

**San Antonio Fire Department – Office of the Fire Marshal
Fire & Life Safety Requirements for Indoor Exhibits & Trade Shows
Revised 2024**

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Fire & Life Safety Requirements for Indoor Exhibits & Trade Shows

1. Floor Plans, Seating & Booth Arrangements

1. Scaled floor plans shall be submitted with the Fire Code Permit Application no later than 15 days before the first public day ([IFC §403.2.5](#); [§106.2.1](#); *IFC App. N §N101.3*).
2. Construction documents for multi-level booths, elevated platforms, stages, raised decks, or any structure that people stand on or occupy above floor level—and that must comply with IBC Chapter 16—shall be sealed by a Registered Design Professional and submitted within the required timeline (*IFC App. N §N101.3, N105*; [IBC Ch.16](#)).
3. Plans shall identify hall boundaries, booth numbers, aisle locations and widths, exits and exit discharge, exit signs, emergency lighting, fire-protection equipment, cooking and heat-producing equipment, covered booths, enclosed booths, multiple-level booths, elevated platforms, stages, raised decks, vehicle displays, and storage locations and quantities of any highly combustible goods ([IFC §403.2.5](#); [IFC §106](#); [IFC Ch.10](#); [IFC §901.2](#); *App. N §N101.3*).
4. Any special or nonstandard seating arrangement shall be reviewed and approved before ticket sales to ensure compliance with egress and occupant-load requirements. All layouts shall maintain required aisles, exit access, and visibility of fire-protection systems ([IFC Ch.10](#)).
5. The operator shall construct and operate the exhibit hall exactly as approved. Any field changes affecting egress, fire protection, access, or special hazards shall be resubmitted for approval and re-inspected before opening. Approved plans and permits shall remain on site for review ([IFC §104.9](#); [§106.3](#)).
6. A final pre-opening walkthrough by the Fire Marshal is required for exhibit approval. Walkthroughs conducted after normal business hours, on weekends, or on holidays shall be billed to the client at the established City rate unless otherwise directed ([IFC §104.9](#)).
7. A Fire Watch shall be provided when required by the Fire Marshal based on risk, fire-protection system impairment, occupant load, or the use of special effects ([IFC §403.11.1](#)).

2. Booth Construction, Decorations & Stage Scenery

1. All booth construction materials—including walls, ceilings, platforms, display structures, and scenic elements—shall be noncombustible, limited-combustible, wood at least ¼-inch thick, or fire-retardant-treated wood in accordance with NFPA 703 ([IFC §403.2.15.3](#)).
2. All curtains, drapes, table skirts, banners, fabric panels, decorative vegetation, and similar decorative materials shall be noncombustible or flame-resistant. Documentation or labels verifying compliance shall be available on site for inspection ([IFC §403.2.14](#); [IFC §807](#); *IFC App. N §N104.1*).
3. Foam, plastic, cardboard, and similar lightweight décor must be labeled or certified as slow-burning, exhibit-grade materials. Regular craft foam or untreated combustible décor is not permitted. Materials that cannot be flame-retardant treated may not be used, unless approved in very small quantities (under 10% of a wall or floor area) ([IFC §403.2.15.5](#) – [§403.2.15.5.3](#)).
4. Merchandise, signage, or decorative items attached to drapes, table skirts, or other fabric surfaces shall be noncombustible or flame-resistant, or specifically approved by the Fire Marshal ([IFC §807](#); [IFC §403.2.15.4](#)).

5. All construction and decorative materials shall be installed so that they do not obstruct sprinkler discharge, exit signs, alarm appliances, or smoke-detection equipment ([IFC Ch. 8](#); *IFC App. N §N104.1*)
6. Flame-resistance documentation—including labels, certificates, manufacturer listings, or manufacturer's letters—shall be kept on site and provided during move-in or upon request during inspection ([IFC §403.2.15.4](#); *IFC App. N §N104.1*).

