

DEPT. OF INDUSTRY, LABOR & HUMAN RELATIONS 187
Heating, Ventilating
and Air Conditioning

(c) Exceptions: Fire damper or fire door assemblies are not required in (a) where

1. Maximum duct area does not exceed 20 square inches.
2. Duct serves as an exhaust for kitchen range hood.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65; r. and recr. Register, September, 1973, No. 213, eff. 10-1-73; am. (4) (e), Register, February, 1974, No. 218, eff. 3-1-74.

Ind 59.70 Volume dampers and deflectors. Necessary volume dampers, splitters and deflectors shall be provided in all ducts to permit accurate balancing of the system. The dampers, splitters and deflectors shall be adjusted to satisfy the heating and ventilating requirements of the conditioned space and locked in place.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65.

Ind 59.71 **History:** Cr. Register, January, 1965, No. 109, eff. 2-1-65; r. Register, September, 1973, No. 213, eff. 10-1-73.

Ind 59.72 Equipment location and protection required. Heating and ventilating equipment in gymnasiums, play rooms and similar occupied areas shall be fully recessed, and protected, or located not less than 7 feet above the floor. Heating and ventilating equipment shall not block any part of the required aisles, passageways and corridors.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65.

Ind 59.74 Piping. (1) PIPE SIZES AND ARRANGEMENT. All steam and hot water supply and return piping, air-line piping and auxiliary equipment shall be of appropriate sizes, elevations and arrangements in accordance with standard engineering practice to accomplish the calculated services in practical operation, without undue noise, stress or other detriment.

(2) EXPANSION AND CONTRACTION. The piping for heating system shall be equipped with anchors, expansion swings or joints, supports and similar devices to relieve stress and strains caused by temperature change of the pipe material.

(3) PIPE INSULATION. Steam, hot water supply and return piping in occupied areas shall be covered with not less than ½ inch insulating material, where the heat emission is objectionable or where piping is subject to freezing.

Note: For additional requirements see Wis. Adm. Code section Ind 52.13.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65.

Ind 59.75 Refrigerants. The rules covering the use of refrigerants as a function of air conditioning systems shall conform with Wis. Adm. Code chapter Ind 45 (Mechanical Refrigeration).

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Chapter Ind 60

CHILD DAY CARE FACILITIES

Ind 60.001	Scope	Ind 60.23	Stair and shaft enclosure
Ind 60.01	Definitions	Ind 60.24	Fire extinguishers
Ind 60.10	Occupancy separation	Ind 60.25	Hazardous areas
Ind 60.11	Capacity of buildings	Ind 60.26	Class of construction
Ind 60.12	Doors	Ind 60.31	Exiting
Ind 60.13	Windows and outside openings	Ind 60.32	Total width of stairways and exits
Ind 60.14	Access to attic and roof	Ind 60.33	Passageways
Ind 60.15	Sanitary facilities	Ind 60.34	Stair and shaft enclosure
Ind 60.16	Electrical work	Ind 60.35	Fire extinguishers
Ind 60.17	Illumination	Ind 60.36	Fire alarm systems
Ind 60.18	Heating and ventilating	Ind 60.37	Hazardous areas
Ind 60.19	Operating features	Ind 60.38	Exit and emergency lighting
Ind 60.20	Class of construction		
Ind 60.21	Exiting		
Ind 60.22	Passageways		

Ind 60.001 Scope. The requirements of this chapter shall apply to all public and private day care centers accommodating children, including all buildings, or parts of buildings, used as child day care facilities. Chapter Ind 60 shall not apply to public schools defined in section 115.01 (1), Wis. Stats., or private schools defined in section 121.51 (3), Wis. Stats., or to short-time programs (i.e., Boy Scouts, Girl Scouts, Sunday schools, etc.).

(1) Part I of this chapter is general requirements applicable to all child day care facilities within the scope of chapter Ind 60.

(2) Part II of this chapter is applicable to day care centers serving 4 to 8 children.

(3) Part III of this chapter is applicable to day care centers serving 9 or more children.

(4) Chapters Ind 50 through Ind 53 are applicable for general and structural design requirements.

