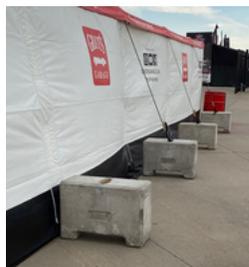


# Special Event Permit Guide



## Loveland Fire Rescue Authority



**Fire Code Requirements  
Applicable to LFRA jurisdiction:  
City of Loveland  
Town of Johnstown  
Unincorporated Larimer County**

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## **LFRA SPECIAL EVENT PERMIT GUIDE**

Loveland Fire Rescue Authority (LFRA) is part of the special event permitting processes that occur in the three areas within the LFRA jurisdiction: the City of Loveland, Town of Johnstown, and unincorporated Larimer County.

This guide has been developed to assist event organizer's in obtaining the necessary permits in order to have a safe event. While the intent is to provide information that will pertain to most special events, this guide does not purport to address all of the safety concerns. It is the responsibility of the organizers, staff and volunteers to establish and maintain appropriate safety practices. Also, there may be additional requirements based on the event's location, scope, size, time of year, etc.

**At all events, LFRA reserves the right to evaluate life safety issues on case-by-case basis, and to require on-site adjustments in the interest of public safety. All approvals are ultimately the decision of the LFRA fire code official or on-site fire inspector.**

**This guide pertains only to LFRA requirements and approvals, and is based on requirements in the International Fire Code; it is the responsibility of the event organizer to contact any other reviewing agencies to meet their requirements and obtain all necessary approvals.** Additional contact information includes the following:

- City of Loveland: [eventpermits@cityofloveland.org](mailto:eventpermits@cityofloveland.org)
- Larimer County: [specialevents@co.larimer.co.us](mailto:specialevents@co.larimer.co.us)
- Town of Johnstown: [mmartinez@JohnstownCO.gov](mailto:mmartinez@JohnstownCO.gov)

When planning a first-time event or making modifications to a recurring event, consider contacting the LFRA Community Safety Division (phone 97-962-2497 / email [Eplan-Fire@LFRA.org](mailto:Eplan-Fire@LFRA.org)) before finalizing the event concept or application. A preliminary conversation with LFRA and/or municipality personnel may save time and provide helpful information.

## **LFRA REVIEW**

LFRA will provide written review comments to the event organizer listing Fire Code requirements that must be met.

During the review process, LFRA may ask the event organizer to clarify aspects of the submittal by providing additional information or documentation. Delays in providing any required information may affect the ability of LFRA to review and approve the event within the deadline for permit approval.

## **DEFINITIONS**

**Bonfire:** A large, outdoor fire that's typically used for ceremonial purposes

**Canopy:** A structure or architectural projection of rigid construction over which a covering is attached that provides weather protection, identity or decoration, and may be structurally independent or supported by an attachment to a building on one end and by not less than one stanchion on the other end.

**Flame effects:** The combustion of solids, liquids or gases to produce thermal, physical, visual or audible phenomena before an audience. This includes all flames that are automated, switched, pressurized or having any other action than simply being lit on fire, as well as projects using propane or other liquid or gaseous fluids.

**Food truck:** Any mobile vehicle preparing and/or serving food, including trucks, vans, towed trailers, carts and similar

**Food vendor/food booth:** A sales operation utilizing tables, tents, canopies, awning or similar, to provide food or other products to the public.

**Inflatable amusement device:** A device made of flexible fabric or other combustible materials that is inflated by one or more air blowers providing internal air pressure to maintain its shape. Such devices are typically designed for recreational activities that allow occupants to bounce, slide, climb, negotiate an obstacle course or participate in interactive play.

**Liquefied petroleum gas (LPG):** A material composed predominantly of propane, butane (normal butane or isobutane and butylenes, or mixtures of them. Commonly referred to as "propane."

**Pyrotechnics:** A controlled exothermic chemical reaction timed to create the effects of heat, hot gas, sound, dispersion of aerosols, emission of visible light or a combination of such effects to achieve the maximum effect from the least volume of pyrotechnic composition.

**Special Amusement Area:** A temporary or permanent building or portion thereof that is occupied for amusement, entertainment or educational purposes and is arranged in a manner that meets one or more of the following descriptions:

1. Makes the means of egress path not readily apparent due to visual or audio distractions.
2. Intentionally confounds identification of the means of egress path.
3. Otherwise makes the means of egress path not readily available because of the nature of the attraction or mode of conveyance through the structure.

**Tent:** A structure, enclosure, umbrella structure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material, supported in any manner except by air or the contents it protects.

## **SPECIAL EVENT PERMIT SUBMITTAL REQUIREMENTS FOR ALL EVENTS**

Most municipalities require a special event permit be applied for and issued to the event organizer. In addition, some events require a separate event permit issued by LFRA and a pre-event fire department inspection. Information as to when an LFRA-specific permit is required, is found on Page X of this document, under **When is an additional, LFRA-specific special event application and permit required?**

**All special event permit submittals must include the following in order for LFRA to complete its review:**

1. Site plan and/or route map that is clear and readable, scaled, and includes the name, address, operational times and date(s) of the event.
2. Proposed locations of all tents, pop-up tents, canopies, structures, stages and fencing, including the fence entrance/exit openings; openings must be dimensioned and tents, pop-up tents, canopies and structures must show square footage.
3. Proposed transportation plan, including any closures of streets, parking lots, trails, sidewalks, etc. The plan must specify location and types of barricades and signage for closures and detours, and times and dates of the closures/detours.
4. Locations of all food vendors and other vendors.
5. Locations of food trucks, carts or vans.
6. Exits from nearby buildings must be kept clear at all times, and pedestrian access maintained from exit doors to parking lots and public streets.
7. Fire department access to properties, buildings, hydrants and FDCs:
  - All barricades must be capable of being immediately moved to allow for fire apparatus access.
  - Two points of vehicle access shall be provided to all special events locations.
  - Minimum fire lane access width is 20 feet unobstructed. In downtown Loveland, minimum fire lane access width is 26 feet unobstructed (this also applies to all buildings whose eaves are 30 feet or more aboveground). Even if streets are barricaded, these minimum widths shall be maintained so that when barricades are moved, fire vehicles can quickly access the site; this typically requires booths, food trucks, stages, etc., to be located on only one side of the street.
  - Hydrants shall not be covered or otherwise obstructed, or have ropes or anything else tied to them.
  - Fire sprinkler FDCs (fire department connections) shall be kept clear and immediate access provided to them on buildings.

