

# Canby Fire District 221 S. Pine Street Canby, OR97013 Bus. 503-266-5851 Fax 503-266-1320

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# Fire and Life Safety Requirements:

The following requirements apply to all expo, public assembly, show, fair, carnival, livestock and motorized vehicle event. The following information is from the Oregon Fire Code 2010 and the Oregon Fire Code Technical Advisory #08-01.

# **Section 1 – GENERAL REQUIREMENTS**

- **1.3 Standby Personnel.** When, in opinion of the Canby Fire District, it is essential for public safety in a tent, at a fair, concert or similar event, the operator of the event shall provide one or more qualified standby person(s). This requirement is based on the number of occupants, nature of the performance, exhibition, display contest or activity. There shall be trained crowed managers at a ratio of one manager to every 250 occupants, as approved by the Canby Fire District. Standby personnel shall comply with the following:
  - **1.3.1** Before each performance or the start of the event, standby personnel shall keep diligent watch for fires during the time such event is open to the public or taking place.
  - **1.3.2** Personnel shall take prompt measures for extinguishment of fires that occur and assist in the evacuation of the public from the structure or event.
  - **1.3.3** Personnel shall have a means of communicating a (911) fire department response and between other managers/personnel at the event.
  - **1.3.4** Personnel shall be familiar with all exits, fire extinguishers locations, and any building suppression/alarm system control panels.
- **1.4 Smoking.** Smoking is prohibited on any and all CCF property.
  - **1.4.1 NO SMOKING** signs shall be conspicuously located to meet the intent of this guideline.

**1.5 Open flame.** Candles, torches, and other open flame devices used for decorative, ceremonial, or demonstrative purposes shall **be approved by the Canby Fire District. The following may be used by the Canby Fire District to ensure adequate safeguards are in place.** 

Note: There are no restrictions on the use of flameless type candles.

- **1.5.1** Decorative flaming devices that use Class 1 or 2 liquids or LP gas are strictly prohibited.
- **1.5.2** Open flame devices and their use shall be approved by the Canby Fire District.
- **1.5.3** Open flames shall not be utilized in areas where combustible items such as tablecloths, displays, and merchandise are present.

**Exception:** When flame is enclosed and where the opening on top does not pose an ignition hazard and approved by the Canby Fire District.

- **1.5.4** Candles and open flame devices are prohibited in areas where people stand, or in an aisle or exit.
- **1.5.5** All candle use shall meet the following conditions:
  - **1.5.5.1** Candles shall have a non-combustible base that will self upright after it is tilted 45 degrees, or be self extinguishing.
  - **1.5.5.2** The flame shall be enclosed except where openings on the side are not more than 3/8 inches in diameter or where openings on the top and the distance to the top of the flame is such that a piece of tissue paper place on top will not ignite in 10 seconds.
  - **1.5.5.3** Shades, where used, shall be made of noncombustible materials and be securely attached to the open-flame device holder or chimney.
  - **1.5.5.4** Candelabras shall be secured and supported to prevent overturning.
  - **1.5.5.5** Lit handheld candles shall not be passed from one person to another.
- **1.5.6** Torches and handheld flaming devices shall be approved by the Canby Fire District.
- **1.5.7** See Section 4, titled Cooking, for application of open flaming devices for cooking.
- **1.6 Decorative materials.** All fabric or material used for decoration shall be fire resistive, or treated with an approved fire retardant. If treated, documentation or product used, when it was treated, and how it was treated are required. Tablecloths, merchandise, and displays are not considered decorations. Decorative wood less than 0.025 (1/40) inch thick should be flame retardant.
- **1.7 Fire extinguishers.** Fire extinguishers are required on site for every 75 feet of travel distance. The Canby Fire District may require fire extinguishers for every booth or exhibit, or may apply the travel distance application to meet the intent of the guideline. Fire extinguishers shall comply with the following:
  - **1.7.1** The minimum size fire extinguisher shall be a **2A:10BC** for general use.
  - **1.7.2**Fire extinguisher application for cooking will be found in Section 4
  - **1.7.3** All staff shall be familiar with the use and location of the fire extinguisher.
  - **1.7.4** All fire extinguishers shall indicate as being serviced within the past 12 months and inspected within the last 30 days.
  - **1.7.5** Fire extinguishers shall be made readily visible and accessible.

