



# Shenandoah County

## Department of Fire and Rescue

600 N. Main Street, Suite 109  
Woodstock, VA 22664

(540) 459-6167 voice

(540) 459-6192 fax

[fire@shentel.net](mailto:fire@shentel.net)

## Display of Aerial Fireworks Permit Application

**All information must be printed in ink or typed. Submit the application and all its attachments to the Fire Marshal no less than 15 days prior to the event for timely processing.**

1. Provide the name of the person or company applying for the permit.
2. List the telephone number where the applicant can be reached.
3. Use the mailing address the applicant can expect the quickest service.
4. Use the physical address (location) of the permit applicant if it is different from the mailing address.
5. List the city, state, and zip code for the complete mailing address.
6. Print the name of the person submitting the application with their driver's license number and the state of license issuance.
7. This application is for aerial fireworks displays. Applications for an activity that requires a permit must be accompanied by the appropriate information allowing for an open line of communication between the Fire Marshal's office and the applicant
  - a. Line 7.1: Provide the name of the sponsoring group, person or organization.
  - b. Line 7.2: Provide the name and telephone number of the sponsor's representative.
  - c. Line 7.3: The exact location of the display is to be listed. Include as much information as may be available such as the street address, intersection, city, county, or town. A map is desirable to augment written information.
8. Provide the date and anticipated time for the display. If multiple dates are planned, list the additional dates and times on a separate sheet. Label or indicate at the top of the additional sheet that it is an addition for line 8.
  - a. Line 8.1: If there is a planned rain date, provide the information requested. If a rain date is not planned, write N/A in the place indicated for date and time.
  - b. Line 8.2: Indicate the anticipated arrival time of the display shells on-site. The Fire Marshal may want to inspect to ensure the shells are not left unattended subsequent to arrival at the display site and/or the condition of the shells.
9. The Fire Prevention code restricts underage persons from being operators and assistants.
  - a. Line 9.1: Provide the name, age, and telephone number of the operator that is in charge of the design, setup and functioning of the display. Provide a copy of the operator's VA pyrotechnician certification. The operator must be at least 21 years of age.
  - b. Line 9.2 and 9.3: List any qualifications or credentials the operator is willing to offer towards proof of being a qualified operator along with an accounting of actual experience in the number of shows within a given period of time on line 9.3. If additional space is needed for line 9.2, attach an additional sheet (8 ½ x 11) to the application and label or indicate at the top of the attached sheet that it is an additional sheet for line 9.2.
  - c. Line 9.3.1: List the requested information as a reference.
  - d. Line 9.4: 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 for line 9.4, attach an additional sheet (8 ½ x 11) to the application and label or indicate at the top of the attached sheet that it is an additional sheet for line 9.4.
10. List, according to size, the number and type of shells to be fired. List separately the number and size of salutes and multi-break shells. A separate listing for the number and size of chained shells (such as in a finale) is desired. If additional space is needed for line 10, attach an additional sheet (8 ½ x 11) to the application and label or indicate at the top of the attached sheet that it is an additional sheet for line 10.
  - a. Line 10.1: Indicate whether the display will be fired electrically, manually, or by a combination of both. Additional information will be requested further into this application as it relates to electric fires.
  - b. Line 10.2: Indicate whether there will be any reloading during the display. Additional information will be requested further into this application as it relates to reloads.

- c. Line 10.3: Indicate what the mortars will be constructed of. Additional information will be requested further into this application as it relates to reloads.
11. Additional items are to be attached as part of the application for permit. 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 permit application.
- a. Line 11.1: A diagram is to be provided of the premises where the display will be fired. The diagram is not required to be scale but it is to indicate certain requirements as indicated on lines 11.1.1 through 11.1.5.
- i. Line 11.1.1: Based on the largest shell to be fired, indicate the distance in feet of the fallout radius.
- ii. Line 11.1.2: Within the diagramed radius, indicate where the shells and/or cakes are to be positioned and fired.
- iii. Line 11.1.3: Indicate the distance (in feet) the audience will be restrained from the display.
- iv. Line 11.1.4: Indicate the relative position and distance of significant buildings, highways and overhead obstructions (utilities, light poles, etc).
- b. Line 11.2: Proof of insurance or surety bond is required in an amount that is agreeable to the sponsor listed on line 8.1 and the permit applicant, but shall not be less than \$500,000. The proof of insurance or bond is to be attached to the application and submitted.
12. The statewide Fire Prevention code has certain prerequisites, conditions and safeguards to be considered or complied with by the operator of the display. This application is intended to have the applicant acknowledge these prerequisites, conditions and safeguards by reading and initialing each item. If the listed item is not applicable to the circumstance, the applicant is to write "n/a" in place of their initials.