### **When is an additional, LFRA-specific event application and permit required?**

LFRA is part of the special event approval processes administered by Loveland, Johnstown and Larimer County. However, an LFRA Special Permit – in addition to the municipality's permit – may also be required. This LFRA permit will be required when any of the following will occur:

- The expected number of attendees, participants or spectators totals 1,000 or more people
- More than 5,000 people are expected to attend the event at any one time. LFRA requires minimum standby staff of one Incident Commander, two Firefighters and one LFRA apparatus. See page 6 for more details.
- One or more tents or canopies of 700 square feet or more in size will be erected

- Fireworks, pyrotechnics or flame effects show, indoors or outdoors
- Temporary sale of consumer fireworks, in conjunction with Fourth of July holiday
- Special Amusement Area, such as a haunted house, maze, house of mirrors, etc.
- Bonfire
- Inflatable amusement devices (inflatables), such as a “bounce house” or similar

The LFRA Special Event Permit application and related information can be found here: <https://lfra.org/faq.aspx?TID=18>

If the event concept meets any of the requirements above, event organizers must submit for the LFRA Special Event Permit at least 30 days prior to the event. Incomplete applications will not be accepted and late submissions may be subject to denial. Payment is required prior to issuance of the permit.

The event organizer is responsible for scheduling inspections prior to the event. To schedule an inspection, call the Community Safety Division at 970-962-2497 or email [Eplan-Fire@LFRA.org](mailto:Eplan-Fire@LFRA.org).

All written requirements provided by LFRA for the permit review must be met at time of inspection. If any requirements have not been met, they must be immediately corrected and approved by LFRA. Failure to comply with the written LFRA requirements may result in disapproval and cancellation of all or portions of the event.

Any event inspections outside normal business hours will incur an additional fee. Normal business hours are 7:30 a.m. to 4:30 p.m. Monday-Thursday, and 7:30 a.m. to 12:00 noon Friday. This additional fee shall be doubled if an inspection occurs on a holiday or holiday weekend.

## **TENTS AND CANOPIES**

All tent operators – whether the tent is 100 square feet or 1,000 – are responsible for the safe operation of their tent. For purposes of this guide, tent and canopy are considered synonymous.

### **Tents and canopies over 700 square feet in size:**

1. All tents and canopies greater than 700 SF in size require an LFRA-specific permit and inspection. A professional rental company typically submits the application for the permit. Download and complete this [application](#) form and email it, along with the required documentation, to [Eplan-fire@LFRA.org](mailto:Eplan-fire@LFRA.org).
2. Tents and canopies must have a certification of flame resistance included in the permit application.
3. The application must include a site plan showing distances to other structures, stages or other obstructions to building exits. Include the location and widths of all tent exits.
4. At least one 2A:10BC portable fire extinguisher inspected and serviced within the last 12 months is required to be present for all tents and canopy use. Contingent on size of tent, additional extinguishers will be required. It is the vendor’s responsibility to know how to use a fire extinguisher. If you don’t know how to operate a fire extinguisher, go to <https://www.youtube.com/watch?v=yodLMfOZNvA> or a similar resource, to learn how.
5. Tents and canopies shall not be located within 20 feet of lot lines, buildings, other tents or canopies, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the tent or canopy.

6. Number of tent exits are based on the calculated occupant load as determined in Chapter 31 of the 2021 International Fire Code.

**For all tents, of any size:**

1. Heating devices, cooking appliances and cooking are prohibited under tents or canopies.
2. No flammable or combustible liquid, propane, charcoal, wood fuel, oils or any other cooking or fueled medium is allowed to be used or stored under a tent or canopy.
3. When cooking occurs adjacent to a tent, at least one 2A:10BC portable fire extinguisher inspected and serviced within the last 12 months is required to be present for all tents and canopy use. If you don't know how to operate a fire extinguisher, go to <https://www.youtube.com/watch?v=yodLMfOZNvA> or a similar resource, to learn how. Its the vendor's responsibility to know how to use a fire extinguisher.
4. If cooking occurs by frying foods (doughnuts, for example), a Class K extinguisher is recommended, in addition to the 2A:10BC extinguisher.
5. When cooking occurs adjacent to tents and canopies, the cooking appliances shall be operated at least 5 feet from any tent, lot lines, buildings, parked vehicles and internal combustion engines. No tent shall be located within 20 feet of lot lines, buildings, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the tent or canopy.
6. Maintain your tent to ensure everything is in good working order, including any electrical appliances. Cover cords with a cord bridge or similar, to eliminate tripping hazards.

**Anchoring tents of any size:**

Tent-pole weights

1. For a 10'x10' canopy or tent, minimum weight is 40 pounds per leg/pole. As size increases, so does the amount of anchor weight required to properly secure the tent. A 10'x20' canopy is 80 pounds/leg, 20'x20' is 120 pounds/leg and a 40'x20' tent is 500 pounds/leg (6 legs). This requirement is strictly enforced due to the possibility of rapidly changing weather in Colorado. (There have been instances of improperly weighted canopies being carried by sudden, strong winds and injuring nearby people and damaging property.)
2. Anchoring tents to merchandise or display racks is not an acceptable means of securing tents.
3. Any canopy or tent without the required weights, will not be allowed to remain erected until weights are added. It is the responsibility of the event organizer to provide this information to all vendors, and the responsibility of the vendors to comply.



Ropes and stakes

1. First, check with the event organizer to confirm stakes are allowed in the grass or other surface.

2. Choose and clear the site.
3. Stake corner guy lines at a 45-degree angle.
4. Pound the stake in straight up. This makes for maximum penetration into the soil and resistance against higher winds.
5. Use a proper striking tool to put the stakes in the ground. Don't use your hand or foot; this applies uneven pressure to the stake and it may bend.
6. If unsure, stake more. If you are unsure that the stakes you have are adequate for the soil type, add a few more or tie your tent to a tree or other permanent object. For example, sandy soils need longer, deeper, wedged stakes to hold properly.
7. What goes in easily, comes out easily. When you can single-handedly push a stake in with your bare hands, remember that it can come out just as easily.
8. Ropes down to stakes are trip hazards. Tie high-visibility plastic flagging tape or similar to the ropes. This is another good reason to stake at a 45 degree angle away from the entrance to your tent.

