

Assembly

IFC 2006

Assembly occupancy includes, among others, the use of a building or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption; or awaiting transportation.

Exit

A-C: Number of Exits:

Table 1019.1

Minimum of four exits required for more than 1000 occupant load. Minimum of three exits required for 501-1000 occupant load. Minimum of two exits required for 1-5000 occupant load. Buildings with only one exit and under 50 occupants are allowed in some occupancy.

D: Door Swing:

1008.1.2

Doors shall swing in direction of egress travel where serving an occupant load of 50 or more.

E-F: Egress Doors:

1008.1

Exit doors shall be openable from the egress side without the use of a key or special knowledge or effort. Each door in a means of egress having an occupant load of 50 or more shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware. With an occupant load under 300, and in churches, the main exterior door is permitted to have a key lock on the egress side provided a sign stating "This door to remain unlocked when building is occupied" is posted adjacent to the door. The locking device must be readily distinguishable as locked.

G: Normal Illumination:

1006.1

The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

H-J: Exit Signs:

1011.1

Exit signs required where more than one exit is required. Exit sign placement shall be such that no point in a corridor is more than 100 feet from the nearest visible exit sign. Main exterior exit doors or gates which obviously and clearly are identifiable as an exit need not have exit signs.

K: Exit Obstructions:

1003.6

Obstruction to exits shall not be placed in the required width and exits shall not be obstructed in any manner.

L-N: Egress Width:

1003.6, 1008.1.1, 1021.2

The required capacity of means of egress shall not be diminished (reduced) along the path of egress travel. Doorways shall not be less than 32 inches in clear width. The width of exit passageways shall not be less than 44 inches except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches in width.

O: Panic Hardware Operations:

1008.1

Where panic hardware is installed it shall unlatch with a maximum of 15 lbs. force applied to the panic bar. The door shall be set in motion when subjected to a 30-pound force applied to the latch side of the door.

P: Temporary Egress:

1001.2

It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the capacity of the means of egress to less than required by this code.

Q: Egress Width Aisles:

1025.9.1

Minimum clear width shall be 42 inches for level or ramped aisles having seating on both sides, 36 inches where aisle does not serve more than 50 seats or when aisle seating is on one side only.

R: Flush and Surface Bolts:

1008.1.8.4

Manually operated flush bolts or surface bolts on exit doors are not permitted.

S-T: Emergency Lights:

1006.3

In the event of a power supply failure, an emergency system shall automatically illuminate all aisles and unenclosed egress stairways, corridors, exit enclosures, exit passageways, and exterior landings where two exits are required. Emergency power supply shall provide power for a minimum of 90 minutes. Equipment shall be tested for 30 seconds monthly and 90 minutes annually.

U: Access-Control Locks:

1008.1.3.4

Access-controlled entrance egress doors are permitted. The system must be approved. The doors shall be arranged to unlock by a signal from or loss of power to the motion sensor. There should be a manual unlocking device (button) located 40-48 inches above the floor within 5 feet of the secured doors with a sign that reads "Push to Exit." Activation of the fire alarm system or the automatic sprinklers shall unlock the doors. Entrance doors shall not be secured from the egress side during periods that the building is open to the general public.

V: Means of Egress through Hazard:

1014.2 #2

Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

Fire Protection Systems

A-G: Fire Extinguisher:

906.1

1X2A per 6000 sq. ft. in light hazard. 1x2A per 3000 sq. ft. in ordinary hazard. Group A with quick-response sprinklers, fire extinguishers required only in special-hazard areas. Max travel distance to a fire extinguisher is 75 ft. Fire extinguishers shall be mounted, conspicuously located, unobstructed, and available for immediate use. If visual obstruction cannot be avoided, signs shall be provided. Height Requirements: <40lbs- Not more than 5ft>40lbs – Not more than 3.5ft and not less than 4 in.

H: Fire Hydrants:

508.5.5

A 3-foot clear space shall be maintained around the circumference of fire hydrants.

I: Class K Extinguisher:

904.11.5

Commercial cooking equipment involving vegetable oil or animal fat shall be protected by a Class K rated portable fire extinguisher provided within 30 feet travel distance of commercial cooking equipment. When hazard areas include deep fat fryers, listed Class K portable fire extinguishers shall be provided. 1-4 fryers require one 1.5-gallon and 5-8 fryers require two 1.5-gallon Class K portable fire extinguishers.

