a chimney by means of a reasonably gas-tight smoke pipe. The chimney shall be properly constructed of brick, solid block masonry or reinforced concrete.

(f) Oil burners — See section 29-40-59.

(g) Space heaters — See section 29-40-60.

Sec. 29-40-154. Service areas. (a) Incinerators within buildings shall be segregated from all other occupancies by construction having a fire-resistant rating of not less than thirty minutes, with a door of the same fire resistancy having a positive self-closing device.

(b) Space used for storage of tractors, power mowers or other equipment having internal combustion engines shall be segregated from all other occupancies by construction having a fire-resistant rating of not less than one hour and shall be accessible only from outside the building.

(c) Trash and rubbish chutes not connected directly to an incinerator in combustible buildings shall be protected by automatic sprinklers, and the doors shall be of not less than thirty-minute fire-resistant construction, equipped with self-closing devices; or the shaft shall be discontinued from use and sealed horizontally at each floor level by construction equal to the adjacent floor.

Sec. 29-40-155. Elevators and dumbwaiters. Shafts and control rooms thereof shall be of noncombustible construction having a fire-resistant rating of at least two hours. No openings shall be allowed through the shaft for ventilator or other purposes, except necessary doors. All doors shall be of closed or solid construction and shall be reasonably smoke-tight when closed.

(Note: State department of labor regulations pertaining to the construction, operation and maintenance of elevators and dumbwaiters must also be complied with. See Reg. 19-410-A1 et seq.)

Sec. 29-40-156. Vertical openings. (a) Abandoned ducts, ventilating ducts and shafts. No vertical shaftway shall be used for storage purposes. Access doors to the same shall be thirty-minute fire resistant and shall be kept locked.

(b) Light wells. Open light wells, or other similar openings, within a school building shall not be permitted. Any such openings existing on December 15, 1953, shall be enclosed vertically at each floor level with construction having a fire-resistant rating of not less than thirty minutes; except that such enclosures may contain panes of quarter-inch wired glass not over nine square feet each in area, securely mounted in noncombustible frames; or may be floored over horizontally by construction equal to the adjacent floor.

Sec. 29-40-157. **Gymnasiums.** Gymnasiums, whether or not provided with spectator seating, auditoriums and cafeterias, are classed as places of assembly and are to be in accordance with article I of this code.

Sec. 29-40-158. **Exits.** (a) Each floor level of a school shall have two exits, stairways or approved fire-escapes, or combination thereof, in sufficient total width to fulfill the requirements of section 29-40-165.

(b) Exits or stairs shall be so located that no doorway of a pupil-occupied space shall be more than one hundred feet from one such exit or stairway. There shall be a minimum of two such stairways or exits from each story, located as remotely as possible from each other.

(c) No pockets or dead-ends shall be permitted in corridors, except when all stairways are enclosed at each floor level. Such pockets or dead-ends may be permitted when they do not exceed forty feet in length and do not serve a total occupancy of more than sixty pupils.

(d) Where courts occur which are enclosed on all sides, and the required exits from rooms or spaces exit into the courts, an exit from the court to the exterior perimeter of the building shall be provided. This exit shall be segregated from all building occupancies by construction having a fire-resistant rating of not less than thirty minutes.

Sec. 29-40-159. **Corridors (including egress passageways).** (a) **Width.** Corridors used as a means of egress from pupil-occupied areas shall not be less than thirty-six inches in unobstructed width.

(b) **Decorative and acoustical materials.** All combustible decorative and acoustical material, including textile floor coverings and curtains, located in corridors, passageways, stairways and lobbies, shall be rendered and maintained flame resistant. This regulation shall not be construed to prohibit the use of wall or ceiling coverings and effective decoration of the wall or ceiling, provided the surface shall not be readily flammable and shall not carry or communicate fire.

Sec. 29-40-160. **Doors.** (a) All doors from pupil-occupied spaces, except toilets, shall swing in the direction of egress travel. Minimum door dimensions shall be not less than thirty inches wide.

(b) Doors leading from school rooms or pupil-occupied spaces into a hall or corridor shall not, during school hours, be locked, bolted or secured in any other manner than by a spring which will readily yield to pressure from the inside or by the turning of a knob.

(c) No sliding door, vertical lift door, revolving door or folding partition shall be used as a closure for a required means of egress, except that folding gates may be used to segregate portions of the building.

(d) Doors swinging in two directions, known as a double-swing, shall not be used as closures for a required means of egress.

(e) Egress doors from corridors or stairway enclosures, which have locking or latching devices, shall have panic hardware which will permit the door to open with a single motion when pressure is applied to the releasing device in the direction of egress travel.

(f) Where double-leaf doorways are used in stairway enclosures, they shall be equipped with a mullion or astragal which will provide a reasonably tight closure, but which will not interrupt a complete self-closing operation.