- **1.8 Exiting and aisles.** Exiting and aisles shall comply with the following:
  - **1.8.1** Each concession stand/booth shall have <u>a minimum of one exit</u> leading directly out of the area without exiting through intervening spaces including other concession stand/booth, display, or enclosed areas.
  - **1.8.2** Aisles and exits shall be kept clear and free of obstructions. Easels, signs, displays, tables, and other objects shall not encroach into aisles and exit paths, or exit doors.
  - **1.8.3** Exit doors shall not be covered with drapes or similar impeding their visibility. Facility or building exits, stairs, corridors, and vestibules shall not be used for any purpose except for egress.
  - **1.8.4** Exit doors shall function with a single action and shall not be able to lock patrons in an area or facility.
  - **1.8.5** Aisles and exits shall be illuminated at dusk and night.
  - **1.8.6** Approved exit signs are required when two exits are provided or when the occupant load exceeds 50.
  - **1.8.7** Aisles and exit access from concession stands/booths and areas with an occupant load of less than 50 require a minimum of 36 inches of width and 80 inches in height.
  - **1.8.8** Aisles between concession stands/booths and display items shall be no less than 44 inches in width.
  - **1.8.9** Major aisles and walkways are established based on occupant load and <u>may</u> range from 8 feet of unobstructed width for small venue events and 10 feet of unobstructed width for large venue events. Travel distance to an exit door shall not exceed 200 feet.

**Exceptions:** 1) 250 feet in a sprinkled building.

2) 400 feet in open air seating.

- **1.9 Occupant load.** The occupant load shall be assigned by the Canby Fire District in accordance with the anticipated use. The Canby Fire District may require the posting of occupant loads in areas of assembly.
- **1.10 Seating tables and chairs.** The placement of tables and chairs shall comply with the following:
  - **1.10.1 Aisles and exit access**. The common path of egress travel shall not exceed 30 feet from any seat in the exit access.
  - **1.10.2 Chair rows.** The minimum aisle access width between the front of one row of chairs and the back of the next row shall be 12 inches for rows of up to 14 chairs, and that distance increases if there are more than 14 chairs per continuous row. The minimum clear width of 12 inches between rows shall be increased by 0.3 inches for every additional seat beyond 14 seats, but the minimum clear width is not required to exceed 22 inches.

Aisles between rows of chairs shall be a minimum of 48 inches.

- **1.10.3 Bonding.** When greater than 200 seats are assembled in one area the seats shall either be fastened to the floor or fastened together (bonded) in groups of not less than three.
- **1.10.4 Tables.** Square banquet tables shall be spaced a minimum of 31 inches apart when seating on one side and 50 inches apart when seating on both sides. Round banquet tables shall be spaced no less than 6 feet from table edge to table edge.

- **1.11 Waste Trash.** Combustible waste material shall not accumulate and a waste collection and removal plan shall be established. Waste receptacles/containers shall comply with the following:
  - **1.11.1** Adequate non-combustible waste receptacles shall be onsite and distributed strategically.
  - **1.11.2** Combustible waste receptacle, i.e. commercially made cardboard receptacle, maybe used with the approval of the Canby Fire District.
  - **1.11.3** Waste receptacles shall not be placed near an exit, in an exit path, under an open stairway, or near any heat source.
  - **1.11.4** Waste containers exceeding 1.5 cubic yards (40.5 cubic feet) shall maintain a distance of 5 feet from any tent, membrane or combustible structure.
- **1.12 Generators:** Generators shall comply with the following:
  - **1.12.1**Refueling shall be performed in an approved location not less than 20 feet from tents, stands/booths or membrane structures. Generators shall not be running during refueling operations.
  - **1.12.2**Fuel shall be stored outside in an approved manner not less than 50 feet from tents, stands/booths or membrane structures.
  - **1.12.3**Shall be protected from the general public by a physical means.
  - **1.12.4**Shall not be operated inside a structure or enclosed tent.
  - **1.12.5**Shall not be placed near an exit or in an exit path.
  - **1.12.6**Shall be a minimum of 20 feet from a tent, membrane structure, or combustible structures
  - **1.12.7** A minimum of a **2A:10 BC** fire extinguisher shall be within 75 feet of all generators.
- **1.14 Fire sprinklers.** All fire sprinklers systems shall comply with the following:
  - **1.14.1** Maintain storage a minimum of 18 inches of clearance below the sprinkler head.
  - **1.14.2** No items shall be hung or suspended from a fire sprinkler system including piping and sprinkler heads.
- **1.15** Fire hydrants fire department connections. Fire hydrants and fire department connections shall be maintained without obstructions including posts, fences, vehicles, growth, trash, storage or other obstacles which would hinder locating or use. ORS 811.550(16) prohibits parking within 10 feet of a fire hydrant.
- **1.16 Vehicles, boats and RV displays.** Any requested variation of this section for inside venue vehicle displays or demonstrations shall be approved by the Canby Fire District. Vehicle, boat and RV displays shall comply with the following:
  - **1.16.1** Fuel tanks shall be no more than a ¼ full or contain more than 5 gallons of fuel, whichever is less.
  - **1.16.2** Fuel caps shall be locked or sealed (duct tape).
  - **1.16.3**LP-gas or CNG vehicles shall have their quarter-turn tank valves shut off and the engine allowed to run until it stops due to no fuel. Duel fuel vehicles shall comply

