



Office: (540) 942-6730  
Fax: (540) 942-6731

300 W. Broad Street  
Waynesboro, VA 22980

---

## REQUIREMENTS FOR INDOOR PYROTECHNIC DISPLAYS

The following guidelines must be followed whenever an indoor pyrotechnic display is used. The Fire Official has the ultimate and final decision-making authority over all indoor pyrotechnic displays and may change or amend these guidelines as they deem necessary. The Fire Official may require a pre-show demonstration of a sample of the indoor pyrotechnic display.

### **Alarms and Life Safety Systems:**

- When the use of indoor pyrotechnics requires smoke detectors and air-handling systems to be disengaged, the applicant and venue manager will appoint a responsible individual to return systems to normal operating conditions as soon as the likelihood of false alarms from the pyrotechnics has passed.
- Alarm verification as described in section 6.8.5.4.1 of NFPA 72 is allowed as a means of controlling false alarm initiations that are a result of residual particulates suspended in the air from the functioning of the pyrotechnic devices.

### **General fire protection requirements:**

- Four or more properly classified fire extinguishers are to be readily accessible while a flame effect performance is being conducted with the minimum being two Class 2-A pressurized water and two Class 10-BC extinguishers.
- At least one extinguisher of each class must be located on opposing sides of the performance area where flame effects are performed.
- A separate lockable room or facility for the preparation and storage of pyrotechnic materials and devices is provided.

### **Pyrotechnic use and firing prerequisites:**

- All pyrotechnic materials and devices used indoors must be specifically manufactured and labeled for indoor use.
- Where the device is too small to bear the proper labeling, the required information shall be printed on the instruction sheet, shipping container, or packaging.
- Upon request of the Fire Official, each type of pyrotechnic must be demonstrated from the location that will be used during the performance, for the purposes of demonstrating safe distances and procedures, prior to an event.
- As may be proven by demonstration, all devices are mounted in such manner to maintain their proper positions and orientations. So when fired, the desired effects are produced and fallout does not endanger lives, results in injury, or property damage.
- Comets and mines are to be fired so the trajectory is not carried over the audience.
- Flammable materials are not to be placed within the fallout area of waterfalls and gerbs.

---

*Where Good Nature comes Naturally*



Office: (540) 942-6730  
Fax: (540) 942-6731

300 W. Broad Street  
Waynesboro, VA 22980

## Fire Marshal's Office

- 
- As may be proven by demonstration, airbursts may be fired above the assembled audience only if:
    - ❖ The airburst is suspended by a minimum 30-gauge metal wire firmly attached to a secure support;
    - ❖ The airburst occurs at a minimum height of three times the diameter of the effect; and,
    - ❖ There shall be no burning or glowing particles below the 15-foot level above the floor.
  - As may be proven by demonstration, each pyrotechnic device fired shall be separated from the audience by a minimum of 15 feet or twice the fallout radius of the device, whichever is greater, and there shall be no glowing or flaming particles within 10 feet of the audience.
  - No part, projectile, or debris from the pyrotechnic material or device is to be propelled so that it damages overhead properties, overhead equipment, or the ceiling and walls of the performance area.
  - Where pyrotechnics are fired, the quantity of smoke developed shall not obscure the visibility of exit signs or paths of egress and be proven during the demonstration.

### **Mixing of Binary Components:**

- Binary systems shall be mixed one unit at a time, using only the bottles supplied by the manufacturer, and only for that amount needed for immediate use.
- Binary materials shall be pre-measured and packaged by the manufacturer.
- Binary materials intended for indoor use shall be labeled for indoor use.

### **Mortars and Flash Pots:**

- Concussion mortars and effects are to be secured by placement under the stage or behind barricades to prevent access by the audience, performers, and support personnel.
- Concussion mortars and effects are to be separated from the audience by a minimum of 25 feet.
- Rotating pyrotechnic devices, such as wheels and saxons, are to be mounted securely so the rotation does not cause failure of the holder.
- As may be proven by demonstration, mortars and flash pots do not fragment or distort upon use.
- Converted electrical switch boxes, lamp sockets, lamp holders, plug fuses, and similar thin-walled, brittle devices shall not be used for concussion mortars or flash pots.

---

*Where Good Nature comes Naturally*



Office: (540) 942-6730  
Fax: (540) 942-6731

300 W. Broad Street  
Waynesboro, VA 22980

## Fire Marshal's Office

---

Rockets: Where rockets are launched before an audience, performers, or support personnel, the rockets shall be securely attached to a guide wire or cable of sufficient strength and flame resistance, with both ends attached and placed on an impact-resistant surface at the terminal end of the guide.

### **Firing Safe Guards, Power Sources and Communications:**

- Pyrotechnic materials must be fired using equipment specifically constructed for the purpose of firing pyrotechnic materials.
- Power sources used for firing are restricted to batteries or isolated power supplies used for firing purposes only.
- All firing systems are to be designed to ensure against accidental firing by providing at least a two-step interlock feature that prevents firing power from being supplied unless the operator enables or arms the system, and deliberately applies firing power.
- Pyrotechnic devices must be fired only when the area where the effect is to occur is in clear view of the operator or an assistant who is in direct communication with the operator.

### **Post Show Operations:**

- Immediately after each performance and before any personnel remove any property related to a performance, the pyrotechnician shall verify that all pyrotechnic devices have been fired.
- Any unfired pyrotechnic materials or devices shall be fired or disposed of in accordance with the manufacturer's instructions.

---

*Where Good Nature comes Naturally*



Office: (540) 942-6730  
Fax: (540) 942-6731



## Fire Marshal's Office



300 W. Broad Street  
Waynesboro, VA 22980

---

### PYROTECHNICIAN CERTIFICATION IN VIRGINIA

Pursuant to § 27-97 of the Code of Virginia (COV), the Fire Prevention Code will now require at least one person at each fireworks display be certified by the State Fire Marshal's Office (SFMO) as a Pyrotechnician. As defined in § 27-97 of the COV, the use of "permissible fireworks" is exempt from Pyrotechnician certification. Also, pursuant to § 27-97.2 of the COV, the SFMO requires a national criminal history record information check for any applicant seeking certification as a fireworks operator or pyrotechnician. Each applicant shall submit fingerprint cards to the SFMO fingerprint on cards provided by the SFMO with personal descriptive information to be forwarded through the Central Criminal Records Exchange to the Federal Bureau of Investigation for the purpose of obtaining a national criminal history record check on each applicant. Subsequently, in accordance with § 27-97 of the COV, the SFMO will deny certification as a fireworks operator or pyrotechnician if the applicant has been convicted of any felony.

Visit the Virginia Department of Fire Programs website for publications and forms associated with the Virginia Pyrotechnician certification program. Questions about certification requirements and the application process should be directed to the State Fire Marshal at 804-371-0220.

---

*Where Good Nature comes Naturally*