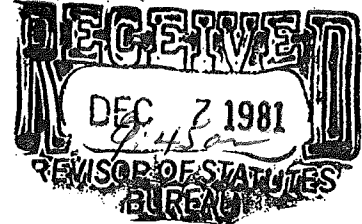


Ind 51 to 59, 62

# RULES CERTIFICATE

STATE OF WISCONSIN )  
 ) SS  
DEPT. OF INDUSTRY, )  
LABOR & HUMAN RELATIONS)



TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Lowell B. Jackson, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the annexed rule(s) relating to Chs. Ind 50-64 Bldg. & Htg., Ventilating & Air Conditioning Code Life Safety & Residential Occupancies were duly approved and adopted by this department on Dec. 4 1981.

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at Jan in the city of Madison, this 4th day of Dec A.D. 1981.

Lowell B. Jackson  
Secretary

1-1-82

# ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s) 101.02(1), 101.02(15)(h)-(j), Stats., the Department of Industry, Labor and Human Relations hereby  creates;  amends;  repeals and recreates; and  repeals and adopts rules of Wisconsin Administrative Code chapter(s):

Ind. 50-64 Bldg. & Htg., Ventilating & Air Conditioning Code  
(Number) (Title)  
Life Safety & Residential Occupancies

The attached rules shall take effect on The First Day Following Publication in the Wisconsin Administrative Register except that SS. Ind 56.03(2), 57.16(2) & 61.14(2) will take effect on the first day of the month, 12 months following publication in the Wisconsin Administrative Register, pursuant to section 227.026, Stats.

Adopted at Madison, Wisconsin, this 4<sup>th</sup>  
day of December, A.D., 1981.

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Walter B. Jacobs  
Secretary



# RULES in FINAL DRAFT FORM

Rule: Chs. Ind 50-64  
Relating to: Building & Hearing, Ventilating & Air Conditioning  
Code - Life Safety & Residential Occupancies

Administrative rules to repeal s. Ind 51.02 (14) (a) 3; to renumber s. Ind 51.01 (102a) to be Ind 51.01 (102b), s. Ind 51.01 (114a) to be Ind 51.01 (114b); to amend ss. Ind 51.01 (1), Ind 51.02 (14) (a) 2., Ind 51.03 (5), Ind 51.03 (7) (a), Ind 51.03 (7) (b), Ind 51.23 (6), Ind 51.27 (7a), Ind 52.01 (2) (h), Ind 53.64, Ind 56.03, Ind 61.14; to repeal and recreate ss. Ind 51.03 Table A, Ind 51.22, Ind 54.17, Ind 55.34, Ind 56.18, ch. Ind 57, Ind 62.50, A53.64; to create ss. Ind 51.01 (19a), Ind 51.01 (36a), Ind 51.01 (36b), Ind 51.01 (36c), Ind 51.01 (37a), Ind 51.01 (38a), Ind 51.01 (38b), Ind 51.01 (71b), Ind 51.01 (80a), Ind 51.01 (102a), Ind 51.01 (114a), Ind 51.01 (119a), Ind 51.01 (119b), Ind 51.01 (130a), Ind 51.042 (7), Ind 51.165, Ind 51.166, Ind 51.167, Ind 51.24 (10), Ind 51.245, Ind 52.22, Ind 52.23, Ind 54.145, Ind 58.27 (4), Ind 59.23 (3), A51.22, and A57.07 (3) relating to Life Safety and Residential Occupancies.

\* \* \* \* \*

### Analysis of Rules

The Division of Safety and Buildings of the Department of Industry, Labor and Human Relations is responsible for the promulgation of the Building and Heating, Ventilating and Air Conditioning Code, chapters Ind 50-64. Sections of the code are being revised to update and expand the life safety-related provisions of the code and to create a new chapter addressing only residential occupancies.

The life safety related rules include provisions for more stringent smoke detector requirements for new construction and retroactive application of current requirements, portable fire extinguishers as specified in NFPA Standard No. 10-1978, manual fire alarm systems for office buildings, definitions for means of egress components, class of construction, egress identification and access and a new occupancy chapter to address residential occupancies separate from health care facilities and places of detention.

\* \* \* \* \*

Pursuant to the authority vested in the state of Wisconsin's Department of Industry, Labor and Human Relations by s. 101.02 (1) and ss. 101.02 (15) (h) through (j), Stats., the Department of Industry, Labor and Human Relations hereby repeals, creates, amends and repeals and recreates rules interpreting s. 101.02 (15) (h) through (j), Stats., as follows:

SECTION 1. Ind 51.01 (1) is amended to read:

Ind 51.01 (1) ~~ACCESSORY ROOM~~ "Accessory room" means any room or enclosed floor space used for eating, cooking, bathrooms, water closet compartments, laundries, pantries, foyers, hallways, and other similar floor spaces. Rooms designated as recreation, study, den, family room, office, ~~etc.,~~ and other similar floor spaces, in addition to habitable rooms, are not considered accessory rooms.

SECTION 2. Ind 51.01 (19a) is created to read:

Ind 51.01 (19a) "Community-based residential facility" means any place where 3 or more unrelated adults reside in which care, treatment or services above the level of room and board but not including nursing care are provided to persons residing in the facility as a primary function of the facility. "Community-based residential facility" does not include a nursing home, except that the department of health and social services may designate a category or categories of intermediate care facilities which serve fewer than 20 residents and which otherwise meet the definition of this subsection to be licensed and regulated as community-based residential facilities. The reception and care or treatment of a person in a convent or facility owned or operated exclusively by and for members of a religious order shall not constitute the premises to be a "community-based residential facility".

SECTION 3. Ind 51.01 (36a) is created to read:

Ind 51.01 (36a) "Exit" means that portion of a means of egress which is separated from all other spaces of the building or structure by construction providing a protected way of travel to the exit discharge.

SECTION 4. Ind 51.01 (36b) is created to read:

Ind 51.01 (36b) "Exit access" means that portion of a means of egress which leads to an entrance to an exit.

SECTION 5. Ind 51.01 (36c) is created to read:

Ind 51.01 (36c) "Exit access door" means any door that leads to the exit access.

SECTION 6. Ind 51.01 (37a) is created to read:

Ind 51.01 (37a) "Exit discharge" means that portion of a means of egress between the termination of an exit and a street, alley, court or a public way.

SECTION 7. Ind 51.01 (38a) is created to read:

Ind 51.01 (38a) "Exit door" means a door that leads from that portion of the means of egress known as the exit access to the outside of the building or to a required exit, such as a stairway, smokeproof tower, ramp or horizontal exit.

SECTION 8. Ind 51.01 (38b) is created to read:

Ind 51.01 (38b) "Exit passageway" means a horizontal means of exit travel that is protected from a fire in a manner similar to an enclosed interior exit stair.

SECTION 9. Ind 51.01 (71b) is created to read:

Ind 51.01 (71b) "Housing for the elderly" means a residential occupancy building the construction of which is financed by state or federal agencies with occupancy limited to elderly people meeting specific age criteria as specified by the financing agency.

SECTION 10. Ind 51.01 (80a) is created to read:

Ind 51.01 (80a) "Means of egress" means a continuous and unobstructed way of exit travel from any point in a building or structure to a street, alley or court. A means of egress consists of 3 separate parts: 1) the exit access; 2) the exit; and 3) the exit discharge. A means of egress includes the vertical and horizontal ways of travel and shall include intervening room space, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits and courts.

SECTION 11. Ind 51.01 (102a) is renumbered to be Ind 51.01 (102b) and 51.01 (102a) is created to read:

Ind 51.01 (102a) "Place of Abode" means a residential building or part of a residential building used as follows:

(a) Occupied as a residence of 3 or more families living independently or occupied by 2 such families and used also for business purposes, or

(b) Occupied for sleeping or lodging purposes by 3 or more persons not members of the same family.

SECTION 12. Ind 51.01 (114a) is renumbered to be Ind 51.01 (114b) and Ind 51.01 (114a) is created to read:

Ind 51.01 (114a) "Row house" means a place of abode not more than 3 stories in height, arranged to accommodate 3 or more attached row living units in which each living unit is separated from the adjoining unit by a vertical occupancy separation of not less than one-hour fire-resistive construction, extending from the basement or lowest floor to the under side of the roof deck.