J-K: Manual Activation Device:

904.11.1-2

Automatic shutoff of fuel/power shall occur upon activation of system. Reset shall be manual. A manual activation device shall be located at or near a means of egress from the cooking area, 42-48 in. above the floor, and 10-20 ft. away from the kitchen exhaust system.

L: Commercial Cooking Testing and Maintenance:

IFC-904.11 08-96 11.2.1, 11.2.4, 11.6.1

Automatic extinguishing systems of commercial cooking equipment shall be serviced at least every 6 months by properly trained, qualified, and certified person (s). Fusible links and automatic sprinkler heads with fusible links shall be replaced at least annually. Maintain records and show proof. Upon inspection, if the exhaust system is found to be contaminated with deposits from grease-laden vapors, the contaminated portions of the exhaust system shall be cleaned by a properly trained, qualified, and certified company or person (s) acceptable to the authority having jurisdiction.

M: Fire Extinguisher Service:

901.6

Fire extinguishers shall be serviced annually and shall have a current service tag attached (NFPA 10).

N: Supervised Valves:

903.4

All valves controlling the water supply shall be electronically supervised when the system has 20 or more sprinkler heads.

O-P: Systems Maintained:

901.6, Table 901.6.1

Fire detection, alarm and extinguishing systems shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Non-required fire protection systems and equipment shall be inspected, tested and maintained or removed. Records of all inspections, tests and maintenance shall be maintained on the premises for a minimum of 3 years. Fire protection systems shall be inspected, tested, and maintained in accordance with the following. Portable fire extinguishers, NFPA 10, Dry-chemical extinguishing systems NFPA 17, Wet-chemical extinguishing systems NFPA 17A, Water-based fire protection systems NFPA 25, Fire alarm systems NFPA 72, Commercial Cooking Equipment: NFPA 96, Emergency Standby Power: NFPA 110 and 111.

Q: Painted Sprinkler Heads:

901.6

Painted sprinkler heads or cover plates are prohibited unless painted at the factory. They cannot be cleaned of paint. They must be replaced. (NFPA 13, 6.2.62.1)

S: Maintenance Responsibility:

907.20.5

The building owner shall be responsible for ensuring that the fire and life safety systems are maintained in an operable condition at all times.

T: Fire Alarm System Required:

907.2.1

A manual fire alarm system is required in Group A occupancies having an occupant load of 300 or more. Portions of Group E occupancies occupied for assembly purposes shall have a fire alarm system as required for the Group E occupancy.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system and the alarm notification appliances will activate upon sprinkler water flow.

U: Fire Watch:

901.7

Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

V: Generator Maintenance:

604.3, 604.5

Emergency and standby power systems shall be maintained in accordance with NFPA 110 and NFPA 111 such that the system is capable of supplying service within the time specified for the type and duration required. Routine maintenance, inspection and operational testing shall be overseen by a properly instructed individual.

Houskeeping

A-G: Combustible Storage:

315.2, 315.3

Combustible materials shall not be stored in exits or exit enclosures. Storage shall be orderly. Storage shall be separated from heaters or heating devices. Combustible materials shall not be stored in boiler room, mechanical rooms or electrical equipment rooms. Storage shall be 24in. below the ceiling in nonsprinklered bldgs. Or 18 inches below sprinkler deflectors in sprinklered bldgs. Concealed spaces used for storage shall be protected on the storage side as required for 1-hour rated construction.

Exception: Area protected by automatic sprinkler system. Outside storage of combustible materials shall not be located within 10 feet of a property line.

J: Oily Rags:

304.3.1

Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container (self-closing lids). Contents of such containers shall be removed and disposed of daily.

K: Indoor Vehicle Displays:

314.4

Liquid- or gas-fueled vehicles or boats on display shall not be located indoors except: battery disconnected, fuel in tank not to exceed ¼ tank or 5 gallons (whichever is least). Fuel tanks and fill openings are closed and sealed to prevent tampering.

L: Unvented Heaters:

603.4

Portable unvented fuel-fired heating equipment shall be prohibited.

