

Chapter ILHR 52

GENERAL REQUIREMENTS

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Note: Chapter Ind 52 was renumbered to be Chapter ILHR 52 effective 1-1-84.

Subchapter I — Fire Prevention, Detection and Suppression for High Rise Buildings

ILHR 52.01 Fire prevention, detection and suppression for high rise buildings. (1) **AUTOMATIC FIRE SPRINKLER SYSTEM.** A complete automatic sprinkler system, as specified in s. ILHR 51.23, shall be provided in every building more than 60 feet in height, the initial construction of which is commenced after July 2, 1974. The requirements of this section shall not apply to open parking structures as defined in s. ILHR 62.10 (2).

(a) *Additions to existing buildings.* Building additions more than 60 feet in height shall have an automatic sprinkler system installed. The sprinkler protection shall be provided throughout the existing building unless the addition is separated from the existing building by a fire division wall as specified in s. ILHR 51.02 (13). The requirements of this section shall not apply to open parking structures as defined in s. ILHR 62.10 (2).

(b) *Substitute suppression systems.* When approved by the department, substitute automatic suppression systems may be used in lieu of a sprinkler system in areas where the use of water could cause unusual damage to equipment, or where water may have a limited effect or may be hazardous to use because of the nature of processes involved.

Note: The department will accept design and installation in accordance with the latest edition of the national fire protection association standards for special extinguishing systems.

(c) *Alternate methods.* When approved by the department, alternate methods of fire prevention, detection and suppression may be provided in lieu of a complete automatic sprinkler system.

Note 1: The department will request a position statement regarding the proposed method to be submitted by the fire chief of the municipality wherein the building is located.

Note 2: The department will consider alternate methods of fire prevention, detection and suppression to include, *but not limited to*, fire-resistive construction, compartmentation, automatic detection systems, interior finish restriction, and partial sprinkler protection.

(2) **ADDITIONAL REQUIREMENTS FOR HIGH-RISE BUILDINGS.** The following requirements apply to all buildings more than 100 feet in height or having more than 10 stories. Open parking structures and buildings used for low hazard industrial processes, including the production and distribution of gas, steam or electric power, foundries and similar uses which require unusual heights to accommodate cranes, special machinery or equipment, are exempt from the provisions of this subsection.

(a) *Smoke control.* Natural or mechanical ventilation for the removal of products of combustion shall be provided in every story and shall consist of one or more of the following methods. Controlling devices may be automatic or manual as approved by the local fire department.

1. Panels or windows in the exterior wall which can be opened from a location other than the fire floor. Such venting facilities shall be provided at the rate of at least 20 square feet per 50 lineal feet of exterior wall in each story, and distributed around the perimeter at not more than 50-foot intervals. Such panels shall be clearly identified as required by the fire department.

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2. Openable windows in habitable rooms of residential units.

3. When an automatic sprinkler system is installed in compliance with s. ILHR 51.23, the mechanical air handling equipment may be designed to assist smoke removal. Under fire conditions, the return and exhaust air shall be taken directly to the outside without recirculation to other sections of the building.

4. A mechanical ventilation system which will prevent the transfer of smoke from the fire source to other floors of the building. The design shall be substantiated by calculations or tests showing that a pressure differential of 0.10 inch of water column will be produced.

5. Any other design which will produce equivalent results.

(b) *Exit stairways.* 1. All stairways shall be pressurized. The pressure across each door shall be at least 0.15 but not more than 0.20 inch of water column with all doors closed. Pressurization shall be activated by the fire alarm system, the detection systems, and the sprinkler system. In lieu of pressurization, a smokeproof stair tower, as defined in s. ILHR 51.17, will be accepted.

Note: The department will accept alternate designs which will produce equivalent results.

2. All stairway doors which are to be locked from the stairway side shall have the capability of being unlocked without unlatching upon a signal from the central control station.

(c) *Elevators.* Every floor level of the building shall be accessible to a fire department by means of one or more elevators. If the building is not provided with an automatic sprinkler system in accordance with s. ILHR 51.23, the elevator lobby at each floor level shall be separated from the remainder of the building by an effective smoke barrier.

