



# Stafford County Fire and Rescue Department Office of the Fire Marshal

1225 Courthouse Road, PO BOX 339, Stafford, VA 22555  
(540) 658-7200 · FAX (540) 658-9128 · [www.staffordfirerescue.com/fm](http://www.staffordfirerescue.com/fm)



Application Documentation and Guidelines for:

## Fireworks: Pyrotechnics or Flame Effects Before an Audience

### Applicable Codes and Standards:

Virginia Statewide Fire Prevention Code (SFPC) 2012: Section 308.3.2 and Chapter 56

NFPA 160 (2011): Standard for the Use of Flame Effects Before an Audience

NFPA 1126 (2011): Standard for the use of Pyrotechnics Before a Proximate Audience

### Instructions:

Use the following instructions to complete the attached form. The Fire Marshal's Office (FMO) must be in receipt of this application not less than 15 days prior to the event for review and approval.

- Line 1.** Provide name of person or company applying for a permit.
- Line 2.** List telephone number where applicant may be reached.
- Line 3.** Use the mailing address the applicant can expect the quickest service and provide fax and email address.
- Line 4.** What is the physical address (location) of the permit applicant if it's different from the mailing address given?
- Line 5.** List city, state and zip code for the complete mailing address.
- Line 6.** If a company is making application, write in the Federal Identification Number as provided by the IRS for the company applying for the permit. If a company is not making application, disregard and go to Question #7.
- Line 7.** The name of the person responsible for the Flame Effect. The use of Pyrotechnics requires this to be the "designated individual" which is defined as:  
*"a person in possession of a Background Clearance Card (BCC) issued by the State Fire Marshal's Office, or is certified by the State Fire Marshal's Office as a Pyrotechnician, ... (either of) whom are responsible for (i) ensuring compliance with state law and regulations relating to blasting agents and explosives, (ii) applying for explosives or firework permits, (iii) is at least 21 years of age, and (iv) shall demonstrate the capability to effectively communicate safety messages verbally and in writing in the English language."*  
For use of pyrotechnics, the "Designated individual" is to print their name and card number in the spaces provided. In accordance with SFPC Section 5601.2.3.1, the Fire Marshal's Office shall deny the application for permit if the application does not contain a designated individual's name and signature as representing the applicant. Space is provided on Line 16 for the designated individual's signature. Attach a photo-copy of the designated individual's card to the application. The pyrotechnician listed on Line 10.1 may also be the designated individual and/or applicant resulting in a repeated listing. A certified pyrotechnician is NOT required for flame effects.
- Line 8.** The use of pyrotechnics before a "proximate audience" is governed by provisions contained in the Virginia Statewide Fire Prevention Code (SFPC) and its incorporated **NFPA 1126 standard**. **This application is for a permit to use NFPA 1126 – type devices**, sometimes referred to as "**close proximity fireworks**", in circumstances listed on lines 8.1 through 8.5. (If the applicant desires to use pyrotechnics or materials in circumstances not listed, the applicant should immediately consult with the FMO for further guidance, direction or information.)  
The use of flame effects before an audience is governed by provisions contained in the Virginia Statewide Fire Prevention Code (SFPC) and its incorporated **NFPA 160 standard**. **This application is for a permit to use flame effects on a temporary basis**. For flame effects that are to be used for a period greater than 180 days, the applicant should consult with the FMO for further direction and information.
- Line 9.** The SFPC requires a "*plan for the use of pyrotechnics or flame effects*". The specifics of the plan are paraphrased and spread throughout the application.

Line 9.1. The plan is to include the name of the sponsoring group, person or organization.

Line 9.2. The exact location of the production or firing is to be listed. Include as much information as may be available such as street address, City, County or Town, facility name, building name or number if assigned one, etc.

Line 9.3. Provide the name of the venue manager who has overall responsibility for the operation and management of the facility or site where the pyrotechnics are to be used.



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**Line 10.** Provide the date and time-frames the use of pyrotechnics will occur.

**Line 10.1.** The box is to be checked if the use of pyrotechnic devices will occur on multiple, consecutive dates. If multiple dates are planned for identical setups, list the additional dates and times on a separate sheet. Label or indicate at the top of the sheet that it's an attachment for line #10.1.

Checking the box for Line 10.1 is intended to apply **only** to those multi-day displays that are identical in location, types and numbers of devices. If the firing dates are not consecutive, if the number and/or types of devices are not identical to the day before, or if identical device setups will occur at different locations or dates, new and separate permits are required.