M: Grease Laden Vapors and Hood Requirement:

609.2

A Type 1 hood shall be installed at or above all commercial food cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors.

N: Cooking Equipment Cleaned:

904.11

Hoods, grease-removal devices, fans, ducts, and other appurtenances shall be cleaned at intervals necessary to prevent the accumulation of grease. Cleanings shall be recorded.

P: Hazardous Spaces:

Table 508.2

Incidental use areas shall be separated or protected, or both, in accordance with Table 508.2. 1 hour or assembly Furnace room single piece >400,000 BTU Boiler room Refrigerant machinery rooms Lab and vocational shops, in Group E Laundry rooms over 100 sq. ft. Storage rooms over 100 sq. ft. 2 hours; or 1 hour and assembly Parking garage (Section 406.2) Paint shops 2 hours and assembly Incinerator rooms.

Electrical

A-C: Power Strips:

605.4

Re-locatable power taps shall be of the polarized or grounded type, equipped with overcurrent protection, and shall be listed. Re-locatable power taps shall be directly connected to a permanently installed receptacle. Re-locatable power taps shall not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to environmental or physical damage.

D-J: Extension Cords:

605.5

Extension cords shall not be a substitute for permanent wiring and shall not be affixed to structures, extended through walls, ceilings or floors. Cords shall not contain splices or damage. Extension cords shall only be plugged directly into an approved receptacle. Except for approved multi-plug extension cords, each extension cord shall serve only one appliance. The capacity of the extension cord shall not be exceeded. Extension cords shall be grounded when serving grounded portable appliances.

K: Panel:

605.3

A working space of not less than 30 inches in width, 36 inches in depth and 78 inches in height shall be provided in front of electrical service equipment (panel). Where electrical service equipment is wider than 30 inches, the working space shall not be less than the width of the equipment.

L: Junction Box:

605.6

Open junction boxes and open wiring splices shall be prohibited. Approved covers shall be provided for all switch and outlet boxes.

M: Electrical Motors:

605.8

Electrical motors shall be maintained free from excessive accumulations of oil, dirt, waste and debris.

N-O: Temporary Wiring:

605.9

Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days. Temporary wiring attached to a structure shall be attached in an approved manner.

P: Multi-plug Adapters:

605.4

Multi-plug adapters, such as cube adapters, un-fused plug strips or any other device not complying with the International Code Council Electrical Administrative Provisions shall be prohibited.

Miscellaneous

E: Occupant Load Posted:

100.4.3

Every room or space that is assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place and maintained by the owner.

H-J: Evacuation Plan and Drills:

404.2, 405.2

An approved fire safety and evacuation plan shall be prepared and maintained.

Exception: Churches less than 2000 occupant load. Emergency evacuation drills shall be conducted in Group A occupancies quarterly by all employees. Written plan and drill records must be maintained and available upon request.

Hazardous Materials

B-C: Hazardous Materials Storage:

2703.9.8, 3404.3.3.5.3

Storage of incompatible materials shall be separated if in containers having a capacity over 5 lbs. or 0.5 gallon. Shelf storage of flammable and combustible liquids shall be orderly.

D: Below Grade LPG Gas Storage:

3803.2.1.1

Portable LP-Gas containers shall not be used in a basement, pit or similar location where heavier-than-air gas might collect.

E-F: Flammable Liquid and Gas Storage:

3404.3.4.4, 3503.1.1

Flammable and combustible liquids used for maintenance and the operation of equipment exceeding 10 gallons shall be stored in a liquid storage cabinet. Except for cylinders not exceeding 250 cubic feet each, used for maintenance purposes, patient care or operation of equipment, flammable gases shall not be stored or used in group A occupancies.

Fire Protection

L: Vertical Shafts:

704.1, Table 704.1

Interior vertical shafts, including but not limited to stairways, elevator hoist ways, service and utility shafts that connect two or more stories of a building shall be enclosed or protected as specified in Table 704.1.

Group I Vertical openings connecting two or more stories 1-hour protection. All, other than Group I Vertical openings connecting three to five stories 1-hour protection or automatic sprinklers throughout. All, other than Group I Vertical openings connecting more than five stories 1-hour protection.