Note: See ch. ILHR 18 for additional requirements pertaining to elevators.

(d) *Fire alarm and detection system.* 1. A manual fire alarm box shall be located adjacent to exit doors into stairway shafts and in every elevator lobby.

2. An approved system which will provide for automatic detection of products of combustion other than heat shall be installed in every air-handling equipment room, unless sprinklered, and in the return air portion of every air conditioning and mechanical ventilation system. Approved heat detectors may be installed in boiler rooms and furnace rooms in lieu of product of combustion detectors.

a. Detectors shall be located in the main return air and supply air ducts of each ventilation system and at each opening into a vertical return air shaft or duct.

b. The detectors shall actuate an alarm or signaling system and shut down the ventilation system except where automatic smoke control is incorporated in the system.

3. The manual alarm and automatic detection system shall conform to the Wisconsin State Electrical Code, Volume 2, ch. ILHR 16 and one of the following standards:

a. NFPA 71; or

b. NFPA 72.

4. Detectors shall conform to NFPA 72E.

(e) *Alarm and communication systems.* The following alarm and communication systems shall be provided. The systems shall be supervised and exposed wiring shall be encased in a metal conduit.

1. Voice alarm system. The detection system, sprinkler water flow device and the fire alarm system shall actuate a prerecorded message or voice alarm capable of being operated from the central control station on a general as well as a selective basis to the area involved. The alarm shall be designed to be heard by all occupants within the building or designated portions.

2. Voice communication system. There shall be a voice communication system between the central control station and the following areas:

Note: The department will accept systems installed in accordance with the Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems for Watchmen, Fire Alarm and Supervisory Service, NFPA No. 72A.

a. Elevators, elevator lobbies, in stairways at every fifth floor, and all manual fire alarm boxes (2-way communication system);

b. Every office area exceeding 1,000 square feet in area (one-way address system); and

c. Each dwelling unit and hotel guest room (one-way address system).

3. Fire department communication system. A system providing 2-way communication shall be provided at all floor levels, stairways, the central control station, and other locations required by the fire department.

a. The system shall be designed so the fire department communication system will override the other communication systems.

b. Wiring shall be arranged so that open circuits or short circuits on individual floors will not interfere with communications on another floor.

4. Combined system. When approved by the local fire department, the fire department communication system may be combined with the voice communication system and the voice alarm system.

(f) *Central control station.* A central control station for fire department operations shall be provided in a location approved by the fire department. It shall contain the voice communication systems panel; fire detection and alarm system panels; status indicators and controls for elevators, smoke venting and air handling systems; controls for unlocking stairway doors; a public telephone; sprinkler valve and water flow detectors; and standby power controls. All fire alarm and water flow signals shall be transmitted directly to the systems indicated in s. ILHR 52.01 (2) (d) 3.

(g) *Standby power and light.* An approved permanently installed standby power generating system shall be provided. The system shall be equipped with suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of the required electrical functions at full

power within 60 seconds of such normal service failure. System supervision with manual start and transfer features shall be provided at the central control station.

1. An on-premise fuel supply sufficient for not less than 2 hours full demand operation of the system shall be provided.

2. The power requirement shall be determined so as to provide service to, but not limited to the following:

- a. Fire alarm system;
- b. Exit and other emergency lighting;
- c. Fire protection equipment;
- d. Mechanical ventilation required by this section;
- e. Fire department elevator; and
- f. Communication systems.

Note: Standby power to service fire pumps may be omitted if approved by the local fire department.

(h) *Maintenance.* All communications, fire prevention, detection and suppression systems required under this section shall be tested and maintained in an operable condition. All installed automatic sprinkler systems shall be maintained pursuant to NFPA 25. Records of inspections, tests and maintenance, as specified in NFPA 25 shall be kept and shall be made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the life safety systems are shut down or impaired and when placed back in service. The owner shall arrange for immediate and continual servicing or repair of the communication, fire prevention, detection and suppression systems until they are placed back in operation.

(i) *Floor level identification.* Each floor level or story shall be identified as to its number or name. Identification signs shall be posted in all elevator lobbies and in all required exit stairways.