3. Covered and Enclosed Booths

1. Booths are considered covered or enclosed when they include any overhead ceiling or canopy—solid, fabric, or truss-supported—or when enclosed on multiple sides by solid walls (*IFC App. N §N106*).
2. Covered or enclosed booths shall be arranged so that fire protection systems and egress pathways remain unobstructed ([IFC Ch.10](#); *App. N §N106*).
3. Booths exceeding 100 ft² per level shall be protected by an approved automatic sprinkler system installed in accordance with [IFC §903.3.1.1](#) (*IFC App. N §N106.1*; *NFPA 13*).
4. Booths exceeding 120 ft² on any level shall be provided with an approved fire alarm system in accordance with [IFC §907.2](#), including smoke detection installed at the highest point beneath the cover and an alarm audible both inside and outside the booth (*IFC App. N §N106.2*; *NFPA 72*).
5. Travel distance from any point within a covered or enclosed booth to an exit access aisle shall not exceed 50 ft ([IFC §403.2.15.1](#)).
6. All ceiling, roof, canopy, wall, and fabric materials shall be flame-resistant or flame-retardant in accordance with NFPA 701, and shall not obstruct sprinkler discharge, exit signs, or smoke detection equipment (*NFPA 701*; [IFC §807](#); *IFC App. N §N106*).

4. Multiple-Level Booths, Elevated Structures, Platforms, Stages & Raised Decks

1. Multiple-level or elevated-platform booths—including any structure that people stand on, walk on, occupy above floor level, or that requires load calculation—shall be designed and sealed by a Texas Registered Design Professional, as the construction documents required by IFC Appendix N must demonstrate compliance with IBC Chapter 16 for live loads, stability, framing, bracing, guardrails, and stairs (*IFC App. N §N105.1–N105.2*; [IBC Ch.16](#)).
2. Construction documents shall be submitted no later than 15 days before the event opens, and construction is prohibited until formal approval is issued (*IFC App. N §N105.1*).
3. Upper levels greater than 300 ft² or with an occupant load over 10 shall provide two remote means of egress ([IFC §403.2.15.2](#); *App. N §N105.3*).
4. Travel distance from any point on either level to an exit access aisle shall not exceed 50 ft ([IFC §403.2.15.1](#)).
5. Exit signs shall be provided at exits and changes of direction, illuminated and clearly visible ([IFC §1013.1](#)).
6. The maximum occupant load for each level shall be posted at the point of entry to that level and monitored by the exhibitor or designated booth attendant (*IFC App. N §N105.3*; [IFC §1004.9](#)).

7. Multi-level booths exceeding 400 ft² per level shall be protected by an approved automatic sprinkler system (*IFC App. N §N105.4; [IFC §903.3](#); NFPA 13*).
8. Any level exceeding 120 ft² shall be equipped with smoke detection installed at the highest ceiling, with an audible alarm heard inside and outside the booth (*IFC App. N §N105.6; [IFC §907.2](#); NFPA 72*).
9. A 2A:10BC fire extinguisher shall be provided for each level of occupancy, installed in visible and accessible locations along the egress path (*[IFC §906](#); NFPA 10; IFC App. N §N105.5*).
10. A pre-opening Fire Marshal inspection is required, with access provided to all occupied levels and to the approved plans. Structural design documents, including engineering calculations, shall remain on site and must have been approved by the Building Code Official prior to opening (*IFC App. N §N105.5*).

5. Exits and Exit Access & Discharge

1. The operator of premises used as a place of assembly shall prevent the sitting or standing in aisles, passageways, or stairways while the premises are occupied (*[IFC §403.2.6](#)*).
2. All exits, aisles, and exit access paths must remain clear, unobstructed, and at full approved width at all times (*[IFC §314.2](#); App. N §N108.1*).
3. Exit doors serving any occupied area must remain unlocked and must swing in the direction of egress where required (*[IFC §1010.1.2.1](#)*).
4. Exit signs must remain visible. No drapes, banners, decorations, displays, or equipment may cover or obscure exit signs (*[IFC §1013.1](#)*).
5. No decorations, furnishings, mirrors, or objects may be placed in a way that hides or confuses exits or restricts visibility to them (*[IFC §807.1](#); [§315.3.2](#)*).
6. Exit illumination and emergency lighting must be maintained whenever occupied and must operate for at least 90 minutes during power loss (*[IFC §§1008.2–1008.3](#)*).
7. Maximum travel distance inside any booth to an exit access aisle is 50 feet (*[IFC §403.2.15.1](#)*).