SECTION 13. Ind 51.01 (119a) is created to read:

Ind 51.01 (119a) "Sleeping area" means the area of residential buildings in which bedrooms or sleeping rooms are located. Bedrooms or sleeping rooms separated by other use areas such as kitchens or living rooms, but not bathrooms, are considered as separate sleeping areas. Each individual room or suite of rooms in hotels, motels, dormitories or congregate living facilities is considered a separate sleeping area.

SECTION 14. Ind 51.01 (119b) is created to read:

Ind 51.01 (119b) "Smoke detector" means a device which detects particles or products of combustion other than heat.

SECTION 15. Ind 51.01 (130a) is created to read:

Ind 51.01 (130a) "Townhouse" means an apartment building where each living unit is served by an individual exterior exit within 3 feet of the exit discharge grade.

SECTION 16. Ind 51.02 (14) (a) 2. is amended to read:

Ind 51.02 (14) (a) 2. The elevation of the first floor and the sills of all required exit discharges from the first floor shall be at or not more than 6 3 feet above an exit discharge grade.

SECTION 17. Ind 51.02 (14) (a) 3. is repealed.

SECTION 18. Ind 51.03, Table 51.03-A is repealed and recreated to read:

CLASSES OF CONSTRUCTION TABLE 51.03-A FIRE RESISTIVE RATINGS IN HBMS

BUILDING ELEMENT	MODIFYING CONDITIONS			TYPES OF CONSTRUCTION										APPLICABLE NOTES
	NUMBER OF STORIES	SEE NOTES f g BLDG. SETBACK DIS. TO P.L. OR TO OTHER BLDG. ON SAME PRMP.	BEARING OR NONBEARING	FIRE RESISTIVE TYPE A	FIRE RESISTIVE TYPE B	METAL FRAME PROTECTED	HEAVY TIMBER	EXPANDED MASONRY, PROT.	EXTERIOR MASONRY, UNPROT.	METAL FRAME UNPROTECTED	WOOD FRAME PROTECTED	WOOD FRAME UNPROTECTED		
1. INTERIOR SUPPORTS (COLUMNS, PIERS, FRAME LEGS, POSTS)	Over 8 stories or more than 85 ft. in height			NO. 1	NO. 2	NO. 3	NO. 4	NO. 5A	NO. 5B	NO. 6	NO. 7	NO. 8	SEE S. IND 51.03 FOR CONSTRUCTION STANDARDS	
2.	8 stories or 85 ft. in height or less			NC-4	NP	NP	NP	NP	NP	NP	NP	NP	a d	
3. FLOOR FRAMING (BEAMS, GIRDERS, JOISTS, SLABS, DECK)	More than 2 stories			NC-3	NC-2	See s. Ind 51.03 (3) NC-1	See s. Ind 51.03 (4) H.T. or 1	See s. Ind 51.03 (5) 1	See s. Ind 51.03 (5) 0	See s. Ind 51.03 (6) NC-0	See s. Ind 51.03 (7) 1	See s. Ind 51.03 (8) 0	a d	
4.	2 stories or less			NC-2	NC-1	NC-1	See s. Ind 51.03 (4) H.T. or 1 1 Story-HT or 0	1	0	See s. Ind 51.03 (6) NC-0	1	0	a	
5. ROOF FRAMING (TRUSSES, BEAMS, GIRDERS, JOISTS, FRAME RAFTERS, PURLINS, DECK)	Over 8 stories or more than 85 ft. in height			NC-2	NP	NP	NP	NP	NP	NP	NP	NP	a	
6.	3 to 8 stories or 85 ft. in height or less			NC-2	NC-1-1/2	See s. Ind 51.03 (3) NC-1	See s. Ind 51.03 (4) H.T. or 1	See s. Ind 51.03 (5) 1	See s. Ind 51.03 (5) 0	See s. Ind 51.03 (6) NC-0	1	NP	a	
7.	2 stories, or under 35 ft. in height			NC-1	NC-1	NC-1	See s. Ind 51.03 (4) H.T. or 1	See s. Ind 51.03 (5) 1	See s. Ind 51.03 (5) 0	NC-1	See s. Ind 51.03 (7) 1	0	a	
8.	1 story - roof framing more than 20 ft. above fl.			NC-0	See s. Ind 51.03 (2) NC-0	NC-0	See s. Ind 51.03 (4) H.T. or 1	0	0	0	0	0	a	
9.	1 story - roof framing 20 ft. or less above fl.			NC-1	NC-1	NC-1	See s. Ind 51.03 (4) H.T. or 1	1	0	0	See s. Ind 51.03 (7) 1	0	a	
10. ROOF COVERING				CLASS A	CLASS A	CLASS A	CLASS B	CLASS B	CLASS B	CLASS C	CLASS C	CLASS C	a	
11. EXTERIOR WALLS & COURT WALLS		Less than 10 ft.	Bearing	NC-4	NC-3	NC-2	NC-2	2	2	NC-2	See s. Ind 51.03(7)(e) NP	See s. Ind 51.03(8)(d) NP	a d e f k	
12.	1 stories	10 ft. to 30 ft. inclusive	Bearing	NC-3	NC-2	NC-3/4	1	2	1	NC-0	See s. Ind 51.03(7)(f) NP	NP	a c d e f k	
	2 stories or less									1	0	0	f k	
13. (NOT INCLUDING INTERIOR FURRING ATTACHED TO INSIDE SURFACE OF WALL)		Over 30 ft.	Bearing	NC-2	NC-1	NC-0	1	2	1	NC-0	1	0	a c d e f k	
14.		Less than 10 ft.	Nonbearing	NC-2	NC-2	NC-1	NC-1	2	1	NC-1	See s. Ind 51.03(7)(e) NP	See s. Ind 51.03(8)(d) NP	a d e f k	
15.	3 stories	10 ft. to 30 ft. inclusive	Nonbearing	NC-1	NC-1	NC-0	1	2	1	NC-0	See s. Ind 51.03(7)(f) NP	NP	a c d e f k	
	2 stories or less									1	0	0	f k	
16.		Over 30 ft.	Nonbearing	NC-0	NC-0	NC-0	3/4	1	0	NC-0	1	0	a c d e f	
17. INTERIOR WALLS BEARING				NC-3	NC-2	NC-1	1	1	1	NC-0	1	0	a j	
18. PARTITIONS				NC-0	NC-0	NC-0	0	0	0	0	1	0	a j	
19. REQUIRED EXIT CORRIDOR ENCLOS.	Over 3 stories			NC-2	NC-2	NC-1	2	2	1	1	1	1	a	
	3 stories or less													
20. FIRE ENCLOSURE (STAIRWAYS, ELEVATORS, VERTICAL SHAFTS)	Over 3 stories			NC-2	NC-2	NC-1	2	2	NP	NP	NP	NP	a f	
	3 stories or less			NC-2	NC-2	NC-1	1	1	1	1	1	1	a f	
21. PENTHOUSE WALLS				NC-0	NC-0	NC-0	0	NC-0 or 3/4	NC-0 or 3/4	0	0	0	a h	
22. PENTHOUSE ROOF				NC-0	NC-0	NC-0	0	0	0	0	0	0	a b	

KEY TO ABBREVIATIONS

NC - Noncombustible  
 NP - Not Permitted  
 H.T. - Heavy Timber  
 P.L. - Property Line

a - See occupancy sections of the code for other basic requirements and fire restrictive limitations.  
 b - Roof covering same as for main building.  
 c - Walls of solid wood 4 inches in thickness are acceptable as equal to one hour fire-resistive rating.  
 d - Fire-resistive requirements also apply for those bracing members required for gravity loading.  
 e - Refer to Table 51.03-B for allowable areas for windows and other openings in exterior walls.  
 f - For exceptions refer to s. Ind 51.02.  
 g - Setbacks and distances to P.L. or other buildings on same property do not apply to P.L. adjacent streets.  
 h - Approved fire-retardant treated wood will be accepted in lieu of 1-hour fire-resistive ratings.  
 j - For openings in partitions and interior bearing walls, see s. Ind 51.02.  
 k - Hourly ratings specified on fire exposure from the inside of the building only.

KEY EXAMPLE TO READING CHART

0 = 0 (No Hour Rating)  
 1 = Combustible or Noncombustible 1 Hour Rating  
 NC-1 = Noncombustible 0 Hour Rating



SECTION 19. Ind 51.03 (5) is amended to read:

Ind 51.03 (5) EXTERIOR MASONRY, PROTECTED AND UNPROTECTED (Nos. 5A AND 5B)

(a) A building is of protected or unprotected exterior masonry construction if all enclosing exterior walls are constructed of masonry or reinforced concrete or of other materials in combination with a minimum 6 inch nominal masonry veneer wall and all building elements are as set forth in Table 51.03-A unless otherwise exempted.