History: Emerg. cr. eff. 1-1-75; cr. (1), Register, April, 1975, No. 232, eff. 5-1-75; cr. (2), Register, April, 1975, No. 232, eff. 1-1-76; (2), eff. 1-1-77; am. (2), Register, December, 1976, No. 252, eff. 1-1-77; am. (2) (d) 2. a. and cr. (2) (i), Register, December, 1977, No. 264, eff. 1-1-78; am. (1) (intro.), (a), (2) (intro.) and (2) (e) 2. a., Register, December, 1978, No. 276, eff. 1-1-79; am. (2) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (2) (h), Register, June, 1983, No. 330, eff. 7-1-83; emerg. am. (2) (h), eff. 9-6-86; am. (2) (h), Register, November, 1986, No. 371, eff. 12-1-86; r. and recr. (2) (e), Register, March, 1991, No. 423, eff. 4-1-91; am. (2) (d) 3. a. and b., 4 and (h), r. (2) (d) 3. c. and d., Register, January, 1994, No. 457, eff. 2-1-94.

Subchapter II — Automatic Fire Sprinkler Systems for Low Rise Buildings

ILHR 52.011 Purpose, scope and application. (1) GENERAL. Pursuant to s. 101.14 (4) (a), (c) and (g), Stats., created by 1983 Wis. Act 295, this subchapter establishes automatic fire sprinkler system requirements for buildings under 60 feet in height which are used as public buildings or places of employment.

(2) GENERAL REQUIREMENT. Except as provided in sub. (3), automatic fire sprinkler systems shall be installed in the rooms, areas, locations, and building occupancies as specified in ss. ILHR 52.012 and 52.013.

Note: Section 4-4.4.1 of NFPA 13 states: "All concealed spaces enclosed wholly or partially by exposed combustible construction shall be protected

by sprinklers." The section also listed exceptions to the rule. Buildings "completely protected" by automatic fire sprinkler systems must comply with this and related sections of NFPA 13.

(3) ALTERNATE METHODS. When approved by the department through the petition for variance process, alternate methods of fire protection, detection or suppression providing an equivalent degree of life safety protection may be provided.

Note: See s. ILHR 50.25 for the procedure used for submitting a petition for variance to an administrative rule.

(4) SYSTEM DEFINITION AND STANDARD. The automatic fire sprinkler systems specified in this subchapter shall conform to the definition specified in s. ILHR 51.01 (7a) and shall comply with the requirements specified in standards listed in s. ILHR 51.27 (7) (b), (c), (cm), (d), (e), (f), (r) and (s).

Note 1: The definition of the term "automatic fire sprinkler system" in s. ILHR 51.01 (7a) is taken from s. 145.01 (2), Stats.

Note 2: See s. A52.011 of Appendix A for additional information pertaining to fire hazard classifications, building usage, and occupancy.

(5) AREA SEPARATION WALLS. (a) Buildings having an area exceeding the area limitations specified in s. ILHR 52.013, may be constructed without complete automatic fire sprinkler systems provided the building is divided into areas less than the specified area limitations by at least 2-hour rated vertical fire separation walls. The fire separation wall shall extend from the foundation to the underside of the roof deck.

1. Structural framing members may continue through or over the separation wall provided the framing and supporting elements are of noncombustible or one-hour fire-resistive combustible construction.

2. All openings in the separation wall shall be protected by fire-resistive door assemblies as specified in s. ILHR 51.047.

(b) Where additions to buildings result in the area of the entire building exceeding the area limitations specified in s. ILHR 52.013, one of the following conditions shall apply:

1. The existing building and the building addition shall be completely protected by an automatic fire sprinkler system;

2. The building addition shall be separated from the existing building by a 2-hour rated vertical fire separation wall. If the area of the building addition exceeds the area limitations specified in s. ILHR 52.013, the building addition shall be completely protected by an automatic fire sprinkler system or the building addition shall be divided with 2-hour rated vertical fire separation walls as specified in par. (a); or

3. The existing building and the building addition shall be divided by 2-hour rated vertical fire separation walls as specified in par. (a).