**An incomplete application and permit fee is subject to being returned to the applicant without further processing.**



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## Display of Aerial Fireworks Permit Application

1. Name/Company: \_\_\_\_\_

Email Contact: \_\_\_\_\_

2. Company Phone: \_\_\_\_\_

3. Mailing Address: \_\_\_\_\_

4. Physical Address if different than above: \_\_\_\_\_

5. City/State/Zip: \_\_\_\_\_

6. Name and Driver's License of person making application: \_\_\_\_\_

License Number: \_\_\_\_\_ State: \_\_\_\_\_

7. Sponsorship.

7.1: The fireworks display will be sponsored by: \_\_\_\_\_

7.1.1 Name and phone number of sponsor rep: \_\_\_\_\_

Sponsor Phone: \_\_\_\_\_

7.2: The fireworks display location (address, intersection, name of facility, city, county, town etc)

8. The firing of display fireworks will occur on: \_\_\_\_\_ / \_\_\_\_\_ /20 beginning at \_\_\_\_\_ : \_\_\_\_\_ am/pm and end at \_\_\_\_\_ : \_\_\_\_\_ am/pm. (\*Note: if the firing of the display fireworks will occur on multiple dates and/or times, list all dates and times on a separate page)

8.1: In case of postponement due to weather or other reasons the alternate date and time is: Date:

\_\_\_\_\_ / \_\_\_\_\_ /20 beginning at \_\_\_\_\_ : \_\_\_\_\_ am/pm and end at \_\_\_\_\_ :

\_\_\_\_\_ am/pm.

8.2: The expected arrival of the operator (pyrotechnician) and product will be at:

Date: \_\_\_\_\_ / \_\_\_\_\_ /20 \_\_\_\_\_

9. Operators, Assistants and Pyrotechnic Specifications

9.1: Name, age, phone number of pyrotechnic operator (\* copy of VA certification must be provided)

Name: \_\_\_\_\_

Age: \_\_\_\_\_ Phone: \_\_\_\_\_

9.2: List qualifications/credentials the operator may possess or is willing to offer:

\_\_\_\_\_

9.3: The pyrotechnic experience of the operator can be evidenced by having fired:

Number of shows fired:

{ } 1-5 shows

{ } 6-10 shows

{ } 11-20 shows

{ } over 20 shows

During a period covering:

{ } 1-6 months

{ } 7-12 months

{ } 13-24 months

{ } over 24 months

9.3.1: With the latest firing having occurred at:

Name of facility:	Date of Firing:
Physical Address of facility:	Name of Sponsor:
Telephone number of sponsor:	

9.4: Name and ages for all assistants who will be present.

Name	Age

10. List the size (in inches) and number of shells to be fired. Provide additional indication for multi-break shells and/or salutes (reports).

Number	Size	Type of Shell

10.1 The display will be fired:     Manual     Electrically     Combined

10.2 Will mortars be reloaded during the display:  Yes                       No

10.3 Mortars to be used will be constructed of:  
 Steel             Paper             High density Polyethylene     Fiberglass     Other: \_\_\_\_\_

11. Additional Attachments: The following items are to be provided as attachments to the application.

11.1  A diagram of the grounds or facility where the display will be held. (not required to be scale)

11.1.1  The fallout radius (indicated in feet) for the largest shell display to be used;

11.1.2  The points at which the shells and/or cakes are to be positioned and fired

11.1.3  The lines behind which the audience will be restrained (indicated in feet)

11.1.4  Location of significant buildings (indicated in feet), highways, overhead obstructions and utilities

11.1.5  The indicated direction of north.

11.2  Proof of a corporate surety bond or a public liability insurance policy

12. Conditions and acknowledgement

The applicant is required to review and initial the following requirements of the Fire Prevention Code and its referenced standards. By initialing each item, the applicant acknowledges their review and agreement to comply with any listed requirements as expressed in the Fire Prevention Code. (If the item does not apply to your circumstance write "n/a" in place of initials)

12.1 \_\_\_\_\_ Each shell is marked to indicate the size, type and provides the name of the manufacturer, importer or distributor.

12.1.1 \_\_\_\_\_ The shell is marked to indicate a conspicuous warning label stating the shell is a dangerous explosive and is of a contrasting color to its background.

12.1.2. \_\_\_\_\_ Each type of aerial salute is conspicuously marked with the word "salute"

12.2 \_\_\_\_\_ If reloads are used during the display, the ready box will be capable of protecting the contents from burning debris with a self-closing cover or by an equivalent means or method.

12.2.1 \_\_\_\_\_ During the performance of the display, the ready box will be located at least 25 feet upwind from the mortar placement.

12.2.2 \_\_\_\_\_ The reloading of shells will be confined to shells with a 6-inch or less diameter.

12.3 \_\_\_\_\_The display site has a radius of not less than 100 feet per inch of diameter of the largest shell to be fired. The display site radius from health care and detention/correctional facilities, or to the bulk storage area of materials that have a flammability, explosive, or toxic hazard, will not be less than 140 feet per inch of diameter of the largest shell to be fired.

12.3.1 \_\_\_\_\_No spectators or spectator parking will be located within the display site.

12.3.2 \_\_\_\_\_Any ground display pieces used will be located a minimum distance of 75 feet from spectator viewing and parking areas.