(g) Interior doors to stairways forty-four inches or over in width shall provide as a minimum one thirty-inch leaf for each twenty-two inches of stairway width. Where stairs are less than forty-four inches in width, a single-leaf door shall be not less than thirty inches in width.

(h) All interior doors in stairway enclosures required to have a fire-resistant rating shall be not less than thirty-minute fire resistant. Such doors may be of solid wood planking or built-up plywood with solid core, not less than one and three-quarters inches thick. Wired glass one-quarter inch thick in a single pane, or smaller panes totaling not over six square feet, may be used in such doors. These doors shall be equipped with suitable self-closing devices, maintained in operating condition to keep the doors closed. No such door shall be equipped with a device for holding the same in an open position.

Sec. 29-40-161. Stairways. (a) All required egress stairways shall lead directly to the outside or to a protected passageway which connects the stairs directly to the outdoors. Such stairways and protected passageways shall be enclosed and segregated from other portions of buildings by materials with a fire-resistant rating of not less than thirty minutes.

(b) All stairways existing on December 15, 1953, approved as an inside means of egress shall have stair treads not less than eight inches in width, exclusive of nosing, and risers shall not exceed eight and one-half inches in height.

(c) All stairways in approved egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom stair and the door opening.

(d) Winding stairs shall not be allowed in approved means of egress.

(e) All egress stairways shall have suitable handrails on both sides, and at the center of stairs that are wider than eighty-eight inches. There shall be no more than sixty-six inches between adjacent handrails, except stairways less than three feet in width may have but one handrail. Handrails shall be attached at a height of between two feet six inches and two feet nine inches vertically above the intersection of the treads and risers.

(f) There shall be no closets or other storage areas within stair enclosures or beneath stairways used for storage purposes of any kind.

Sec. 29-40-162. Smoke barriers. (a) Stairways serving one or more stories above the first shall be segregated from the corridors at all floor levels, except the uppermost floor, by means of a smoke barrier.

(b) Stairways from basements shall be segregated from the first floor corridor and means of egress by a smoke barrier.

(c) The smoke barrier between stairways and corridors shall be constructed of thirty-minute fire-resistant material and may have securely mounted wired glass panes not exceeding nine square feet each in area.

(d) All corridors served by stairs, unenclosed at that level and being over three hundred feet in length, shall be divided into two approximately equal sections by smoke barriers. Such barriers shall be similar in construction to partitions and doors separating stairways from corridors, except that fifty per cent of the doors therein shall swing in each direction.

Sec. 29-40-163. Fire-escapes. Fire-escapes on buildings existing on Decem-

ber 15, 1953, shall meet the requirements of section 4093 of the 1949 revision of the general statutes and sections 29-40-42 to 29-40-55, inclusive, of this code.

Sec. 29-40-164. Stages. All drapes and scenery shall be rendered and maintained flame resistant.

Sec. 29-40-165. Exits determination. Required width of exits and stairs or fire-escapes shall be computed in accordance with the following:

(1) Occupancy shall be determined by actual count of pupils or, where this is impracticable, assume one pupil for forty square feet of gross floor area, not including places of assembly (which are to be computed according to article I of this code).

(2) Approved egress stairways or fire-escapes shall provide a total aggregate width in twenty-two-inch increments, in accordance with the following table:

Number of Pupils in Area of Greatest Occupancy Served by Stairs	Total Width of Stairs
60	22"
120	44"
180	66"
240	88"
300	110"
360	132"
420	154"
480	176"
540	198"
600	220"
660	242"
720	264"
780	286"

(3) Exit to the outside shall provide one door for each one hundred persons or major fraction thereof on that floor, plus one door for each one hundred persons or major fraction thereof that required stairs are designed to accommodate.

(4) Exits required for places of public assembly may, if appropriately located, be used jointly as required exits for ordinary school occupancy where total occupancy of the building at any one time will not exceed the largest capacity calculated under either article I or this article.

Sec. 29-40-166. Fire alarm systems. (a) A fire alarm system shall be installed in every school building.

(b) The operation of any manual fire alarm-sending station or automatic fire detecting unit shall cause the simultaneous operation of all alarm-sounding devices continually, until the tripped station is restored to normal operation or until the simultaneous operation of all alarm sounding devices for a complete cycle of not less than thirty seconds has taken place.

(c) Alarm-sending stations shall be located in each corridor of each story, so that from any corridor door not more than one hundred feet will have to be traversed in order to reach a sending station.

(d) All manual sending stations shall be located not more than five feet above the floor, and at ready, accessible and visible points, which shall not be obstructed.

All alarm sending stations shall be clearly marked "FIRE ALARM" and shall be painted a distinctive red color.