(6) MULTIPLE USE BUILDINGS. Where a building contains multiple occupancies or use areas and one occupancy or use area is required by s. ILHR 52.013 to be protected by an automatic fire sprinkler system, one of the following conditions shall apply:

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(a) The occupancy or use area protected by the automatic fire sprinkler system shall be separated from the unprotected areas by at least 1-hour fire-resistive rated construction; or

(b) The entire building shall be protected by an automatic fire sprinkler system.

Notes: See ss. ILHR 55.05 and 59.22 for occupancy separation requirements mandating fire-resistive separations of more than 1-hour rating.

(7) SEPARATION OF AREAS PROTECTED BY A PARTIAL AUTOMATIC FIRE SPRINKLER SYSTEM. Where the provisions of s. ILHR 52.012 require the protection of an automatic fire sprinkler system, the protected area or room shall be enclosed with construction assemblies as specified in chs. ILHR 54 to 62 and as designated in Table 51.03-A for the class of construction.

Notes: This rule is intended to require an effective fire barrier between those portions of the building protected by the automatic fire sprinkler system and the adjoining unprotected portions. The fire barrier is not required to be of fire-resistive construction unless required for the occupancy, use or class of construction.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86.

ILHR 52.012 Individual room, limited area and partial automatic fire sprinkler systems. The rooms or areas within buildings as specified in subs. (1) to (5) shall be protected by an automatic fire sprinkler system.

(1) WINDOWLESS FLOOR LEVELS. (a) Except as permitted in pars. (b) and (c), automatic fire sprinkler system protection shall be provided in all basements and floor levels where openings as specified in s. ILHR 52.02 (2) are not provided.

(b) Automatic fire sprinkler system protection need not be provided in the following windowless floor level applications:

1. Windowless floor levels of 2500 square feet or less in total area and equipped with an approved smoke detection system which is:

a. Directly and permanently wired to a proper unswitched circuit; and

b. Interconnected to the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building.

2. Communication equipment rooms separated from the remainder of the building by at least one-hour fire resistive construction and the room is equipped with an approved automatic fire detection and alarm system;

3. Windowless floor levels in ch. ILHR 54 occupancies classified as low hazard and not exceeding 3000 square feet in area;

4. Windowless floor levels within individual living units of ch. ILHR 57 occupancies;

5. Interior balconies and open mezzanine floors; and

6. Windowless floor levels in hospitals and nursing homes.

Notes: See chs. ILHR 58 and HSS 124 and 132 for additional requirements.

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(c) One-story buildings with no floor levels below the first floor need not be provided with exterior wall openings other than the required exits. Except as provided in par. (b), enclosed mezzanine floor levels shall be protected by an automatic fire sprinkler system or provided with exterior wall openings.

(2) LAUNDRY AND TRASH COLLECTION ROOMS AND CHUTES. Automatic fire sprinkler system protection shall be provided in all laundry and trash chutes and terminal rooms. Automatic fire sprinklers shall be installed at the top of the chute and at alternate floor levels.

(3) STORAGE AREAS. (a) Except as provided in par. (b), automatic fire sprinkler system protection shall be provided in storage areas exceeding 100 square feet in area and located in chs. ILHR 55, 56, and 57 occupancies. The areas of individual adjacent storage areas shall be considered cumulatively unless each storage area is separated from the adjacent area by at least 30 minute fire resistive rated construction with openings protected by 20 minute rated fire doors.

(b) Automatic fire sprinkler system protection need not be provided in the following storage area applications:

1. Storage areas not exceeding 1500 square feet in area which are separated from the remainder of the building by at least one-hour fire resistive construction and the area is equipped with an approved smoke detection system, which is:

a. Directly and permanently wired to a proper unswitched circuit; and

b. Interconnected with the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building; and

2. Storage areas located within individual living units of ch. ILHR 57 occupancies.

(4) STAGE AREAS REQUIRING PROSCENIUM SEPARATIONS. Automatic fire sprinkler system protection shall be provided for all stage areas requiring proscenium separations within or behind the proscenium separation as follows:

(a) Over the stage;

(b) Under the stage gridiron with side wall sprinkler heads rated at 135° having heat baffle plates. The heads shall be installed around the entire perimeter of the stage, except above the proscenium opening, at points not more than 30 inches below the gridiron, nor more than 6 inches below the baffle plate;

(c) Under all fly galleries;

(d) Under the stage;

(e) In all basements, workrooms, dressing rooms, store rooms and property rooms; and

(f) In toilet, lounge and smoking rooms.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86; am. (1) (a), Register, March, 1991, No. 423, eff. 4-1-91.