### **PROPANE (LPG) USE**

1. Open flame, LPG or fueled generators may not be operated under canopies or inside tents.
2. LPG containers shall not obstruct access to or egress from nearby buildings at any time.
3. Maximum amount of LPG on site is 200 pounds/50 gallons for each vendor.
4. All LPG containers, whether in use or stored, must be secured in an approved manner throughout the event, and located so they aren't at risk of being struck by vehicles or falling.
5. All LPG containers must be current on their hydrostatic testing (certification date stamp). Tanks in poor condition or out of date are a danger to fill and may cause injury to the fuel team or participants.
6. All propane pipes and fixtures must be made of steel, copper or brass.
7. LPG cylinders shall at all times be kept away from open flames and other heat sources. Open flame must be = at least 10 feet away from spectators and combustible materials, including parked or moving vehicles. Barricades or other means are required to be set up to ensure spectators maintain the 10-foot distance.



8. All LPG cylinders shall be stored in an upright position with the valve end up.
9. All piping, tubing, pressure regulators and valves shall be kept tight to prevent leakage.
10. Two **NO SMOKING** signs shall be installed. These signs shall be a minimum of 2-inch red lettering on a white background and clearly visible.
11. Propane tanks must be shut off when unattended or not in use.

### **LFRA STANDBY FOR LARGE EVENTS**

An LFRA-specific event permit is required for fire department personnel to staff an event if more than 5,000 people will be present at any one time. LFRA requires minimum standby staff of one Incident Commander, two Firefighters and one LFRA apparatus. Additional staffing may be required depending on scope of event, locations, hazards/risks, etc.

The fee for this service is \$250 plus the cost of LFRA personnel and plus the current rates for CRRF Apparatus Agreement (Colorado Resource Rate Form). For more information, call 970-962-2874.

The current LFRA consolidated fee schedule is at this link: <https://lfra.org/DocumentCenter/View/566/2025-Adopted-LFRA-Fee-Schedule>

## **INFLATABLE AMUSEMENT DEVICES**

Inflatable amusement devices or “inflatables” – such as a bounce house or slide – always require an LFRA-specific permit and pre-event inspection.

Inflatable amusement devices are temporary structures whose shape is attained by air pressure, and occupants of the structure are within the elevated-pressure area. Since 2013, the estimated number of people injured in the U.S. while using inflatables has more than tripled (almost 21,000 injuries annually). Following these guidelines will help make these structures safer for guests of an event.

(Note: These requirements do not apply to inflatable amusement devices operated on private property where use is not open to the public.)



1. Inflatable amusement devices shall be designed, anchored, operated and maintained in accordance with the manufacturer’s instructions and the requirements of ASTM F2374.
2. The materials used in the construction of the inflatable shall meet the flame propagation criteria of Test Method 2 of NFPA 701. Additionally, a label and affidavit containing the flame propagation information in Sections 3104.3 and 3104.4 of the 2021 International Fire Code shall be permanently affixed to the device.
3. Electrical equipment, blower motors and temporary wiring for electrical power or lighting shall comply with Section 603 of the 2021 International Fire Code.
4. Portable generators shall comply with the applicable provisions of NFPA 70 and with the portable generator requirements of the Fire Code.
5. Each generator shall be provided with a minimum 2A:10BC portable fire extinguisher that is placed in a location approved by the LFRA fire inspector.
6. Each inflatable has a maximum wind speed for safe operation, which is specified in the manufacturer's manual. All inflatables must be deflated and unoccupied when the wind speed exceeds the manufacturer's recommended maximum, which is typically 15-20 mph. The operator shall have a means to measure wind speed during the event, such as an anemometer; mobile phone apps are not accurate, as they do not take into account on-site conditions. Inflatables should not be operated if rain or lightning conditions exist.
7. Air-supported structures shall not be located within 20 feet of lot lines, buildings, tents, canopies, membrane structures, parked vehicles or internal combustion engines.

## **FENCING**

A “fenced area” refers to any event or area within the event that is delineated by temporary fencing or similar barriers.

Must provide dimensioned site plan that shows the following:

1. LFRA will determine the occupancy load inside the fenced area if expected attendance is 50 or more. (This may be done in conjunction with the applicable municipal building department.)
2. The number of required exits is determined by the number of occupants:
  - One exit is required when the area accommodates 49 or fewer people
  - Two exits are required when the area accommodates 50-500 people
  - Three exits are required when the area accommodates 501-1,000 people
  - Four exits shall be provided when the area accommodates more than 1,000 people
3. Exit spacing – Exits shall be equally spaced along the perimeter of the fence. When two or more exits are required, they shall be spaced apart at least one-half of the longest diagonal distance of the area.
4. Exit width – Exit width shall be understood to be a panel’s width of temporary fencing or at least 48 inches in width, whichever is greater.
5. These are the minimum number of required exits; LFRA may require additional exits based on anticipated conditions (time of day of the event, if alcohol is allowed, weather, etc.).
6. Exit sign/markings – Each exit sign shall be double-side with a white background with red letters. Minimum sign size shall be 18x24 inches and minimum lettering shall be 12 inches in height, 1-inch stroke width. The sign shall be affixed adjacent to the exit, at least 80 inches above the ground, and shall not obstruct the full exit width. If activities will occur after sunset, exit signs must be illuminated and elevated above the exits in an approved manner.

Exit staffing – Each exit shall be assigned at least one responsible person (crowd manager, security personnel or marshal). The event organizer shall provide a gate staffing assignment roster upon request.

## **TEMPORARY FIREWORKS SALES**

Temporary fireworks sales (“fireworks stands”) always require an LFRA-specific permit and pre-event inspections.

LFRA permits temporary sales of consumer fireworks every year from June 15 through 11:59 p.m. July 4. Sales are limited to consumer fireworks, as allowed by the State of Colorado. Examples of legal, consumer fireworks available for sale include cylindrical or cone fountains, wheels and ground spinners, sparklers, some toy propellant or toy smoke devices, and snakes and glow worms.

