



CITY OF ABILENE FIRE MARSHAL'S OFFICE



Fire Safety/Inspection Guidelines in Public Schools

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In accordance with the Abilene Fire Department, and the International Fire Code, 2009 Edition, the following information is used to address fire and life safety deficiencies found in public schools.

According to the International Fire Code, a public school building is classified as a Group E Occupancy.

An Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by 6 or more persons at any one time for educational purposes through the 12th grade.

I. EXITS

- A. 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. 1001.2
- B. Two exits or exit access doorways from any space shall be provided when the occupant load exceeds the values in Table 1015.1 of the IFC 2009. 1015.2.1
- C. 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. 1008.1.10
- D. 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. 1008.1.3
1008.1.10
- E. Manually operated flush bolts or surface bolts on exit doors are not permitted. 1008.1.9.4
- F. Exits shall be continuous from the point of entry into the exit to the exit discharge. 1007.2
- G. Exterior exit doors shall lead directly to the exit discharge or the public way. 1020.2.2

- H. Exit doors shall swing in direction of exit travel when serving an occupant load of 50 or more. 1008.1.2
- I. 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. 1006.1
- J. Exit signs are required in rooms or areas, which require two or more exits. Main exterior exit door sign may be exempt. 1011.1
- K. Exit sign placement shall be such that no point in an exit access corridor is more than 100 feet from the nearest visible exit sign. 1011.1
- L. Exit signs shall be internally or externally illuminated at all times or shall be of the self-luminous type. 1011.2
- M. Obstruction to exits shall not be placed in the required width and exits shall not be obstructed in any manner. 1003.6
- N. The required capacity of means of egress shall not be diminished (reduced) along the path of egress travel. 1003.6
- O. Doorways shall not be less than 32" in clear width. 1008.1.1
- P. The minimum corridor width shall be not less than 44 inches. When occupant capacity is 50 or less, 36" is the minimum width. 1018.2
- Q. In the event of a power supply failure, an emergency system shall automatically illuminate all exit access corridors, passageways, exit stairways, rooms, exit discharge areas if 2 exits are required. 1006.3

II. FIRE PROTECTION SYSTEMS

- A. One 2A fire extinguisher per 3000 sq. ft. in low hazard (offices) and one 2A per 1500 sq. ft. in a moderate hazard. Group E occupancy with quick-response sprinklers, fire extinguishers shall be required only in special-hazard areas. Must show proof of sprinkler head type. 906.1
906.3(1)
- B. Maximum travel distance to a fire extinguisher is 75 feet. 906.3
- C. Fire extinguishers shall be in conspicuous and readily available locations. 906.5
- D. Fire extinguishers shall not be obstructed or obscured from view. 906.6
- E. Hand-held portable fire extinguishers, not housed in cabinets, shall be installed on hangers or brackets supplied. 906.7

- F. Fire extinguishers shall be installed so that its top is no more than 5 ft. above the floor if less than 40 pounds. For fire extinguishers over 40 pounds, the top no more than 3.5 ft. above the floor. 906.9.1
- G. Fire extinguishers shall be serviced annually and shall have a current service tag attached. 906.1
- H. See Table 906.1 for additional required portable fire extinguishers. 906.1
- I. Portable fire extinguisher to be installed within 30 feet of commercial cooking equipment. 906.1.2
- J. Automatic fire extinguishing systems of commercial cooking equipment shall be serviced at least every 6 months and after activation of the system. 904.11.6.2
- K. Commercial cooking equipment fusible ink and automatic sprinkler head shall be replaced at least annually. Records to be maintained. 904.11.6.3
- L. All valves controlling the water supply for automatic sprinkler systems and waterflow switches on all sprinkler systems shall be electronically supervised when system has 20 or more sprinkler heads. 903.4
- M. An automatic sprinkler system shall be provided for every portion of educational buildings below the level of exit discharge. See exception. 903.2.3.2
- N. Fire detection, alarm and extinguishing systems shall be maintained in an operative condition at all times. 901.6
- O. Records of all system inspections, tests and maintenance shall be maintained on the premises for a minimum of 3 years. Made available to the Fire Marshal. 901.6.2
- P. 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) 901.8
- Q. A manual actuation device shall be located at or near a means of egress from the cooking area, 4.5-5 feet above floor, 10-20 feet away. 904.11.1
- R. Commercial kitchen exhaust hood and duct systems shall be protected by an approved automatic fire-extinguishing system. 904.2.1
- S. A 3-foot clear space shall be maintained around the circumference of fire hydrants. 507.5.5

III. HOUSEKEEPING

- A. Class 1 flammable liquids shall not be permitted in basements. 3404.3.4.2
- B. Storage shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur. See “E” below. 315.2

