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Chapter Ind 56

SCHOOLS AND OTHER PLACES OF INSTRUCTION

Ind 56.001 Ind 56.01 Ind 56.02 Ind 56.04	Scope Maximum height Classes of construction Subdivisions and fire	Ind 56.09 Ind 56.10 Ind 56.13	Passageways Access to attic and roof Auditoriums, gymnasi- ums and field houses
Ind 56.05 Ind 56.06	stops Exterior wall openings Type, location and num-	Ind 56.14 Ind 56.15 Ind 56.16	Seats, desks and aisles Heating plants Sanitary facilities
Ind 56.07 Ind 56.08	ber of exits Total width of exits Exit doors	Ind 56.17 Ind 56.18 Ind 56.19	Lighting Fire extinguishers Fire alarms

Ind 56.001 Scope. The requirements of this chapter, sections Ind 56.001 to Ind 56.19 inclusive, shall apply to all public and private schools, universities, colleges, academies, seminaries, libraries, museums and art galleries; including all buildings or parts of buildings used primarily for instructional purposes.

History: 1-2-56; am. Register, May, 1971, No. 185, eff. 6-1-71.

Ind 56.01 Maximum height. (1) Buildings occupied primarily by pupils up to and including grade 12 shall not exceed 4 stories or 48 feet in height.

(a) Exception. Buildings provided with complete automatic sprinkler or automatic smoke detection systems, occupied primarily by students of grades 9 through 12, shall be no more than 6 stories or 72 feet in height.

Note: Also see requirements for classes of construction.

History: 1-2-56; r. Register, May, 1971, No. 185, eff. 6-1-71; cr. Register, September, 1973, No. 213, eff. 10-1-73.

Ind 56.02 Classes of construction. (1) Every building not more than one story in height may be of type No. 7 or No. 8 construction as specified in section Ind 51.03.

- (2) Every 2-story building shall be not less than type No. 6 construction as specified in section Ind 51.03 with the exception that all floors and their supports shall be at least noncombustible one-hour fire-resistive rating.
- (3) Every building 3 or more stories in height shall be of type No. 1 or No. 2 construction as specified in section Ind 51.03.
- (4) Auditoriums, gymnasiums or field houses, or those parts of buildings similarly used, shall comply with the following:
- (a) Limitations when occupancy is restricted to first story or ground floor only.

Type of Construction	Maximum Number of Occupants in Any Room Used for Auditorium, Gymnasium, or Field House Purposes			
- Carlo Constitution (Carlos Constitution) - Analysis - Analysis (Carlos Constitution)	With Stage	Without Stage		
Type No. 1 and No. 2 Type No. 3 and No. 4 Type No. 5 and No. 6 Type No. 7 and No. 8	No limit 750 500 300	499941949 19 1500 19441111 438 11 1000 144449		

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1. Exception. One-story buildings are permitted for unlimited capacities providing the following conditions are satisfied:

- a. The class of construction requirements satisfy Type No. 3, 4 or 6.
 - b. There are no ground floors or basements.
- c. The setback satisfies the requirements of table 51.03-A for over 30 feet distance.
 - (b) Limitations when occupancy is above the first story.

Type of Construction	Maximum Number of Occupants	No. of Stories
Type No. 1 and No. 2	No limit	See Ind 56.01†
Type No. 3 thru No. 6	400	2nd story
Type No. 3 thru No. 6	200	3rd and 4th story

†One smokeproof stair tower from the level of the assembly hall leading directly to the exterior at street grade shall be provided for every 750 persons capacity, or fraction thereof. These stairways shall be at least 44 inches wide and shall be in addition to other required stairways in the building.

History: 1-2-56; r. and recr. Register, May, 1971, No. 185, eff. 6-1-71; am. (1) and (2) and r. and recr. (3), Register, June, 1972, No. 198, eff. 1-1-73; cr. (4), Register, September, 1973, No. 213, eff. 10-1-73.