- with this requirement and the requirement to limit fuel tank (flammable liquid) quantities.
- **1.16.4** Fueling or de-fueling shall not be done inside a building or tent.
- **1.16.5** Batteries shall be disconnected at the hot lead and cable ends taped.
- **1.17 Stages.** All stages and platform performance areas shall be noted on the site plan and approved by the Canby Fire District.
- **1.18 Site plans.** When required by the Canby Fire District, a site plan shall be submitted for review and approval. A site plan shall include the following:
  - **1.18.1** Fire department access roads and radiuses (fire lanes).
  - **1.18.2** Parking plan.
  - **1.18.3** Property lines.
  - **1.18.4** Fire protection features such as fire hydrants, fire department connections, standpipes, and other firefighting water supplies.
  - **1.18.5** Fire alarm panel location and alarm coverage.
  - **1.18.6** Physical structures.
  - **1.18.7** Stages and platforms.
  - **1.18.8** Temporary structures (tents, booths, mobile units).
  - **1.18.9** Fences, cages and barriers.
  - **1.18.10** Aisles, exits and egress points.
  - **1.18.11** Exit signs and egress lighting.
  - **1.18.12** Seating and table configurations.
  - **1.18.13** Vehicle layout (for vehicle display)
  - **1.18.14** Fire extinguisher size and placement.
  - **1.18.15** Location of LP and/or compressed gas cylinders.
  - **1.18.16** Location of dumpsters and waste receptacles.
  - **1.18.17** Designated "Smoking Areas".
  - **1.18.18** Address plan for naming, numbering, or lettering buildings, structures, or large area tents.

#### Section 2 – FIRE DEPARTMENT ACCESS

- **2.1 Access.** When required **and approved by the Canby Fire District**, fire department access and fire lanes are to be established and maintained throughout the event.
  - **2.1.1** Fire lanes shall be a minimum of 20 feet. Minimum width maybe decreased by the Canby Fire District for fire lanes identified for one-way circulating flow.
  - **2.1.2** The Canby Fire District may require additional width for aerial apparatus.
  - **2.1.3** Fire lanes shall be constructed of all weather driving surfaces capable of supporting a minimum of 60,000 pounds. Verify weight requirements with the Canby Fire District.
  - **2.1.4** All turning radius shall have a minimum inside radius of 28 feet and an outside radius of 48 feet.
  - **2.1.5** Any dead end fire access road or fire lane exceeding 150 feet shall have an approved fire department turn around.
  - **2.1.6** A minimum vertical clearance of 13 feet, 6 inches is required.

- **2.1.7** It is the responsibility of the property management or promoter to assure access at all times.
- **2.1.8** Gates and barriers on a fire apparatus access road shall be approved by the Canby Fire District.

#### Section 3 – TENTS, STANDS/BOOTHS AND MEMBRANE STRUCTURES

#### 3.1 Definitions.

**Tent.** A tent is a structure, enclosure, or shelter made of fabric or pliable material supported by any manner other than air.