ILHR 52.013 Specified applications by occupancy or use. Except as provided in s. ILHR 52.011 (5), a complete auto-

matic fire sprinkler system shall be installed as specified in the following occupancies:

(1) **MERCANTILE OCCUPANCIES.** (a) Except as provided in par. (b), in mercantile occupancies where the area exceeds 15,000 sq. ft. per floor or 30,000 sq. ft. total area of all floors; or the height exceeds 3 stories;

(b) Mercantile occupancies without complete automatic fire sprinkler protection may be constructed up to the areas permitted in Table 54.01-1, but not exceeding 20,000 sq. ft. per floor provided the following conditions are satisfied:

1. The building is completely equipped with an automatic smoke detection system monitored by a fire alarm system company, proprietary or remote station service;

2. The distance to an exit does not exceed 100 feet; and

3. Street access for fire fighting vehicles is provided on at least 50% of the building perimeter.

(2) **EXHIBITION ROOMS.** In rooms having more than 12,000 sq. ft. of floor area which can be used for exhibition or display purposes.

(3) **LIBRARIES AND MUSEUMS.** In libraries and museums either of which exceed 15,000 sq. ft. area per floor.

(4) **RESTAURANTS, NIGHT CLUBS AND DANCE HALLS.** (a) In restaurants where the floor area exceeds 12,000 sq. ft. per floor or where the capacity is more than 1,000 persons.

(b) 1. In buildings with rooms primarily used for dance halls or entertaining occupants who are drinking or dining and unseparated accessory uses where the total area exceeds 5,000 sq. ft. per floor or where the capacity is more than 300 persons.

2. The area of accessory rooms such as but not limited to kitchens, storage rooms and other use areas shall be included unless the accessory rooms are separated from the remainder of the building by at least one-hour fire-resistive construction.

(5) **DETENTION AND CORRECTION FACILITIES.** In all detention and correctional facilities with a resident population of 6 or more.

(6) **STORAGE OCCUPANCIES.** (a) 1. Except as provided in par. (b), in buildings having an area exceeding 20,000 sq. ft. and used for high-piled storage of moderate hazard contents as specified in subd. 2.

2. High-piled storage shall include moderate hazard combustible materials in closely packed piles more than 15 feet in height or moderate hazard combustible materials on pallets or in racks more than 12 feet in height.

(b) 1. The automatic fire sprinkler system protection may be limited to the storage area of the building only provided the storage area is separated from the remainder of the building by at least 2-hour fire-resistive rated construction.

2. Automatic fire sprinkler system protection need not be provided in freezer warehouses.

Note: See s. ILHR 54.01 (2) (c) for additional requirements.

(c) The automatic fire sprinkler protection required by this subsection shall be in accordance with NFPA 231 and 231C.

Note: See s. A52.011 for additional information on classification of hazards.

(7) **HIGH HAZARD BUILDINGS.** (a) Except as provided in par. (b), an automatic fire sprinkler system shall be installed in all high hazard occupancies exceeding 3000 sq. ft. in floor area.

Note: See s. A52.011 of Appendix A for additional information regarding classification of hazards.

(b) When approved by the department, alternate types of fire protection or suppression systems as may be appropriate for the particular hazard may be provided.

Note: The department will request a position statement regarding the proposed method to be submitted by the fire chief of the municipality having jurisdiction.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86; am. (4) (a) and (b) 1., Register, March, 1991, No. 423, eff. 4-1-91; am. (6) (c), Register, January, 1994, No. 457, eff. 2-1-94.