Ind 56.03 History: 1-2-56: am. Register, February, 1971, No. 182, eff. 7-1-71; r. Register, May, 1971, No. 185, eff. 6-1-71.

Ind 56.04 Subdivisions and fire stops. Every building of this classification which is built in connection with a building of a lower grade of construction shall be separated from such other building by walls of 4-hour fire-resistive construction as specified in section Ind 51.04, and all communicating openings shall be protected by fire-resistive doors as specified in section Ind 51.047 or equal. If such openings are used as a means of egress, they shall be kept normally open during the occupancy of the building.

History: 1-2-56; am. Register, February, 1971, No. 182, eff. 7-1-71; r. and recr. eff. 8-1-71 and exp. 1-1-72; cr. eff. 1-1-72, Register, July, 1971, No. 187.

Ind 56.05 Exterior wall openings. (1) One-story buildings with no floor levels below the first floor need not be provided with exterior wall openings other than required exits.

(2) Buildings with basements shall at such levels be protected with an approved automatic sprinkler system (Ind 51.23) or an approved automatic smoke detection system, either of which shall be connected to the required fire alarm (Ind 56.19).

Note: See section Ind 51.01 for definitions of "automatic" and "basement."

- (3) Buildings more than one story shall be provided with wall openings for emergency purposes above the first story as specified in subsection Ind 52.02 (2) except as follows:
- (a) The requirements for wall openings is waived in buildings provided throughout with an approved automatic sprinkler system (Ind 51.23) or an approved automatic smoke detection system, either of which shall be connected to the required fire alarm (Ind 56.19).

History: 1-2-56; am. Register, January, 1961, No. 61, eff. 2-1-61; r. and recr., Register, May, 1971, No. 185, eff. 6-1-71; r. and recr., Register, September, 1973, No. 213, eff. 10-1-73.

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Ward of

Boiler and furnace rooms_____Wis. Adm. Code sections Ind 54.13, Ind 55.29, 56.15, 57.20, 57.50 Heating and ventilating equipment and wiring_____Wis. Adm. Code section E 1-E 900

Ind 59.22 Design conditions. (1) Installation of equipment. All heating, ventilating and air conditioning installations shall be designed and installed to provide the service and results required by this code.

Note: Compliance with this code shall not constitute assurance of proper installation or operation of the heating, ventilating and air conditioning system. This code is not to be used as a design manual but it is established as a minimum standard for safety, health and general welfare of the public.

- (2) CAPACITY AND ARRANGEMENT. The calculated capacity and the arrangement of all installations for required heating and ventilating shall be based upon simultaneous service to all parts of the building, unless otherwise provided in this code.
- (3) OUTSIDE TEMPERATURE DESIGN CONDITIONS. In the accompanying map, the state of Wisconsin has been divided into 3 zones. The maximum heat losses for a heating system shall be calculated on the basis of the temperatures indicated in Table 1 with reference to location of the project in each respective zone.
- (4) INSIDE TEMPERATURE DESIGN CONDITIONS. The heating system shall be designed to maintain a temperature of not less than that shown in Table 2.

TABLE 2

Type of Buildings	Deg. Fahr.	Type of Buildings	Deg. Fahr.
Barber Shops and Beauty Parlors_Schools: Classrooms_Assembly Rooms_Gymnasiums_Wardrobe and Locker Rooms_KitchensDining and Lunch Rooms_Play Rooms_Natatoriums and Bathrooms_Toilet Rooms_Hospitals: Private Rooms_Operating Rooms_Wards_Kitchens and Laundries_Bathrooms_Toilet Rooms_Toilet Rooms_Uards_Schoons_Uar	75 70 68 55 70 66 65 60 75 75 75 75 66 68 68	Hotels: Bedrooms and Baths	70 70 66 65 68 70 68 65 50 70

⁽⁵⁾ AIR-CLEANSING APPARATUS. (a) Air-cleansing apparatus shall be designed and installed to permit access to the equipment for maintenance and to insure proper operation of the heating and ventilating system.