~~1. Exterior masonry walls shall extend to the underside of projecting roof rafters of joists of bearing points of beams and trusses.~~

~~2. Spaces between projecting rafters, joists, beams or trusses shall be firestopped with nominal 2 inch wood blocking of rigid noncombustible material to the underside of the roof decking.~~

~~Note: Subd. 2. is not intended to prohibit openings necessary to provide attic ceiling ventilation.~~

~~3. Light panels of combustible materials may be used in exterior walls requiring NC-0 hour rating up to a limit of 10% of the surface area within any 100 lineal feet of the building. The bottom of the panels shall be at least 12 feet above grade. Such panels will be included in the decorative trim allowance permitted by s. Ind 51.02 (15).~~

(b) All buildings of this Type 5A classification shall not exceed a height of 50 feet, in which height there shall be not more than 4 stories and all buildings of Type 5B classification shall not exceed a height of 40 feet, in which height there shall be not more than 3 stories.

(c) The interior structural framing shall be metal, reinforced concrete, masonry or wood. Fire protection of metal or wood structural members ~~may be omitted except that all such members supporting loadbearing masonry in all part of buildings of more than one story shall be of metal, reinforced concrete or masonry with not less than one-hour fire resistive protection of supporting metal.~~ shall be as specified in Table 51.03-A.

(d) In walls where fire protection is required, the bottom of lower flange of steel lintels supporting load-bearing masonry shall be protected for openings exceeding 12-foot spans.

(e) Floors, roofs, partitions and stairs may be of wood but no joist, rafter, stud or stringer shall be less than 2 inches in nominal thickness.

(f) Bays, oriels and similar exterior projections from the walls shall be constructed of material with fire-resistive ratings as required for exterior walls.

(g) A mansard shall be constructed entirely of noncombustible material or fire-retardant treated wood if it is subject to one of the following conditions:

1. If the mansard is closer than 20 feet to the adjoining property line or other building(s) on the same property; or

2. If the vertical projected area of the mansard exceeds 30% of the area of the wall surface to which it is attached.

~~(h) Penthouses and other roof structures shall have enclosed walls of non-combustible construction and roof framing and coverings shall be equal to that specified in Table 51.03-A.~~

(h) Light panels of combustible materials may be used in exterior walls requiring NC-0 hour rating up to a limit of 10% of the surface area within any 100 lineal feet of the building. The bottom of the panels shall be at least 12 feet above grade. Such panels will be included in the decorative trim allowance permitted by s. Ind 51.02 (15).

SECTION 20. Ind 51.03 (7) (a) is amended to read:

Ind 51.03 (7) (a) A building is of wood frame protected construction if the structural parts and enclosing walls are of protected wood, or protected wood in combination with other materials, with fire-resistive ratings ~~as~~ at least equal to or better than those set forth in Table 51.03-A. Except as specified in s. Ind 51.03 (5) (a), if such enclosing walls are veneered, encased or faced with stone, brick, tile, concrete, plaster or metal, the building is also termed a wood frame protected building.

SECTION 21. Ind 51.03 (7) (b) is amended to read:

Ind 51.03 (7) (b) All buildings of this classification shall not exceed a height of 40 feet, in which height there shall be not more than ~~2~~ 3 stories.

SECTION 22. Ind 51.042 (7) is created to read:

Ind 51.042 (7) In one-hour fire-resistive rated construction, the ceiling may be omitted over unusable crawl space not more than 42 inches in height and the flooring may be omitted where unusable space occurs above.

SECTION 23. Ind 51.165 is created to read:

Ind 51.165 STAIRWAY IDENTIFICATION. All stairways serving 4 or more stories shall have each floor level or story identified on the stair side as to its name or number with a permanent sign having letters or characters at least 2 inches in height.

SECTION 24. Ind 51.166 is created to read:

Ind 51.166 BASEMENT STAIRWAYS. Where a basement stairway and a stairway to an upper floor terminate in the same exit enclosure, an approved barrier shall be provided to prevent persons from continuing on into the basement. Illuminated exit signs shall be provided to clearly indicate the direction of egress.

SECTION 25. Ind 51.167 is created to read:

Ind 51.167 EXIT ACCESS. Exit access shall be so arranged that it will not be necessary to travel through any area of hazard in order to reach the exit.

Note: See ss. Ind 54.14, Ind 55.29, Ind 56.15, Ind 57.20, Ind 58.24, Ind 58.62, Ind 59.21, Ind 60.25, Ind 60.37, Ind 62.32 for additional requirements.

SECTION 26. Ind 51.22 is repealed and recreated to read:

Ind 51.22 \*FIRE EXTINGUISHERS. (1) GENERAL. All required fire extinguishers shall be approved by the department, and shall comply with the provisions of NFPA No. 10-1978 - Standard for Portable Fire Extinguishers.

(2) INSTALLATION. Fire extinguishers as specified in chs. Ind 54-62 shall be installed as specified in NFPA No. 10-1978 - Standard for Portable Fire Extinguishers.

(3) MAINTENANCE. All portable fire extinguishers, whether required by chs. Ind 54-62 or not, shall be maintained in operable condition as specified in NFPA No. 10-1978 - Standard for Portable Fire Extinguishers.

SECTION 27. Ind 51.23 (6) is amended to read:

Ind 51.23 (6) MAINTENANCE. All installed automatic sprinkler systems, whether required by chs. Ind 52-62 or not, shall be properly maintained for efficient service as specified in NFPA No. 13A-1978 - Standard for the Care and Maintenance of Sprinkler Systems. ~~The employers~~ Employers or owners shall be responsible for the condition of ~~his~~ their sprinkler system and shall use due diligence in keeping the system in good operating condition.

SECTION 28. Ind 51.24 (10) is created to read:

Ind 51.24 (10) MAINTENANCE. All fire alarm systems, whether required by this code or not, shall be maintained in an operable condition.

SECTION 29. Ind 51.245 is created to read:

Ind 51.245 SMOKE DETECTORS. (1) GENERAL REQUIREMENTS. All required smoke detectors shall be approved by the department and shall comply with the provisions of NFPA No. 72E - 1978 - Standard on Automatic Fire Detectors or NFPA No. 74 - 1980 - Household Fire Warning Equipment.

(2) INSTALLATION. Smoke detectors and smoke detection systems shall be installed in accordance with the provisions of NFPA No. 72E-1978 - Standard on Automatic Fire Detectors or NFPA No. 74-1980 - Household Fire Warning Equipment and in accordance with the manufacturer's directions and specifications.

(3) MAINTENANCE. (a) The owner shall be responsible for maintaining the smoke detectors and the smoke detection system in good working order.

(b) Tenants shall be responsible for informing the owner, in writing, of any smoke detector malfunction, including the need for a new battery.

(c) The owner shall have 5 days upon receipt of written notice from the tenant to repair or replace the smoke detector or replace the battery. The owner shall replace batteries at the beginning of a new lease and at least annually.

(d) The owner shall furnish to the tenant written notice of the responsibilities of the tenant and the obligations of the owner regarding smoke detector maintenance.

\*See Appendix for further explanatory material.

SECTION 30. Ind 51.27 (7a) is amended to read:

Ind 51.27 (7a) National Fire Protection Association, ~~470 Atlantic Avenue, Boston,~~ Batterymarch Park, Quincy, Mass. 02240, 02269, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, NFPA No. 10-1978; STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, NFPA No. ~~43-1974~~ 13-1980; STANDARD FOR THE CARE AND MAINTENANCE OF SPRINKLER SYSTEMS, NFPA No. 13A-1978; STANDARD FOR THE INSTALLATION OF CENTRIFUGAL FIRE PUMPS, NFPA No. ~~20-1974~~ 20-1980; STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION, NFPA No. ~~22-1974~~ 22-1978; STANDARD FOR OUTSIDE PROTECTION, NFPA No. ~~24-1973~~ 24-1977; STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT, NFPA No. 31-1978; NATIONAL FUEL GAS CODE, NFPA No. 54-1974; STANDARD FOR CENTRAL STATION PROTECTIVE SIGNALING SYSTEMS, NFPA No. ~~71-1974~~ 71-1977; STANDARD FOR AUXILIARY PROTECTIVE SIGNALING SYSTEMS, NFPA No. ~~72B-1974~~ 72B-1979; STANDARD FOR REMOTE STATION PROTECTIVE SIGNALING SYSTEMS, NFPA No. ~~72C-1974~~ 72C-1975; STANDARD FOR PROPRIETARY PROTECTIVE SIGNALING SYSTEMS, NFPA No. ~~72D-1974~~ 72D-1979; STANDARD ON AUTOMATIC FIRE DETECTORS, NFPA No. ~~72E-1974~~ 72E-1978; STANDARD FOR HOUSEHOLD FIRE WARNING EQUIPMENT, NFPA No. 74-1980; MANUAL ON CLEARANCES FOR HEAT PRODUCING APPLIANCES, NFPA No. 89M-1976; STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS, NFPA No. 90A-1981; STANDARD FOR CHIMNEYS, FIREPLACES AND VENTS, NFPA No. ~~211-1977~~ 211-1980.