12.3.3 \_\_\_\_\_After consulting with the sponsor, assurance is provided by the applicant that the sponsor has made provisions for adequate fire protection for the display site and the local fire department has been made fully aware of the anticipated fireworks display.

12.3.4. \_\_\_\_\_The sponsor has made provisions to provide a sufficient number of monitors, with distinctive id, whose sole duty is enforcement of crowd control around the display area. The sponsor will determine the number of monitors with the concurrence of the Fire Marshal and operator. Where practical, fences or rope barriers can be used by the monitors to aid in crowd control but will not be used to supplant the number of monitors.

12.4 \_\_\_\_\_When firing shells electrically, the firing system is designed to ensure against accidental firing by providing at least a two-step interlock process that requires the operator to intentionally enable or arm the firing system and deliberately apply firing power.

12.4.1 \_\_\_\_\_The power source used for firing pyrotechnic devices is restricted to batteries or isolated power supplies used for firing purposes only.

12.4.2 \_\_\_\_\_Any shell larger than 6-inches in diameter will be pre-loaded into the mortars and fired electrically.

12.5 \_\_\_\_\_Except for securely fastened mortar racks, mortars will be buried to a depth of at least 66.6% of their length.

12.5.1 \_\_\_\_\_When mortars are to be reloaded during a display, mortars of various sizes will not be intermixed. Mortars of the same size will be placed in groups according to size and groups will be separated from one another.

12.5.2 \_\_\_\_\_Mortars will be of sufficient length, strength, and durability to fire the aerial shells safely and to safe heights.

12.5.2.1 \_\_\_\_\_Tensile strength of steel pipe mortars should be at least 40,000 psi. Metal mortars with seams will be placed so that all seams face either left or right when viewing the line of mortars. The walls of steel mortars should be a minimum thickness of:

<b>Mortar ID (in.)</b>	<b>Spherical</b>	<b>Cylindrical Single Break</b>	<b>Cylindrical Multi-break</b>
3	0.04	0.11	0.21
4	0.05	0.12	0.23
5	0.06	0.13	0.25
6	0.07	0.14	0.27
8	0.09	0.16	0.31
10	0.11	0.18	0.35
12	0.13	0.20	0.39

12.5.2.2 \_\_\_\_\_ Tensile strength of high density polyethylene plastic mortars should be at least 3500 psi. The wall of plastic mortars should be a minimum thickness of:

Mortar ID (in.)	Spherical	Cylindrical Single Break	Cylindrical Multi-break
3	0.15	0.17	0.17
4	0.20	0.25	0.25
5	0.25	0.25	0.25
6	0.30	0.32	0.32
8	0.32	2	2
10	0.32	2	2
12	0.37	2	2

- If any other plastic pipe is used, such as PVC, provide proof or evidence the material meets or exceeds the 3500 psi threshold.
- Provide documentation from plastic manufacturer that provides evidence or proof the material meets or exceeds a 3500 psi threshold.

12.5.2.3 \_\_\_\_\_ Tensile strength of fiberglass should be at least 11,000 psi. The wall of fiberglass mortars should be a minimum thickness of:

Mortar ID (in.)	Spherical	Cylindrical Single Break	Cylindrical Multi-break
3	0.07	0.11	0.11
4	0.11	0.11	0.11
5	0.11	0.11	0.11
6	0.11	0.11	0.11
8	0.25	1	1
10	0.25	1	1
12	0.25	1	1

- Data not currently available.

12.5.2.4 \_\_\_\_\_ The inside mortar length will be a minimum of:

Mortar ID (in.)	Spherical	Cylindrical Single Break	Cylindrical Multi-break
3	15	18	21
4	20	23	27
5	24	28	32
6	28	32	37
8	34	40	46
10	40	46	54
12	46	52	62

13. Applicant needs to provide an established plan that addresses if a shell fails to ignite in or discharge from, a motor fails to function over the fallout area or other malfunction should occur.

**SIGNATURE PAGE**

14. By my signature below, I attest the above information is accurate and correct. I acknowledge and agree to comply with all applicable requirements of the Statewide Fire Prevention Code and its referenced standard governing the use, storage, and firing of display fireworks, even those not specifically expressed on this application.

I also acknowledge that if a permit is issued based on this application it shall:

1. Be valid only at the location listed on the application and for the specific date(s) and time(s) for which it is issued; and
2. Does not convey approval to store explosives (display fireworks) beyond the temporary (less than 24-hr) on-site storage of the display fireworks on the date of the approved display.

If approved for permit issuance, I acknowledge that a **copy of this application and all its attachments will be available on-site during the dates and times noted on the application** and constitute approval to proceed with the activity applied for. I further acknowledge and understand that any specific State Fire Prevention Code violations identified after permit issuance may result in immediate suspension or revocation.

**FEE**

This application and attachments are submitted with the required permit fee of \$30.00 in the form of a check or money order payable to Shenandoah County Treasurer.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date