

OPERATIONAL PERMIT BLASTING PERMIT APPLICATION

For Office Use Only



**PRINCE WILLIAM COUNTY
DEPARTMENT OF FIRE AND RESCUE
FIRE MARSHAL'S OFFICE
5 COUNTY COMPLEX CT. SUITE 160
PRINCE WILLIAM, VA 22192**
(703) 792-6360 office (703) 792-6492 fax
WWW.PWCGOV.ORG/FIRE

Permit Number:
Date Issued:
Expiration Date:
Required Delivery Date:

I. Instructional Section

1. Please review this application thoroughly, fill out all requested information and submit with all necessary attachments to the Prince William County Fire Marshal's Office at the above address.
2. A permit fee of \$291.65 is required at time of application submittal. Checks can be made out to "Prince William County".
3. Prince William County Blasting Permits are good for 6 months from date of issuance for temporary blasting sites and 12 months for permanent sites.
4. A review of this application packet will be conducted and either approved or rejected based on the information provided. If approved, this packet will be returned to the applicant at the time of permit delivery.
5. An onsite inspection will be made after packet approval and the permit will be delivered during this inspection if found to meet all requirements.
6. You must call Prince William County Communications before and after each blast at **(703) 792-6500**.
7. You must notify the Fire Marshal's Office of each day's proposed blast time no less than 4 hours prior to the proposed blast time at **(703) 792-6360**.

II. Informational Section

Blasting Company Information

Name of Blasting Company and Phone Number:
Address of Blasting Company:
Emergency Contact Name and Number (after hours):
Federal Identification Number:

Job Site Information

Job Site Name:	
Job Site Address:	GPIN:
Name of Onsite Blasting Supervisor:	Phone:
Email Address Blasting Supervisor:	
Name of Job Site Supervisor:	Phone:

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The following individuals will be involved in blasting:

Name:	DOB:	Certification #:	Phone #:

The following are identified as potential hazards associated with this job site: *(gas lines, overhead power lines, close occupied structures, etc.)*

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

III. Site Plans

Attach a site plan for this worksite. The following information shall be included on the site plan:

- Blast area
- Distance measurements
- Utility locations
- Structures
- Fire Department vehicle access roads (in case of emergencies)
- Fire hydrants if available

IV. List of Required Documents

- ✓ Documentation of \$5,000,000.00 Liability Insurance
- ✓ Copies of Blaster's Background Clearance Card
- ✓ Miss Utility Tickets
- ✓ Site Plan

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Carefully review the following:

All blasting in Prince William County is regulated by the following sources:

- Virginia Statewide Fire Prevention Code Chapter 56 (2015 edition)
- NFPA 495 (2013 edition)
- Prince William County Code (Chapter 9.2 Article VII)
- *Fire Code Official*

Applicable Code Sections:

- *VSFPC 107.2* Operational permits may be required by the fire official as permitted under the SFPC in accordance with Table 107.2.
- *VSFPC 107.4* Before a permit is issued; the fire official shall make such inspections or tests as are necessary to assure that the use and activities for which application is made comply with the provisions of this code.
- *VSFPC 107.7* Plans approved by the Fire Official are approved with the intent that they comply in all respects to this code. Any omissions or errors on the plans do not relieve the applicant of complying with all applicable requirements of this code.
- *VSFPC 108.4* the Fire Official may revoke a permit or approval issued under the SFPC if conditions of the permit have been violated, or if the approved application, data or plans contain misrepresentation as to material fact.
- *VSFPC 5601.1.1* in addition to SFPC Chapter 56, NFPA 495 shall govern the manufacture, transportation, storage, sale, handling and use of explosive materials.
- *VSFPC 5601.2* the storage, possession and use of explosives shall not take place without first applying for and obtaining a permit.
- *VSFPC 5601.2.4* and *Sec. 9.2-52*(PWC Code) before a permit is issued, the applicant shall file with the jurisdiction a corporate surety bond or a public liability insurance policy for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results.
- *VSFPC 5601.2.4.1* before approval to do blasting is issued; the applicant for approval shall file a bond or submit a certificate of insurance in such form, amount and coverage as determined by the legal department of the jurisdiction to be adequate in each case to indemnify the jurisdiction against any and all damages arising from permitted blasting.
- *VSFPC 5601.4* persons in charge of blasting shall not be under the influence of alcohol or drugs which impair sensory or motor skills, shall be at least 21 years of age, and possess knowledge of all safety precautions related to the storage, handling or use of explosives and explosive materials.
- *VSFPC 5603.4* accidents involving the use of explosives, explosive materials which result in injuries or property damage, shall be reported to the Fire Code Official immediately.
- *VSFPC 5607.1* blasting operations shall be conducted only by persons certified by the State Fire Marshal as a restricted or unrestricted blaster or shall be supervised onsite by a person properly certified by the State Fire Marshal as a restricted or unrestricted blaster.
- *VSFPC 5607.3* blasting that is done in congested areas or in close proximity to a structure, railway or highway, or any other installation, shall have precautions taken to minimize earth vibrations and air blast effects. Blasting mats or other protective means shall be used to prevent fragments from being thrown.
- *VSFPC 5607.4* surface-blasting operations shall only be conducted during daylight hours between sunrise and sunset. Other blasting shall be performed during daylight hours unless otherwise approved by the fire code official.
- *VSFPC 5607.5* whenever blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the appropriate representatives of the utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notices.

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- *VSFPC 5607.15* where a misfire is suspected, all initiating circuits shall be traced and a search made for unexploded charges. When a misfire is found, the blaster shall provide proper safeguards for excluding all personnel from the blast area. Misfires shall be reported to blasting supervisor immediately. Misfires shall be handled under the direction of the person in charge of the blasting operation in accordance with NFPA 495.
- *VSFPC 5607.16* a record of each blast shall be kept and retained for at least five years and shall be available for inspection by the code official. The record shall be in a format selected by the blaster and shall contain the minimum data and information indicated in Form 5607.16.
- *NFPA 495 (10.1.5.2)* no smoking shall be permitted within 50 feet of any location where explosives are being handled or used.
- *NFPA 495 (10.1.5.3)* no person within 50 feet of any location where explosives are being handled or used shall carry any matches, open light, or other fire of flame, except for approved devices for lighting safety fuses.
- *NFPA 495 (10.1.13)* no blasting operation shall be performed in a manner contrary to the instructions of the manufacturer of the explosive materials being used.
- *NFPA 495 (10.1.16)* persons authorized to prepare explosive charges or to conduct blasting operations shall use every reasonable precaution including, but not limited to, warning signals, flags, barricades, mats, or other equally effective means to ensure the safety of the general public and workers.
- *NFPA 495 (10.3.9)* no blast shall be fired until the blaster in charge has made certain that all surplus materials are in a safe place, all persons and equipment are at a safe distance or under sufficient cover, and an adequate warning signal has been given.
- *NFPA 495 (11.2.1)* at all blasting operations, the ground vibration on any axis (particle velocity) shall not exceed the limitations specified in Figure 11.2.1 at the location of any building or structure.
- *NFPA 495 (11.3.1)* air over pressure due to blasting operations shall not exceed the maximum limit of 133db at the location of any building or structure.
- *NFPA 495(11.4.1)* Flyrock traveling in the air or along the ground shall not be cast from the blast site in an uncontrolled manner that could result in personal injury or property damage.
- *NFPA 495(11.4.2)* Flyrock shall not be propelled from the blast site onto property not contracted by the blasting operation or onto property for which the owner has not provided a written waiver to the blasting operation.
- *NFPA 495(11.4.3)* where blasting operations do not conform to 11.4.1 and 11.4.2, the AHJ shall require that special precautions be employed to reduce or control Flyrock.
- *NFPA 495(11.5)* to minimize hazardous exposure from the gases is produced by outdoor blasting; blasters shall do the following: be aware that lack of ground displacement can prevent venting of blasting material and result in the entrapment of gases; excavate blasted material as soon as possible after blasting; be aware of and look for geologic pathways for gases such as old trenches, horizontal partings, faults, joints, hillseams, unconsolidated material, water, and voids that would allow movement of gas towards underground enclosed spaces; be aware when blasting very close to underground enclosed spaces, fractures caused by the detonation can create a pathway for gases to enter the enclosed space; conduct a preblast survey to determine any possible problem areas when blasting new inhabited buildings or underground facilities (tunnels, manholes, etc.); monitor possible problem areas to determine if any gases have migrated from the blasting operation; if gases are detected use positive ventilation (open windows and exhaust fans) to limit the accumulation of gases at inhabited buildings or other facilities from the blasting operation until the gas is removed from the ground.