(e) Automatic fire detectors shall be installed in boiler rooms, kitchens and other hazardous areas where it is deemed necessary. Automatic fire detectors will not be required in buildings completely protected by an automatic sprinkler system or in one-story buildings having an occupancy of not more than seventy-five pupils.

(f) Connections of school fire alarm systems to municipal alarm systems, central stations or direct connected supervised systems shall be located on the outside of the building. If located in the building, the alarm-sending station shall be designed to sound the school alarm system when actuated.

(g) Fire drills shall be conducted at least once each month by use of the fire alarm system.

(h) Fire alarm systems installed after December 15, 1953, shall comply with section 29-40-145.

Sec. 29-40-167. Exit signs. (a) For places of assembly see section 29-40-18.

(b) Signs bearing the word "EXIT" shall be placed at each exit from a corridor. Where an exit and/or its sign is not clearly visible from every point in the corridors served, an adequate number of directional signs shall be provided, bearing the word "EXIT" and an arrow pointing in the direction of such exit.

(c) Exit and directional signs shall have letters at least four and one-half inches high, with strokes and arrows at least three-quarters inch in width.

(d) Exit and directional signs shall be clearly legible at all times.

Sec. 29-40-168. Emergency lighting. (a) Adequate artificial lighting shall be provided for the lighting of all places of assembly, corridors, passageways, stairways, ramps, fire-escapes and other means of egress leading directly to the outside.

(b) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all places of assembly and the corridors, passageways, stairways, ramps, fire-escapes and other means of egress direct to the outside from such places of assembly. This secondary lighting system shall be termed herein as emergency lighting.

(c) Emergency lighting shall not be required for places of assembly which are not used in the night season, or for places which do not exceed fifteen hundred square feet of floor area and are so located that at least one exit is direct to the outside and within five feet of grade.

(d) Acceptable types of emergency lighting systems are as follows:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts complete with automatic charging panel and automatic transfer switch.

Type E — An automatically started engine generator set, of the correct capacity for generating the energy required for the full emergency illuminating load.

(e) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects the places of assembly and all exit passageways, corridors, stairways, ramps, fire-escapes and all other means of egress direct to the outside from such places of assembly when the artificial lighting for any such area fails.

(f) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(g) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable 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.

(h) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction, adequately vented directly to the out-of-doors and secure against unauthorized entry.

(i) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a kalamein door secure against unauthorized entry; the door sill shall be six inches above the floor; the room shall be adequately ventilated directly to the out-of-doors, and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-169. Housekeeping. All school buildings shall be kept clean and in tidy condition and free from accumulation of combustible debris or other waste material.

Sec. 29-40-170. Storage of flammable liquids. See Regulations Covering the Storage and Transportation of Flammable Liquids, Department of State Police, Sec. 29-62-1 et seq.

Sec. 29-40-171. Fire extinguishers. (a) A two and one-half gallon soda acid or equivalent Class A fire extinguisher shall be located in corridors so that a person will not have to travel more than one hundred feet from any room door to reach the nearest extinguisher.

(b) A two and one-half gallon soda acid or equivalent Class A fire extinguisher shall be located on the stage and in the boiler room, except that, in boiler rooms using oil-fired equipment, a two and one-half gallon foam or equivalent Class B extinguisher shall be provided.

ARTICLE IX

BOARDING HOMES

Sec. 29-40-172. General. The regulations contained in this article shall apply to all boarding homes as defined in subdivision (3) of section 29-40-4, except such places as are expressly exempt in accordance with the provisions of this code.

Sec. 29-40-173. Construction after August 27, 1957. (a) Every boarding home constructed after August 27, 1957, and every addition thereafter made to an existing boarding home and any building thereafter converted for use in whole or

in part for a boarding home shall be of noncombustible construction throughout, having a fire-resistant rating of not less than two hours, if more than one story above the basement or ground.

(b) Boarding homes not more than one story above the basement or ground shall be of noncombustible construction throughout, having a fire-resistant rating of not less than one hour, or be completely protected by a system of automatic sprinklers installed and maintained in accordance with proper and accepted standards.

Sec. 29-40-174. Use of boarding homes of combustible construction. All boarding home buildings of combustible construction used in whole or in part as a boarding home on August 27, 1957, shall be completely protected by a system of automatic sprinklers installed and maintained in accordance with proper and accepted standards.

Sec. 29-40-175. Other occupancies. Boarding home buildings shall not contain an occupancy which is not within the immediate control of the boarding home management, and/or which is not incident to the administrative convenience or necessity, or pertinent to public health.

Sec. 29-40-176. Roofs. Roofs of boarding homes shall be covered with roofing which is not readily flammable.