SECTION 31. Ind 52.01 (2) (h) is amended to read:

Ind 52.01 (2) (h) Maintenance. All life safety systems required under this section shall be tested and maintained in an operable condition. All installed automatic sprinkler systems shall be maintained as specified in NFPA No. 13A-1978 - Standard for the Care and Maintenance of Sprinkler Systems. A copy of the test report shall be kept on the premises. The local fire department shall be notified whenever the life safety systems are shut down for repair and when placed back in service.

SECTION 32. Ind 52.22 is created to read:

Ind 52.22 REPAIRS. Every building shall be kept in good repair and the roof shall be maintained to prevent leakage. All rainwater shall be so drained and conveyed to prevent dampness in the walls and ceilings.

SECTION 33. Ind 52.23 is created to read:

Ind 52.23 CLEANLINESS. Every building, including connecting yards, courts, passages, areas or alleys, shall be kept clean, and shall also be kept free from any accumulation of dirt, filth, rubbish, garbage, or other matter.

SECTION 34. Ind 53.64 is amended to read:

Ind 53.64\* WOOD FOUNDATIONS. Foundations for 2-story buildings of type 7 ~~and 8 construction or 3-story buildings of type 7 construction~~ may be constructed of treated wood when the design is based upon the soil bearing values contained in ~~section s.~~ Ind 53.21 and the structural design is in accordance with the standards listed in ~~section s.~~ Ind 53.61. All pressure-treated wood and plywood shall be treated and identified in accordance with adopted standards of the American Wood Preservers Bureau ~~[Ind 51.27 (6a)]~~ as specified in s. Ind 51.27 (6a).

\*See Appendix A for further explanatory material.

Note: Section Ind 51.02 (4) (b) 1. b. requires that exterior walls below the first floor structural system be counted as a story when constructed of materials other than masonry or concrete. Therefore, buildings utilizing wood foundations will be limited to 2 3 levels (one-story 2-story and basement, one-story 2-story and ground floor, or 2-story 3-story with wood frost wall).

SECTION 35. Ind 54.145 is created to read:

Ind 54.145 \*FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. Ind 51.22.

SECTION 36. Ind 54.17 is repealed and recreated to read:

Ind 54.17 FIRE ALARMS. (1) FACTORY AND WORKSHOP. A manual fire alarm complying with the requirements of s. Ind 51.24 shall be provided in every factory or workshop where more than 10 persons are employed above the second story, except as follows:

(a) Buildings provided with a complete automatic sprinkler system; or

(b) Buildings of fire resistive type 1 or 2 construction whose contents are noncombustible.

(2) OFFICE BUILDINGS. A manual fire alarm complying with the requirements of s. Ind 51.24 shall be provided in office buildings complying with either of the following conditions:

(a) Four stories or more in height; or

(b) 15,000 square feet or more on any floor level above or below a floor of exit discharge.

SECTION 37. Ind 55.34 is repealed and recreated to read:

Ind 55.34 \*FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified s. Ind 51.22.

SECTION 38. Ind 56.03 is amended to read:

Ind 56.03 PROTECTION OF BASEMENT LEVELS. (1) GENERAL REQUIREMENT. Buildings with basements shall at such levels be protected with an approved automatic sprinkler system as specified in s. (Ind 51.23) or an approved automatic smoke detection system, as specified in s. Ind 51.245, either of which shall be electrically connected to the required fire alarm system. (Ind 56.19).

(2) RETROACTIVITY. Existing buildings which do not conform to the requirements specified in sub. (1) on or after the effective date of this subsection shall comply with the following:

(a) The corridors in the basement shall be protected by an approved smoke detection system; and

(b) Such systems shall be installed in accordance with NFPA No. 72E - 1978, Standard on Automatic Fire Detectors or NFPA No. 74 - 1980, Household Fire Warning Equipment, but in no case shall smoke detectors be spaced more than 30 feet apart on center or more than 15 feet from any wall.

\*See Appendix A for further explanatory material.

SECTION 39. Ind 56.18 is repealed and recreated to read:

Ind 56.18 \*FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. Ind 51.22.

SECTION 40. Chapter Ind 57 is repealed and recreated to read:

CHAPTER IND 57  
RESIDENTIAL OCCUPANCIES

Ind 57.001 SCOPE. (1) GENERAL. The requirements of this chapter shall apply to all places of abode, including, but not limited to, apartment buildings, garden apartments, row houses, town houses, condominiums, hotels, motels, rooming houses, dormitories, convents, monasteries, homes for the aged, community-based residential facilities constructed on or after the effective date of this section and serving 9 or more unrelated adults and any community-based residential facilities located in existing buildings on or after the effective date of this section and serving more than 20 unrelated adults.

(2) EXEMPTIONS. The requirements of this chapter shall not apply to the following: (a) one- and 2-family dwellings; (b) motels, tourist courts and similar occupancies having separate buildings containing not more than 2 rental units each; (c) migrant labor camps; (d) health care facilities; (e) places of detention; (f) community-based residential facilities constructed on or after the effective date of this section and serving 3 to 8 unrelated adults; and (g) community-based residential facilities, serving 9 to 20 unrelated adults located in existing buildings as specified in ss. Ind 61.001 (1) and Ind 61.01 (7).

Note #1: See chs. Ind 20-25 - Uniform Dwelling Code, Wis. Adm. Code, for requirements regarding one- and 2-family dwellings. The requirements of chs. Ind 20-25, Wis. Adm. Code, also apply to newly constructed community-based residential facilities serving 3 to 8 unrelated adults.

Note #2: See ch. Ind 201 - Migrant Labor Camps, Wis. Adm. Code, for requirements regarding migrant labor camps.

Ind 57.01 CONSTRUCTION. (1) GENERAL. For the purpose of determining the maximum height and area of buildings and structures within the scope of this chapter, the building's construction shall be classified in accordance with the construction standards as specified in s. Ind 51.03.

Note: See ss. HSS 3.40 - 3.65, Wis. Adm. Code, for additional construction requirements pertaining to community-based residential facilities.

(2) LIVING UNIT SEPARATION. Each living unit shall be separated from other living units, common use areas and from the exit access corridors with not less than one-hour fire-resistive construction.

\*See Appendix A for further explanatory material.

(3) BASEMENT AND GROUND FLOOR PROTECTION. (a) Except as provided in par. (b), the ceiling of all spaces, except those within individual living units and crawl spaces located below the first story of all residential buildings shall be protected with at least the equivalent of one layer of 5/8-inch type X gypsum wallboard with taped joints.

(b) This subsection shall not apply to buildings where such spaces are protected by an approved automatic sprinkler system.

(4) GARAGE SEPARATION. (a) Detached garages constructed in conjunction with residential occupancies shall comply with the requirements of ch. Ind 59.

(b) Attached garages, larger than 500 square feet in area, constructed in conjunction with residential occupancies shall comply with the requirements of ch. Ind 59.

(c) 1. Attached garages, 500 square feet or less in area, or divided by walls having at least a one-hour fire-resistive rating into areas of 500 square feet or less, shall be completely separated from the residential occupancy by at least one-hour fire-resistive rated construction.

2. Facilities for repairing or fueling vehicles within the garage shall be prohibited.

Ind 57.02 ALLOWABLE HEIGHT AND AREA. (1) GENERAL. Buildings and structures within the scope of this chapter shall not exceed the height and area limitations specified in Table 57.02.