**Line 11** The SFPC provides an opportunity for the operator to prove to the fire official, sponsor and venue manager that the pyrotechnic devices will operate as planned and within the safety parameters required by the SFPC. Designate a date and time at which a walk-through can begin and a representative demonstration will be available.

**Line 12.** The "plan" as mentioned on line 9 also requires specific informational items.

**Line 12.1.** Provide the name and number of the Virginia Certified Pyrotechnic operator or flame effects operator who will be in responsible charge of the setting up and conducting the operation.

**Lines 12.2.** List the names and ages of all assistants that will be present. All assistants must be at least 18 years of age. If additional space is needed, attach an additional sheet (not to exceed the standard 8½ by 11 inch dimension) to the application and label or indicate at the top of the attached sheet that it's an additional sheet for line # 12.2.

**Line 12.3.** The plan requires a listing of "the number and types of pyrotechnic devices or flame effects to be used." If additional space is needed, attach an additional sheet (not to exceed the standard 8½ by 11 inch dimension) to the application and label or indicate at the top of the attached sheet that it's an additional sheet for line # 12.3.

**Line 13.** The "plan" mentioned on line 9 requires specific documents be provided for pyrotechnic displays. Placing a check in the boxes provided is a means for the applicant to determine or track for themselves they have obtained or possess the required information, and have attached it to the application.

**Line 13.1.** A site plan is to be provided of the premises upon which the pyrotechnics will be fired. If the firing will be inside a building, a floor plan or diagram of the space is to be provided. In either case, the position at which the devices will be positioned for firing is to be noted, the fallout radius is to be indicated, and the lines behind which an audience will be restrained.

**Line 13.2.** A safety data sheet (SDS) is to be provided for each type of device used including the name and address of the manufacturer of the devices and any cautionary statements.

**Line 13.3.** A statement or certification is to be provided stating that sets, scenery, and rigging materials are inherently flame-retardant or have been treated to achieve a similar flame resistance. If such items will not be exposed or involved, check the box provided.

**Line 13.4.** Proof of insurance or surety bond is required in an amount that is agreeable to the sponsor (Line 9.1), the venue manager (Line 9.2.1) and permit applicant but shall not be less than \$1,000,000.00. The proof of insurance or bond is to be submitted as an attachment to the application.

**Line 14 through 14.6.** A plan for the use of flame effects is to be submitted to the FMO as part of the permit application. The plan is also to be readily accessible at the venue where flame effects will be used and is subject to inspection. The specifics of the plan are to be in conformance with the standard. Once accepted, approved and a permit is issued, all subsequent additions or modifications are to be pre-approved before using any modified flame effects. The plan should account for each appropriate item for the circumstance the effect will be used.

**Line 14.1** contains items that should be addressed in the plan and are common between indoor and outdoor flame effects.

**Line 14.2** contains items that should be addressed and are specific to the outdoors.

**Line 14.3** contains items that should be addressed and are specific to the indoors.

**Line 14.4** lists items the plan should address as they relate to the operator's knowledge, skills and abilities. It should also address the level of control the operator or performer have on the flame effects.

**Line 14.5** lists items that deal with unattended effects.

**Line 14.6** deals with the certification of costumes, set, scenery, and rigging materials being inherently flame- retardant or have been treated to achieve flame retardancy when exposed to flame effects when such items are exposed to or are in the area affected by a flame effect device.

**Line 14.7** Check the classification of the flame effects system as they are described in NFPA 160.

**Line 15.** Statement of understanding. This is largely self-explanatory but should be read carefully. Attention should be given to the timeliness of submitting the application and its effect on approval.

**Line 16.** Signature line for person listed under line 7.



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### Application Details Form for Pyrotechnics or Flame Effects (circle one) Before an Audience:

**An incomplete application is subject to being returned to applicant without processing which could delay the permit process and jeopardize timely approval.**

1. Name/Company:	2. Company Phone #:
3. Mailing Address:	
3b. Email Address:	Fax #:
4. Physical Address (if different from Line 3):	
5. City/State/Zip:	6. F.I.D. (Federal Identification Number):
7. "Designated Individual" (Print name – Last, First, MI):	Certification Card #:  (Photo copy of card is to be attached to the application – Certification not required for Flame Effect applications)