Sec. 29-40-177. Maximum possible occupancy. The number of boarders housed in each room shall not exceed the rate of one person for each seventy-five square feet therein. The total boarder occupancy for each story as determined in this manner shall be termed as the maximum possible occupancy.

Sec. 29-40-178. Egress facilities required. (a) Each story of every building used as a boarding home shall have at least two approved means of egress from each story. Each boarder-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. Exits shall be located remote from each other, providing the best practicable means of egress for all occupants in the event fire renders one exit impassable.

(b) 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 stairway and passageway shall lead to the outside. Where necessary, one such stairway or passageway may be allowed to lead into an open space or lobby which has ample egress openings to the outside.

Sec. 29-40-179. Egress passageways. (a) Corridors and passageways from boarder-occupied rooms leading to egress stairways and then to the outside shall not be less than forty-eight inches in width in buildings constructed after April 27, 1954, or additions to buildings existing on said date and not less than thirty-two inches in buildings existing on said date.

(b) Corridors and passageways considered as approved means of egress shall be at least seventy-eight 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 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.

Sec. 29-40-180. Transoms. Transoms and other similar openings in corridors and passageways shall not be allowed in construction after April 27, 1954. Transoms and like openings existing on said date in corridors and passageways shall be permanently sealed and made fire-resistant equal to the related door or sidewall construction.

Sec. 29-40-181. Vertical openings. In all buildings existing on April 27, 1954, interior stairways constituting approved egress passageways shall be enclosed or segregated from other portions of the building by materials with a fire-resistant rating of not less than thirty minutes. All other vertical openings throughout such buildings shall be enclosed by materials with a fire-resistant rating of not less than thirty minutes.

Sec. 29-40-182. Stairways. (a) Stairways in approved egress passages in buildings existing on April 27, 1954, shall be not less than thirty inches in width, and in buildings and additions to buildings constructed thereafter such stairways shall be not less than forty-four inches in width.

(b) All stairways in egress passages shall have suitable handrails on both sides.

(c) Stairways existing on April 27, 1954, in required egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom riser and the door openings. Stairways constructed thereafter shall have landings at least forty-four inches in depth. Intermediate landings shall be not less than the width of the stairway.

(d) Stair treads in inside required egress stairways in buildings existing on April 27, 1954, shall be not less than eight inches in width, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed thereafter such stair treads shall not be less than nine and one-half inches in width, exclusive of nosing, and risers shall not exceed seven and three-quarters inches in height. Treads and risers shall be of uniform width and height in each individual stairway run.

(e) No arrangement of treads known as "winders" shall be allowed in approved egress stairways.

(f) Ramps may be substituted for stairs in new and existing buildings, and the grade shall not exceed one foot in ten feet of run.

Sec. 29-40-183. Doors and doorways. (a) All doorways which are an approved means of egress shall be at floor level in structures constructed after April 27, 1954, and as near thereto as practicable in structures existing on said date.

(b) All egress doors to the outside or into stairways or passages leading to the outside shall open out in the direction of egress travel, but this regulation shall not be construed as requiring doors from boarder-occupied rooms to open into corridors. There shall be no obstruction at any time to the opening or closing of egress doors.

(c) All egress doors in buildings existing on said date shall be at least thirty inches in width. Egress doors in buildings constructed thereafter serving stairways forty-four inches in width or over shall be not less than thirty-six inches in width.

(d) Egress doors into stairway enclosures 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. All interior egress doors providing access to corridors and stairway enclosures shall be not less than

thirty-minute fire-resistant. In buildings constructed after April 27, 1954, such doors may be of solid wood planking or built up with solid core construction not less than one and three-quarters inches thick. Wired glass one-quarter of an inch thick in the single pane or smaller panes totaling not over six square feet may be used in such doors.

(e) All egress doors shall be equipped with hardware which will insure opening of such doors by a single motion, such as the turning of a knob or pressure of a latch with normal strength, or equipped with panic hardware which will release when pressure is applied to the releasing device in the direction of exit travel.

(f) 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. No door to a boarder-occupied room shall be equipped with a locking device.

(g) No sliding door, vertical lift door, revolving door or folding partition shall be used as a closure for a required means of egress.

Sec. 29-40-184. Fire-stopping. Exterior walls of frame construction and interior stud partitions shall be fire-stopped by a two-inch thick timber or plate or masonry filling completely closing any possible vertical opening at the ceiling of the basement.

Sec. 29-40-185. Closets and storerooms. All closets or compartments which are used for the storage of cleaning or polishing compounds or implements shall be fire-resistant for at least thirty minutes from within such closet or compartment, including the door thereof, which door shall be equipped with a self-closing device, or shall be equipped with proper and adequate automatic fire extinguishing equipment or automatic fire detectors.