**Stands/Booths.** A temporary structure or mobile trailer/vehicle used for the sale of food, concession or merchandise.

**Membrane structure.** A membrane structure is an air-inflated, air-supported, cable or frame-covered structure and not otherwise defined a tent.

**3.2 Flame resistance.** The sidewalls, awnings, drops, and tops of booths, membrane structures, tents shall be composed of flame resistant material or shall be treated with an approved flame retardant. The use of, non-treated tarpaulins is prohibited during the hours the event is open to the public. All tents shall have a permanently affixed label indicating the type of tent, size, fabric, or material type, a manufacturer's certificate, or a fabric sample.

## **3.3 Location and separation.** Tents shall be located and separated as follows:

- **3.3.1** Tents shall maintain a distance of no less than 20 feet from structures, right-of-ways or property lines. (Location of the tent in relation to other tents, buildings or property lines is dependant upon the aggregate square footage and the use. For the purpose of determining required distances, support ropes and guy wires are considered part of the tent and membrane structure).
- **3.3.2** Tents shall have a minimum of a 12 foot fire break on all sides, unless multiple tents are arranged or set side by side.
- **3.3.3** Tents **used for cooking** require 20 feet of separation from other tents; this includes the adjacent cooking tents.
- **3.3.4** Tents **not used for cooking**, the separation distance of 20 feet is not required when the aggregate floor area does not exceed 15,000 square feet.
- **3.3.5** When multiple tents are arranged or set side by side, the aggregate length shall not exceed the required 150 feet for fire department access without a 20 foot fire break.
- **3.3.6** A distance of 20 feet is required between cooking tents and non-cooking tents, booths, or other structures.
- **3.3.7** All cooking or heating appliances used in tents shall be a minimum of 10 feet from the exits or any combustible materials.
- **3.3.8** Tents are not allowed inside a structure unless approved by the Canby Fire District.
- **3.3.9** Sleeping is prohibited in any tent unless approved by the Canby Fire District.

- **3.4 Exits.** The Canby Fire District shall approve occupant loads and exit locations. In addition to Section 1.8 and 1.9, exits shall be as follows:
  - **3.4.1** The maximum distance to an exit shall be no more than 100 feet.
  - **3.4.2** Exits are determined by the occupants load.
    - **3.4.2.1** Up to 10 occupants, one exit of at least 72 inches wide.
    - **3.4.2.2** 10-199 occupants, two exits, each 72 inches wide.
    - **3.4.2.3** 200-499 occupants, three exits, each 96 inches wide.
    - **3.4.2.4** For other membrane structures or occupant loads over 499, contact the Canby Fire District.
  - **3.4.3** Exit signs are required in tents requiring two or more exits.
  - **3.4.4** Exit signs shall have letters no less than 12 inches and be lit by a power source when occupied.
  - **3.4.5** All guy wires, guy ropes, and other support members shall not cross an exit way at a height of less than 8 feet.
- **3.5 Combustible materials.** Hay, straw, and similar combustible materials shall not be stored inside or within 30 feet of a tent being used for cooking or public assembly, except:
  - **3.5.1** Sawdust and shavings may be used for a public performance and exhibits when kept damp.
  - **3.5.2** Combustible materials shall not be permitted under stands or seats at anytime.
  - **3.5.3** If approved by Canby Fire District

#### Section 4 – COOKING AND WARMING OF FOODS

- **4.1 General.** Cooking includes the use of open flame cooking tops, fryers, skillets, WOKS, microwaves, ovens, barbeques, and other specialty cookware. Cooking equipment shall be installed and utilized in accordance to manufacturer's listings.
- **4.2 Food warming.** Warming of food through the use of hot plates, sterno cans, and similar devices not considered cooking shall be approved by the Canby Fire District.
- **4.3 Exits.** All food concession stands/booths shall have <u>at least one exit</u> for staff use that is a minimum 10 feet from cooking equipment, and approved by the Canby Fire District.
- **4.4 Location.** Each vendor booth shall not be located within 20 feet of amusement rides or devices. Outdoor cooking that produces sparks or grease laden vapors shall not be performed within 20 feet of a tent not used for cooking.
- **4.5 Extinguishers and covers.** Each vendor booth where cooking is being conducted, indoors or outdoors, shall provide the following:
  - 1) A readily accessible **4A-40B:**C rated fire extinguisher. Additional fire extinguishers of the same type and rating may be required to ensure that no employee will have to travel more than 30 feet to obtain a fire extinguisher.
  - 2) A portable fire extinguisher having a "K" rating is required in any food concession stand/booth indoors or outdoors where cooking appliances produce grease or smoke laden vapors.