Note: All references to code chapters and sections prefixed by the letters Ind refer to rules of the department of industry, labor and human relations published in the Wisconsin Administrative Code; i.e., Chapters Ind 50 and Ind 53 are a part of Wisconsin Administrative Code Chapters Ind 50-64—Building and Heating, Ventilating and Air Conditioning Code.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.01 Definitions. (1) DAY CARE CENTER. Any place which receives at any one time for compensation 4 or more children under the age of 7 years, for care and supervision, for less than 24 hours a day for more than 10 days a month, without the attendance of a parent, relative or legal guardian.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

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Part I

GENERAL REQUIREMENTS

Ind 60.10 Occupancy separation. (1) Where centers are located in conjunction with an assembly hall or a hazardous occupancy, the requirements of sections Ind 55.05 and Ind 57.50 (2), respectively, shall be applicable. If there is no requirement, a one-hour fire-resistive separation shall be provided.

(2) Day care facilities in a church or school building need not comply with the occupancy separation section provided all other occupancy requirements are complied with; i.e., the fire wall requirement may be waived if more stringent requirements of chapter Ind 55 or chapter Ind 56 are complied with.

(3) Private garages attached to day care centers serving 4-8 children shall be separated by a one-hour fire-resistive wall.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.11 Capacity of buildings. (1) The occupant load shall be the maximum number of children intended to occupy that floor, but not more than one child per 35 square feet of net floor area. Licensing provisions of the department of health and social services may supersede this requirement.

Note: The minimum staff-to-child ratio shall meet the requirements of PW-CY 40.12 of the department of health and social services, which is as follows:

Age	Minimum number of staff to children
0-1 years	1 to 3 children
1-2 years	1 to 4 children
2-2½ years	1 to 6 children
2½-3 years	1 to 8 children
3-4 years	1 to 10 children
4-5 years	1 to 12 children
5 years or over	1 to 16 children

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.12 Doors. (1) All exit doors, and all doors along the path of travel to an exit, shall meet the requirements of section Ind 51.15 with the following exceptions:

(a) The width of all required exit doors may be reduced to 3 feet.
(b) The width of all required exit doors may be reduced to 2 feet 8 inches in existing buildings not accommodating more than 8 children.

(2) All such doors used by not more than 25 persons need not swing outward.

(3) Every closet door latch shall be such that children can open the door from inside the closet.

(4) Every toilet room door lock shall be designed to permit opening of the locked door from the outside in an emergency, and the opening device shall be readily accessible to the staff.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

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Ind 60.13 Windows and outside openings. (1) All classrooms and areas used for instruction, study or sleeping purposes shall be provided with vision panels or windows facing directly upon a street, alley, or open court. The vision panels or windows shall be glazed with glass or other approved material.

(2) The windows or vision panels shall have an aggregate minimum glass area of 10% of the floor area. The minimum openable area of the doors and windows shall be equal to 5% of the floor area of the room served.

(3) See subsection Ind 60.18 (2) for exception.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.14 Access to attic and roof. (1) Every 2-story building shall have a permanent means of access to the attic space from inside the building. Every building more than 2 stories in height shall have a permanent means of access to the roof. Where a scuttle opening is provided, the opening shall be not less than 20 x 30 inches.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.15 Sanitary facilities. (1) One water closet and one lavatory for the first 10 children and one water closet and one lavatory for every 15 children in excess of 10 shall be provided.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.16 Electrical work. (1) The electrical systems in existing buildings proposed to be used as day care centers shall conform to the Wisconsin state electrical code.

(2) Special protective receptacle covers shall be installed in all areas occupied by children.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.17 Illumination. (1) The illumination for occupied areas, other than sleeping areas, shall have a minimum intensity of 20 foot-candles at a horizontal plane 24 inches above the floor. All other spaces shall meet the requirements of section Ind 19.04, Wis. Adm. Code chapter Ind 19, Illumination Code.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.18 Heating and ventilating. (1) The heating system shall be capable of maintaining an inside temperature of not less than 67° F.

(2) Fresh air at the rate of 5 cubic feet per minute per occupant shall be provided for centers that do not comply with the requirements of Ind 60.13 (2).

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.19 Operating features. (1) Fire prevention inspections shall be conducted monthly. A copy of the latest completed inspection form shall be posted in a conspicuous place in the day care facility.

(2) A fire evacuation plan shall be practiced not less than once per month. Fire alarm and or smoke detection systems shall be tested at weekly intervals. It is recommended that fire safety be a part of the educational program of the center.

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(3) Furnishings, decorations, or other objects shall not be so placed as to obstruct exits, means of egress, or visibility thereof.

(4)* Flammable and combustible liquids shall be stored in areas accessible only to designated individuals, and as recommended in NFPA standard No. 20, Flammable and Combustible Liquids Code.