6. Cooking & Food Warming Devices

Electrical Cooking and Warming Appliances (*[IFC §603.1](#) & [IFC §403.2.8](#)*)

1. Electric warming appliances—including electric cooktops, electric skillets, and countertop ovens—shall be UL-listed or listed by an approved testing laboratory, and operated only in accordance with their listing and manufacturer's instructions.
2. Devices shall produce no open flame and shall not create grease-laden vapors unless separately approved.
3. Devices shall be placed on noncombustible surfaces and kept 2 ft from combustibles.
4. The appliances shall be isolated from the public by 48 inches, or protected by a barrier between the two.
5. A minimum 2A:10BC portable fire extinguisher shall be provided within the booth for each device, or an approved automatic extinguishing system shall be provided.

Chafing & Sterno Fuel Devices ([IFC §308.3.3](#))

1. Chafing fuel devices shall be commercially available units intended for use with chafing fuels.
2. Devices shall be secured to prevent tipping or unintentional movement.
3. Lids must be available for immediate use for extinguishment.
4. Devices shall be used for warming only, not cooking.
5. Warming surface area shall be limited to 2 ft² (0.2 m²) maximum.
6. Devices shall be placed on noncombustible surface materials.
7. Devices shall be separated from each other by at least 24 inches horizontally.
8. Devices shall be kept at least 24 inches from any combustible materials.
9. A 2A:10BC fire extinguisher within 30 feet shall be provided for each chafing device, or an approved automatic extinguishing system shall be provided.

Single-Well Cooking Equipment Using Combustible Oils or Solids ([IFC §403.2.8](#))

1. Warming/cooking surface shall be limited to 2 ft².
2. Fitted lids shall be available for immediate use.
3. Units shall be placed on noncombustible surface materials.
4. Units shall be separated from each other and from combustibles by a minimum of 24 inches.
5. A minimum 2A:10BC and a Type K portable fire extinguisher shall be provided within the booth for each device, or an approved automatic extinguishing system shall be provided.

Gas-Fired Devices ([IFC §403.2.8](#))

1. Natural gas-fired devices shall comply with NFPA 54 or NFPA 58.
2. The use of LP-gas cylinders shall be prohibited.
3. Nonrefillable LP-gas cylinders may be approved when permitted by the Fire Marshal.

7. Electrical Equipment & Temporary Wiring ([IFC §603](#); *NFPA 70 Art. 590*)

1. All electrical equipment, wiring, cords, power taps, and appliances shall be UL-listed or listed by a Nationally Recognized Testing Laboratory (NRTL) and used only as intended.
2. Extension cords and power strips must be grounded, in good condition, used only with portable appliances, plugged directly into an approved receptacle or power tap, and never daisy-chained. Extension cords may serve only one appliance unless listed otherwise and must have proper ampacity and grounding.

- a. **Exception:** *When approved in Group A exhibit halls or Group B meeting rooms, up to five power strips may be interconnected for temporary low-power electronics such as laptops, monitors, projectors, or POS systems. They shall not be used for any heating or high-draw equipment, including warmers, hot plates, fog machines, or refrigerators ([IFC §603.5.2](#)).*
3. Cords shall be protected when crossing aisles or walking paths by taping, matting, or approved cable covers, and shall not be routed under carpets, doors, floors, or through walls or ceilings, nor attached to structures or placed where they may be damaged unless specifically approved ([IFC §603.6](#)).
4. Electrical installations requiring inspection or verification shall be approved by the City Electrical Inspector when applicable ([IFC §104](#)).
5. The following devices are prohibited unless specifically approved: cube taps or plug adapters, multi-plug "octopus" adapters, household power bars that are not UL-listed, unlisted lighting strings (such as holiday lights or non-certified LED strips), space heaters, fog or haze machines connected to power strips, DIY or modified electrical equipment, and any device that generates heat or draws a heavy electrical load.