**8. Activity:** Of the following, check all that may apply and for which application is being made:

- |   |   |
|---|---|
| <p><b>8.1.</b> <input type="checkbox"/> For the use of pyrotechnics or flame effects in theatrical, musical or similar productions before a proximate audience, performers, or support personnel.</p> <p><b>8.2.</b> <input type="checkbox"/> The use of pyrotechnics or flame effects while videotaping, audio taping, or filming of any television, radio, or movie production where such production takes place before a proximate audience.</p> | <p><b>8.3.</b> <input type="checkbox"/> The rehearsal of any production in which pyrotechnics or flame effects are used.</p> <p><b>8.4.</b> <input type="checkbox"/> The indoor use of pyrotechnics or flame effects.</p> <p><b>8.5.</b> <input type="checkbox"/> The outdoor use of pyrotechnics or flame effects at distances less than those required by NFPA 1123, <i>Code for Fireworks Display</i>, as referenced by Section 5608.2.2 of the Virginia Statewide Fire Prevention Code.</p> |
|---|---|

**9. Venue:**

<b>9.1.</b> The name of the venue at which the use of pyrotechnics or flame effects will take place is:	
<b>9.2.</b> Provide venue location using complete street address.	
<b>9.3.</b> Name of venue manager. (Print)	Telephone number.



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**10.** The use of pyrotechnic materials and/or devices will occur on:  
(Date): \_\_\_/\_\_\_/20\_\_\_ beginning at (time) \_\_\_\_\_ : \_\_\_\_\_ am/pm and end at (time) \_\_\_\_\_ : \_\_\_\_\_ am/pm.

**10.1.**  Check this box if the firing of identical pyrotechnic materials or device setups will occur on multiple consecutive days (sequential dates). List all the dates and times on a separate page and attach it to this application.

**11.** A walk-through and representative demonstration of the pyrotechnics should be conducted and would be available to commence on (date) \_\_\_/\_\_\_/20\_\_\_ at (time) \_\_\_\_\_ : \_\_\_\_\_ AM / PM prior to the first rehearsal, production and/or performance at which the pyrotechnics will be used. The demonstration will be completed and followed with sufficient time afterward to reset/reload the pyrotechnics before the arrival of any audience. **IMPORTANT:** If Line 10.1 is checked for multi-day setups that are identical in location, types and number of devices, the demonstration need be conducted only once. ► If the demonstration is not ready or is not performed in a timely manner, the applicant and venue manager risk a delay or denial for the use of pyrotechnics because sufficient time was not provided prior to audience arrival and would not be a qualifying reason for a refund of the permit fee.

**12. Operators, Assistants and Pyrotechnic or Flame Effect Specifications:**

**12.1.** Provide the name and the Virginia certification number of the Pyrotechnician or flame effects operator that will be in charge of firing the pyrotechnics or flame effects. Attach a copy of that person's certification card (pyrotechnicians only).

Name (Print – last, First, MI)	Age	Certification #

**12.2.** Name and ages of all assistants who will be present (attach additional pages as needed):

Name (Print – Last, First, MI) <small>(See application instructions.)</small>	Age

**12.3.** List the number and types of pyrotechnic devices or flame effects to be used (attach additional pages as needed):

#	Name of device or material <small>(See application instructions.)</small>	DOT class



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### 13. Additional Information and Attachments for Pyrotechnics Before a Proximate Audience:

13.1.  A diagram of the grounds or facilities where the production is to be held. (See application instructions.) The diagram is to show:

- 13.1.1.  the point at which the pyrotechnic devices are to be positioned and fired,
- 13.1.2.  the fallout radius for each pyrotechnic device used in the performance,
- 13.1.3.  the lines behind which the audience will be restrained, and
- 13.1.4.  The point of on-site assembly of pyrotechnic devices.

13.2.  A safety data sheet (SDS) for the pyrotechnic material(s) to be used including:

13.3.  Certification that the set, scenery, and rigging materials are inherently flame-retardant or have been treated to achieve flame retardancy.

13.4.  Proof of a corporate surety bond or a public liability insurance policy in an amount acceptable to the sponsor noted on Line 9.1 and/or venue manager listed on Line 9.2.1 but not less than \$1,000,000.00.