(2) ALLOWABLE INCREASE IN FLOOR AREAS. (a) When the entire building is protected by an automatic sprinkler system, the areas in Table 57.02 may be increased by 100%.

(b) 1. No building shall be limited in area when divided into sections which do not exceed the maximum areas tabulated in this section by vertical division walls. Such vertical division walls shall extend from the foundation to the underside of the roof deck and shall have at least the following fire-resistive ratings:

- a. 2-hour for type 4, 5A, 5B, 7 and 8 construction;
- b. NC-2 hour for type 3 and 6 construction; and
- c. NC-3 hour for type 2 construction.

2. All openings in such walls shall be protected by fire-resistive door assemblies as specified in s. Ind 51.047. The doors protecting openings in such walls located in public corridors shall be held open and equipped with an automatic closing device activated by products of combustion or smoke density.

Table 57.01

Class of Construction	Street or Open Space at Least 30' in Width Within 50' of the Building	Number of Stories								
		1	2	3	4	5	6	7	8	Over 8
1. Fire-Resistive Type A....	1	NO RESTRICTION								
	2									
	3									
	4									
2. Fire-Resistive Type B....	1	NO	15000	12800	10500	8300	6800	5300	4500	
	2	RE-	18800	16500	13900	11600	9800	8300	7500	NOT
	3	STRIC-	23300	20300	17300	15000	12800	11300	10500	PERMITTED
	4	TION	27800	24000	20600	18400	15800	14300	13500	
3. Metal Frame Protected....	1	15800	13500	11300	9000	----- NOT PERMITTED -----				
	2	19900	17300	14600	12000	----- NOT PERMITTED -----				
	3	24000	21000	18000	15000	----- NOT PERMITTED -----				
	4	28100	24800	21400	18000	----- NOT PERMITTED -----				
4. Heavy Timber.....	1	12800	10500	7400	6800	----- NOT PERMITTED -----				
	2	16500	14300	12000	10100	----- NOT PERMITTED -----				
	3	20300	18000	15800	13500	----- NOT PERMITTED -----				
	4	24000	21800	19500	16900	----- NOT PERMITTED -----				
5A. Exterior Masonry.....	1	11600	9600	7200	6000	----- NOT PERMITTED -----				
Protected	2	15000	12800	10700	8800	----- NOT PERMITTED -----				
	3	18400	16100	13900	11600	----- NOT PERMITTED -----				
	4	21800	19500	17100	14500	----- NOT PERMITTED -----				
5B. Exterior Masonry.....	1	10500	8600	6800	----- NOT PERMITTED -----					
Unprotected	2	13500	11300	9400	----- NOT PERMITTED -----					
	3	16500	14300	12000	----- NOT PERMITTED -----					
	4	19500	17300	14600	----- NOT PERMITTED -----					
6. Metal Frame Unprotected..	1	10500	8600	6800	----- NOT PERMITTED -----					
	2	13500	11300	9400	----- NOT PERMITTED -----					
	3	16500	14300	12000	----- NOT PERMITTED -----					
	4	19500	17300	14600	----- NOT PERMITTED -----					
7. Wood Frame Protected.....	1	10500	8700	6800	----- NOT PERMITTED -----					
	2	13500	11300	9400	----- NOT PERMITTED -----					
	3	16500	14300	12000	----- NOT PERMITTED -----					
	4	19500	17300	14600	----- NOT PERMITTED -----					
8. Wood Frame Unprotected...	1	7500	3800	----- NOT PERMITTED -----						
	2	9000	4500	----- NOT PERMITTED -----						
	3	10500	5300	----- NOT PERMITTED -----						



Ind 57.03 NUMBER AND LOCATION OF EXITS. (1) NUMBER OF EXITS. There shall be at least 2 directions of travel from each living unit door by means of exits to grade, stairways, interior enclosed stairways, ramps, fire escapes or horizontal exits.

(2) DISTANCE TO EXIT. (a) Exits shall be distributed so that the entrance to each living unit will be not more than 100 feet distant from an exit, measuring along public passageways.

(b) The exit distances required by this section shall be measured to exits to grade, to doors leading to stairway enclosures as specified in ss. Ind 54.165, Ind 54.17 and Ind 54.18, or to horizontal exits as specified in s. Ind 54.19.

(3) EXIT DISTRIBUTION. The number and location of exits shall be such that in case any exit or passageway is blocked at any point, some other exit will still be accessible through public passageways from every living unit.

(4) DIRECTIONS FOR ESCAPE. A notice shall be conspicuously posted in every habitable room to be used by transients giving complete and plain directions for reaching at least 2 exits.

(5) EXITS FOR NONRESIDENTIAL PORTIONS OF BUILDINGS. Exits serving portions of buildings without sleeping rooms or living units (i.e., basements of apartment buildings, hotel lobbies, and similar areas) shall be as specified in ss. Ind 54.02 to 54.07.

Ind 57.04 CAPACITY OF BUILDINGS AND EXITS. (1) BUILDINGS. (a) Sleeping Areas. The capacity of the habitable rooms of the living units of the building, other than a community-based residential facility, shall be established as follows:

1. 400 cubic feet for each occupant over 12 years of age; and
2. 200 cubic feet for each occupant 12 years of age or under.

(b) Minimum Size. The size of habitable rooms shall provide the minimum volumes specified in par. (a).

(c) Nonsleeping Areas. The capacity of the areas not within the living units of the building shall be established as specified in ss. Ind 54.05 or Ind 55.06.

(d) Overcrowding. The number of occupants permitted in any room or in the building shall not exceed the capacities specified in this section.

(2) COMMUNITY-BASED RESIDENTIAL FACILITIES. (a) Facilities Serving 9 to 20 Residents. The minimum size of resident bedrooms in community-based residential facilities serving 9 to 20 residents shall be as follows:

1. Sixty square feet of habitable floor space per ambulatory resident;
2. Eighty square feet of habitable floor space per semi-ambulatory or nonambulatory resident in multiple bed sleeping rooms; and

3. One hundred square feet of habitable floor space per semi-ambulatory or nonambulatory resident in single bed sleeping rooms.

(b) Facilities Serving More than 20 Residents. The minimum size of resident bedrooms in community-based residential facilities serving more than 20 residents shall be as follows:

1. Eighty square feet of habitable floor space per ambulatory resident;

2. Eighty square feet of habitable floor space per semi-ambulatory and nonambulatory resident in multiple bed sleeping rooms; and

3. One hundred square feet of habitable floor space per semi-ambulatory and nonambulatory resident in single bed sleeping rooms.

(3) EXITS. The total required exit width from each level of the building shall be as specified in ss. Ind 51.15 (6) and Ind 51.16 (3).

Ind 57.05 TYPE OF EXITS. (1) GENERAL. Except as provided in sub. (2), at least one-half of the required exits, accessible from each living unit, shall be exits to grade or stairways as specified in ss. Ind 51.15 and Ind 51.16. The remaining exits shall be either stairways, interior enclosed stairways, exits to grade or horizontal exits. Fire escapes placed against blank walls may be used as exits from floors which are not more than 40 feet above grade.

(2) EXCEPTIONS. (a) Every building which accommodates more than one family, or 8 persons, above the second story shall have at least 2 stairways.

(b) A rescue platform (exterior balcony) of combustible construction may be used as a required second exit for 2-story buildings of type 5 through type 8 construction, provided the following conditions are satisfied:

1. The exit serves a single living unit;

2. The exit platform is located not more than 10 feet above the adjacent exit discharge grade;

3. The platform area is at least 14 square feet, with a minimum dimension of 3 feet;

4. The platform is designed for 80 pounds per square foot live load plus dead load;

5. Railings are provided as specified in s. Ind 51.162;

6. Platforms having solid floors are provided with a roof equal in area to that of the platform; and

7. The building is not a residential care facility, group foster home or home for the elderly.

Ind 57.06 DOORS. (1) EXIT DOORS. (a) General. Except as provided in par. (b), exit doors shall be as specified in s. Ind 51.15.

(b) Exception. 1. Sliding glazed patio-type doors may serve as the second exit from individual living units. A means to prevent accumulation of snow and ice in the door track or freezing of the door shall be provided.

2. A door which is used by not more than 25 persons is not required to swing in the direction of egress.

(2) OPENINGS INTO CORRIDORS. All doors opening into exit access corridors shall be protected by at least 20-minute labeled fire-door assemblies. Such doors shall be self-closing.