- C. Storage shall be maintained 2 feet or more below the ceiling in a non-sprinklered building and 18 inches below sprinkler head deflectors in sprinklered areas of buildings. 315.2.1
- D. Combustible materials shall not be stored in exits or exit enclosures. 315.2.2
- E. Combustible materials shall not be stored in boiler rooms, mechanical rooms or electrical equipment rooms. 315.2.3
- F. 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. See exceptions. NO STORAGE UNDER EXIT STAIRWAYS unless protected by an approved sprinkler system. 315.2.4
- G. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in listed disposal containers. (Self-closing lid) 304.3.1
- H. Combustible waste containers larger than 40 gallons shall have lids and must be made of metal or approved combustible material. 304.3.2
- I. Dumpsters and containers with an individual capacity of 1.5 cubic yards (40.5 cu. ft) or larger shall not be stored in buildings or placed within 5 feet of combustible walls, openings, or under roof eave lines. 304.3.3
- J. Electrical motors shall be maintained free from excessive accumulations of oil, dirt, waste and debris. 605.8
- K. Hoods, grease-removal devices, fans, ducts shall be cleaned to prevent the accumulation of grease. Cleaning shall be recorded and such records shall be maintained on the premises. Show proof. 609.3.3
- L. Clothing and personal effects shall not be stored in corridors and lobbies unless the corridors and lobbies are protected by a smoke detection and/or automatic sprinkler system. 807.4.3.1
- M. Portable unvented fuel-fired heating equipment shall be prohibited. 603..3.4
- N. Shelf storage of flammable and combustible liquids shall be maintained in an orderly manner. 3403.3.3.5.3

IV. ELECTRICAL

- A. Relocatable power taps shall be of polarized or grounded type, equipped with protection, and shall be listed. 605.4.1
- B. Relocatable power taps shall be directly connected to a permanently installed receptacle. 605.4.2

- C. Relocate power taps shall not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to damage. 605.4.3
- D. Extension cords shall not be a substitute for permanent wiring. 605.5
- E. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors. 605.5
- F. Extension cords shall only be plugged directly into: approved receptacles, Power taps, or multiplug adapters. 605.5.1
- G. Except for approved multiplug extension cords, each extension cord shall serve only one portable appliance. 605.5.1
- H. Extension cords shall not contain splices or damage. 605.5.3
- I. Extension cords shall be grounded when serving grounded portable appliances. 605.5.4
- J. The ampacity of the extension cords shall not be less than the rated capacity of the portable appliance supplied by the cord. 605.5.2
- K. A working space and clearance of not less than 30 inches in width, 36 inches in depth and 78 inches in heights shall be provided in front of electrical service equipment. (panel) 605.3
- L. Open junction boxes and open wiring splices shall be prohibited. Approved covers shall be on all switch and outlet boxes. 605.6
- M. Multiplug adapters, such as cube adapters, unfused plug strips or any other device not complying with the ICC Electrical Code shall be prohibited. 605.4
- N. Doors into electrical control panel rooms shall be marked with a plainly visible and sign stating "ELECTRICAL ROOM." 605.3.1

V. MISCELLANEOUS

- A. 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. 505.1
- B. A key box may be required where access to or within a structure is unduly difficult because of secured openings or immediate access is required. 506.1
- C. Fire apparatus access roads shall not be obstructed in any manner, including parked vehicles. 503.4

- D. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet minimum height is 14 feet . 503.2.1
- E. The building owner shall be responsible for ensuring that the fire and life safety systems are maintained in an operable condition. 907.20.5
- F. A manual fire alarm system shall be installed when over 50 occupants. See exceptions for smoke detectors and room size. 4603.6.1
- G. An approved fire safety and evacuation plan shall be prepared and maintained. The plan shall be reviewed or updated annually. 404.2
- H. All occupants must participate in monthly fire and evacuation drills. 405.2
- I. Group E buildings with an atrium must have an approved fire safety and evacuation plan. Show proof. 404.2.14
- J. Portable, electric space heaters shall not be operated within 3 feet of any combustible materials. 605.10.4

VI. HAZARDOUS MATERIALS

- A. An operational permit is required to store, handle or use Class I liquids in excess of 5 gal. inside a building or 10 gal. outside. 105.6.16.2
- B. Storage of incompatible materials shall be separated if in containers having a capacity over 5 lbs. or 1/2 gallon. 2703.9.8
- C. Swinging fire doors shall close from the full open position and latch automatically. The door closer shall exert enough force to close and latch the door from any partially open position. 703.2.3
- D. Horizontal and vertical sliding and rolling fire doors shall be inspected and tested annually to confirm proper operation and full closure. A written record shall be maintained and available. 703.4
- E. When magnetic hold open devices on fire doors are out of service the door shall remain in the closed position. 703.2.2

VII. FIRE PROTECTION

- A. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made inoperable. 703.2
- B. Fire door assemblies shall not be modified. 703.2
- C. Swinging fire doors shall close from the full open position and latch automatically. The door closer shall exert enough force to close and latch the door from any partially open position. 703.2.3

- D. Horizontal and vertical sliding and rolling fire doors shall be inspected and tested annually to confirm proper operation and full closure. A written record shall be maintained and available. 703.4
- E. When magnetic hold open devices on fire doors are out of service, the door shall remain in the closed position. 703.2.2
- F. Curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall be flame resistant. 807.1
- G. Natural cut trees shall be prohibited in Group E occupancies unless protected by an automatic sprinkler system. 806.1.1
- H. When openings are required to be protected, opening protectives shall be maintained self-closing or automatic-closing by smoke detection. 703.2
- H. Wooden or rubber door wedges and fold down feet that block open fire rated doors in the open position shall be removed and the door allowed to protect the opening in fire rated corridors. 1018.1

VIII. DECORATIVE MATERIALS

- A. Combustible decorative materials. The permissible amount of decorative materials meeting the flame propagation performance criteria of NFPA 701 shall not exceed 10% of the specific wall or ceiling area to which it is attached. 807.1.2
- B. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20% of the wall area. 807.4.3.2
- C. Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet The applicable provisions of NFPA 70 605.9

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