- 3) When deep fat frying with a liquid depth of more than ¼ inch, a metal lid (or hard lid made from fire resistive material) that covers the entire cooking area shall be readily available.
- **4.6 Ventilation.** Any cooking device that is **indoors, in a trailer, or in a combustible booth** and creates grease-laden vapors shall be provided with an approved hood and extinguishing system, or be the type with a self-closing lid or other form of self-extinguishment approved by the Canby Fire District.

All hood ventilating systems are required to be installed in accordance with the Oregon Mechanical Specialty Code and be cleaned prior to the start of the event and as often as needed to prevent the build-up of grease during the event.

#### **Section 5 – HEATING**

- **5.1 Heating equipment.** Heating equipment includes electric or fuel burning appliances, portable or permanent heating devices, and heating devices which have open elements, open flames, or concealed elements. Heating equipment shall be as follows:
  - **5.1.1** All chimney pipes and venting appliances shall be protected to prevent burn injury and shall be maintained no less than 12 inches from combustible material or structures so as not to create a fire hazard.
  - **5.1.2** Heating equipment shall be installed in accordance with the Oregon Electrical Specialty Code or the Oregon Mechanical Specialty Code and utilized per its listing.
  - **5.1.3** Clearance from the appliance(s) to other combustibles shall be in accordance with the manufacturer's installation instructions. If no manufacture details are available clearance requirements shall be maintained at no less than 36 inches.
  - **5.1.4** Portable space heaters that produce open or exposed flames are prohibited from use in tents, booths, or similar settings. The Canby Fire District may waive this requirement on a case-by-case basis.
  - **5.1.5** Patio/umbrella type heaters (gas or electric) are allowed for outside venues as long as they maintain clearance from combustibles per listing and are secured to prevent tipping. The Canby Fire District may allow these heaters in open air indoor environments on a case-by-case basis.

#### Section 6 – LPG-COMPRESSED FLAMMABLE GAS-FUELS.

- **6.1 Fuels.** This section addresses propane, butane, natural gas, acetylene, and other compressed flammable gases.
- **6.2 Location.** The storage and use of the above fuels shall be as follows:
  - **6.2.1** The storage and use of liquefied petroleum gas (LPG) is prohibited inside all buildings, food concession stands/booths (fixed or portable), or tents.

- **Exception:** When approved by the Canby Fire District, not more than three 5-gallon (20 lbs) LPG tanks are permitted where the tent walls or other barriers are not used.
- **6.2.2** All LPG tanks shall be located on the exterior of buildings, stands/booths, or tents.
- **6.2.3**LPG tanks up to 500 gallons shall be a minimum of 10 feet from combustible vegetation and trash containers. LPG tanks greater than 500 gallons shall have 25 feet separation.
- **6.2.4** LPG tanks shall be located so they are not in contact with direct flame, high heat situations, or sparks. A clearance of no less than 20 feet is required between potential ignition sources and LPG tanks. The use of propane is prohibited in any basement environment.

### **Section 7 – ELECTRICAL**

- **7.1 General.** All electrical equipment shall comply with the following:
  - **7.1.1** All electrical equipment shall be listed or labeled and used in accordance with the listing or labeling instructions from the manufacturer.
  - **7.1.2** Electrical wiring, devices, appliances and other equipment shall be ONLY used if in good working condition. Modified or damaged equipment shall NOT be used.
  - **7.1.3** Open junction boxes and open-wiring splices shall be PROHIBITED. Approved covers shall be provided for all switch and electrical outlet boxes.
  - **7.1.4** Outdoor public spaces or potentially wet environments shall have Ground Fault Circuit Interrupters (GFCI) installed in permanent wiring circuits. When NO GFCI are installed on permanent wiring circuits, removable GFCI cords or GFCI power tapes shall be used.
  - **7.1.5** A minimum working space of 30 inches wide and 36 inches deep and 78 inches high shall be provided in front of all electrical equipment (electrical panels). NO storage of any material shall be located within the working space.
- **7.2 Appliances and lighting.** Appliances and lighting shall comply with the following:
  - **7.2.1** Household listed appliances shall NOT be used for commercial purposes.
  - **7.2.2** Clamp type lights and appliances shall be made secure.
- **7.3 Extension cords use.** Extension cord use shall comply with the following:
  - **7.3.1** Extension cords shall NOT be a substitute for permanent wiring.
  - **7.3.2** Extension cords shall be used ONLY with portable appliances.
  - **7.3.3** Extension cords shall be plugged directly into an approved receptacle and shall serve only ONE portable appliance.