Sec. 29-40-186. Incinerators. Incinerators within buildings shall be loaded and fired from a vestibule or compartment segregated from the rest of the building by noncombustible construction having a fire-resistant rating of not less than two hours, having a Class B fire door equipped with a suitable closing device. Ventilating openings shall be provided direct to the outside from such enclosures equivalent to not less than twice the area of the flue of the incinerator.

Sec. 29-40-187. Exit signs. (a) Signs bearing the word "EXIT" shall be placed at each approved egress doorway and shall be so installed as to be legible at all times from the direction of travel thereto. Where such doorways and signs are not readily discernible from boarder-occupied rooms, an adequate number of additional signs shall be provided bearing the term "EXIT" and an arrow pointing in the direction of exit travel.

(b) Exit signs shall bear letters at least four and one-half inches in height with strokes not less than three-quarters of an inch in width.

Sec. 29-40-188. Illumination of exit passages. Adequate lighting shall be provided at all times for the lighting of corridors, stairways, passageways, ramps and fire-escapes.

Sec. 29-40-189. Emergency lighting. (a) An automatic, independent, secondary source of power for illumination shall be provided for the reasonable lighting of all corridors, passageways, stairways, ramps, fire-escapes and other means of egress

direct to the outside from boarding homes housing twenty-five or more boarders. This secondary lighting system shall be termed herein as emergency lighting.

(b) Acceptable types of emergency lighting systems are:

Type A — A self-contained unit with attached heads, powered by dry cell batteries, wired to circuits supplying energy for normal lighting in the areas being protected.

Type B — A self-contained unit with a storage battery of twelve volts or less with an automatic charger, attached heads and wired to circuits supplying energy for normal lighting in the areas being protected.

Type C — A self-contained unit of storage batteries of twenty-four, thirty-six or forty-eight volts operating completely with relays and automatic charger for remote lighting.

Type D — A centrally located storage battery of one hundred twenty volts, complete with automatic transfer switch.

Type E — An automatically started engine generator set of the correct capacity for generating the energy required for the full emergency illuminating load.

(c) Wiring of all emergency lighting systems shall be so arranged as to throw on the emergency lighting automatically which protects all corridors, passageways, stairways, ramps, fire-escapes and all other means of egress direct to the outside when the artificial lighting for any such areas fails.

(d) All wiring for emergency lighting shall be in separate raceways independent of all other wiring and shall comply in every respect with proper and accepted standards.

(e) All emergency lighting systems shall be designed and maintained to provide not less than thirty minutes of reasonable 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.

(f) In battery systems of over fifty volts, the battery and charging equipment shall be housed in a separate room of noncombustible construction, adequately vented directly to the out-of-doors and secure against unauthorized entry.

(g) Motor generator sets shall be housed in a separate masonry enclosure of two-hour fire-resistant construction with a Class B type door secured against unauthorized entry. Frames of doors shall be kalamein, steel buck or structural steel. The door sill shall be six inches above the floor. The room shall be adequately ventilated direct to the out-of-doors, and the exhaust from the motor shall be installed in accordance with accepted safe practices.

Sec. 29-40-190. Fire alarms. (a) A fire alarm system shall be provided with suitable alarm-sounding devices of such character and so located as to be audible throughout the corridors of each story occupied in the boarding home. Adequate alarm-sending devices shall be suitably located in each story convenient for operation by the occupants.

(b) Approved automatic fire detectors shall be located in all kitchens and boiler rooms to operate the building alarm system from a temperature not higher than 165° F. in kitchens and not more than 212° F. in boiler rooms. Automatic fire detectors will not be required in buildings protected by a sprinkler system.

(c) A telephone or other suitable alarm-sounding 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.

Sec. 29-40-191. Decorative and acoustical materials. All combustible decorative and acoustical material, including curtains located in corridors, passageways, stairways, lobbies and other rooms or spaces for general boarder or public use shall be rendered and maintained flame-resistant.

Sec. 29-40-192. Wall and ceiling surfaces. The wall and ceiling surfaces of all corridors, egress passages and stairway enclosures shall be of such material and so treated that they will not be readily flammable and will not carry or communicate fire.

Sec. 29-40-193. Hazardous occupancies. No motor vehicle or other device which may originate or communicate fire shall be stored within boarding homes.

Sec. 29-40-194. Fire extinguishers. All boarding homes shall be provided with proper type fire extinguishing equipment adequate for the conditions involved and suitably located.

Sec. 29-40-195. Space heaters. Space heaters or above-the-floor devices for the direct heating of the space in and adjacent to that in which the device is located shall not be used.

(See Reg. 29-40-60.)