Note: NFPA standard No. 20 is not a mandatory standard.
History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

* See Appendix 60A for further explanatory material.
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Part II

DAY CARE CENTERS SERVING 4 TO 8 CHILDREN

Ind 60.20 Class of construction. (1) Buildings which are 2 stories or less in height shall be constructed of wood frame unprotected type No. 8 construction, or better, as specified in section Ind 51.03.

(2) Buildings which are 3 stories in height shall be constructed of metal frame unprotected type No. 6 construction, or better, as specified in section Ind 51.03.

(3) Buildings which are more than 3 stories in height shall be constructed of fire-resistive type No. 1 or No. 2 construction, as specified in section Ind 51.03.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.21 Exiting. (1) Children under the age of 2½ years shall be restricted to the first floor, as determined in section Ind 51.02 (14), or to ground floors provided with 2 means of egress directly to grade.

(2) Each floor occupied by children shall have not less than 2 exits.

(3) The exits shall be located to provide the best possible means of egress.

(4) Where the floor above exit discharge grade is used by children for sleeping purposes, one exit shall lead directly from the floor to the exterior.

(5) Travel distance from any point to an outside exit door or stair enclosure leading to the outside shall not exceed 75 feet. Travel distance may be increased to 125 feet when the building is provided with

Ind 51.24.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.22 Passageways. (1) The minimum unobstructed passageway width shall not be less than 3 feet.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.23 Stair and shaft enclosure. (1) A self-closing door shall be provided at the stairs between the basement or ground floor and the first floor.

(2) A self-closing door or smoke detector shall be provided at the door between the first floor and the second floor when the second floor is used by the children for sleeping purposes. (This requirement does not apply to buildings which are provided with a fire alarm system as described in section Ind 51.24.)

(3) Stairs and shafts serving 3 or more floor levels shall comply with the requirements of subsection Ind 51.02 (11) and Table 51.03-A.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

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Ind 60.24* Fire extinguishers. (1) A portable fire extinguisher suitable for Class B fires shall be provided for the kitchen and cooking area.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.25 Hazardous areas. (1) A boiler, furnace, or any area containing gas- or oil-fired units other than laundry or kitchen equipment shall be protected by one of the following methods:

(a) One-hour fire-resistive enclosure. The door in the enclosure shall be a 1 $\frac{3}{4}$ -inch thick, solid wood core door. Combustion air shall be provided in accordance with section Ind 59.59.

(b) Protected by a smoke detection system.

(2) Hazardous equipment in areas occupied by children shall be separated by one-hour fire-resistive partitions.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

See Appendix A for further explanatory material
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Part III

DAY CARE CENTERS SERVING 9 OR MORE
CHILDREN

Ind 60.30 Class of construction. (1) Class of construction for day care centers shall comply with Table 60.30. Day care centers located in buildings of more than 4 stories shall be provided with one independent stairway serving the day care center only and restricted to the height indicated in Table 60.30.

TABLE 60.30

Type of Construction	Maximum Allowable Height (feet)	Maximum Allowable Number of Stories			
		1	2	3	4
Fire-resistive Type A No. 1 and Type B No. 2	85	X	X	X	X
Metal Frame Protected No. 3 and Heavy Timber No. 4	75	X	X	X	
Exterior Masonry No. 5	50	X	(c)	(a) & (b) or (a) & (d)	
Metal Frame Unprotected No. 6	50	X	(c)	(a)	
Wood Frame Protected No. 7	40	X	X		
Wood Frame Unprotected No. 8	35	X	(c)		

X = permitted.

(a) All floors and supporting members shall have a one-hour fire-resistive rating.

(b) The entire building shall be equipped with an automatic sprinkler system in accordance with section Ind 51.23.

(c) All ceilings shall be covered with 1/2-inch gypsum wallboard or equivalent.

(d) All floor systems shall be of noncombustible construction.

History: CR Register, October, 1971, No. 226, eff. 10-1-71.

Ind 60.31 Exiting. (1) Each floor shall have not less than 2 exits. All required exits shall lead directly, or through an enclosed stairway, to the outside.

(2) The exits shall be located to provide the best possible means of egress.