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⁽⁶⁾ SUPPLY AIR TEMPERATURE. The design condition of the supply air temperature shall not exceed 140° Fahrenheit.

TABLE 1

MAP OF WISCONSIN SHOWING DESIGN TEMPERATURE ZONES



Zone 1 - - - - - - - - - - - - 30° Below Zero F. Zone 2 - - - - - - - - - - - - - 25° Below Zero F.

Zone 3 - - - - - - - - - 15° Below Zero F.

- (7) CONTROLS. Where ventilation is required by this code, controls shall be provided so that minimum air circulation, supply and exhaust shall be maintained continuously during periods of occupancy.
- (8) AIR QUANTITY. The quantity of air used to ventilate a given space during period of occupancy shall always be sufficient to maintain the standards of air temperature, air quality, air motion and air distribution as required by this code. (See Wis. Adm. Code section Ind 59.24)
- (9) Number and arrangement of outlets, returns and exhausts shall insure a uniform distribution of air.
- (10) ELEVATOR SHAFTS AND STAIRWELLS. Air shall not be transferred through elevator shafts and stairwells where doors are required at any floor level.
- (11) GRILLES OR DIFFUSERS REQUIRED. All air supply outlets and returns shall be equipped with grilles or devices which will provide a uniform distribution of air.
- (12) CORRIDOR VENTILATION. Air in a volume equal to the outside air required from a room may be discharged and recirculated through a corridor and exhausted through lockers, toilet rooms, kitchens, janitor closets and similar areas. Additional exhaust ventilation shall be provided where the volume of air exhausted from the corridor is less than the volume of air supplied.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65; am. table 2, cr. (9), (10), (11) and (12), Register, September, 1973, No. 213, eff. 10-1-73.

- Ind 59.24 General requirements for heating, ventilating and exhaust systems. (1) Heating systems required. Heating systems complying with the requirements of this code shall be provided, maintained and operated for all occupied areas within the scope of this code.
- (2) GUARDING OF SURFACES. Equipment located in occupied areas and installed less than 7 feet above the floor shall be guarded to prevent bodily contact with:
 - (a) Any surface temperatures that exceed 180° F.
 - (b) Surfaces that are likely to cause lacerations.

 Note: For more restrictive conditions, see Ind 59.66 (2).
- (3) VENTILATING SYSTEMS REQUIRED. Ventilating systems shall be provided, maintained and operated to accomplish required ventilation service for all occupied areas within the scope of this code.

Note: Cross reference: For requirements pertaining to all places of employment or occupancy where smoke, gas, dust, fumes, steam, vapor, industrial poisons, or other detrimental materials are used, stored, handled, or are present in the air in sufficient quantities to obstruct the vision, or to be irritating, or to be injurious to the health, safety or welfare of the employes or frequenters, see Wis. Adm. Code Chapter Ind 20—Dusts, Fumes, Vapors and Gases.

(4) NATURAL VENTILATION. Where outdoor openings are used for natural ventilation the openings shall be within 100 feet, or 5 times the least dimensional width of the occupied area, whichever is the least.

Heating, Ventilating and Air Conditioning

(a) Outdoor openings below grade will not be accepted unless there is a clear space outside of the opening having a width not less than 1½ times the distance below grade at the bottom of the opening.

Note: Width of clear space is the horizontal distance measured at right angles to the plane of the opening.

(b) Outdoor openings shall be at least 5 feet from a property line and/or lot line or an adjacent building on the same property. This distance restriction does not apply to property lines along streets.

Note: For further restrictions, see Table 51.03-B and section Ind 59.60.

(5) Gravity direct-indirect systems. The installation of gravity direct-indirect systems is prohibited.

Note: This rule is intended to prohibit the use of direct-indirect radiation whereby the outside air supply is admitted to the base and delivered at the top without mechanical assistance.