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- *Sec. 9.2-53(PWC Code)* Emergency contact for certified blasters. In addition to the provisions set out in sections 5601.4 of the Fire Prevention Code (2015 edition), persons using explosive materials, within the confines of the county, shall provide emergency contact information to the fire official and update such by the first day of January, April, July, and October. Such information shall include the employer's name, office address, office telephone number, 24-hour emergency contact telephone number, blaster's name, and a 24-hour emergency contact telephone number.
- *Sec. 9.2-54(PWC Code)* Loss, theft, or unauthorized removal of explosive materials. The loss, theft, or unauthorized removal of explosive materials from a magazine or permitted facility or site shall be reported to the fire official, local law enforcement authorities, and the U.S. Department of Treasury, Bureau of Alcohol, Tobacco Firearms and Explosives (BATF) immediately. Immediate notification to the fire official shall be by telephone or in person followed by a letter giving complete details as to the types, amounts and manufacturer of the explosive materials and other relevant details relating to the loss, theft or unauthorized removal. The letter shall be delivered to the fire official within 24 hours of the verbal notification.
- *Sec. 9.2-55(PWC Code)* Improper or unlawful storage of explosive materials. In addition to the provisions in sections 5603.1 of the Fire Prevention Code (2015 Edition), if at any time explosives or explosive materials are found stored in an improper or unlawful manner, immediate notification shall be made to the fire official who shall take all necessary actions to safeguard or dispose of such explosives or explosive materials.
- **Preblast surveys shall be performed on each structure located within 150ft and any utility well located within 250ft of the blast site. Written confirmation that the preblast survey has been done shall be maintained by the blasting contractor. Requests for access to structures for preblast surveys shall be made by certified mail to the last known address of the owner (s) of any structures located within the preblast survey areas as defined above. If permitted by the owner (s) preblast surveys shall be conducted to determine the preblast conditions of the structures. A minimum of 14 days notice shall be provided for the scheduling of the preblast survey. Documentation consisting of a written acknowledgment that the survey has been performed or declined by the property owner and a map depicting the above referenced 150 and 250ft radius, shall be provided to the Fire Marshal at the time of site inspection. Depending on circumstances, the Fire Marshal may request additional preblast surveys be conducted outside of reference distances.**
- **The preblast shall be conducted at a maximum of 120 days prior to the anticipated initial blast.**
- ***Preblast Notification.* All structures located within 300ft of the blast site shall be notified 48 hours prior to the initial blasting operations and no blasting shall occur until such notice has been given.**

Applicant Signature:	Date:
FMO Reviewer:	Date:

NOTICE: Section 5607.16 of the 2015 edition of the Virginia Statewide Fire Prevention Code (SFPC) requires the use of the shot record referred to as “Form 5607.16”. The SFPC does allow the blaster in charge to use another format so long as it contains the minimum data and information indicated in Form 5607.16.
This form is a public document and may be printed and used without obtained permission prior to its use.

