

Chapter Ind 62

THEATERS AND ASSEMBLY HALLS

Ind 62.001	Scope, theaters	Ind 62.17	False openings
Ind 62.01	Assembly halls	Ind 62.18	Motion picture machine booths, general
Ind 62.02	Capacity	Ind 62.19	Construction of booth
Ind 62.03	Exits	Ind 62.20	Doors
Ind 62.04	Fire escapes	Ind 62.21	Openings
Ind 62.05	Stairways	Ind 62.22	Ventilation of booths
Ind 62.06	Exit doors	Ind 62.23	Relief outlets
Ind 62.07	Width of exits	Ind 62.24	Electrical wiring
Ind 62.08	Seats	Ind 62.25	Motion picture machine
Ind 62.09	Aisles	Ind 62.26	Fire protection in booth; care and use of film
Ind 62.10	Obstructions	Ind 62.27	Portable booths
Ind 62.11	Proscenium curtain	Ind 62.28	Strength of floors
Ind 62.12	Automatic smoke outlet	Ind 62.29	Maintenance
Ind 62.13	Lights, oil and gas	Ind 62.30	Toilet rooms
Ind 62.14	Exit lights and signs	Ind 62.31	Heating plants
Ind 62.15	Ventilation		
Ind 62.16	Fire extinguishers		

The requirements of the following sections apply to buildings of this classification only.

For other general requirements, see Ch. Ind 60.

Ind 62.001 Scope. THEATERS. Under this classification are included all buildings or parts of buildings used for theatrical, operatic, or motion picture performances.

Ind 62.01 Assembly halls. Under this classification are included all buildings or parts of buildings not included under theaters, where more than 100 persons assemble for entertainment, recreation, instruction, worship or dining purposes.

Ind 62.02 Capacity. (1) The capacity of a theater or assembly hall shall be established by the actual number of permanently fixed seats. Where permanently fixed seats are not provided, the capacity shall be established by allowing 10 square feet of floor space per person in areas used as dining rooms and dance halls, 15 square feet per person in gymnasiums, skating rinks and lodge halls, and 7 square feet per person in all places used for seated assembly. For bleachers and grandstands, one person per 18 inches of seat board will be allowed.

(2) No greater number of persons than the number thus established shall be permitted in any theater or place of assembly.

Ind 62.03 Exits. (1) **NUMBER.** Every theater or assembly hall shall have two or more exits, placed as far apart as practicable, and so located that if any exit is blocked, some other exit will still be accessible from every part of the theater or assembly hall. This order shall apply separately to the main floor and to each balcony or gallery which accommodates more than 50 persons, and also to the stage, dressing room section and other employes' rooms.

(2) **TYPE.** Each exit shall be either a stairway, or a fire escape, or a horizontal exit (Section Ind 60.12), or for the first floor only an outside stairway with steps or incline to grade.

(3) **LOCATION.** If a theater or assembly hall is located above the second story, all interior stairways shall be enclosed with not less than one-hour fire-resistive partitions and fire-resistive doors (Sections Ind 60.08-60.09), each leading to a separate exit door.

Ind 62.04 Fire escapes. Fire escapes hereafter constructed shall be stairway fire escapes as described in sections Ind 60.13-60.23. If the theater or assembly hall accommodates more than 125 persons, such fire escape shall be a "B" type fire escape. Existing stairway fire escapes complying with these requirements will be accepted if strongly and properly built and in good condition. Ladders are not accepted as exits under any conditions.

Ind 62.05 Stairways. (1) Inside stairways at a steeper angle than 45 degrees with the horizontal are not accepted as exits. No stairway will be accepted as an exit if it is necessary to go up stairs in order to reach the head of the stairway.

(2) Outside stairways heretofore constructed on buildings not more than two stories in height will be accepted if properly constructed and in good condition.

(3) Stairways and steps which have more than 3 risers shall have handrails on both sides. Rails shall be not less than 2 feet 6 inches vertically above nose of treads, or 3 feet above a platform.

(4) If a closet is located under any non-fire-resistive stairway which serves as an exit from a theater or assembly hall, such closet shall not be used, but shall be kept empty and locked.

Ind 62.06 Exit doors. (1) Exit doors shall be as required by section Ind 60.24, but no rolling, sliding or revolving door shall be used as an exit from any theater or assembly hall.

(2) For exit lights and signs, see section Ind 62.14-62.15.

Ind 62.07 Width of exits. (1) The total width of exits from every theater and assembly hall, and from every part thereof, shall not be less than the following:

(a) Buildings of fire-resistive construction, 36 inches per 100 persons.