- (6) HOT WATER HEATING AND VENTILATING SYSTEMS. Hot water systems installed in areas where ventilation is required under this code shall comply with the following requirement:
- (a) The system hot water shall be circulated continuously by mechanical means.
- (7) EXHAUST VENTILATING SYSTEM. (a) Exhaust ventilating systems shall be designed to reasonably prevent contaminated air reentering the building.
- (b) The required exhaust ventilating systems shall operate continuously whenever the space exhausted is occupied.

Note: See Wis. Adm. Code Chapter Ind 20.

- (8) TEMPERED AIR SUPPLY. (a) Where ventilation is affected by exhaust methods, an outside tempered air supply shall be provided to replace the air exhausted from the area if the volume of air exhausted exceeds one air change per hour.
- (b) Where heat gain from a process is equal to all or part of the ventilation heat load, the air may be recirculated and supplied mechanically within the immediate area and mixed with a quantity of outside air to temper the air supply, provided that dampers and temperature controls are installed in the system to maintain a discharge temperature of not less than 50° F.

Note: See other applicable sections of Chapter Ind 59 for further restrictions.

- (c) A tempered air supply depending on a negative pressure within the space is prohibited except in foundries, steel fabricating shops and similar areas.
- (9) CONTAMINATION OF ADJACENT AREA. The ventilation of all equipment and system service rooms which house sources of odors. fumes, noxious gases, smoke, steam, dust, spray, or other contamination, shall be such as to prevent spreading of any such contamination to other parts of the building occupied by people.
- (a) Areas where chlorinated hydrocarbons are introduced shall be arranged to satisfy the following conditions:

Note: Some of the chlorinated hydrocarbons commonly used are: trichloroethylene, perchloroethylene, carbon tetrochloride, methylene chloride, methyl chloroform, Freon F-11, Freon F-12, Freon F-21 and

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Freon F-114. For example, these materials are used in dry cleaning establishments, in degreasing operations, and where pressure can propellants are used. Pressure cans are used for such products as enamels, lacquers, paint removers, stencil inks, lubricants, pesticides, hair sprays, shaving lathers, shampoos and colognes.

1. The area shall have an exhaust system capable of maintaining

a negative pressure within the enclosed area.

2. The volume and distribution of air movement within the area shall be such that the average threshold limit values of specific airborne contaminants are not exceeded. See Wis. Adm. Code Chapter Ind 20—Dusts, Fumes, Vapors and Gases.

- 3. No direct-fired heating unit with or without a heat exchanger shall be located within this area nor shall it recirculate air from this area
- 4. Surface temperatures of any kind of heating equipment used in these areas shall be below the temperature at which toxic materials may be released.

Note: Toxic materials are those covered in Wis. Adm. Code Chapter Ind 20 Dusts, Fumes, Vapors and Gases.

(b) Ventilation air shall not be drawn from an area of greater contamination to satisfy code requirements.

Note: The following examples are typical of acceptable systems: corridor to toilet; corridor to cloak rooms or janitor closets; dining room to kitchen; locker room to toilet room; gymnasium to locker room; and showroom to garage.

- (10) Final test required. The designer or installer shall be responsible for the testing and balancing of every heating, ventilating and air conditioning system.
- (11) INSTRUCTIONS. The designer or installer shall provide the owner with written instructions for the operation and maintenance of the system and equipment.

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

- Ind 59.25 Maintenance and operation. (1) MAINTENANCE. All heating, ventilating, exhaust and air conditioning systems shall be maintained in good working order and shall be kept clean and sanitary.
- (2) OPERATION. All heating, ventilating and exhaust systems shall be operated to satisfy the requirements of this code during periods the building is occupied unless otherwise exempted by this code.

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

Ind 59.40 Occupancy classification. (1) The various occupancies to which the provisions of this code apply shall be classified as follows:

- (a) Require ventilation on an occupancy basis.
- (b) Require ventilation on an occupancy basis unless otherwise exempted.
 - (c) Require exhaust.
 - (d) Require ventilation on the basis of floor area.
- (2) Table 3 is a list of occupancies to determine ventilation requirements and number of persons.

