

## **Business Occupancy**

**IFC 2006**

Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to.

## Exits

### **A-B: Number of Exits:**

1001.2, 1015.1

It shall be unlawful to alter a building in a manner that will reduce the number of exit or the capacity of the means of egress to less than required by this code. Two exits or exit access doorways from any space shall be provided when the occupant load is 50 or more than the values in Table 1015.1.

### **C: Travel Distance:**

Table 1019.2

One-story buildings with one exit maximum travel distance is 75 feet to an exit.

### **D-E: Means of Egress:**

1019.3, 1018.2.2

Exits shall be continuous from the point of entry into the exit to the exit discharge. Exterior exit doors shall lead directly to the exit discharge or the public way.

### **F: Door Swing:**

1008.1.2

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

### **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 are required in rooms or areas which require two or more exits. Main exterior exit door sign may be exempt. Exit sign placement shall be such that no point in a corridor is more than 100 feet or the listed viewing distance from the nearest visible exit sign. Exit signs shall be internally or externally illuminated at all times.

### **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, 1017.2

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 minimum corridor width shall be not less than 44 inches. When occupant capacity is less than 50, 36 inches is the minimum width.

**O: Panic Hardware Operation:**

1008.1.2

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-Q: Egress Door Locks:**

1008.1.8

Manually operated flush bolts or surface bolts on exit doors are not permitted. Key locking hardware may be used on the main exit if there is a readily visible, durable sign on, or adjacent to, the door stating, "This door to remain unlocked when building is occupied."

**R: Emergency Lights:**

1006.2

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.

**S-U: Egress Door Locks:**

1008.1.8.6

Approved listed, delayed egress locks shall be permitted to be installed on doors serving Group B Occupancies. Access-controlled entrance egress doors are permitted within Group B Occupancies. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. See exceptions.

**V: Means of Egress:**

1014.2 #2

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

**W: Egress Width:**

1014.4.1

Aisles in Group B occupancies, the minimum clear aisle width shall not be less than 36 inches or more if the occupant load served requires a greater width.

**X: Emergency Lights:**

1027.5 #2

Existing B occupancy buildings three or more stories in height, existing buildings with 100 or more occupants above or below the level of exit discharge or existing buildings with 1000 or more total occupants require emergency egress illumination.

## Fire Protection Systems

### A-H: Fire Extinguisher:

Table 906.3 (1), 906.1, 906.5, 906.6, 906.7, 906.9

1x2A per 600 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 4in.

### I: Sprinkler System:

903.4

All valves controlling the water supply for automatic sprinkler systems and water-flow switches on all sprinkler systems shall be electronically supervised when system has 20 or more sprinkler heads.

### J-K: System Maintenance:

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. Nonrequired 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

### L: Fire Hydrants:

508.5.5

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

**M: Sprinkler System:**

901.8

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, 6.2.6.2.1)

**N: System Maintenance:**

907.20.5

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

## Housekeeping

### **A-F: Storage:**

315.2

Storage of combustible materials in buildings shall be orderly. Storage shall be separated from heaters or heating devices. Storage shall be maintained 2 feet or more below the ceiling in nonsprinklered buildings or 18 in. below sprinkler deflectors in sprinklered areas of buildings. Combustible materials shall not be stored in exits, exit enclosures, boiler rooms, mechanical rooms or electrical equipment rooms.

Attic, under-floor and concealed spaces used for storage of combustible materials shall be protected on the storage side as required for 1-hour fire-resistive construction.

Exception: If the area is protected by an approved automatic sprinkler system.

### **G: Oily Rags:**

304.3.1

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

### **H: Hot Work Areas:**

2604.1.3

Floors shall be kept clean in hot work areas.

### **I: Storage:**

315.3

Outside storage of combustible materials shall not be located within 10 feet of a property line.

### **J: Cooking Equipment Cleaned:**

904.11.6.3

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.

### **K-L: Trash Containers:**

304.3

Combustible waste containers larger than 40 gallons shall have lids and must be made of noncombustible or approved combustible material. Dumpsters and containers with an individual capacity of 1.5 cubic yards (40.5 cu.ft) or more shall not be stored in buildings or placed within 5 feet of combustible walls, openings, or under roof eave lines. Allowed if automatic sprinklers throughout.

### **M: Indoor Vehicles:**

314.4

Liquid- or gas- fueled vehicles shall not be located indoors except: battery disconnected, fuel in tank not to exceed  $\frac{1}{4}$  or 5 gallons (whichever is least), fuel tanks and fill openings are closed and sealed to prevent tampering.

**N: Storage:**

3404.3.3.5.3

Shelf storage of flammable and combustible liquids shall be maintained in an orderly manner.

**O: Fire Hydrants:**

508.5.4

Items shall not be placed or kept near fire hydrants, fire department inlet connections (FDC) in a manner that would prevent such equipment or fire hydrants from being immediately discernible and from gaining immediate access to the fire protection equipment or fire hydrants.

## Electrical

### **A-C: Power Strips:**

605.4

Relocatable power taps shall be of the polarized or grounded type, equipped with overcurrent protection, and shall be listed. Relocatable power taps shall be directly connected to a permanently installed receptacle. Relocatable 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 multiplug extension cords, each extension cord shall serve only one appliance. The ampacity of the extension cord shall not be exceeded.

Extension cord 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: Multi-plug Adapters:**

605.4

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

### **N: Temporary Wiring:**

605.9

Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days.

Exception: Longer for construction, remodeling, repair or demolition of buildings.

### **O: Electrical Room:**

605.3.1

Doors into electrical control panel rooms shall be marked with a plainly visible and legible sign stating: "Electrical Room."

**P: Electrical Motors:**

605.8

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

## Miscellaneous

### **A: Building Numbers:**

505.1

New and existing buildings shall have approved address numbers plainly legible and visible from the street fronting the property. These numbers shall contrast with their background.

### **B: Key Box:**

506.1

A key box may be required where access to or within a structure is unduly difficult because of secured openings or where immediate access is required.

### **C-D: Access Roads:**

503.4, 503.2.1

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet; minimum height is 13 feet 6 inches.

### **E: Evacuation Plan:**

404.2

An approved Fire Safety and evacuation plan is required for high-rise buildings.

### **F: System Maintenance:**

907.20.5

The building owner shall be responsible for ensuring that the fire alarm systems are maintained in an operational condition at all times.

## Hazardous Materials

### **A: Permit:**

105.6.16 #2

An operational permit is required to store, handle or use Class I liquids in excess of 5 gallons inside a building or 10 gallons outside.

### **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. of 0.5 gallon. Shelf storage of flammable and combustible liquids shall be orderly.

### **D: LPG 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: Hazardous Material 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 B occupancies.

### **G: Compressed Gas:**

2703.5

Rooms or cabinets containing compressed gases shall be labeled: "Compressed Gas."

### **H: Hazardous Materials Placard:**

2703.5

Buildings storing hazardous materials must display placard.

## Fire Protection

### A-F: Rated Doors:

703.2

Fire doors and smoke barrier doors shall not be modified, blocked or unobstructed 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.

## 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.