**Exception:** Approved multi-plug extension cords.

**7.4 Extension cords** – **location.** Extension cords shall NOT be affixed to structures, extended through walls, ceilings or floors, under doors or floor coverings nor shall such cords be subject to environmental damage or physical impact. Physical protection is required in public areas with foot traffic.

- **7.5 Ampacity Conductor sizes.** The Ampacity and conductor size of an extension cord shall comply with the following:
  - **7.5.1** The Ampacity of the extension cords shall NOT be less than the rated capacity of the portable appliance supplied by the cord. The minimum required rating is 15 amps.
  - **7.5.2** Extension cords shall be a minimum of a 14 gauge, three conductor size with polarized or grounded plug and receptacle.
- **7.6 Relocatable power taps (power taps).** Power taps shall comply with the following:
  - **7.6.1** Multi-plug adaptors, such as cube adaptors shall be approved and listed. Adapters without visible listings or markings will NOT be allowed. Multi-plug adapters must be plugged directly into an approved electrical receptacle.
  - **7.6.2** Power taps (fused power strips) shall be listed with over current protection (circuit breaker) integrated into the tap.
  - **7.6.3** Power tap cords and receptacles shall be polarized or grounded type.
  - **7.6.4** Power taps shall be directly connected to a permanently installed receptacle. Power taps CANNOT be connected to each other creating a chain of power taps.
- **7.7 Temporary wiring (other than extension cords).** Temporary wiring shall comply with the following:
  - **7.7.1** All temporary wiring requires an electrical permit.
  - **7.7.2** Temporary wiring for electrical power and lighting installations is allowed for a period NOT to exceed 90 days.
  - **7.7.3** Temporary wiring attached to a structure shall be attached in an approved manner per the State Electrical Code.

#### Section 8.

**8.1.9** A minimum of one **2A rated** water type fire extinguisher or equivalent shall be provided. Additional fire extinguishers may be required based on tent/stand size and hazard.

#### Section 9 – FENCED EVENTS – BEER GARDENS AND CONCERTS.

- **9.1** Fenced events shall comply with the following:
  - **9.1.1** Yards, patios, courts and similar outdoor areas accessible to and usable by the public shall be provided with an approved means of egress. Also refer to Section 1.8 and 1.9.
  - **9.1.2**Fenced areas with an occupant load of more than 50 people require at least two approved exits. Additional exits maybe required depending on the occupant load.
  - **9.1.3**Exits shall not be chained or locked and easily opened from the inside fenced area.
  - **9.1.4**Exits shall be marked with an exit sign.
  - **9.1.5**Egress and emergency lighting maybe required at night or after sunset.
  - **9.1.6**Exit doors/gates shall swing in the direction of egress travel.

#### Section 10 - LIVESTOCK BARNS AND ARENAS.

- **10.1** Barns and arenas shall comply with the following when used as an assembly:
  - **10.1.1** Livestock areas are not to be used as sleeping quarters, unless approved by the local Canby Fire District.
  - **10.1.2** Parking of motorized vehicles, camp trailers, and campers inside livestock/barn areas shall be prohibited.
  - 10.1.3 Exit doors and egress shall be maintained at all times; i.e. movement of animals.
  - **10.1.4** Portable heaters are prohibited in livestock buildings where hay, straw, or combustible products are present.
  - **10.1.5** Heat lamps for newborn animals must be secured and protected in an approved manner.
  - **10.1.6** Quantities of straw, hay, or similar combustible products shall be limited to a one-day supply for the feeding and care of animals.
  - **10.1.7** Electric shears, blowers, fans, and vacuums shall be polarized and grounded, in good condition, and shall be only used per listing (i.e. wet areas, dusty areas).