8. Vehicle Displays – Liquid-Fueled, Gas-Fueled & Electrically Propelled Vehicles

For the purposes of this policy, "vehicles" include cars, trucks, vans, semis, buses, RVs, boats, motorcycles, ATVs, UTVs, golf carts, jet skis, and any motorcraft or equipment powered by liquid fuel, gaseous fuel, hybrid-electric systems, or battery-electric propulsion.

1. These vehicles shall not be located indoors unless all IFC indoor vehicle requirements are met, including inoperability, battery control, fuel-level limits, and sealed fuel systems, as outlined in the sections below.

Liquid-Fueled Vehicles (Gasoline, Diesel, Hybrid or Plug in Hybrid) ([IFC §314.4](#))

1. Fuel in fuel tanks shall not exceed one-quarter or 5 gallons, whichever is less - (Inspected prior to entry)
2. Fuel tanks and fill openings shall be closed, locked, or sealed to prevent tampering or vapor escape.
3. Batteries shall be disconnected with terminal taped (*IFC App. N §N107.3.1*).

Battery Electric Vehicles

1. State of charge (SOC) shall not exceed 30% prior to entry, per Fire Marshal directive under [IFC §104.1.1](#).
2. Battery shall be disconnected or rendered inoperable by AHJ (*IFC App. N §N107.3.1*).
3. Charge ports on BEV and PHEV vehicles shall be closed, capped, locked, or secured to prevent tampering or connection to external power.

Gaseous-Fueled Vehicles (Hydrogen, CNG & LP-gas)

1. Gaseous-fueled vehicles shall comply with all IFC fuel-quantity, shutoff-valve, and battery-isolation requirements. These vehicles are permitted only with Fire Marshal approval, and additional conditions may be imposed based on the specific fuel type and safety features ([IFC §314.4](#); *IFC App. N §N107.3.4*).

General Requirements for All Vehicle Types

1. Vehicle placement shall not obstruct aisles, exits, exit access, or required egress widths. Aisles must remain clear at all times when the public is present ([IFC Ch.10](#); *App. N* §N107.3.3).
2. Keys for all display vehicles shall remain on-site and immediately accessible for emergency relocation or removal as directed by the Fire Marshal ([IFC §403.2.7](#)).
3. Vehicles shall not be fueled or defueled inside buildings under any circumstances ([IFC §314.4](#)).
4. Electrically propelled vehicles shall not be charged inside buildings under any circumstances.
5. Show vehicles with LPG tanks shall not be permitted inside the exhibit halls ([IFC §403.2.7](#)).

9. Hazardous and Combustible Materials ([IFC Chapter 50](#), *Appendix N*, OSHA HAZCOM)

1. The Fire Marshal may require that information on the nature of any potentially hazardous material be submitted on a Safety Data Sheet (SDS) in accordance with [IFC §5003.4.1](#). Only small demonstration quantities are permitted, and no bulk storage or reserve stock is allowed (*App. N* §N107.1; [IFC Ch. 50](#)–67; [IFC §314](#)).
2. Hazardous materials may not be placed in aisles, exit paths, or concealed areas and must remain at least 5 feet from exits and aisles. Storage of hazardous materials anywhere within the indoor event or exhibition space is prohibited (*IFC App. N* §N107.1.1).
3. An SDS must be on-site for each hazardous product. All hazardous materials shall remain in original manufacturer-labeled containers or in properly labeled approved secondary containers. Containers must be clearly identified, and incompatible materials must be separated ([IFC §5003.4](#), [IFC §5003.2](#); [IFC §5003.9.8](#)).
4. Hazardous materials must remain attended and secured at all times and kept out of public access. Transport of hazardous materials within the facility shall be conducted using approved carts only and shall not obstruct aisles, exits, or fire-protection equipment ([IFC §5003.9](#)).
5. Any spill or leak shall be reported immediately to Event Management or the Fire Marshal ([IFC §5003.3](#)).