**Virginia Statewide Fire Prevention Code
Form 5607.16
Blast (shot) Record**

Block 1				
General Information				
1	Blast date:	Blast No.:	Blast Time:	Permit No.:
2	Blast location by address including city, county or town:			
3	Blast location by GPS coordinates: ☐ check box if unknown			
4	Name of Permit Holder:			
5	Name of Blaster in charge (print):			
6	Signature of Blaster in charge:			
7	Certification Number of Blaster in charge:			

Block 2			
General environmental conditions			
1	Weather (Clear? Cloudy? Overcast?)	Wind direction and speed @ _____ mph	Temperature F° / C°
2	Topography: (Flat? Hilly? Mountainous?)	Distance from blast site to nearest inhabited building:	Distance from nearest inhabited building determined by: ☐ GPS coordinates ☐ Measurement ☐ Estimated
3	Use of nearest inhabited building? (Dwelling? Business? Apartment Building? School?)	Direction from blast site to nearest inhabited building:	Direction from blast site to nearest inhabited building determined by: ☐ GPS instrument ☐ Compass ☐ Estimated
Additional Blaster notations on environmental conditions:			

Block 3			
Shot layout and precautions taken (N/A = Not Applicable)			
1	No. of holes	Diameter of hole(s)	Depth of hole(s)
2	Were any holes decked? ☐ Yes ☐ No	How many holes were decked? ☐ N/A	How many decks per hole? ☐ N/A
	(If applicable, indicate on any attached shot pattern drawing which holes were decked and the number of decks for the hole[s].)		
3	Shot pattern ☐ Check this box if only single hole.	Depth of sub-drilling	Drilling angle
4	Burden	Spacing of holes	Water height
5	Stemming height	Material used for stemming	Check box for flyrock precautions taken ☐ Mats ☐ Overburden ☐ None taken
Additional Blaster notations on shot layout and precautions:			

Block 4			
Seismic control measures (N/A = Not Applicable)			
1	Was Scaled Distance Formula used? ☐ Yes ☐ No	Indicate which Scaled Distance equation was used. ☐ N/A ☐ $W(lb)=[D(ft)/50]^2$ ☐ $W(lb)=[D(ft)/55]^2$ ☐ $W(lb)=[D(ft)/65]^2$	Max. Allow. Chg. Wt. per 8 ms based on Scaled Distance. ☐ N/A
2	Was seismograph used? ☐ Yes ☐ No	Seismograph manufacturer and model number: ☐ N/A	Seismograph serial number: ☐ N/A
			Seismograph's last calibration date. ☐ N/A
3	Distance and direction seismograph from blast site ☐ N/A	Distance determined by: ☐ N/A ☐ GPS coordinates ☐ Estimated ☐ Measurement	
4	Seismograph ☐ N/A Geophone Minimum Frequency _____ Hz Seismograph Microphone Minimum Frequency _____ Hz	Seismograph recordings: ☐ N/A Transverse _____ in/s _____ Hz Vertical _____ in/s _____ Hz Longitudinal _____ in/s _____ Hz Acoustic _____ dB _____ Hz	
5	Seismograph trigger level ☐ N/A _____ in/s _____ dB		
Additional Blaster notations on seismic control measures:			

Block 5				
Quantity and product				
1	Max. Allow. Chg. Wt. per 8 ms Interval _____ lbs ☐ Delay not used	Initiation (Check) ☐ Electric ☐ Non-electric ☐ Electronic		
2	Max. No. of Holes/Decks per 8 ms interval _____ lbs ☐ Delay not used			
3	Max. Wt. or sticks of Explosive per hole _____ lbs	Firing device manufacturer and model: ☐ N/A		
Explosive Product listing (Attach additional pages as needed.)				
4	Manufacturer	Product name, description or brand	Number of units	Unit weight (lb)
5	Total explosive weight in this shot: _____ lbs.			
Additional Blaster notations on product and quantities: 				

Block 6	
Completion of shot record and general comments	
General comments on shot not included in notes above: 	
Date shot report completed:	Time shot report completed:
Printed name and signature of person completing shot report if different from Block 1, Lines 5 and 6.	(Print)
	(Signature)