Ind 57.07 STEPS, STAIRS AND SHAFTS. (1) EXTERIOR STAIRS. Exterior stairs shall be as specified in s. Ind 51.16, except that less than 3 steps may be provided between exterior platforms and grade serving only apartments, row houses and town houses, and the platforms or treads between such risers do not exceed 5 feet 0 inches in length in the direction of travel.

(2) INTERIOR STAIRS. Interior stairs used by not more than 25 persons shall be not less than 3 feet wide.

(3) \*CHANGES OF ELEVATION WITHIN INDIVIDUAL LIVING UNITS. Changes of elevation within the living unit shall be overcome by means of steps, stairs or ramps and shall be as specified in s. Ind 21.04, Wis. Adm. Code, except as follows:

(a) A spiral stairway as specified in s. Ind 51.16 (10) may serve as the only exit from mezzanines and loft areas no larger than 400 square feet; and

(b) Open handrails and guardrails shall be provided with intermediate rails or an ornamental pattern designed to prevent the passage of an object with a diameter larger than 9 inches.

Ind 57.08 ENCLOSURE OF INTERIOR STAIRWAYS AND SHAFTS. All stairways, including landings, ramps and shafts, shall be enclosed as specified in s. Ind 51.02 (11) with fire-resistive rated construction as specified in Table 51.03-A.

Ind 57.09 PASSAGEWAYS. (1) WHERE REQUIRED. Where there is not direct access to outside exit doors, safe and continuous passageways, aisles or corridors leading directly to every exit shall be maintained at all times on all floors of all buildings.

(2) MINIMUM WIDTH. Every public passageway leading from an exit shall be at least as wide as the required width of the exit as specified in s. Ind 51.15 (6), but in no case shall the width be less than 3 feet.

\*See Appendix A for further explanatory material.

(3) WIDTH DETERMINATION. Widths shall be measured in the clear, at their narrowest points produced by any projection, radiator, pipe or other object.

(4) MAINTENANCE. The required width shall be kept clear and unobstructed at all times.

Ind 57.10 ILLUMINATION OF EXITS AND EXIT SIGNS. (1) ILLUMINATION. (a) Buildings having more than 4 living units or accommodating more than 30 persons or accommodating transients shall have public passageways, stairways and exit doors illuminated from one hour after sunset to one hour before sunrise.

(b) The illumination requirements specified in par. (a) shall be provided at all intersections of passageways, at all exits and at the head, foot and landing of every stairway.

(2) EXIT LIGHTS. Every required exit, other than those within private living units, from each floor shall be indicated by an approved illuminated, exit sign.

Ind 57.11 HABITABLE ROOMS WITH FLOORS BELOW GRADE. (1) GENERAL. Living units in residential buildings other than housing for the elderly having habitable rooms or parts on floor levels below grade shall comply with the following:

(a) The grade at the building does not include the grade level within the perimeter of an areaway.

(b) Every habitable room shall have at least one exterior wall adjoining an areaway or court.

(c) All windows shall comply with the requirements of ss. Ind 52.02 and Ind 57.13.

(d) Windows having sills below grade shall be provided with an areaway as described in sub. (3).

(e) Window assemblies shall be of a type, which do not obstruct emergency egress, when opened.

(f) All living units with floors below grade shall have access to 2 exits complying with s. Ind 57.05, except living units having one exit door leading directly outside and not to an areaway need not have access to a second exit.

(2) HOUSING FOR THE ELDERLY. Living units in housing for the elderly having habitable rooms or parts on floor levels below grade shall have at least one exterior wall with a full exterior exposure from the ground floor level to the ceiling. The exterior exposure shall not be made by the construction of an areaway.

(3) AREAWAYS. Areaways used as specified in this section shall:

(a) Be 1-1/2 times the depth of the bottom of the opening with a minimum width of 3 feet measured perpendicular to the building wall;

Note: See s. Ind 64.07 for additional requirements.

(b) Have stairway exits complying with ss. Ind 51.16 and Ind 52.21, when used as a required exit.

(4) MOISTURE PROTECTION. All buildings having living units below grade shall be designed and constructed to prevent undue collection of moisture in all stories below grade.

Note #1: Surface and subsoil draining systems for areaways and foundation walls are regulated under the requirements of ch. H-62, Wis. Adm. Code.

Note #2: See s. Ind 50.07 (2) Note #3 for reference to flood plain requirements.

(a) All foundation walls shall be thoroughly damp proofed prior to back-filling of soil.

(b) Provisions shall be made to prevent the accumulation of moisture due to condensation of high humidity so as to prevent slippery floors and to prevent conditions susceptible to mildew or other undesirable fungi or bacteria. The inside design conditions for cooling or dehumidification shall be on the basis of a dry bulb temperature of 75° F. and a relative humidity not greater than 50%.

Ind 57.12 SANITARY FACILITIES. (1) TOILET ROOMS. Every building included under the scope of this chapter shall be provided with separate toilet rooms for each sex, except that a common toilet room may be provided in individual living or sleeping units.

(2) SANITARY FIXTURES. The number of sanitary fixtures required for each sex shall be determined in accordance with the ratios established in Table 57.12.

TABLE 57.12

Type of Occupancy	Type of Fixture					
	Water Closets (WC)		Urinals(U) Males (M)	Lavatories (L)	Bathtubs or Showers	Drinking Facilities (DF)
	Males(M)	Females(F)				
Occupancies having individual unit toilet rooms, such as hotels, motels, apartments, row houses, town houses, condominiums	One (WC) for each living unit		0	One (L) for each living unit	One for each living unit	0
Occupancies requiring communal use of sanitary facilities such as dormitories, camps, rooming houses, foster care homes	One (WC) for each 10 (M), or fraction	One (WC) for each 10 (F), or fraction	Urinals may be substituted for up to 2/3 of the required no. of (WC)	One (L) for each 10 persons	One for each 20 persons	One (DF) for each 100 persons

(3) EMPLOYEES. Sanitary facilities for employes who do not sleep in the building shall be provided as specified in Table 54.12, unless the employes have access to the facilities provided for the residents.

(4) GENERAL PUBLIC. Sanitary facilities for the general public shall be provided as specified in Table 54.12-A or Table 54.12-B, unless the general public has access to the facilities provided for the residents.

(5) KITCHEN SINK. One kitchen sink, equipped with hot and cold running water, shall be provided in living units equipped for food preparation.

Ind 57.13 WINDOWS. (1) GENERAL. (a) The outside windows in every habitable room shall have a total glazed area of at least 8% of the floor area of the room.

(b) Except as provided in sub. (2), the openable area of such windows shall be equal to not less than 4% of the floor area of the room served.

(2) EXCEPTION. Hotel and motel rooms and similar sleeping rooms in buildings accommodating transients need not be provided with openable outside windows provided the rooms have clear glazed panels facing naturally lighted roofed over pool or recreational areas. The rooms shall be provided with mechanical ventilation supplying at least 5 CFM of tempered outside air per occupant.

Note: See ss. Ind 52.02 and Ind 64.07 for additional requirements.

Ind 57.14 ISOLATION OF HAZARDS. (1) GENERAL. (a) Buildings 3 or More Stories. Except as provided in par. (c), all boilers and furnaces, fuel rooms and breeching, storage vaults for paints, oils and similar combustibles and other similar hazards in buildings 3 or more stories in height shall be isolated from the rest of the building by at least a 2-hour fire-resistive rated enclosure as specified in s. Ind 51.043.

(b) Buildings Less Than 3 Stories. Except as provided in par. (c), in buildings less than 3 stories in height the hazards specified in par. (a) shall be isolated from the rest of the building by at least a one-hour fire-resistive rated enclosure as specified in s. Ind 51.043.

(c) Exceptions. 1. The hourly rating of hazard enclosures in mixed use buildings shall comply with the most stringent requirement for the occupancies located in the building.

2. Gas-fired space heaters may be used within living units of apartment buildings and within habitable rooms of motels or tourist courts without an enclosure if approved by the department.

3. Space heaters fired with liquid fuel may be used without an enclosure in motels and apartment buildings not more than one story in height.

4. A residential fuel-fired cloths dryer having a rated capacity of 37,000 Btu/hour or less may be used without an enclosure.

(2) PROTECTION OF OPENINGS. All openings in rated enclosures shall be protected by labeled fire-door assemblies as specified in s. Ind 51.047.

Ind 57.15 STANDPIPES. (1) FIRE DEPARTMENT STANDPIPES. Fire department standpipes shall be provided in all buildings exceeding 60 feet in height.