Sec. 29-40-196. Heating equipment. (a) Central heating plants, steam boilers and oil-fired water heaters shall be segregated from all other occupancies by walls, ceilings and floors having a fire-resistant rating of not less than thirty minutes in combustible buildings existing on April 27, 1954, and which shall provide a reasonably smoke-tight enclosure. In construction thereafter and in noncombustible buildings, such enclosure shall be of noncombustible construction having a fire-resistant rating of not less than two hours.

(b) Such enclosures for heating equipment shall be provided with adequate vents direct to the outside sufficient for proper combustion and exhaust. Ventilating openings shall be provided having a total area equal to not less than twice the flue outlet of the heating plant. Such opening shall be maintained in an open position with fixed louvers.

(c) Heater rooms shall only contain equipment for heating, water supply and switchboard and shall not be used for any other purpose.

(d) Interior doors to heater rooms in combustible buildings shall be of not less than thirty-minute fire-resistant construction and shall be equipped with a positive self-closing device. In construction after April 27, 1954, the heater room doors shall be Class B type doors swinging into the heater room and equipped with a positive self-closing device. Such doors shall have no hold-open device and shall be kept closed at all times.

(e) The furnaces, boilers and other fired units shall be vented by means of reasonably gas-tight smoke pipes or breechings connected properly to a chimney constructed of brick, solid block masonry or reinforced concrete with suitable flue lining properly erected and maintained in a safe condition.

(f) Oil burners — See sec. 29-40-59.

Sec. 29-40-197. **Housekeeping.** All boarding home premises and other occupancies within buildings containing boarding homes shall be kept clean and in a tidy condition and free from accumulation of combustible debris or other waste material.

Sec. 29-40-198. **Attendants required.** (a) There shall be at least one attendant in residence at all times in each boarding home housing twenty-five or fewer boarders. There shall be one additional attendant in residence at all times for more than twenty-five and not more than fifty, and one additional attendant for each twenty-five or part in excess thereof.

(b) Attendants as required herein shall be at least eighteen years of age and capable of performing the duties of evacuation as required under section 29-40-199. No person other than the management or a person under management control shall be considered as an attendant.

(c) In noncombustible buildings or combustible buildings completely protected by a system of automatic sprinklers, there shall be one attendant in residence at all times for each thirty-five boarders or numerical fraction thereof.

(d) Nothing in this section shall be construed as waiving any requirement of the state department of health as to boarder care personnel.

Sec. 29-40-199. **Evacuation plan and drills.** Each boarding home management shall formulate a plan and be responsible for the protection of all boarders 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.

ARTICLE X

ROOMING HOUSES

Sec. 29-40-200. **General.** The regulations contained in this article shall apply to all rooming houses as defined in subdivision (19) of section 29-40-4.

Sec. 29-40-201. **Egress facilities required.** (a) Each story of every building used as a rooming house shall have at least two means of egress. Exits shall be located remote from each other, providing the best practicable means of egress for all occupants in the event fire renders one exit impassable.

(b) Each occupied room shall have at least one door opening directly to the outside or to a corridor or stairway leading directly to the outside.

Sec. 29-40-202. **Egress passageways.** (a) Corridors and passageways leading to stairways and then to the outside shall be not less than thirty inches in width.

(b) Corridors and passageways considered as approved means of egress shall be at least seventy-eight inches in height.

(c) Except in rooming houses existing on August 10, 1954, access to all interior and outside stairways, fire-escapes and other exits considered as approved means of egress shall be through a door from floor level and shall be unobstructed and shall not be through a bathroom or a room used for any other purpose.

(d) In rooming houses existing on said date, access to fire-escapes and outside stairways shall be unobstructed and shall provide safe, adequate and convenient means of exit.

Sec. 29-40-203. Stairways. (a) Stairways in approved egress passageways shall be not less than thirty inches in width.

(b) All stairways in egress passages thirty inches in width shall have a suitable handrail on one side. Stairways greater than thirty-six inches in width shall have a suitable handrail on both sides.

(c) Stair treads in approved inside egress stairways shall be not less than eight inches in width, exclusive of nosing, and risers shall not exceed eight and one-half inches in height. In buildings constructed after August 10, 1954, such stair treads shall be not less than nine and one-half inches in width, exclusive of nosing, and risers shall not exceed seven and three-quarters inches in height. Treads and risers shall be all uniform width and height in each individual stairway run in construction after said date.

Sec. 29-40-204. Doors and doorways. (a) Doorways which are of themselves or are a part of a means of egress in buildings constructed after August 10, 1954, and buildings thereafter converted to a rooming house shall be at floor level and shall be not less than two feet six inches in width and not less than six feet six inches in height.

(b) Windows shall not be considered as a means of egress in buildings constructed after said date or buildings thereafter converted to rooming houses. In rooming houses existing on said date, windows will be approved as means of egress provided they can be opened to give a clear unobstructed width of not less than two feet six inches and a height of not less than three feet.