(b) Buildings of ordinary construction, 40 inches per 100 persons.

(c) Buildings of frame construction, 44 inches per 100 persons.

Ind 62.08 Seats. (1) Where fixed seats are not used, the chairs or seats shall be fastened together in groups of four or more. There shall be not more than 12 seats in a row between aisles, nor more than 6 seats in a row which has an aisle on one side only.

(2) All seats, chairs and benches shall be placed not less than 32 inches back to back measured horizontally, except that this requirement does not apply where fixed seats have already been installed.

(3) Loose chairs or seats shall not be used unless a special permit is secured from the industrial commission.

(4) The requirements of this order do not apply to restaurants, dining rooms or dance halls.

Ind 62.09 Aisles. No wall aisle shall be less than 3 feet wide and no other straight aisle shall be less than 3 feet 6 inches wide except that where fixed seats were originally installed, the above dimensions may be reduced 6 inches.

Ind 62.10 Obstruction. (1) All lobbies, aisles, passageways and doorways shall be kept free from furniture, drapes, display equipment, merchandise and other obstructions, and no person except an employe shall be allowed to stand in or occupy any of the aisles, foyers or passageways during any performance or public gathering.

(2) No vending equipment, booths or counters shall be placed in any lobby, foyer or other public space except as provided for in the state building code.

Ind 62.11 Proscenium curtain. (1) In every theater or assembly hall having a stage which is more than 6 feet higher or wider than the proscenium opening, the proscenium opening shall be provided with a rigid metal curtain or a curtain of asbestos conforming to the following specifications, or of equivalent approved construction.

(a) Asbestos curtains shall be substantially woven of asbestos fiber not less than 95 per cent pure and shall weigh not less than 2½ pounds per square yard. There shall be incorporated into the yarn before weaving, either monel metal, nickel, brass or other metal or alloy, having no less strength than these metals at temperatures up to 1700 degrees Fahrenheit and no less resistance to corrosion at ordinary temperatures.

(b) All seams shall be vertical, shall be lapped not less than one inch and sewed in two rows with not less than 1/16 inch pure asbestos twine. At the top and bottom of the curtain a 2½ inch (or larger) steel pipe shall be placed and shall be securely fastened in and covered by the curtain. The curtain shall overlap the proscenium wall not less than 12 inches at each side and at the top, and shall be guided at each side by metallic loops or rings sliding on a ¾ inch steel cable or No. 6 U. S. Standard gauge wire.

(c) In addition to any decoration, the curtain shall be painted on both sides with a mineral paint, having a silicate of soda binder, which will completely fill the cloth. Filler paint shall have not less than 4 parts of casein in each 10 parts of silicate of soda. The paint shall be well brushed into the cloth so that no light or smoke can come through.

(d) For curtains of any type, the connections between curtain and wall shall be made as nearly smoke-proof as possible. Smoke grooves or pockets shall be of structural steel shapes and plates not less than ¼ inch thick. These grooves or pockets shall be not less than 14 inches deep and 6 inches wide and shall be set back from the face of the arch at least 6 inches. They shall extend from the stage floor to a point 3 feet above the top of the raised curtain, and shall be securely bolted to the proscenium wall.

(e) Provisions shall be made to prevent the curtain from leaving or binding on the guides under any conditions. Appropriate limit chains shall be provided to stop the downward travel of the top of the curtain at a line not less than 12 inches above the top of the proscenium opening. No part of a curtain, nor any of the curtain guides, or equipment, shall be supported by, or fastened to, any combustible material.

(f) The hoisting apparatus for the curtain shall be designed with a factor of safety of 8 or more.

(g) Besides the regular operating mechanism there shall be an emergency device which will allow the curtain to drop by gravity.

The device shall be so arranged that it can be easily operated by hand from each side of the stage and from the fly galleries, and also that its operation will be controlled by 135 degree fusible links, or other approved heat release devices, placed on each side of the stage, and when thus operated it shall descend at its normal rate of speed.

(h) The curtain and its operating mechanism shall be so designed and constructed at all points, whether specifically mentioned or not, as to form an efficient and reliable barrier against fire and smoke, according to the best practice.

(i) Detailed plans and specifications for all curtains and their operating mechanism shall be submitted to the industrial commission for approval before installation.