(2) FIRST-AID STANDPIPES. First-aid standpipes shall be provided in all buildings 3 stories or more in height which accommodate more than 20 occupants, unless an approved automatic sprinkler system is installed or portable fire extinguishers, as specified in s. Ind 57.18, are provided.

Ind 57.16 SMOKE DETECTION. (1) NUMBER OF DETECTORS REQUIRED AND LOCATION. (a) All buildings within the scope of this chapter shall be provided with approved smoke detectors.

(b) At least one detector shall be provided at the head of every open stair and at the door leading to every enclosed stair on each floor level, including the basement, and in each sleeping area.

(c) All smoke detectors in stairways, corridors and other public places in the building shall be directly and permanently wired to a proper unswitched circuit.

1. Such detectors shall be connected to the emergency electrical power system, when the system is required by ch. ILHR 16, Wis. Adm. Code.

2. Such detectors shall be electrically interconnected to the required manual fire alarm system.

(2) RETROACTIVITY. The provisions of sub. (1) (a) and (b) shall apply to all buildings constructed on or after the effective date of this section and to those buildings previously constructed.

Ind 57.17 FIRE ALARMS. (1) GENERAL. Every building, which can accommodate 20 or more persons as determined by the requirements specified in s. Ind 57.04, shall be provided with a manual fire alarm system as specified in s. Ind 51.24.

(2) APPLICATION. This section shall apply to all buildings in existence on the effective date of this section and to those buildings constructed thereafter.

Ind 57.18 FIRE EXTINGUISHERS. (1) GENERAL. Portable fire extinguishers may be substituted for the first aid standpipes specified in s. Ind 57.15 (2) provided the extinguishers are located in the public areas of the building and comply with the requirements of Table 57.18.

TABLE 57.18		
Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher (feet)	Area to be Protected per Extinguisher (sq. ft.)
1A	75	3,000
2A	75	6,000

(2) LOCATION. (a) Extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.

(b) Extinguishers shall not be obstructed or obscured from view.

(3) MAINTENANCE. Portable fire extinguishers shall be maintained as specified in s. Ind 51.22.

Ind 57.19 ROWHOUSE. (1) VERTICAL OCCUPANCY SEPARATIONS. (a) Piercing of the vertical occupancy separation between the units by doors or windows shall be prohibited.

(b) Piercing of the vertical occupancy separation by mechanical, electrical or plumbing elements may be permitted provided the piercing is as specified in s. Ind 51.049 and it does not violate the hourly rating of the wall.

Note: Mechanical, electrical or plumbing systems may be located in the occupancy separation wall and components may penetrate one or both sides of the wall within the same stud space. See s. Ind 51.049 (3) for additional requirements pertaining to plastic components.

(2) EXITS. Each living unit shall have a separate exit within 3 feet of the exit discharge grade.

(3) ATTIC ACCESS. Each living unit shall have attic access as specified in s. Ind 51.02 (18) (a). Compliance with the provisions of s. Ind 51.02 (18) (b) is not required.



(4) EXCEPTIONS. Where each living unit has a separate heating system, compliance with ss. Ind 57.14 and Ind 57.17 is not required.

SECTION 41. Ind 58.27 (4) is created to read:

Ind 58.27 (4) \*FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. Ind 51.22.

SECTION 42. Ind 59.23 (3) is created to read:

Ind 59.23 (3) \*FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. Ind 51.22.

SECTION 43. Ind 61.14 is amended to read:

Ind 61.14 SMOKE DETECTION. ~~(1) DEFINITIONS. (a) Smoke Detector. Smoke detector means a device which detects particles or products of combustion other than heat.~~

~~(b) Sleeping Area. Sleeping area means the area(s) in which bedrooms or sleeping rooms are located. Bedrooms or sleeping rooms separated by other use areas such as kitchens or living rooms, but not bathrooms, are considered as separate sleeping areas for the purpose of this section.~~

~~(2) (1) NUMBER OF DETECTORS REQUIRED AND LOCATION. All CBRF within the scope of this chapter shall be provided with approved smoke detectors. At least one detector shall be provided at the head of every open stair and at the door leading to every enclosed stair on each floor level, including the basement, and in each sleeping area.~~

~~Note. The department recognizes smoke detectors listed by Underwriters' Laboratories (UL).~~

~~(3) INSTALLATION AND MAINTENANCE. Smoke detectors shall be installed in accordance with the manufacturer's directions and specifications and shall be maintained in good working order.~~

~~Note. The department recommends Underwriters' Laboratories standards UL No. 167 and 168 for testing of smoke detectors and National Fire Protection Association standards NFPA No. 72E and No. 74 for maintenance of smoke detectors.~~

(2) RETROACTIVITY. The provisions of this section shall apply to all CBRF constructed on or after the effective date of this section and to those CBRF previously constructed.

SECTION 44. Ind 62.50 is repealed and recreated to read:

Ind 62.50 \*FIRE EXTINGUISHERS. (1) GENERAL. Portable fire extinguishers shall be installed as specified in Table 62.50.

\*See Appendix A for further explanatory material.

TABLE 62.50

Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher (feet)	Area to be Protected per Extinguisher (sq. ft.)
1A	75	3,000
2A	75	6,000
3A	75	9,000
4A or larger	75	11,250

(2) LOCATION. (a) Extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire.

(b) Extinguishers shall not be obstructed or obscured from view.

(3) MAINTENANCE. Portable fire extinguishers shall be maintained as specified in s. Ind 51.22.

SECTION 45. Appendix A 51.22 is created to read:

A51.22 FIRE EXTINGUISHERS. The following information is taken from the National Fire Protection Association Standard #10-1978 - Portable Fire Extinguishers. The information is provided to assist building designers in determining the number, type and location of fire extinguishers needed to comply with the provisions of the standard.

1-3 Definitions.

1-3.1 The basic types of fires are Classes A, B, C and D as defined in the following subsections.

1-3.1.1 Class A fires are fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.

1-3.1.2 Class B fires are fires in flammable liquids, oils, greases, tars, oil base paints, lacquers, and flammable gases.

1-3.1.3 Class C fires are fires which involve energized electrical equipment where the electrical nonconductivity of the extinguishing media is of importance. (When electrical equipment is de-energized, extinguishers for Class A or B fires may be used safely.)

1-3.1.4 Class D fires are fires in combustible metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium.

1-3.3 Classification of Hazards

1-3.3.1 Light (Low) Hazard. Where the amount of combustibles or flammable liquids present is such that fires of small size may be expected. These may include offices, schoolrooms, churches, assembly halls, telephone exchanges, etc.

1-3.3.2 Ordinary (Moderate) Hazards. Where the amount of combustibles or flammable liquids present is such that fires of moderate size may be expected. These may include mercantile storage and display, auto showrooms, parking garages, light manufacturing, warehouses not classified as extra hazard, school shop areas, etc.

1-3.3.3 Extra (High) Hazards. Where the amount of combustibles or flammable liquids present is such that fires of severe magnitude may be expected. These may include woodworking, auto repair, aircraft servicing, warehouses with high-piled (over 15 ft. in solid piles, over 12 ft. in piles that contain horizontal channels) combustibles, and processes such as flammable liquid handling, painting, dropping, etc.

3-2 Fire Extinguisher Size and Placement for Class A Hazards.

3-2.1 Minimal sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 3-2.1 except as modified by 3-2.3. Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in Table 3-2.1, except as modified by 3-2.3.

Table 3-2.1

	Light (Low) Hazard Occupancy	Ordinary (Moderate) Hazard Occupancy	Extra (High) Hazard Occupancy
Minimum extinguisher rating	1A	2A	2A
Maximum floor area per unit of A	3000 sq ft	1500 sq ft	1000 sq ft
Maximum floor area per extinguisher	11250 sq ft*	11250 sq ft*	11250 sq ft*
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

\*11250 sq. ft. is considered a practical limit.

Note: Certain smaller extinguishers which are charged with multi-purpose dry chemical or Halon 1211 are rated on Class B and Class C fires, but have insufficient effectiveness to earn the minimum 1-A rating even though they have value in extinguishing smaller Class A fires. They shall not be used to meet the requirements of 3-2.1.

3-2.2 Up to one-half of the complement of extinguishers as specified in Table 3-2.1 may be replaced by uniformly spaced 1-1/2 inch hose stations for use by the occupants of the building. The location of hose stations and the placement of fire extinguishers shall be in such a manner that the hose stations do not replace more than every other extinguisher.