(c) Egress doors to the outside shall be equipped with hardware which will insure the opening of such door from within at all times.

Sec. 29-40-205. Fire-stopping. Exterior walls of frame construction and interior stud partitions shall be fire-stopped by a two-inch thick timber or plate or masonry filling, completely closing any possible vertical opening at the ceiling of the basement.

Sec. 29-40-206. Exit signs. (a) Signs bearing the word "EXIT" shall be placed at each approved means of egress from each story and shall be so installed as to be legible at all times from the direction of travel thereto. Where such doorways and signs are not readily discernible from corridors, an adequate number of additional signs shall be provided bearing the term "EXIT" and an arrow pointing in the direction of exit travel.

(b) Exit signs shall bear letters at least four and one-half inches in height with strokes not less than three-quarters inch in width.

Sec. 29-40-207. Illumination of exit passages. Adequate lighting shall be provided for the lighting of corridors, stairways, egress passages, fire-escapes and other means of egress leading directly to the outside at all times.

Sec. 29-40-208. Fire extinguishers. All rooming houses shall be provided with proper type fire extinguishing equipment adequate for the area involved and suitably located.

Sec. 29-40-209. Housekeeping. (a) All rooming house premises and other occupancies within buildings containing rooming houses shall be kept clean and in

a tidy condition and free from accumulation of combustible debris or other waste material.

(b) All corridors, passageways, stairways and fire-escapes shall be kept free and clear of all storage at all times.

ARTICLE XI

CHILD DAY CARE CENTERS

Sec. 29-40-210. General. The regulations contained in this article shall apply to all buildings in which are located child day care centers as defined in subdivision (4) of section 29-40-4, except when such child day care centers are located in occupancies defined as "boarding home," "place of assembly" and "schools" in subdivisions (3), (18) and (20) of said section and regulated respectively by article IX, article I, article VII and article VIII of this code.

Sec. 29-40-211. Heating equipment. (a) Central heating plants, steam boilers and oil-fired water heaters shall be segregated from all other occupancies by walls, ceiling and floor having a fire-resistant rating of not less than thirty minutes, which shall provide a reasonably smoke-tight enclosure. In buildings constructed after January 11, 1955, the enclosure shall be of not less than one-hour fire-resistant construction.

(b) Such enclosure for heating equipment shall be provided with adequate vents direct to the outside sufficient for proper combustion and exhaust. Ventilating openings shall be provided having a total area equal to not less than twice the flue outlet of the heating plant. Such opening shall be maintained in an open position with fixed louvers.

(c) Heater rooms shall contain only equipment for heating, water and/or switch-board and shall not be used for any other purposes.

(d) Interior doors to heater rooms shall be of the same fire resistancy required for segregating partitions and shall be equipped with a positive self-closing device. Such doors shall have no hold-open devices and shall be kept closed at all times.

(e) Furnaces, boilers and other fired units shall be vented to a chimney by means of a gas-tight smokepipe. The chimney shall be constructed of brick, solid block masonry, reinforced concrete or stone, with suitable flue lining erected and maintained in a safe condition.

(f) Oil burners. See section 29-40-59.

Sec. 29-40-212. Incinerators. Incinerators within buildings shall be loaded and fired from a vestibule or compartment segregated from the rest of the building by noncombustible construction having a fire-resistant rating of not less than two hours, having a Class B fire door equipped with a positive self-closing device and with no hold-open device. Ventilating openings shall be provided direct to the outside from such enclosures equivalent to not less than twice the area of the flue of the incinerator.

Sec. 29-40-213. Space heaters. Space heaters or above-the-floor devices for the direct heating of space in and adjacent to that in which the device is located shall not be used.

(See Reg. 29-40-60.)

Sec. 29-40-214. Hazardous occupancy. No child day care center shall be located in a building containing any manufacturing or commercial occupancy or occupancy which is not within immediate control of the management, or which contains materials and/or equipment of high hazard.

Sec. 29-40-215. Use of combustible buildings. In combustible buildings used on January 10, 1955, as child day care centers, only the first and second stories may be used as such. In combustible buildings thereafter constructed for or converted to child day care centers only the first story may be so used except that, in buildings completely protected by a system of automatic sprinklers installed and maintained in accordance with proper standards, the second story may be so used.

Sec. 29-40-216. Egress facilities required. (a) In buildings used as child day care centers there shall be at least two approved means of egress from each occupied level. Each room used for child day care center activity shall have at least one doorway opening directly to the outside or to a corridor or space having access to two means of egress directly to the outside. Exits shall be located remote from each other, providing the best practical means of egress for all occupants if fire renders one exit impassable.