TABLE 3

Use or Occupancy	Classifi- eation	Basis of Capacity
Arenas and field houses*Armories (drill halls)	(a) (a)	4 sq. ft. per person. Use seated area only. 30 sq. ft. per person.
Assembly halls*	(a) or (b)	7 sq. ft, per person. See Wis. Adm. Code sec
Banquet halls*	(a) or (b)	15 sq. ft. per person. See Wis. Adm. Code section Ind 59.42.
Barber shops	(b)	20 sq. ft. per person. See Wis. Adm. Code section Ind 59.51.
Bath and shower roomsBeauty parlors	(b)	See Wis. Adm. Code section Ind 59.48. 20 sq. ft. per person. See Wis. Adm. Cod section Ind 59.51. 15 sq. ft. per person. See Wis. Adm. Cod section Ind 59.51.
Billiard rooms	(a) or (b)	15 sq. ft. per person. See Wis, Adm. Cod
Bowling alleys	(a) or (b)	Terminate occupied area at foul line. See Wis
Brokerage board rooms	(a) or (b)	Adm. Code section Ind 59.51. 7 sq. ft. per person. See Wis. Adm. Cod section Ind 59.51. V
Cafeterias*	(a) or (b)	15 sq. ft. per person. See Wis. Adm. Cod
Churches and places of worship	(a) or (b) (a) or (b) (a) or (b)	See Wis Adm. Code section 1nd 59.44.
Chapel Dining and social rooms Nave or auditorium	(a) or (b)	7 sq. ft. per person. 15 sq. ft. per person. 7 sq. ft. per person. Depends on usage.
Club rooms Dance halls	(a) or (b) (a) or (b)	Depends on usage. 15 sq. ft. per person. See Wis. Adm. Cod
Section 1997 Control	(a) or (b)	section Ind 59.51.
Dining rooms*	(a) or (b)	15 sq. ft. per person. See Wis. Adm. Cod section Ind 59.42.
Educational facilities† Academic classrooms-regular	(a)	20 sq. ft. per person.
Administrative and office space Arts, crafts, drafting	(a) or (b) (a) or (c)	75 sq. ft. per person. 30 sq. ft. per person. Also see Wis. Adm
		30 sq. ft. per person. Also see Wis. Adm Code chapter Ind 20 Dusts, Fumes, Vapor and Gases.
Bleachers Gymnasiums, field houses, au- ditoriums, theaters, lecture	(a)	One seat per 18 inches of bench length.
ditoriums, theaters, lecture	(0)	C \$4
rooms (fixed seating)	(a)	6 sq. ft. per person.
with nonfixed individual	ATT SHARE	1. 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1
seating Home economics, business	(a)	10 sq. ft. per person.
educationIndustrial arts-vocational	(a)	30 sq. ft. per person.
shop	(a) or (c)	50 sq. ft. per person. See Ind 59.52 and Wis Adm. Code chapter Ind 20 Dusts, Fumes Vapors and Gases.
de applie de missis materialistica de	19 No. 2019	Vapors and Gases.
Laboratories-science (fixed lab. tables)	(a) or (c)	30 sq. ft. per person. Also see Wis. Adm Code chapter Ind 20—Dusts, Fumes, Vapor
Libraries and resource centers Museums and art galleries	(a) (a)	and Gases. 20 sq. ft. per person. 40 sq. ft. per person.
Music Vocal Instrumental Special education (mentally	(a) (a)	10 sq. ft, per person. 20 sq. ft, per person.
retarded, physically handi- capped, etc.)	(a) (b)	35 sq. ft. per person.
Factories and machine shops	(b)	35 sq. 1t. per person. See Wis, Adm. Code section Ind 59.53. Also see rules of Wis. Adm. Code chapter Inc 20 Dusts, Fumes, Vapors and Gases. 15 sq. ft. per person. See Wis, Adm. Cod section Ind 59.53.
First-aid rest rooms	(a) or (b)	15 sq. ft. per person. See Wis, Adm. Cod
Foundries and boiler shops	(b)	section Ind 59.53. V See Wis. Adm. Code section Ind 59.53. Also see rules of Wis. Adm. Code chapter Ind 20 Dusts, Fumes, Vapors and Gases.