3-2.3 Where the floor area of a building is less than that specified in Table 3-2.1, at least one extinguisher of the minimum size recommended shall be provided.

3-2.4 The protection requirements may be fulfilled with extinguishers of higher rating provided the travel distance to such larger extinguishers shall not exceed 75 feet.

3-2.5 For Class A extinguishers rated under the rating classification system used prior to 1955, their equivalency shall be in accordance with Table 3-2.5.

Table 3-2.5

All Water & Loaded Stream Types	Pre-1955 Rating	Equivalency
1-1/2 to 1-3/4 gal	A-2	1-A
2/1/2 gal	A-1	2-A
4 gal	A-1	3-A
5 gal	A-1	4-A
17 gal	A	10-A
33 gal	A	20-A

3-3 Fire Extinguisher Size and Placement for Class B Fires Other than for Fires in Flammable Liquids of Appreciable Depth.

3-3.1 Minimal sizes of fire extinguishers for the listed grades of hazard shall be provided on the basis of Table 3-3.1.1. Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in the table used.

Exception: Extinguishers of lesser rating, desired for small specific hazards within the general hazard area, may be used, but shall not be considered as fulfilling any part of the requirements of Table 3-3.1.1.

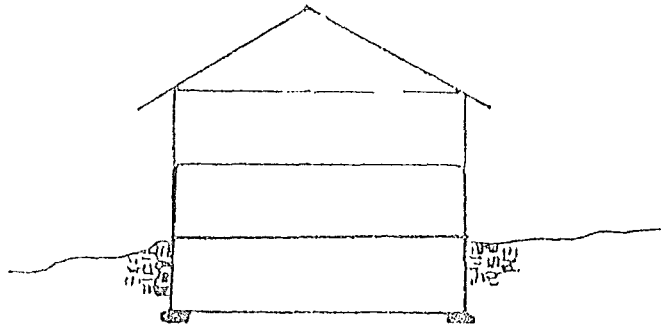
Table 3-3.1.1

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers (Ft.)	(m)
Light (low)	5B	30	9.15
	10B	50	15.25
Ordinary (moderate)	10B	30	9.15
	20B	50	15.25
Extra (high)	40B	30	9.15
	80B	50	15.25

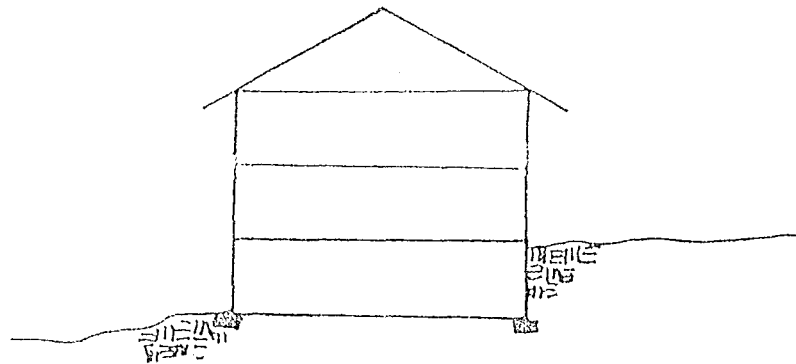
Note: The specified ratings do not imply that fires of the magnitudes indicated by these ratings will occur, but rather to give the operators more time and agent to handle difficult spill fires that may occur.

SECTION 46. Appendix A53.64 is repealed and recreated to read:

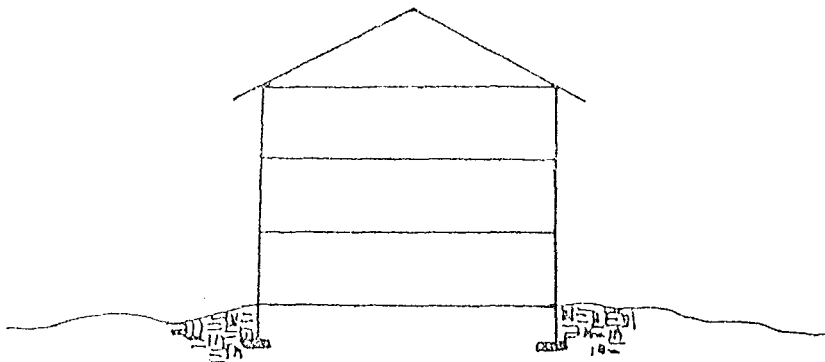
A-53.64 WOOD FOUNDATIONS. The following illustrations are provided to give visual aid to the limitations specified in this rule and to indicate the three typical designs permitted by the rule.



Two -story with full basement



Two-story with ground floor



Three -story with wood foundation  
(No basement or crawl space)

SECTION 47. Appendix A 57.07 (3) is created to read:

A 57.07 (3) CHANGES OF ELEVATION WITHIN INDIVIDUAL LIVING UNITS. Section Ind 57.07 (3) permits the steps, stairs and ramps within individual living units to conform with s. Ind 21.04 of the Uniform Dwelling Code. The following is a reprint of the subject rules:

Ind 21.04 STAIRS. Every exterior or interior exit stairs shall conform to the requirements of this section. [See s. Ind 57.07 (3) (a)]

(1) MINIMUM WIDTH. Every required exit stairs shall measure at least 3 feet 0 inches in width, except that stairs leading to basements may measure 2 feet 8 inches in width.

(2) HEADROOM. Every stairs shall be provided with a minimum headroom clearance of 6 feet 4 inches. The minimum clearance shall be measured vertically from a line parallel to the edge of the treads to the ceiling or soffit directly above that line.

(3) TREADS AND RISERS. Risers shall not exceed 8-1/4 inches in height, measured vertically from tread to tread. Treads shall be at least 9 inches wide, measured horizontally from riser to riser. There shall be no variation in uniformity exceeding 3/16-inch in the depth of tread or in the height of risers. No flight of stairs shall exceed 12 feet in height vertically unless landings are provided.

(4) LANDINGS. (a) Intermediate Landings. Intermediate landings located in a flight of stairs shall be at least as wide as the stairs and shall measure at least 3 feet 0 inches in the direction of travel. Trim and handrails may project no more than 3-1/2 inches into the required width.

(b) Landings at the Top and Base of Stairs. A level landing shall be provided at the top and at the base of every stairs. The landing shall be at least as wide as the stairs and shall measure at least 3 feet 0 inches in the direction of travel.

(c) Doors at Landings. Where a door is provided at the head or foot of a stairs, a level landing on each side of the door shall be provided between the door and the stairs, regardless of the door swing.

1. 'Exception'. No landing shall be required between the door and the basement stairs or stairs leading to a garage, provided the door does not swing over the stairs.

2. 'Exception'. A storm door or screen door shall be permitted to swing over an exterior platform or sidewalk provided the platform or sidewalk is located not more than 8-1/4 inches below the floor level and provided the platform has a length at least equal to the width of the door.

7

(5) HANDRAILS AND GUARDRAILS. (a) Handrails. Every stairs of more than 3 risers shall be provided with at least one handrail. Handrails shall be provided on all open sides.

(b) Guardrails. All openings between floors, open sides of landings, platforms, balconies or porches which are more than 24 inches above grade or a floor shall be protected with guardrails.

(c) Handrail and Guardrail Details. 1. 'Height'. Handrails shall be located at least 30 inches, but not more than 34 inches, above the upper surface of the tread. Guardrails shall be located at least 36 inches above the upper surface of the floor.

2. [See s. Ind 57.07 (3) (b)]

3. 'Clearance'. The clearance between the handrail and the wall surface shall be at least 1-1/2 inches.

(6) WINDERS. Winder steps may be used in required exit stairs where the length of the tread is at least 3 feet 0 inches and the winder tread measures at least 7 inches in width at a point one foot from the narrow end of the tread.

(7) SPIRAL STAIRS. Spiral stairs may be used as required exit stairs. The tread shall measure at least 26 inches from the outer edge of the supporting column to the inner edge of the handrail and at least 7 inches in width at a point one foot from the narrow end of the tread.

\* \* \* \* \*

EFFECTIVE DATE

Pursuant to s. 227.026 (1) (intro), Stats., ss. Ind 56.03 (2), Ind 57.16 (2) and Ind 61.14 (2), Wis. Adm. Code shall take effect on January 1, 1983, and all other sections shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

\* \* \* \* \*