The complete packet of information to apply for and obtain a temporary fireworks sale permit, and safely operate the stand, is available on the LFRA website as this link:

<https://lfra.org/DocumentCenter/View/333/LFRA-Fireworks-Stand-Permit-Application-Packet-PDF?bidId=>

Possession or firing of non-consumer fireworks (DOT 1.4G explosives) is prohibited and punishable by law, including a fine of up to \$2,700. Fireworks that are illegal in Colorado include firecrackers, cherry bombs, bottle rockets, shells and rockets, Roman candles, mortars, and M-80s and M-100s.

## **PROFESSIONAL OUTDOOR FIREWORKS DISPLAYS**

Outdoor fireworks displays always require an LFRA-specific permit and pre-event inspections.

The State of Colorado requires all professional displays of fireworks other than consumer fireworks, be conducted by a person who has obtained a Colorado Fireworks Display Operator certification. Information on how to obtain this certification can be found here: <https://dfpc.colorado.gov/sections/professional-qualifications-and-training/certification/fireworks-certification>

1. The fireworks operator shall submit a permit application to LFRA at least 30 days prior to the event. The operator shall be at least 21 years old and licensed in the State of Colorado. All assistants shall be at least 18 years old. A list of all employees and birth dates shall be submitted with the application forms.
2. The applicant shall furnish a bond or certificate of insurance in the amount of not less than \$1 million for the payment of damages that could be caused either to a person or persons or to property by reason of the permitted display and arising from acts of the permittee, agents, employees or subcontractors.
3. Smoking and open flames shall be prohibited within 50 feet of any area where fireworks are present. To ensure compliance, NO SMOKING signs shall be conspicuously posted within 50 feet of the fireworks (minimum 2-inch red letters on white background).
4. The plan for use of fireworks shall be made in writing and shall provide the following information:
  - The name and date of birth of the person in charge of firing the display and company name, if applicable
  - The date and estimated time of day firing begins and ends
  - The names and ages of all assistants who are to be present and their general responsibilities
  - The qualifications and experience of the fireworks operator
  - Copy of the Colorado Fireworks Display Operator license and any federal licenses held by the operator or assistants.
  - Evidence of the applicant's insurance carrier or financial responsibility, and \$1 million certificate of insurance or bond
  - The number and types of pyrotechnic devices and materials to be used.
  - A scaled diagram of the grounds where the explosives will be set up, the point at which the fireworks will be fired, the fallout radius for each device used in the performance and the lines behind which the audience shall be restrained.
  - The point of on-site assembly of fireworks.
  - The manner and place of storage of the explosive materials and devices.
  - This information shall be kept on site for the LFRA inspector.



### **Site Criteria:**

(These requirements are not all encompassing; it is the responsibility of the fireworks operator to know and follow all applicable state laws.)

- Mortars for aerial displays shall be separated from spectator viewing areas and vehicles as follows (secured buildings are allowed in the fallout area if the applicant provides protection to any occupants and fireworks are shot from the rooftop):

Mortar Diameter (inches)	Minimum Separation from Spectator Viewing areas, Vehicles and Buildings (feet)
x25.4 for mm	x0.3048 for m
Less than 3	150
3	210
4	280
5	350
6	420
7	490
8	560
10	700
12	840
Greater than 12	As Approved

- The firing area shall be free of grass and dry vegetation. This may require mowing and/or wetting down of materials immediately prior to the show.
- The fireworks operator shall provide portable fire extinguishers of the proper type and quantity for the discharge area and arrange for standby fire apparatus if needed for protection down range.
- The operator is responsible for monitoring weather events that can pose a risk to the operator or assistants, spectators, structures or property. If at any time high winds, rain, snow or other weather creates a danger, the firing of the display shall be immediately discontinued and postponed until weather conditions are again safe.
- Unauthorized persons shall not be allowed to enter the discharge site until the site has been inspected after display by the fireworks operator. Rope barriers, fences, signs or other devices shall be installed around the display area to aid in crowd control. If the operator determines that there is a lack of crowd control or that the crowd is in danger for any reason, the display shall be immediately discontinued until security is reestablished.
- The entire range/fallout area shall be inspected immediately following a display and the following morning for night shows, and prior to allowing public access for the purpose of locating unexploded devices. If for other than electrical failure, live shells shall not be handled within 15 minutes of their firing, and may then be doused with water and allowed to soak for not less than 5 minutes, then placed in a bucket or box, or if not soaked, be left for an additional 30 minutes. When safe to do so, these shells shall be removed by the operator and disposed of in a safe manner.

## **PYROTECHNICS**

Pyrotechnics always require an LFRA-specific permit and pre-event inspections.

Pyrotechnics are considered a type of special effect usually involving fire, sparks, fire balls, etc. The difference between fireworks and pyrotechnics is that pyrotechnics can be used in closer proximity to the public due to the more controllable nature of the product. Pyrotechnics produces very little or no debris, making it safer to use inside stadiums.

The National Fire Protection Association (NFPA) considers “cold spark” machines to be pyrotechnics and thus are regulated under NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience. LFRA will typically approve permits for outdoor use of pyrotechnics, but approval for indoor use will depend on the structure, event, setting, etc.

**An individual who assembles or operates any pyrotechnic device is required to obtain a Colorado Pyrotechnic Operator license; a copy of this license must be included with the permit application materials.** Information on how to obtain this certification can be found here: <https://dfpc.colorado.gov/sections/professional-qualifications-and-training/certification/fireworks-certification>



Pyrotechnic requirements include the following:

- Certifications that the set, scenery and rigging materials are inherently flame-retardant or have been treated to achieve flame retardancy.
- A test may be requested to demonstrate the safe use of pyrotechnic special effects material prior to normal use.
- The quantity of smoke developed shall not obscure the visibility of exit signs or paths of egress travel. Where the use of certain indoor pyrotechnics requires smoke detectors to be bypassed or air handling systems to be disengaged or fire alarm systems are not present, LFRA shall be notified in advance and a representative shall be present for the performance and rehearsals. The individual responsible for the life safety systems of the building shall return those systems to normal operating conditions as soon as the likelihood of false alarms from the pyrotechnics has passed.
- Two or more fire extinguishers of the proper classification and size as approved by LFRA shall be readily accessible while the pyrotechnics are being loaded, prepared for firing or fired. In all cases, at least two pressurized water extinguishers shall be available. Fire extinguishers shall have a current service tag.
- Pyrotechnic materials shall be fired only from equipment specifically constructed for the purpose of fire pyrotechnic materials.