TABLE 3-Continued

Use or Occupancy	Classifi- cation	Basis of Capacity
y hand he rece		
Funeral homes		See Wis. Adm. Code section Ind 59.44.
ChapelGarages and service stations	(a) or (b)	7 sq. ft. per person.
Garages and service stations General offices*	(d) (a) or (b)	See Wis. Adm. Code section Ind 59.52.
Gymnasiums and combined gym-	(a) or (b)	See Wis. Adm. Code section Ind 59.50.
nasiums and assembly halls*	(a)	6 sq. ft. per person for seated space.
management and control of the contro	(4)	15 sq. ft. per person for space not seated.
Hospitals	(a) or (b)	See Wis. Adm. Code section Ind 59.56.
As Adam A	.,	See Wis. Adm. Code section Ind 57.17 a
		Ind 57.19.
Hospitals (Mental)		See Wis. Adm. Code section Ind 59.55.
Day rooms	(b)	See Wis. Adm. Code section Ind 57.19.
Dormitories	(b)	See Wis. Adm. Code section Ind 57.17 a Ind 57.19.
fanitor closets	(c)	See Wis. Adm. Code section Ind 59.48 a
WILLIAM 0100000	(6)	Ind 59.56.
Kitchens	(c)	See Wis. Adm. Code section Ind 59.49.
Laboratories*	(a) or (c)	25 sq. ft. per person, See rules of Wis. Ad
선택적 폭발 그리다 시기 다이 되기다	A.A. 1754	25 sq. ft. per person. See rules of Wis. Ad Code chapter Ind 20 Dusts, Fumes, Vapo
A. S. S. M.		and Gases.
_aundries*	(c)	See Wis. Adm. Code section Ind 59.56 (a).
Laundries* Lecture halls* Library reading rooms*	(a)	7 sq. ft. per person. Use seated area only.
Locker rooms	(a) (c) or (d)	Soo Win Adm Code section T 1 70 40
Poorior 100HIO	(c) or (d)	20 sq. ft. per person. See Wis. Adm. Code section Ind 59.48 a Ind 59.53.
Lodge halls	(a) or (b)	6 sq. ft. per person for seated space.
		15 sq. ft. per person for space not seated. S
14.5		Wis, Adm. Code section Ind 59.51
Mental hospitals	(a)	See Wis. Adm. Code section Ind 59.55.
Day rooms	(b) :	See Wis. Adm. Code section Ind 57.19
Dormitories	(b)	See Wis. Adm. Code section Ind 57.17 a
Motion picture booths	(a) or (c)	See Wig Adm Code cection Ind 50 49
Penal institutions	(3) 5. (6)	See Wis. Adm. Code section Ind 57 17
일점 마르다운을 보다고 하는 것이라면 그 하는 것들이 그렇다.		See Wis. Adm. Code section Ind 57.17 a Ind 57.19.
Jail cell (overnight lockup) Places of employment*	(b) & (c)	6 air changes per hour.
Places of employment*	(b)	75 sq. ft. per person. See Wis. Adm. Co
Diameter (Co. C. 1.1.1	73. 3	75 sq. ft. per person. See Wis. Adm. Co section Ind 59.53.
Playrooms (unfinished areas)* Printing establishments	(c) (b)	
timonig establishments	(10)	See Wis. Adm. Code section Ind 59.53. A see rules of Wis. Adm. Code chapter Ind 20
		Dusts, Fumes, Vapors and Gases.
Restaurants	(a) or (b)	15 sq. ft. per person. See Wis. Adm Co
		15 sq. ft. per person. See Wis. Adm. Co section Ind 59.51.
Retail establishments	(a) or (b)	Basement: 40 sq. ft. per person. Other floo 60 sq. ft. per person. See Wis. Adm. Co section Ind 59.51.
		60 sq. ft. per person. See Wis. Adm. Co
Security vaulte (commiss)	(4)	section and 59.51.
Security vaults (occupied)	(d) (a) or (b)	2 CFM per sq. ft.
Skating rinks	(a) Or (b)	15 sq. ft. per person. See Wis. Adm. Co section Ind 59.51.
Sunday School	(b)	15 sq. ft. per person.
Swimming pools Payerns	(c)	See Wis. Adm. Code section Ind 59.48.
Paverns	(a) or (b)	20 sq. ft. per person. See Wis. Adm. Co
10.000		section Ind 59.51.
i neaters*	(a)	7 sq. ft. per person.
l'heaters* L'heater lobbies* L'heater lounge rooms*	(a)	15 sq. ft. per person.
Coilet rooms	(a) (c)	15 sq. ft. per person. See Wis. Adm. Code section Ind 59.48.
Coilet rooms Wardrobes, lockers and cloak	(6)	bee wis. Adm. Code section and 59.48.
rooms		2 CFM per sq. ft. floor area. See Wis. Ad
		Code section Ind 59.48 and Ind 59.53.
and the second s		