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- (3) Travel distance measured along safe passageways between:
- (a) Any point in a sleeping room or suite and an exit access door of that room or suite shall not exceed 50 feet;
 - (b) Any room door intended as an exit access and an exit shall not exceed 50 feet;
 - (c) Any point in a room or suite and an exit shall not exceed 100 feet.
- (4) The travel distances for children under 2½ years of age in (3) above shall be reduced by 50%.
- (5) The travel distances in (3) above may be increased by 50 feet in buildings completely equipped with an automatic sprinkler system. No increase in travel distance is permitted for children under the age of 2 ½ years.
- (6) Children under the age of 2½ years shall be restricted to the first floor, as determined in subsection Ind 51.02 (14), or to ground floors provided with 2 means of egress directly to grade.

History: Cr. Register, October, 1971, No. 226; eff. 10-1-71.

Ind 60.32 Total width of stairways and exits. (1) In a building not provided with horizontal exits, the total width of stairways and exit doors shall be not less than the following:

- (a) In type No. 5 through No. 8 buildings, 60 inches per 100 persons; if sprinklered, 40 inches per 100 persons.
- (b) In type No. 1 through No. 4 buildings:

	Type No. 1 & 2 Sprinklered	Type No. 1 & 2 Not Sprinklered	Type No. 3 & 4 Sprinklered	Type No. 3 & 4 Not Sprinklered	
	30	50	40	60	In. per 100 persons on n+1 floor
Plus	15	25	20	30	In. per 100 persons on n+2 floor
Plus	12	20	16	24	In. per 100 persons on n+3 floor

but in no case shall such total width be less than

30	50			In. per 100 persons on any one floor
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Note: This table is used to compute the stairway width required for one flight at a time. For this table, the stair width in question is the stair connecting floors "n" and "n+1."

(2) If horizontal exits (section Ind 71.19) are provided for any floor, the number of persons accommodated on such floor may be increased at the rate of 100 persons for each 40 inches of width of such exits, provided such increase shall not exceed 100% of the number of persons accommodated by the stairways.

History: Cr. Register, October, 1971, No. 226; eff. 10-1-71.

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Ind 60.33 Passageways. (1) The minimum unobstructed width of corridors and passageways shall be determined in the same manner as specified for stairways and exits in section Ind 60.32. The minimum width shall be not less than 3 feet 8 inches.

(2) The minimum passageway width shall not be less than 3 feet in existing buildings proposed to be used as day care centers, provided the capacity of the day care center does not exceed 40 persons.

History: Cr. Register, October, 1971, No. 226, eff. 10-1-74.

Ind 60.34 Stair and shaft enclosure. (1) All stairs and vertical shafts serving 3 or more floor levels shall comply with subsection Ind 51.02 (11) and Table 51.03-A. All required stair enclosures must lead to the outside without interruption.

(2) No storage closets shall be placed under any stairway, platform or landing. A room may be placed under a stairway or stair landing of 2-hour fire-resistive construction, or better, provided such room does not have combustible material or hazardous equipment stored or operated therein. The door to such room shall be a self-closing, solid, flush type wood door, 1 1/2 inches in thickness, or better.

History: Cr. Register, October, 1971, No. 226, eff. 10-1-74.

Ind 60.35* Fire extinguishers. (1) Portable fire extinguishers suitable for Class B fires shall be installed in kitchens and cooking areas, and extinguishers suitable for Class A fires shall be installed throughout the remainder of the center.

TABLE 60.35

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distance to Extinguishers (feet)	Area to be Protected per Extinguisher (square feet)
1A	75	3,000
2A	75	6,000
3A	75	9,000
4A	75	11,250
6A	75	11,250

History: Cr. Register, October, 1971, No. 226, eff. 10-1-74.

Ind 60.36 Fire alarm systems. (1) Every building accommodating more than 20 children shall be provided with a fire alarm system complying with the requirements of section Ind 51.24.

(a) Exception. Buildings used for other purposes prior to occupancy as a day care center shall be provided with an approved fire alarm system. The department will accept fire alarm systems complying with the requirements of NFPA standard No. 72A, Local Protective Signaling Systems, or portable alarms approved by the department.

History: Cr. Register, October, 1971, No. 226, eff. 10-1-74.

Ind 60.37 Hazardous areas. (1) Hazardous areas, including boiler or furnace rooms, fuel storage, maintenance shops, woodworking shops, painting areas, and laundries having gas- or oil-fired units with a maximum aggregate input of 37,000 Btu or more, shall be separated from other parts of the building by construction having

see Appendix 6-A for further respiratory material.