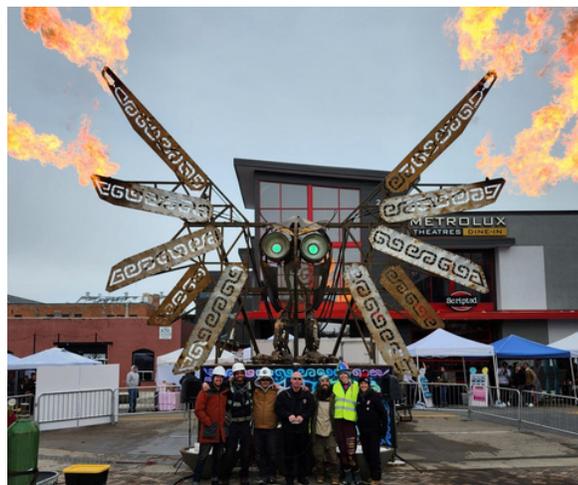
- Converted electrical switch boxes, lamp sockets, lamp holders, plug fuses or other similar thin walled, brittle devices shall not be used for concussion mortars or flash pots. Distorted mortars and flash pots shall not be used.
- All holders shall be constructed and secured so that they remain in a fixed position when the pyrotechnic device is fired.
- Each pyrotechnic device fired during a performance shall be separated from the audience by at least 15 feet but not by less than twice the fallout radius of the device. There shall be no glowing or flaming particles within 10 feet of the audience. Concussion mortars shall be separated from the audience by a minimum of 25 feet.
- The premises where pyrotechnic materials and devices are handled and used shall be maintained in a neat and orderly condition and shall be kept free of any conditions that can create a fire hazard.
- No damaged pyrotechnic materials and devices shall be used.
- Poles for ground pieces shall be securely placed and braced.
- Smoking shall not be permitted within 25 feet of the area where pyrotechnics are being handled or fired. To ensure compliance, NO SMOKING signs shall be conspicuously posted within 25 feet of the pyrotechnics (minimum 2-inch red letters on white background).
- No pyrotechnics shall be left unattended.
- All exits and exit passageways shall be maintained

## **FLAME EFFECTS**

Flame effects shows require an LFRA-specific permit and pre-event inspections.

An individual who assembles, conducts and supervises flame effects as defined in NFPA 160 “Standard for the Use of Flame Effects Before an Audience” is required to obtain a Colorado Pyrotechnic Operator license; a copy of this license must be included with the permit application materials.

In addition to information under the general application submittal, the application must include:



1. List of flame effects being used
2. Inventory of devices to be used
3. Dimensioned site plan showing location of the flame effects, setbacks from the audience and LPG location (if present)
4. Emergency safety plan and procedures
5. Set list (operation times from the shooter)
6. LFRA may require additional information based on the proposed flame effects, such as any fire-retardant materials to be used and the amount. Supporting pictures or video of the flame effect may be required for issuance of the permit or a demonstration of the flame effect may be required prior to the event date.
7. At least two 2A:10BC portable fire extinguishers that have been serviced within the past year are required to be present for all flame effects.
8. Safety barriers with a minimum of 15 feet separation from the audience is required. Barriers must be non combustible, such as cattle guards, metal fencing, bike racks, etc.

9. Flame effects operators and assistants must be 21 years of age or older and be trained in the use of fire extinguishers prior to the event.
10. Operators and assistants must wear fire-resistant clothing while operating flame effects.
11. No carelessness, negligence or unsafe conditions with flame effects shall be tolerated. Operators and assistants are prohibited from smoking, or drinking alcohol or using drugs that that would impair their ability to work safely and efficiently.
12. An appropriate audience safety perimeter (and performer's safety zone if applicable) shall be established well in advance of flame effects operations, and must be approved by the fire inspector. In all instances, a minimum 20-foot zone around the flame effects must be kept free of all combustible or flammable materials, and nothing should overhang this zone.
13. Only people familiar with the safety considerations and hazards involved are permitted to connect/disconnect LPG tanks, or to do liquid fuel filling. Wear personal safety gear (glasses, gloves, etc.) during liquid fuel filling is required.
14. A daily safety check of all flame effect components and connections is mandatory before operation begins. If a safety hazard is identified at any time, the operation must stop until the hazard is corrected.
15. Never light a flame effect until all performers, safety monitors and participants are in place and ready. Never operate a flame effect in such a way that it poses a danger to people or property.
16. Flame effects must never be left unattended.
17. Absolutely no smoke or open flame is allowed within 10 feet of any storage area where flammable liquids or fuel gases are stored. All fuel and flammables must be stored in approved containers that must remain closed except when filling or dispensing, or when connected to a system for use.
18. Safety Data Sheets (SDS) for any hazardous materials used in the construction or operation of the flame effect must be kept at the installation, so they are available to guide any necessary clean-up or to assist emergency personnel.
19. Use of LPG must meet the following requirements:
  - When using propane-fueled effects, LPG tanks must be at least 25 feet from the flame effects, and secured against tipping over and accidental contact by the public. The area of LPG cylinders is not allowed to be moved or changed during the event.
  - Each LPG flame effect must have a ¼-turn shutoff valve as the primary emergency fuel shutoff. When closed, this valve must inhibit all fuel flow to the flame effect, regardless of how many LPG cylinders are connected to the flame effect. This valve must be exposed and visible at all times, and must be clearly marked as the emergency shutoff.
  - All components of the fuel system (fittings, piping, valves, connectors, etc.) must be designed and rated for both the type and pressure of fuel being used. The use of improper fittings can lead to leaks and failures in the fuel system, resulting in fires and/or injuries.
  - All LPG metallic piping and fittings that will operate at a pressure greater than 125 psi shall be schedule 80 or heavier.
  - All LPG hoses that will be operated in excess of 5 psi shall be designed for a working pressure of at least 350 psi and shall be continuously marked by the manufacturer to indicate its maximum operating pressure and compatibility with LPG.
  - Air or pneumatic line is not acceptable as fuel hose. LPG degrades rubber hose not specifically designed for use with that fuel. This results in the hose cracking from the inside out, potentially leading to a catastrophic failure.