(b) In all buildings at least one passageway from each occupied level shall lead directly to the outdoors or through an enclosed stairway or enclosed passageway or a combination of such stairway and passageway to the outside. Where necessary, one such stairway or passageway may be allowed to lead through an open space or lobby which has ample egress opening to the outside.

Sec. 29-40-217. Egress passageways. (a) Corridors and passageways from occupied rooms leading to egress stairways and then to the outside shall be not less than thirty inches in width.

(b) 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 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.

Sec. 29-40-218. Vertical openings. (a) In all buildings, interior stairways constituting approved egress passageways shall be enclosed and segregated from other portions of the building by materials with a fire-resistant rating of not less than thirty minutes. All other vertical openings shall be enclosed by materials with a fire-resistant rating of not less than thirty minutes.

(b) No enclosure will be required for any stairway leading to a story above that is not occupied or used as a child day care center or purposes incidental thereto.

Sec. 29-40-219. Stairways. (a) Stairways in approved egress passages in buildings existing on January 11, 1955, shall be not less than thirty inches in width.

(b) All stairways in approved egress passages shall have stair treads of not less than eight inches in width, exclusive of nosing, and risers shall not exceed eight and one-half inches in height.

(c) All stairways in approved egress passages shall be provided with landings at least thirty inches in depth between the nosing of the top or bottom riser and the door opening.

(d) No arrangement of treads known as "winders" shall be allowed in approved egress stairways.

(e) All egress stairways shall have suitable handrails on both sides. Handrails shall be attached at a height between two feet and two feet six inches vertically above the intersection of the treads and risers at the nosing.

(f) There shall be no closets or other storage areas within stair enclosures or beneath stairways used for storage of any kind.

Sec. 29-40-220. Doors and doorways. (a) All doorways which are approved means of egress shall be at floor level.

(b) All egress doors to the outside or into stairways or passageways leading to the outside shall open out in the direction of egress travel, but this regulation shall not be construed as requiring doors from children-occupied rooms to open into the corridors. There shall be no obstruction at any time to the opening or closing of egress doors.

(c) All egress doors shall be at least twenty-eight inches in width.

(d) Egress doors into stair enclosures and all doors serving stairways or other vertical openings shall be equipped with self-closing devices designed, installed and maintained to automatically close such doors when not in use. All interior egress doors providing access to stairway enclosures shall be not less than thirty-minute fire-resistant. Wired glass one-quarter inch thick in a single pane or smaller panes totalling not over six square feet may be used in such doors.

(e) All egress doors shall be equipped with hardware which will insure opening of such doors by a single motion such as the turning of a knob or pressure of a latch, or shall be equipped with panic hardware which will release when pressure is applied to the releasing device in the direction of exit travel.

(f) No egress door from a child-occupied room to stairway enclosures or to the outside 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.

(g) No sliding door, vertical lift door, revolving door or folding partition or gate shall be used as a closure for a required means of egress.

Sec. 29-40-221. Exit signs. (a) Signs bearing the word "EXIT" shall be placed at each approved egress doorway for each story and shall be so installed as to be legible at all times from the direction of travel thereto. Where such doorways and signs are not readily discernible from doors of occupied rooms, an adequate number of additional signs shall be provided with the term "EXIT" and an arrow pointing in the direction of exit travel.

(b) Exit signs shall bear letters at least four and one-half inches in height with strokes not less than three-quarters inches in width.

Sec. 29-40-222. Fire alarms. (a) A suitable fire alarm system shall be provided with alarm-sounding devices of such character and so located as to be audible throughout each story occupied in the building. At least one alarm-sending device shall be suitably located in each story convenient for operation.

(b) Approved automatic fire detectors shall be located in all kitchens and boiler

rooms to operate the fire alarm system from a temperature not higher than 165° F. in kitchens and not more than 212° F. in boiler rooms.

(c) 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.

Sec. 29-40-223. Fire-stopping. Exterior walls of frame construction and interior stud partitions shall be completely fire-stopped by a timber of not less than two inches in thickness or other suitable noncombustible material completely closing any possible vertical openings, open joist channels and stud spaces, at the ceiling of the basement.

Sec. 29-40-224. Fire extinguishers. All child day care centers shall be provided with proper type fire extinguishing equipment adequate for the conditions involved and suitably located.

Sec. 29-40-225. Housekeeping. (a) All child day care center buildings shall be kept clean and in tidy condition free from the accumulation of combustible debris and other waste material.

(b) All corridors, passageways, stairways and fire-escapes shall be kept free and clear of all storage and/or obstructions at all times.

Sec. 29-40-226. Evacuation. The management of each child day care center shall formulate a plan for the protection of all children in the event of fire or other emergency and their evacuation to areas of refuge outside of the building when necessary. All employees shall be instructed and kept informed respecting their duties under the plan.