Ind 62.12 Automatic smoke outlet. Where a proscenium curtain is required, or provided, the stage shall be provided with one or more automatic smoke outlets, constructed of metal or other incombustible material, placed near the center and above the highest part of the stage, and having a combined area equal to not less than 8 per cent of the area of the stage floor. Vertical louver openings shall be placed not less than 3 feet above the roof and shall be not less than twice the area of the shaft. The smoke outlet shall be designed and constructed so as to open by gravity, and so as to effectively overcome the effects of neglect, rust, dirt, frost, snow, heat, twisting, or warping of the framework. The louvers or dampers, in the openings shall be held closed by cotton or hemp cords running to the stage floor close to each stage door. Fusible links, or other approved heat release devices, shall be inserted in each cord near the outlets.

Ind 62.13 Lights, oil and gas. No oil lamp or gas lighting of any kind shall be used on or about any stage containing scenery.

Ind 62.14 Exit lights and signs. (1) In every theater and assembly hall, except church auditoriums, exit lights shall be provided immediately over all exit doorways, and in such other places as may be necessary to direct the occupants to exit doorways and to a street, alley or exit court. The installation of such exit lights shall comply in all respects with the provisions of the Wisconsin state electrical code.

(2) Every light over an exit doorway shall be a red illuminated sign bearing the word EXIT or OUT in plain letters not less than 5 inches in height.

(3) All exit lights shall remain lighted during each occupancy and until the occupants have left the building.

Ind 62.15 Ventilation. In all theaters and assembly halls a heating and ventilating system complying with the requirements of the heating, ventilation and air conditioning code shall be provided, maintained and operated.

Ind 62.16 Fire extinguishers. (1) Standard fire extinguishers (Section Ind 60.27) shall be provided as follows:

(a) *Theaters:*

1. Two on stage (if more than 1500 square feet of scenery is used).
2. One on stage (if not more than 1500 square feet of scenery is used).

3. One in motion picture booth, or in ticket office if there is no booth.
4. One in dressing room section.

(b) *Assembly halls:*

1. One on or near stage or platform and one in or near ticket office.
2. Extinguishers shall be properly exposed to view and always accessible.

Ind 62.17 False openings. No false opening giving the appearance of a door or window, where none exists, shall be permitted in any part of a theater or assembly hall used by the public.

Ind 62.18 Motion picture machine booths, general. Every motion picture machine using nitro-cellulose film, together with all auxiliary and associated equipment, shall be enclosed in a booth so arranged as to permit the operator to walk freely on either side and in back of the machine. At least 48 square feet in area shall be provided for one machine, and 24 square feet additional for each machine over one. The ceiling height shall be not less than 7 feet.

Ind 62.19 Construction of booth. The floor of each motion picture booth shall be constructed of masonry or reinforced concrete, or shall be covered with not less than 2 inches of fire-resistive material. The walls and ceiling shall be not less than two-hour fire-resistive construction as specified in section Ind 51.05.

Ind 62.20 Doors. (1) The door to the booth shall be not larger than necessary for the safe and proper use and maintenance of the booth and equipment, but in no case shall its dimensions be smaller than 2 feet by 5 feet or larger than 3 feet by 7 feet. The top of the door shall be not less than 12 inches below the ceiling of the booth.

(2) The door shall be a tight-fitting self-closing fire door, shall open outwardly, and shall not be equipped with any latch.

Cross Reference *W. J. G.*

See section Ind 51.09 of building code

Ind 62.21 Openings. (1) Two openings for each motion picture machine may be provided. The one for the operator's view shall not be larger than 200 square inches and the one for projection not larger than 120 square inches. Where separate stereopticon, spot, or flood-light machines are installed, not more than one opening shall be provided for each such machine for both the operator's view and the projection of light. All such openings shall be as small as practicable.

(2) Each opening shall be provided with an approved gravity shutter set into guides not less than one inch at sides and bottom, and overlapping the top of the opening by at least one inch when closed. Shutters shall be not less than No. 10 U. S. standard gauge iron or equivalent, arranged to move freely in guides of like material and thickness bolted to the wall. Each shutter shall be suspended by a cord, and shall be so arranged that closing is by gravity action. A fusible link shall be provided in the cord over each shutter. A link shall also be provided over each magazine, which on operating will

close all shutters. A manual release shall be provided near each exit door by which all shutters can be closed simultaneously. Shutters shall not be blocked open nor held open in any manner except by the harness of cords and links as herein described.

Ind 62.22 Ventilation of booths. Every booth or room housing projection, sound or any other equipment which vitiates good air conditions or requires the attention of an attendant shall be ventilated as required by section Ind (58.43) of the heating, ventilation and air conditioning code issued by the industrial commission. Fresh air intakes in booth walls, except for outside air, shall not exceed 72 square inches in area, nor be more than 3 inches above the floor. They shall be equipped with automatic shutters as described for projection openings.