### 14. Additional Information and Attachments for Flame Effects:

The operator shall have the flame effects operating instruction(s) readily available at all times the flame effect devices are in place. (NFPA 160, 5.3.2) A design plan for flame effects based on location, indoor or outdoor, is to be included as part of this application and is to be readily available at the location noted on Lines 9.1 and 9.2. (NFPA 160: 5.2.2.1; 5.3.1.1 and 6.1.2). As the items may apply, the design plan is to include the following:

***See Next Page for Details***



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## Design Plan Specifications (NFPA 160 Code References)

### 14.1. [ ] Outdoors and Indoors. A site plan showing the following: (5.3.1.2[5] and B.1.1.1)

- 14.1.1. A narrative description of the flame effect.
- 14.1.2. The location of flame effect devices to be fired, their controls and control sequence. (6.2.1)
- 14.1.3. The area affected by the flame effect device. (5.3.1.2[5(c)])
- 14.1.4. Documentation for combustible materials used for construction of the flame effects have been rendered flame retardant. (5.3.1.2[7])
- 14.1.5. The location of the audience.
- 14.1.6. The fuels used and their estimated consumption.
- 14.1.7. Flammable materials piping.
- 14.1.8. Storage and holding areas and capacities.
- 14.1.9. Means of egress.
- 14.1.10. Emergency operations and supplemental fire protection features. (7.9)
- 14.1.11. A current material safety data sheet for the fuel consumed in the flame effect.

### 14.2. [ ] Outdoors (B.1.1.1)

- 14.2.1. Weather, with safety provisions provided to halt the effect where safe operation of the flame effect can be influenced by hazardous weather conditions.
- 14.2.2. Security against intrusion.
- 14.2.3. Egress.
- 14.2.4. Clearance to combustibles.
- 14.2.5. Fire protection.

### 14.3. [ ] Indoors (B.1.1.2)

- 14.3.1. Where used to exhaust the products of combustion of a flame effect, ventilation with means provided to prevent fuel flow in the event the source of ventilation air is interrupted.
- 14.3.2. Clearance to combustibles.
- 14.3.3. Egress
- 14.3.4. Environment.
- 14.3.5. Fire protection.
- 14.3.6. Life safety provisions.
- 14.3.7. Security against intrusion.

### 14.4. [ ] Flame Effect Operator Participation. (B.1.2)

- 14.4.1. Control by the operator or performer during start-up, operation, and shutdown.
- 14.4.2. Operator in attendance during effect.
- 14.4.3. Training of operators.

### 14.5. [ ] For Unattended Effects. (B.1.2.2)

- 14.5.1. Design for unattended operation.
- 14.5.2. Supervision of automatic systems.
- 14.5.3. Audience proximity/audience intrusion prevention.
- 14.5.4. Control type — automatic.
  - Show events cued by a control system (mechanical or electrical).
  - Different levels of automatic operation.
  - Requirements to be developed for flame effect control systems.
- 14.5.5. Manual control type — operator or technician supervision of the flame effect device performance in open view.
- 14.5.6. Control location
- 14.5.7. Local control.
  - A flame effect controlled by an operator who has a clear view of the flame effect area.
  - Remote control
- 14.5.8. Fuel supply and fuel additives.
  - Portable
  - Fixed

### 14.6. [ ] Certification that costumes, set, scenery, and rigging materials are inherently flame- retardant or have been treated to achieve flame retardancy when exposed to flame effects. (See Line 14.1.3)

### 14.7. [ ] The classification of the flame effects system (Note: "Listed" Group 2 effects are not included per NFPA 160 Section 1.3.3(7)[d].):

- [ ] Group 1 [ ] Group 3 [ ] Group 4  
[ ] Group 5 [ ] Group 6 [ ] Group 7



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15. By my signature below, I attest the information provided is complete and accurate. I acknowledge and agree to comply with all applicable requirements of the Virginia Statewide Fire Prevention Code (SFPC) and the referenced NFPA standards governing the use of flame effects or the use, storage and firing of pyrotechnics, even those not specifically covered or expressed on this application.

I also acknowledge that if a permit is issued it shall be valid only at the location listed on the application and for the specific date(s) and time(s) for which it is issued.

If approved to proceed, I acknowledge that such approval is conditional upon continued compliance with the SFPC. I further acknowledge and understand that any SFPC violations identified after approval to proceed may result in denial of final permit issuance or immediate suspension or revocation of a permit.

15. Signature of "designated individual" (person listed on line 7):	Date:
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**IMPORTANT:**

Submit one (1) copy of this application complete with all attachments to the FMO. The FMO must be in receipt of the complete application not less than 15 days prior to the event in order to provide adequate time for review, testing and approval. This application information and attachments are to be submitted along with a Fire Prevention Code Permit Application and includes the required permit fee of \$200.00 in the form of a check or money order payable to: **COUNTY OF STAFFORD.**

**For Office Use Only:**

Application reviewed by (print name): \_\_\_\_\_

Review date: \_\_\_\_\_ Application for permit is:     Approved     Not Approved

Reviewer's comments, additional conditions, or reasons for non-approval:

Signature of Reviewer: \_\_\_\_\_