A-E: Rated Door Maintained:

703.2

Fire doors and smoke barrier doors shall not be modified, blocked or obstructed or made inoperable. Swinging fire doors shall close and latch automatically. Horizontal and vertical sliding doors shall be inspected and tested annually. A written record shall be maintained and be available. Magnetic hold-open devices and automatic door closers on fire doors, where provided, shall be maintained. If fire doors are out of service the door shall remain in the closed position.

F-G: Decorations:

807.1, 806.1.1

Curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall be flame-resistant. Natural cut trees shall be prohibited in Group A occupancies unless protected by self-closing or automatic-closing doors.

H: Self or Automatic Closing Doors:

703.1

Openings through fire-resistance-rated assemblies shall be protected by self-closing or automatic-closing doors.

I: Rated Doors Blocked or Wedged:

Table 1017.1, 703.1

Fire doors and smoke barrier doors shall not be blocked. No door wedges or fold-down feet in rated corridors.

J: Fire Resistance Rated Construction:

703.1

The required fire-resistance rating of fire-resistance-rated construction (including walls, fire stops, shaft enclosures, partitions, smoke barriers, floors, fire-resistive coatings and sprayed fire-resistant materials applied to structural members and fire resistant join systems) shall be maintained. Such elements shall be properly repaired, restored or replaced when damaged, altered, breached, or penetrated. Openings made therein for the passage of pipes, electrical conduit, wires, ducts, air transfer openings and holes made for any reason shall be protected with approved methods capable of resisting the passage of smoke and fire. Openings through fire resistance-rated assemblies shall be protected by self- or automatic-closing doors of approved construction meeting the fire protection requirements for the assembly.

K: Interior Finish:

803.1, 803.5, Table 803.3

Interior wall and ceiling finish shall have a flame spread index not greater than that specified for the group and locations designated. Sprinklered Class B: Exits passageways and corridors, Class C: Enclosed rooms and spaces Non-sprinklered, Class A: Exits passageways and corridors, Class B: Enclosed rooms and spaces.

Kansas Statutes and Regulations

KS01: Fire Protection Changes:

K.S.A. 31-150

New buildings or changes in exiting, fire resistance, or handicapped accessibility, including modifications or additions, shall require that stamped and sealed plans from a licensed architect or engineer be submitted and reviewed by the appropriate authority having jurisdiction. Documentation indicating that the plans have been submitted and approved shall be available to the inspector.

KS02: Emergency Procedures:

K.A.R. 22-18-2(c)

Tornado procedures shall be established by the administrator of each community college and university for all buildings, which designates tornado safety refuge areas. A notice of location of the tornado safety refuge area shall be posted in conspicuous location. Administrators shall provide copies of tornado plans to local or county preparedness director for approval.

KS03: Building Structural Soundness:

K.S.A. 31-133(a)

If a building shows severe or worsening settlement, severe cracking of exterior bearing walls, or roof deflection, and a report shall be provided to OSFM for review and determination of appropriate action.

KS04: Exterior Stair Supports:

K.S.A. 31-133(a)

Exterior stair support shall be either:

- a) structurally supported to the ground; or
- b) documentation of an inspection by an architect or engineer with structural background within the last 5 years assuring that the exit stairs will remain structurally sound when supported solely by a building wall.

KS05: Below Grade LP Installation:

K.S.A. 31-133(a)

Where LP gas appliances are located in below-grade installations where an accumulation of gas vapors is possible, the area or room shall be protected by an approved vapor removal system. If LP gas piping system has not been pressure tested within the last five years or since the installation of new LP gas appliances or changes to LP gas piping, NFPA 85 and NFPA 54 require that the system is pressure tested and documented by authorized LP gas dealer or marketer.

KS06: Boiler Certificate:

K.S.A. 44-924(b)

A current boiler certificate, no more than 18 months beyond expiration date, shall be posted. This is required for all boilers, all water heaters with a water capacity of 85 gallons or greater, and all water heaters rated for more than 200,000 BTU's, regardless of size.

KS07: System Service:

K.A.R. 22-10

Fixed extinguishing systems protecting commercial cooking equipment shall be serviced by a firm licensed by OSFM. Fusible links shall be replaced yearly. Documentation shall be maintained on-site.