- Hose clamps are prohibited on LPG hose at any pressure. All fuel hose connections shall be factory made or constructed with a crimped fitting specifically designed for that purpose. Hose clamps are well know for cutting and chafing fuel lines or coming loose, possibly leading to catastrophic failure.
- All metallic tubing joints shall use flare fittings The use of compression fittings or lead soldered fittings are prohibited.
- Accumulators, surge tanks and other pressure vessels in the system shall be designed, manufactured and testing in accordance with the American Society of Mechanical Engineers (ASME) Boiler Pressure Vessel Code or the Department of Transportation (COT) for the pressure of the gas in use.
- Any welding alteration of pressure vessels, or alteration or fabrication of other system components that hold pressure, must be performed by an American Society of Mechanical Engineers (ASME) certified welder, and must be stamped and certified as such.
- If the fuel supply pressure exceeds the maximum allowable operating pressure (MAOP) of an accumulator or other pressure vessel, a regulator shall be installed between the fuel supply and the pressure vessel to reduce the pressure below the pressure vessel’s MAOP. A pressure relief valve shall also be installed in the pressure vessel, with a start-to-leak setting at or below the MAOP and a rate of discharge that exceeds the maximum flow rate of the supply container.
- Fuel tanks for stationary flame effects must be protected from vehicle traffic and be well-illuminated at night.
- Flame effects should be constructed and sited in such a way that the flame head and/or hot components are at least six inches from the playa surface, to prevent baking or scarring of the playa.
- Any artworks, towers or other structures that incorporate flame effects should be secured from the wind and encircled with an appropriate safety perimeter to prevent injury to participants.

A current Colorado Pyrotechnic Operator license is required to operate all flame effects. The flame effects and devices must be attended by a State-licensed operator at all times while in operation.

### **FOOD TRUCKS (MOBILE FOOD VENDORS)**

Food trucks always require an LFRA-specific annual inspection and fire permit.

For purposes of this document, “food truck” refers to any mobile vehicle preparing and/or serving food and includes trucks, vans, towed trailers, carts and similar.

All food trucks with a fuel source operating within the LFRA jurisdiction are required to have a current fire permit. Any food truck without an approved fire permit, will not be allowed to serve at the event. **No exceptions will be made.** The fire permit is required for vendors whose operations include sales other than food but utilize a fuel source (propane or generator).

A fuel source includes, but may not be limited to, a generator or LPG (propane) container. Additionally, all cooking that produces grease-laden vapors must have a Type I kitchen hood protected by an automatic suppression system.

LFRA participates in a reciprocity permitting program that includes 14 fire departments in Larimer and Weld counties. When a mobile vendor is inspected by and obtains a fire permit at one of these departments, the permit is accepted at all participating fire departments through Dec. 31 of that year.

All food trucks are required to have a valid fire permit no later than 10 business days before the event. To schedule an inspection and obtain a fire permit, contact the LFRA Community Safety Division (phone 970-962-2497).

In addition to the fire permit, all food trucks must have a current county health department license, city clerk license (City of Loveland only) and, if the event is in a park, Parks and Recreation Department approval (City of Loveland only). It is the responsibility of the event organizer to ensure all food trucks have their necessary approvals.

The list of food trucks with a current fire permit issued by one of the 13 Northern Colorado fire departments can be found here: <https://lfra.org/179/Mobile-Vendors-Food-Trucks>

### **FOOD VENDORS/FOOD BOOTHS**

A “food vendor” is a vendor using tables, tent, canopy or awning to provide food or other products to the public. Food vendors are required to have all applicable local/state licenses and approvals.

In addition to vendors selling food, vendors and booths also include sales of artwork, professional services, merchandise and other products.

LFRA reserves the right to evaluate vendor booth safety issues on a case-by-case basis, and to require necessary adjustments in the interest of life safety. Vendors or their representatives must be present during the set-up and fire inspection prior to the event.

#### **All vendors cooking, heating and/or warming food at outdoor events shall be comply with the following:**

1. All tents and canopies must be constructed of flame-retardant material and be property anchored to prevent collapse under inclement weather conditions. See “Tent Anchoring” requirements in this document.
2. Vendors must always maintain at least 3 feet of vertical and horizontal clearance from open flames and/or cooking appliances to combustible materials at all times. Cooking, open flame or similar operations is not allowed under tents or canopies.
3. Portable LPG (propane) tanks must be located at least 10 feet from the tent or canopy and be secured in an upright position to prevent tipping over. Tanks must be in an area inaccessible to the public to prevent tampering with or accidental contact with tanks, piping, hoses, etc.
4. All grills (charcoal, propane and kettle-type) must be well-stabilized, of suitable construction and located or shielded in a manner to prevent the device from being blown or tipped over and to preclude accidental contact by the public.
5. Cooking and/or heating equipment must be at least 10 feet from building exits and decorative materials.
6. Each food vendor using fueled (heat-producing) cooking equipment must provide at least one 2A:10BC portable fire extinguisher. If cooking produces grease vapors, a Class K portable extinguisher must also be provided. All extinguishers must be visible, readily accessible and tagged as proof of inspection in the pasts 12 months.

7. Cooking equipment, including charcoal or gas grills or appliances, open flame burners and other heat producing equipment must be arranged to prevent close contact by the public, especially the need to reach over cooking equipment for any reason.

### **CYCLING, TRIATHLONS, OPEN-WATER SWIMMING, FISHING, SAILING, RUNNING EVENTS LONGER THAN 10K AND SIMILAR EVENTS**

In addition to meeting “Special Event Permit Submittal Requirements for All Events” on page 3 of this document, an Action Plan, or Safety Plan, must be submitted. The plan should include the following:

- Make it specific to your event. It must include event maps and access points for emergency vehicles should they be needed.
- Arrangements for training and instruction of staff and volunteers. Training may include practicing evacuations, identifying assembly points, location of emergency equipment, first aid arrangements and how to safely shut down machinery.
- Assign responsibility to organizations and individuals for carrying out specific actions at projected times and places in the event of an emergency.
- Contact information for event organizers and staff, and emergency responders, especially if the event travels through multiple jurisdictions.
- Maps showing route detours, if necessary for emergency road closures.
- Triggers for emergency operations, such as participant or volunteer injury or death, road closure, weather (lightning, wind, rain, snow, heat), wildfire restrictions, etc.



### **PARADES**

While LFRA is a reviewing agency for parades, it does not issue its own, separate special event permit, since a parade is a “moving event.” Please refer to “Special Event Permit Submittal Requirements for All Events” on page 3 of this document.