10. Temporary Tents & Assembly Structures – Quick Requirements

1. A permit is required for any tent or membrane structure used for assembly with more than 50 occupants, or for any tent larger than 1,200 ft². All required plans shall be submitted at least 15 days before installation for review and approval ([IFC §3103.2](#)).
2. Scaled drawings showing the tent size, height, location, egress layout, anchoring or ballast method, and NFPA 701 flame-resistance documentation shall accompany the submission.
3. Tents and membrane structures used inside exhibit halls or convention centers shall comply with [IFC Chapter 31](#) and *Appendix N*, including flame-resistance, egress, and fire-protection requirements. Indoor tents are classified as covered booths or membrane enclosures and must meet all sprinkler, detection, and exit provisions where applicable ([IFC §3101.1](#); *IFC App. N* §N106).

11. Pyrotechnics, Open Flames, Flame Effects, and Lasers

1. Pyrotechnics, fireworks, open flames, flame effects, fog or haze machines, propane equipment, gas-fired demo appliances, welding or cutting tools, flammable liquids or gases, loose combustible materials, and entertainment lasers may not be used or displayed without prior written approval from the Fire Marshal ([IFC §§308, 314, 5608](#); NFPA 1123, 1126, 160).
2. Any indoor or outdoor pyrotechnic, Cold Spark, or flame effect requires a Fire Code Operational Permit and a pre-show demonstration before it can be used ([IFC §5608.2](#)).
3. All pyrotechnic shows or effects must be operated by a State-licensed pyrotechnic operator to ensure safety and compliance (*Texas Occ. Code Ch. 2154*; NFPA 1126).
4. Pyrotechnic devices, open flames and flame effects may only be used if approved by the Fire Marshal and must be placed where they cannot ignite nearby materials or block aisles or exits ([IFC §308](#)).
5. Approved open flames—such as candles or torches—must be kept at least 5 feet away from any exit path ([IFC §314.3](#)).
6. A 2A:10BC fire extinguisher must be within 30 feet of any approved flame device ([IFC §§906.3](#)).
7. Additional fire safety measures or on-site Fire Marshal coverage may be required depending on the activity ([IFC §5608.1.5](#)).
8. Fog and haze machines require approval by the Fire Marshal approval whenever their use requires any part of the fire alarm system to be temporarily bypassed or otherwise impairs building safety features. A fire watch will be required for the duration of the impairment, and all exit pathways and other life safety features must remain fully in place and clearly visible at all times ([IFC §901.4](#), NFPA 72; NFPA 25).
9. Entertainment lasers, including Class 3B and Class 4 systems, must comply with ANSI Z136.1 laser safety requirements and may not be aimed at the audience, staff, or reflective surfaces that could redirect the beam (*ANSI Z136.1*).
10. Laser beams must remain above or away from occupied areas and stay below the Maximum Permissible Exposure (MPE) limits for eye and skin protection (*ANSI Z136.1*; 21 CFR §§1040.10–1040.11).
11. All laser effects must be operated by a technician registered with Texas DSHS Radiation Control, and equipment must be secured to prevent beam drift, drop, or unintended exposure; a Laser Safety Officer may be required depending on the device and effect (25 TAC §289.301; *ANSI Z136.1*).
12. The Fire Marshal may inspect, test, restrict, modify, or immediately shut down any pyrotechnic, flame, fog/haze, or laser effect that is unsafe or not compliant with code or approval conditions. Use of any such device without prior written Fire Marshal approval is prohibited ([IFC §104.1](#)).

12. Office of the Fire Marshal Inspection Fees & Facility Authority Notice:

The authority to determine which activities, materials, or equipment are permitted within an exhibit hall, convention center, or venue rests solely with the facility. Venue policies may prohibit or restrict items such as pyrotechnics, fog or haze, cooking equipment, vehicles, or hazardous materials, regardless of Fire Marshal approval. Fire Marshal approval establishes minimum life-safety compliance but does not override venue rules or event-specific restrictions.