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not less than a one-hour fire-resistive rating. All openings shall be protected by $\frac{3}{4}$ -hour self-closing doors in buildings of 3 stories or less in height. Enclosures shall have a 2-hour fire-resistive rating with $1\frac{1}{2}$ -hour "B" label doors in buildings more than 3 stories in height. If the hazard is severe, automatic sprinklers shall be provided in addition to the fire-resistive enclosure when deemed necessary by the department.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

Ind 60.38 Exit and emergency lighting. (1) All required exit doors and exit stairways in day care centers shall be plainly marked by a red, illuminated, translucent exit sign bearing the word EXIT or OUT in plain letters not less than 6 inches high.

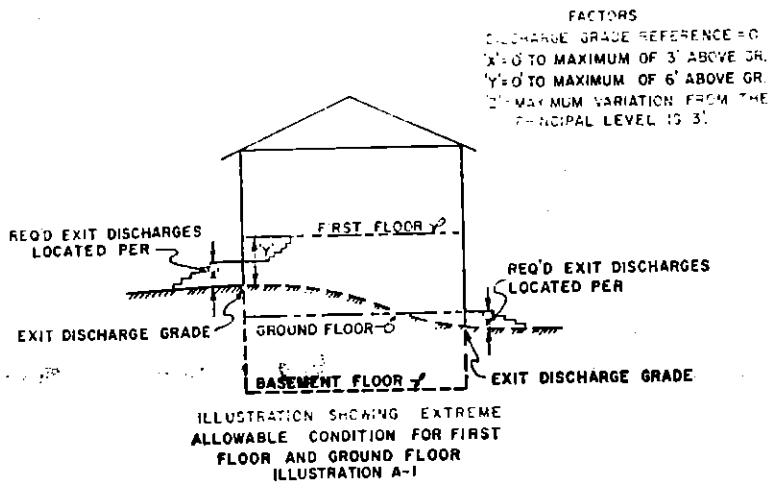
(2) All illuminated exit signs shall be supplied from an emergency source recognized by Wis. Adm. Code chapter E 700, Vol. 2, Wisconsin State Electrical Code.

History: Cr. Register, October, 1974, No. 226, eff. 10-1-74.

APPENDIX A

The following notes, bearing the same number as the text of the building and heating, ventilating and air conditioning code to which they apply, contain useful explanatory material to clarify the referenced definitions and rules.

- A-51.01 (12) **BUILDING.** The intent was to consider permanent awnings as part of a building.
- A-51.01 (42) **FAMILY.** The intent of this definition is to clarify the use of the word "family" in reference to subsection Ind 57.001 (2) (4); it is not intended as a variance to requirements stated under Ind 57.001 (2) (b).
- A-51.01 (67a) **HABITABLE ROOM.** It is the intent that rooms designated as recreation, study, den, family room, office, etc. and providing the only space for living and/or sleeping are considered habitable rooms.
- A-51.01 (115) **SETBACK.** The intent was to not include gutters, downspouts, outdoor lighting fixtures, signs and similar attachments as parts of a building.
- A-51.01 (121) **STORIES, NUMBER OF.** For further clarification, refer to A-51.02 (14).
- A-51.01 (144) **WALL (DIVISION).**
- (a) *Building division wall* is intended to denote a wall constructed in a manner sufficient to meet requirements for a party wall (see "Wall (Party)") and is acceptable as a dividing wall or enclosing wall when determining the volume of a building as referred to in sections Ind 50.10, 52.001 and 59.20. Also see Chapter A-E 2 of Wis. Adm. Code—Examining Board of Architects, Professional Engineers, Designers and Land Surveyors.
 - (b) *Fire division wall* is intended to relate to construction that provides separation between portions of a building to satisfy allowable floor area limitations, separation between 2 classes of construction, or separation of hazardous occupancies. For other separations, see "occupancy separations" and isolation of hazards sections of this code.
- A-51.02 (14) **DETERMINATION OF NUMBER OF STORIES.** The following illustrations are provided to give visual aid to this rule and the definition of Ind 51.01 (121) Stories, Number of.