^{*}These occupancies are other than those related to educational facilities under Chapter Ind 56.

[†]For areas listed under "educational facilities," the department will accept maximum capacities stated on building plans according to section Ind 56.07.

History: Cr. Register, January, 1965, No. 109, eff. 2-1-65; am. (2) table 3, Register, September, 1973, No. 213, eff. 10-1-73.

Ind 59.41 General requirements for occupancies under (a) and (b) classifications. (1) Scope. The requirements of this rule shall apply to all occupancies listed in Wis. Adm. Code section Ind 59.40 (1) (a) and (b) unless otherwise exempted by this code.

(2) AIR MOVEMENT. The total air circulated for all occupancies in this classification shall not be less than 6 air changes per hour unless otherwise provided by this code.

(a) The air delivery capacity of all equipment supplying air for heating, ventilating and air conditioning purposes shall be based on standard air ratings.

Note: Standard air is substantially equivalent to dry air at 70° Fahrenheit and 29.92 inches (H $^{\epsilon}$) barometric pressure.

(b) An air movement of less than 6 air changes per hour is permitted where mechanical cooling (air conditioning) is provided and the heat gain requirement for the space has been satisfied.

(3) Outside supply. The outside air supply maintained during occupancy of a given space shall not be less than 7½ cubic feet per minute per occupant. Exhaust ventilation in equal volume shall be maintained simultaneously.

Note: See Wis. Adm. Code section Ind 59.40 (Table 3) for method of determining number of occupants.

- (4) AIR DISTRIBUTION. All air outlets and returns shall be so located, arranged or equipped as to provide a uniform distribution of air.
- (5) RECIRCULATION. No air contaminated by other than human occupancy shall be used for recirculation, except within the same occupancy classification.
- (6) AUTOMATIC CONTROLS. Automatic controls shall be provided to maintain temperature and controlled ventilation to satisfy the following conditions during periods the area is occupied.

(a) Provide a continuous air movement of not less than the minimum required by this code.

(b) Provide a continuous supply of tempered outside air as determined by the number of occupants of not less than 7½ cubic feet of air per minute per person.

(c) Maintain design temperature.

(7) AIR CLEANSING DEVICES. Approved air cleansing devices shall be installed in a manner to filter the outside air and recirculated air used with mechanical heating and ventilating systems except as follows:

(a) Filters are not required in garages, factories, foundries and similar occupancies.

(b) Filters are not required for use with unit heaters designed for heating and recirculation.

(c) Where jet systems or blend-air systems are approved, air filters are not required in the ducts that are installed for the recirculation of air within the same occupied space.

Note: The department of industry, labor and human relations recognizes as approved, filters listed in Building Materials List published by the Underwriters' Laboratories, Inc. and test data of any other recognized testing agency for the purpose for which it is used.

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

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