### **CAR SHOWS**

Please refer to “Special Event Permit Submittal Requirements for All Events” on page 3 of this document.

### **STAGES**

Manufacturer’s design information shall be submitted during the permitting process for stages that are pre-assembled and mobile, for review and approval by LFRA. This information shall also be on site during the event.

Stages or other structures that will be built from scratch may require a permit issued in advance by the applicable Building Department. It is the responsibility of the event organizer to contact the Building Department well in advance of the event for more information.

## **FERRIS WHEELS AND OTHER AMUSEMENT RIDES**

Amusement rides require an LFRA-specific permit and pre-event inspection. In order to obtain an LFRA permit, all operators and their equipment are required to first have a current permit with the Amusement Rides and Devices Program, Colorado Division of Oil and Public Safety. They also are required to provide notice to ARDP of their intent to operate at specific events. This is in the Amusement Rides and Devices Regulations, Section 2-3-1(A)(4): (Provide) A list of the dates and locations of operation of the Amusement Rides or Devices within the state for the upcoming Permit Year, including the dates at each location. This list may be updated throughout the Permit Year, provided that notification is received in compliance with regulations. The full regulations can be found here:

<https://ops.colorado.gov/sites/ops/files/AmusementRegulations071519.pdf>

For more information, contact the Amusement Rides and Devices Program, Colorado Division of Oil and Public Safety office at: [cdle\\_amusements@state.co.us](mailto:cdle_amusements@state.co.us)

## **SPECIAL AMUSEMENT AREAS: HAUNTED HOUSES, HOUSE OF MIRRORS, PUZZLE ROOMS, MAZES, LASER TAG, ETC.**

All special amusement areas require an LFRA-specific permit and pre-event inspections.

Additional requirements pertaining to means of egress and fire protection systems may be required for special amusement areas, contingent on the scope of the project, location, number of attendees, etc. It is the sole decision of the fire marshal to approve the event, based on requirements in the Fire Code.

An application and information packet must be submitted for review and approval a minimum of 30 business days prior to construction and the planned opening date. The application packet shall include the following information:

- Contact information for the designated responsible party
- A scaled floor plan of the building and interior maze with descriptions
- A written emergency evacuation plan that includes assigned responsibility for confirming areas have been cleared during an alarm. All safety personnel shall be trained to recognize the alarm signal and actions to be taken upon noting this alarm.
- A written responsibilities document detailing assignment and placement of each safety individual working within the haunted house
- Safety Data Sheet and Specification Sheet for any fire retardant material utilized within the haunted house, as well as, a certification letter confirming the product has been applied according to manufacturer's recommendations, the date the treatment occurred and by whom

The applicant shall be responsible for providing the submittal packet and ensuring compliance with LFRA conditions.

Additional requirements include the following:

- Buildings containing special amusement areas shall be equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1 Where the special amusement area is temporary, the sprinkler water shall be of an approved, temporary means. **Note: Mobile special amusement structures that are transported from one event to another (such as fairs, carnivals, etc.), are required to have an approved inspection by a licensed fire sprinkler contractor within the past 12 months.**
- Exception: Automatic sprinklers are not required where the total floor area of a temporary special amusement building is less than 1,000 SF and the exit access travel distance from any point in the special amusement area to an exit is less than 50 feet.
- Buildings containing special amusement areas shall be equipped throughout with an automatic smoke detection system and an emergency voice/alarm communications system in accordance with Section 907 of the 2021 International Fire Code. Pre-signal alarms and alarm activation shall comply with 914.7.2.1 and 914.7.2.2, and emergency voice/alarm communications systems shall comply with Section 914.7.2.3
- Activation of any single smoke detector, the automatic sprinkler system or any other single automatic fire detection device shall immediately initiate an audible and visual alarm at a constantly attended location at the special amusement area from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 914.7.2.2.
- Activation of two or more smoke detectors, a single smoke detector equipped with an alarm verification feature, two or more other approved fire detection devices, the automatic sprinkler, or a manual control located at the constantly attended station required by Section 914.7.2.1 shall automatically accomplish the following:
  - Illuminate the means of egress with an illumination level not less than 1 footcandle at the walking surface level.
  - Stop conflicting or confusing sounds and visual distractions.
  - Activate approved directional exit markings.
  - Activate a prerecorded message, audible throughout the special amusement area, instructing occupants to proceed to the nearest exit. Alarms signals used in conjunction with the prerecorded message shall produce a sound that is distinct from other sounds used during normal operation of the special amusement area.
  - An emergency voice/alarm communications system complying with Section 907.5.2.2 shall be installed in and audible throughout special amusement areas. The emergency voice/alarm communications system is allowed to also serve as a public address system.
  - There shall be at least two exits serving each floor of a special amusement area.
  - All aiseways shall maintain a minimum 44" unobstructed space and egress shall be maintained at all times.
  - A lighting system capable of illuminating the entire area of use shall be provided and staffed at all times. A backup method of emergency lighting shall be provided in case of power failure.
  - A distinctive emergency signal shall be available to alert personnel in the that a problem exists. The signal may be a whistle or horn, but must be audible and capable of alerting occupants to evacuate. Safety staff shall be trained to recognize the alarm and take appropriate action. Alarm shall be audible from all areas of the building. If music or other sound is used during operation, there shall be an override on the sound system so it turns off in the event of an alarm. The sound system may be used to sound the alarm. The sound system shall be staffed at all times.
  - A minimum 2A:10BC dry chemical fire extinguisher shall be provided every 75 feet within the area, with a minimum of one on every level.