Ind 62.23 Relief outlets. Every booth or room housing projection, sound or other equipment which constitutes a fire, smoke, explosion or fuming hazard shall be equipped with one or more gravity outlets extending upward from the ceiling through the roof. The net area of such gravity relief outlets shall be equal to one per cent of the room or booth floor area, but not less than 12 inches in diameter. Such outlets shall be constructed as sheet metal ducts having double walls with $\frac{1}{2}$ inch air space between, or better construction. Where a relief outlet passes through, or is within 18 inches of any combustible construction, or passes through any other occupancy, approved masonry flues as specified for chimneys, shall be used. The relief outlets shall be equipped, at the booth or room outlets, with a gravity shutter which will open automatically under excessive heat conditions. The automatic shutter shall normally be tightly closed where mechanical exhaust ventilation is required in the same room.

Ind 62.24 Electrical wiring. All lights and electrical wiring, also motors, arc lamps, rheostats, and associated electrical equipment shall conform in type and arrangement to the requirements of the Wisconsin state electrical code.

Ind 62.25 Motion picture machine. Every projection machine shall be securely fastened to the floor, and together with sound head and other associated equipment, shall be of safe design. No part of the film shall be outside of a tight metal enclosure during projection, and the feed and take-up reels shall have riveted, flanged, or welded joints. A shutter shall be placed in front of the condenser, arranged so as to be closed except when held open by the operator, or by some mechanical device which will assure immediate closure when operation of the machine is stopped.

Ind 62.26 Fire protection in booth; care and use of film. (1) All shelves, furniture and fixtures shall be incombustible. No combustible material shall be permitted to be within such booth, except films and film cement not exceeding one pint. Smoking is prohibited. Heating equipment in booths shall be limited to steam, warm air, hot water or electric convection heaters with low surface temperature elements. Radiators shall be protected by $\frac{1}{4}$ inch mesh screen with the top sloped at least 45 degrees to the horizontal.

(2) Films not in process of rewinding, examination or projection shall be kept in metal containers. Up to 40 pounds of film may be kept in the projection booth in interstate commerce commission shipping containers. Excess over 40 pounds shall be kept in an approved film cabinet, but the total quantity of film in any booth shall not exceed 125 pounds.

(3) Rewinding in the projection booth is prohibited unless done in an approved enclosed type rewind machine. An approved can with self-closing hinged cover shall be provided for scrap film.

(4) Up to 125 pounds of film in addition to that permitted in a projection booth, may be kept in containers as specified above, providing this excess is in a rewind room of not less than 80 square feet area, and of the construction specified in sections Ind 62.19 and 62.20. Such room shall have a vent of at least 50 square inches area extending upward to the outside of the building, with a clearance to combustible material conforming to section Ind 62.28. Furniture and heating shall be as for the projection booth, and smoking is prohibited.

Note: In the foregoing order the weight of a 1000 foot roll of 35 millimeter film is assumed as 5 pounds.

Ind 62.27 Portable booths. (1) Every portable booth used to confine the fire hazards of a motion picture machine shall be of approved design conforming to the requirements for permanent booths.

(2) Every booth used for more than 3 consecutive performances in one location will be considered a permanent booth.

Ind 62.28 Strength of floors. (1) No building or part thereof shall be used as a theater or public assembly hall unless the floors of the auditorium, balconies, galleries, lobbies, passageways and stairways are capable of sustaining the following live loads (pounds per square foot) in addition to the dead load, without exceeding the unit stresses permitted by the state building code (sections Ind 53.06, 53.22, 53.24, 53.28). 53.16

- | | | | |
|---|-------|-----|------------|
| (2) Auditorium with fixed seats | _____ | 50 | <i>Ok.</i> |
| (3) Lobbies, passageways, stairways, auditorium or places of assemblage without fixed seats | _____ | 100 | |

Ind 62.29 Maintenance. All theaters and assembly halls and all parts thereof shall be kept clean, sanitary and in good repair.

Ind 62.30 Toilet rooms. Toilet facilities shall be provided in connection with theaters and assembly halls, where, in the judgment of the industrial commission, they are necessary. All toilet rooms shall be maintained in a sanitary condition.

Ind 62.31 Heating plants. Every boiler or furnace room including the breeching and fuel room shall be provided with a two-hour fire-resistive floor and shall be enclosed with not less than one-hour fire-resistive walls and ceiling. All openings shall be protected with fire-resistive doors.