KS08: PTR/Valve Relief:

K.S.A. 44-924(b)

Pressure and temperature relief (PTR) valves on fuel fired hot water heaters shall appear operational and shall have piping which extends to within 6 inches of the ground. Piping shall not have bends and shall be of an appropriate material.

KS09: Loose Combustible Storage:

K.S.A. 31-133

Loose combustible storage is prohibited in boiler and furnace rooms and exit ways. Loose combustible storage includes pasteboard boxes, wooden furniture, and material packaged in combustible containers. It does not include bound books or paper bound in reams.

KS10: Compressed Gas Cylinder:

K.S.A. 31-133

Compressed gas cylinders shall be adequately secured with caps in place when not in use. Cylinders shall be stored away from heat sources.

KS11: Gas Powered Equipment:

K.S.A. 31-133

Gasoline powered equipment storage is prohibited in boiler, fuel-fired equipment rooms and exit ways.

KS12: Flammable Liquid Storage:

K.S.A. 31-133

Flammable liquid storage is prohibited in boiler and fuel fired equipment rooms and exit ways. Flammable liquids shall be in containers approved for the use and marked with the material's name. Storage shall be in an approved flammable liquid storage cabinet when total quantities stored exceed 5 gallons.

KS13: Dangerous Conditions:

K.S.A. 31-133

Situations requiring immediate action and building evacuation to mitigate an imminent danger to life or health of the building occupants that is not a normal component of the inspection, including a natural gas leak, atmospheric contaminant within the building, complete power failure, or similar emergencies. Inspector is required to contact the Chief of Fire Prevention Division for immediate guidance and determination of requirements and facility response.

KS14: Fire Drill Frequency (Group E):

K.A.R. 22-18-2(a)

Fire drills shall be conducted once each month that school is in session to simulate actual fire. If records indicate one or more months past due, a drill shall be conducted in the inspector's presence.

KS15: Fire Drill and Disability (Group E):

K.A.R. 22-18-2(a)

Fire drill procedures for occupants with disabilities shall exist in a written format and shall be maintained.

KS16: Fire Drill Documentation (Group E):

K.A.R. 22-18-2(a)

Fire drills shall be documented on a record provided by OSFM and publicly posted. Inspector shall verify owner information is complete on drill record.

KS17: Tornado Drill Alarm (Group E):

K.A.R. 22-18-2(c)

Tornado drills shall use a distinctly different alarm sound from that used for the fire alarm.

KS18: Tornado Refuge Area (Group E):

K.A.R. 22-18-2(c)

Tornado refuge area location shall be conspicuously posted, typically by signage at a building's main entrance bulletin board, classrooms, and/or signage at refuge area.

KS19: Tornado Drill Documentation (Group E):

K.A.R. 22-18-2(c)

Tornado drill shall be documented on record provided by OSFM and publicly posted.

KS20: Escape Window (Group E):

K.S.A. 31-150

Mobile classrooms require a remote, complying escape window or second exit door.

Exception: When each classroom has a door directly to the exterior.

KS21: Bus Barns (Group E):

K.S.A. 31-144(c)

Bus barns and district vehicle repair garages function independently of classrooms and require a 2 hour fire barrier with 1 ½ hour rated door assemblies between them and K-12 school areas, unless otherwise accepted by OSFM and documented in writing. (For auto-shop classrooms, see hazardous rooms.)

KS22: Juvenile Detention Fire Drills (Group I):

K.A.R. 22-15-7(q)

Quarterly fire drills for staff training are required and must be documented.

KS23: Juvenile Detention Construction (Group I):

K.A.R. 22-15-7(b) K.S.A. 31-136 (Equivalent construction types)

Approved construction shall be one of the following for single story buildings:

- 1) One hour non-combustible, or
- 2) When previously approved and documented in writing by the OSFM
 - a) one-hour wood frame construction, fully sprinkled, and limited 3,900 sq. ft. of detention space, or
 - b) heavy timber construction and fully sprinkled.

KS24: Rolling Fire Doors:

K.S.A. 31-133, 06

If a fire-rated door is not required at a location, the rolling door should be secured or removed. If a fire-rated door is required, the rolling door should be secured in place or removed completely, and then replaced with properly rated swinging doors. If the overhead doors cannot be immediately eliminated, the rolling doors shall be checked to insure they are being maintained properly and plans should be made to replace the doors.