- People associated with, performing supervisory operations or working within the house, shall not be under the influence of drugs or alcohol.
- “No Smoking” signs shall be posted at the entrance to the building. Smoking within the house is prohibited.
- All potential ignition sources shall be discussed and reviewed with Community Safety Division staff prior to final inspection.
- No combustible material will be allowed inside the house or maze area. Examples include, but are not limited to, plastic, straw, non-fire-retardant fabric, etc. Combustible material, including plastic sheeting, may be allowed ONLY in buildings protected by automatic fire sprinklers and in approved layouts and quantities. Wall construction may utilize a flame-retardant material, drywall, rated plywood, Masonite, etc. Cardboard is not an acceptable construction material.
- Groups shall be permitted into the haunted house at reasonable intervals in order to prevent congestion and allow safe exit in the event of an emergency. Group number shall be determined prior to the time of final inspection by LFRA.
- Children ages 12 or under must be accompanied by an adult aged 18 or older (or directly supervised by a safety staff person who is 18 years of age or older).
- All safety staff persons shall have in his/her possession an operable flashlight and shall be completely familiar with the facility.
- The facility will be inspected prior to opening and will be subject to safety inspection while operating, without prior notification.
- The facility shall also receive approval from the local building department, where required, and obtain permits prior to changes made to electrical, mechanical or structural systems.
- Failure to comply with the provisions of this policy shall result in the special amusement area being closed by the Community Safety Division. Closing may occur as a result of compliance inspections during spot inspections.

## **BONFIRES**

Bonfires require an LFRA-specific permit and pre-event inspection. The permit is a one-time use only.

Additional requirements include:

- Burn permits are approved for 1-3 hours of burn time.
- Existing and anticipated weather conditions (heat, humidity, wind, etc.) may result in cancellation of the bonfire. The permit fee is non-refundable.
- A bonfire’s burn pile shall be no larger than 8 feet wide and 6 feet high at any time. The ground surrounding the burn pile shall be scraped to mineral earth (clean dirt) to a distance of at least 10 feet in all directions. A minimum of 100 feet shall be maintained between a bonfire and adjacent structures or combustible materials. Wood feed piles shall be maintained a minimum of 50 feet from the burning pile.
- Burn pile ignition methods shall be pre-approved by the fire marshal; use of gasoline is prohibited.
- All bonfires shall be continuously attended by a competent, non-impaired adult having pre-approved and ready-to-use fire extinguishing equipment on site.

- All bonfires require the present of an LFRA standby crew of two personnel, as well as a fire department apparatus with a minimum capacity of 1,000 gallons of water and having a water pump with a minimum pumping capacity of 250 gpm. (Standby cost can be estimated using the LFRA fee schedule link on [page XX](#) or by calling 970-962-3874). The LFRA crew will arrive 30 minutes prior to start of burning to conduct a site safety inspection, and shall remain on site 30 minutes following the active burning to ensure full extinguishment of the fire.
- The permit holder shall call the Loveland Emergency Communications Center (911 Dispatch) at 970-962-2200 before starting the fire and once the fire is completely out cold.
- All fires shall be completely extinguished (out cold) by the expiration time of the open burning permit.

## **THE RANCH EVENTS COMPLEX**

The Larimer County Ranch Events Complex, on Arena Circle in Loveland, hosts numerous events at the 6,800-seat Blue Arena, Mac Equipment Indoor Arena and Livestock Pavilions, Pedersen Toyota Center, and the Thomas M. McKee 4-H Youth & Community Building. There are also several outdoor events held on The Ranch grounds, such as the Larimer County Fair and Rodeo, car shows, outdoor shows, etc.



Most indoor events do not require an LFRA-specific special event permit, however, special events such as trade shows, banquets, concerts, monster trucks, etc., are required to approve layouts approved in advance by LFRA Community Safety Division and the Larimer County Building Division.

Indoor events with more than 250 attendees must meet the Crowd Management requirements of the Fire Code, as specified on pages 20 and 21.

An LFRA-specific special event permit and pre-event inspection is required for outdoor events that will have more than 1,000 attendees and participants. This includes but is not limited to the Larimer County Fair & Rodeo, outdoor expos, car shows, etc. A permit is needed because of the impact an event's traffic on emergency vehicle access to the site and the public, as well as ensuring compliance with life-safety requirements for food trucks, special amusement buildings and areas, etc.

## **CROWD MANAGERS**

The Fire Code (Section 403, 2021 IFC) requires all applicable event organizers and promoters to implement a crowd manager program for all events involving more than 250 attendees. It requires that at least two trained crowd managers for the first 250 people, and at least one trained crowd manager for each 250 additional attendees or portions thereof.

To satisfy these requirements, all applicable entities shall complete Crowd Management Training. The LFRA Community Safety Division approves the National Association of State Fire Marshals (<https://www.firemarshals.org/Crowd-Manager-Training>) as the Crowd Management Training Standard. In addition, LFRA has approved the following free online trainings:

- [https://alison.com/course/mastering-crowd-management?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=Performance-Max\\_USA\\_Affiliate-Program&gad\\_source=1&gclid=Cj0KCQjwjNS3BhChARIsAOxBM6rHqbJKrQqvaVhKskuAB-yxuAvLsMxt94Xc7zxOF4inev2Ov8\\_-zzYaAkGZEALw\\_wcB](https://alison.com/course/mastering-crowd-management?utm_source=google&utm_medium=cpc&utm_campaign=Performance-Max_USA_Affiliate-Program&gad_source=1&gclid=Cj0KCQjwjNS3BhChARIsAOxBM6rHqbJKrQqvaVhKskuAB-yxuAvLsMxt94Xc7zxOF4inev2Ov8_-zzYaAkGZEALw_wcB)
- <https://uh.edu/fls/crowd-manager-training-course/>
- <https://www.mass.gov/crowd-manager-regulations-and-training-program>

When LFRA approves a special event meeting the 250-person attendance, the event organizer is agreeing to meet the Crowd Manager training and implementation requirement. The organizer is then required to provide documentation that staff and/or volunteers the crowd management training. The trained individuals must be present during the event, and proof of training shall be made available upon request of the Fire Marshal or LFRA personnel.

The Fire Code does allow a few exceptions, including:

- Outdoor events with fewer than 1,000 attendees do not require crowd managers.
- Assembly occupancies used exclusively for religious worship with an occupant load not exceeding 1,000 shall not require crowd managers.
- The number of crowd managers shall be reduced where, in the opinion of the fire code official, the fire protection provided by the facility and the nature of the event warrant a reduction.
- 

Duties of Crowd Managers include the following:

1. Conduct an inspection of the area of responsibility and identify and address any egress barriers.
2. Conduct an inspection of the area of responsibility to identify and mitigate any fire hazards.
3. Verify compliance with all permit conditions, including those governing pyrotechnics and other special effects.
4. Direct and assist the event attendees in evacuation during an emergency.
5. Assist emergency response personnel where requested.
6. Other duties required by the fire code official.
7. Other duties as specified in the fire safety plan.