Subchapter III — Windows and Fire Department Access Openings

ILHR 52.02 Windows. (1) **NATURAL LIGHT.** (a) Every room in which one or more persons live or sleep, shall be lighted by a skylight or skylights, or a window or windows opening directly upon a street or alley or upon a court on the same lot with the building, except as permitted [in] s. ILHR 57.13 (2).

(b) Windows shall not be required in storage rooms, factories, offices, mercantile facilities, educational facilities or areas where the nature of occupancy will not permit windows provided artificial lighting as specified in ch. Ind 19 is provided.

(2) **FIRE DEPARTMENT ACCESS OPENINGS.** (a) *Application.* Any basement or any floor level which is not protected by an automatic fire sprinkler system shall be provided with at least 20 square feet of aggregate opening in each 50 lineal feet of exterior wall of that basement or floor level on at least one side of the building, except as permitted under s. ILHR 52.012 (1). For the purpose of this requirement, openings 20 square feet in area spaced 100 feet apart and no more than 50 feet from the end of a wall shall satisfy the intent of this requirement.

(b) *Dimensions.* Openings shall have minimum dimensions of not less than 22 inches by 42 inches. The bottom of the opening shall be not more than 48 inches above the floor.

(c) *Accessibility.* The openings shall be accessible to the fire department from the exterior and shall be unobstructed to allow fire-fighting and rescue operations.

1. a. A clear space not less than 5 feet in width measured perpendicular to the building wall shall be provided outside of access openings.

b. A stairway or ramp to grade not less than 3 feet in width shall be provided where the bottom of the opening is more than 4 feet below grade.

2. An interior stairway may serve as basement access if the stairway leads directly to an exterior door and is sepa-

rated at the first story with one-hour fire-resistive rated construction and protected openings. The stairway may not serve any floor level above the first story.

3. A skylight or hatch may serve as a basement access opening if a ladder or stairs from the floor below is provided.

4. Access openings shall be doors, windows, glazed panels or other panels readily identifiable and openable from the outside. Access panels requiring the use of a key, special tools or devices for opening will be permitted if approved by the fire department having jurisdiction.

5. The fire department access shall open into the general area of the floor being served, where an aisle or passageway leading to the opening can be maintained clear of obstructions.

Note: An opening located within a tenant storage cubicle is not acceptable.

(d) *Number of openings required.* Except as provided in s. ILHR 52.012 (1) (c), every floor level of a building more than 75 feet deep, measuring at right angles to the openings, shall have openings in that level on at least 2 sides of the building.

(e) *Locations.* Openings in the basement shall be located so any location in the basement is within 75 feet of an opening.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; r. and recr. (1) (a), Register, October, 1967, No. 142, eff. 11-1-67; am. (1) (a) Register, May, 1971, No. 185, eff. 6-1-71; r. and recr., Register, September, 1973, No. 213, eff. 10-1-73; cr. (1) (b), Register, January, 1980, No. 289, eff. 2-1-80; r. and recr. Register, June, 1983, No. 330, eff. 7-1-83; r. and recr. (2), Register, February, 1984, No. 338, eff. 3-1-84; emerg. r. and recr. (2), eff. 9-6-86; r. and recr. (2), Register, November, 1986, No. 371, eff. 12-1-86; r. and recr. (1) (a) (intro.) and (2) (a), r. (1) (a) 1. and 2., (b) 2., renum. (1) (b) 1. to be (b), Register, March, 1991, No. 423, eff. 4-1-91; am. (2) (d), Register, January, 1994, No. 457, eff. 2-1-94.

ILHR 52.03 Window cleaning. **History:** 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; am. (1) (a), (3) and (4), Register, December, 1981, No. 312, eff. 1-1-82; corrections in (1) (b), (c) and (2) made under s. 13.93 (2m) (b) 7, Stats., Register, March, 1991, No. 423; r. Register, January, 1994, No. 457, eff. 2-1-94.

Subchapter IV — Barrier-Free Design for the Physically Disabled

ILHR 52.04 Requirements for barrier-free design. (1) **PUBLIC BUILDINGS AND PLACES OF EMPLOYMENT.** Except for covered multifamily housing as specified in sub. (2), all public buildings and places of employment shall be designed to be accessible and usable by people with disabilities in accordance with the requirements of ch. ILHR 69.