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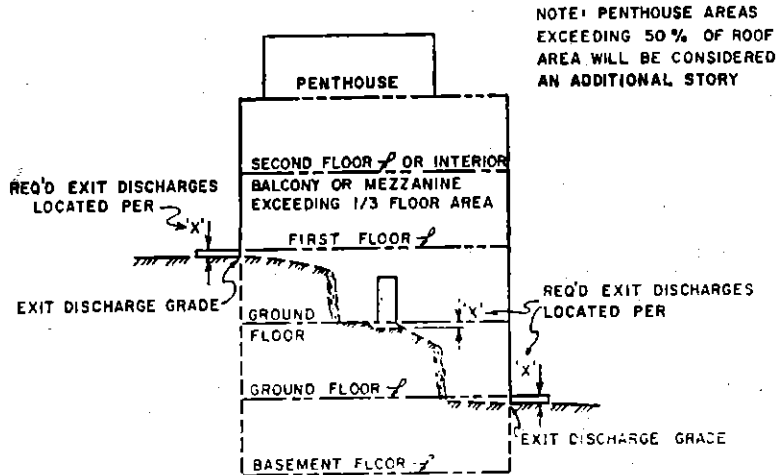
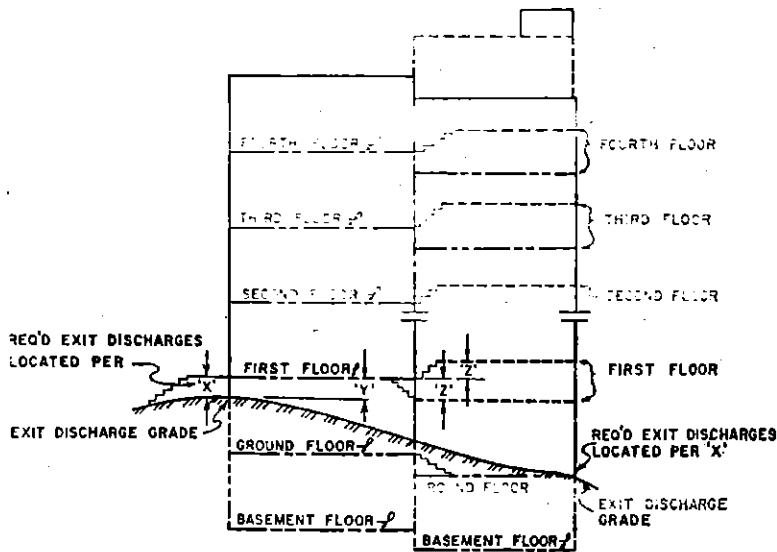


ILLUSTRATION SHOWING POSSIBLE
2 STORY CONDITION OR 3
STORY WITH PENTHOUSE
NOTE: FOR ADDITIONAL VARIATIONS TO NO. OF
STORIES SEE NO. 5402 (3)(4)
ILLUSTRATION A-2



FOUR STORY BUILDING
ILLUSTRATION A-3

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Appendix

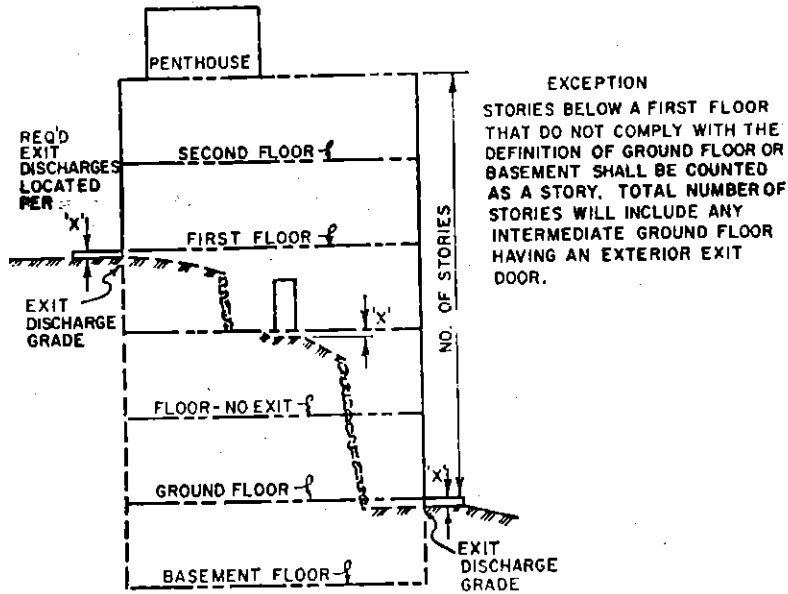


ILLUSTRATION A-4

A-60.19 (1). The standard is available from the National Fire Protection Association, 470 Atlantic Ave., Boston, Massachusetts 02210.

A-60.24 Class A fires are fires in ordinary combustible materials such as wood, cloth, paper, rubber, and many plastics. Class B fires are fires in flammable liquids, gases and greases.

A-60.25 See A-60.24.

A-60.30 (1) (a). See A-60.19 (1).

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