(2) **MULTIFAMILY HOUSING.** All covered multifamily housing as defined in s. ILHR 57.77 (6) shall be designed and constructed in accordance with the requirements of ss. ILHR 57.70 to 57.871.

History: Cr. Register, December, 1974, No. 228, eff. 1-1-75; r. and recr. (3) (b), (4), (5) and (9) (a) and (b), am. (6), (7) (a), (7) (e), (8) (c) and (d), r. (9) (d) 3., Register, December, 1975, No. 240, eff. 1-1-76; am. table, (4) (c) 2 and (6) (e), Register, December, 1976, No. 252, eff. 1-1-77; cr. (2) (b) and (c), (3) (a) 3, am. (3) (b) (intro.), (4) (b) and (c) 1, (5), (7) (a), (c) and (e), (8) (b) and (9) (a) 1 and 2, r. and recr. (8) (b), Register, December, 1977, No. 264, eff. 1-1-78; am. (4) (c) 2., (5) (b), (6) (a) to (c), (7) (a) and (8) (c), Register, December, 1978, No. 276, eff. 1-1-79; am. (4) table, (5) (b), (9) (a) 1., (9) (c) 1. and 2., r. and recr. (3) and (8), cr. (9) (a) 3., Register, January, 1980, No. 289, eff. 2-1-80; cr. (8) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (8) (e), Register, November, 1994, No. 467

Register, October, 1982, No. 322, eff. 11-1-82; r. and recr. Table 52.04, (3), (6) (c), (7) and (9), am. (4) (b), (8) (c) and (8) (h) 1., cr. (10), Register, December, 1983, No. 336, eff. 1-1-84; am. (3) (a) (intro) and 2., (3) (c) 1. and (d) 1., (6) (a), (7) (a), Table 52.04-B and (8) (e), r. and recr. (3) (d) 3., Table 52.04-A, (7) (c), (8) (d) and (10) (d), renum. (8) (f) to (h) to be (8) (g) to (i), cr. (8) (f) and (11), r. (10) (e), Register, August, 1985, No. 356, eff. 1-1-86; reprinted to correct error in (11) (a) 3., Register, May, 1988, No. 389; r. and recr. (4) (b), Register, August, 1988, No. 392, eff. 9-1-88; emerg. am. Table 52.04, eff. 1-12-93; am. (4) (c) 2, Register, August, 1993, No. 452, eff. 3-1-94; corrections in (3) made under s. 13.93 (2m) (b) 1, Stats., Register, December, 1993, No. 456; r. and recr. (2) and (4) (b), cr. (4) (d) and (6) (g), Register, March, 1994, No. 459, eff. 4-1-94; am. Table 52.04, Register, April, 1994, No. 460, eff. 5-1-94; r. and recr., Register, November, 1994, No. 467, eff. 12-1-94.

ILHR 52.041 Health care facilities — new construction. **History:** Cr. Register, December, 1981, No. 312, eff. 1-1-82; cr. (1) (c), Register, December, 1983, No. 336, eff. 1-1-84; r. Register, November, 1994, No. 467, eff. 12-1-94.

ILHR 52.042 Existing health care facilities. **History:** Cr. Register, December, 1981, No. 312, eff. 1-1-82; r. Register, November, 1994, No. 467, eff. 12-1-94.

Subchapter V — Courts

ILHR 52.05 Size of courts. (1) In applying the following requirements, a building from 30 to 43 feet high shall be considered as having at least 3 stories, and each additional 13 feet shall be considered an additional story.

(2) Outer lot line courts shall be not less than 5 feet wide for a court 2 stories or less in height and 40 feet or less in length, measured from the lot line to the wall of the building. For each additional story in height, the width of such court shall be increased one foot; and for each additional 15 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(3) Outer courts between wings or parts of the same building, or between different buildings on the same lot, shall be not less than 6 feet wide for a court 2 stories or less in height and 40 feet or less in length. For each additional story in height, the width of such court shall be increased one foot, and for each additional 10 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(4) Where outer courts or outer lot line courts open at each end to a street or other open space not less than 15 feet wide, the above lengths may be doubled.

(5) Inner lot line courts one story high shall be not less than 5 feet wide and not less than 45 square feet in area. Inner lot line courts 2 stories high shall be not less than 6 feet wide and not less than 60 square feet in area. For every additional story, every such inner lot line court shall be increased by at least one lineal foot in length and one lineal foot in its width.

(6) Inner courts shall be not less than 10 feet in width nor less than 150 square feet in area for courts 2 stories or less in the height; and for every additional story every such inner court shall be increased by at least one lineal foot in its length and one lineal foot in its width.

(7) Courts shall not be covered by a roof or skylight but the entire required area shall be open and unobstructed from the bottom thereof to the sky. No fire escape or stairway shall be constructed in any court unless the court be enlarged proportionately.

(8) Walls of inner courts whose least horizontal dimension is less than one-fourth the height, shall be faced with material with a permanent white surface or shall be painted white at least every 2 years.

(9) No buildings shall be altered or enlarged to encroach upon space reserved under this code for light and air on the lots or parcels of ground on which such building is erected.

History: 1-2-56; am. (2) and (5), Register, September, 1973, No. 213, eff. 10-1-73.

ILHR 52.06 Ventilation of courts. At the bottom of every shaft or inner court there shall be sufficient access to such shaft or court to enable it to be properly cleaned out. Every inner court which is required under s. ILHR 52.02 and which is more than one story in height, shall have an intake for fresh air, leading from the street or other open space. The area of such intake in square feet shall equal at least .002 of the number of cubic feet contained in the court, but such area need not be more than 50 square feet. Every intake shall be of not less than 2-hour fire-resistive construction and unless the intake is used as a passageway for persons, there shall be no openings into the same other than the inlet and outlet.

History: 1-2-56; am. Register, December, 1981, No. 312, eff. 1-1-82.

Subchapter VI — Atriums

ILHR 52.07 Atriums. (1) SCOPE. (a) All buildings, except those classified as high hazard, fully protected by an automatic fire sprinkler system may have atriums complying with the provisions of this section.

Note: See s. A 52.011 for further information regarding the classification and listing of high hazard buildings.

(b) All atriums, except as provided in ss. ILHR 55.09, 58.06 (2), 60.34, 61.12 (4) and 62.27 shall comply with the provisions of this section.

(2) **MINIMUM OPENING AND AREA.** Atriums shall have a minimum opening and area as specified in Table 52.07-1.

**TABLE 52.07-1
Atrium Opening and Area**

Height in Floor Levels	Minimum Clear Opening ¹ (Ft.)	Minimum Area (Sq. Ft.)
3-4	20	400
5-7	30	900
8 or more	40	1,600

¹The specified dimensions are the diameters of inscribed circles whose centers fall on a common axis for the full height of the atrium.

(3) **SMOKE CONTROL SYSTEM.** (a) *General.* A mechanically operated air-handling system shall be installed that will exhaust smoke either entering or developed within the atrium.

(b) *Exhaust openings.* 1. Exhaust openings shall be located in the ceiling or in a smoke trap area immediately adjacent to the ceiling of the atrium.

2. The lowest level of the exhaust openings shall be located above the top of the highest portion of door openings into the atrium.

(c) *Supply openings.* Supply openings shall be sized to provide a minimum of 50% of the exhaust volume and shall be located with the bottom of the opening within 18 inches of the floor of the lowest level of the atrium.

(d) *Supply air.* 1. When the height of the atrium is 55 feet or less, supply air may be introduced by gravity, provided smoke control is accomplished.

2. When the height of the atrium is more than 55 feet, supply air shall be introduced mechanically from the floor of the atrium and be directed vertically toward the exhaust outlets.

3. In atriums over 55 feet in height or where tenant spaces above the second story are open to the atrium, supplemental supply air may be introduced at upper levels.

(e) *Systems activation and operation.* 1. The exhaust and supply system for the atrium shall operate automatically upon the actuation of either the automatic fire sprinkler system within the atrium or areas open to the atrium or by

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