

SUBARTICLE 3 EXPLOSIVES

71-8302. EXPLOSIVES.

(Statutory Authority: 1976 Code Sections [23-9-40\(b\)](#), [23-9-60](#), [23-36-10](#) et seq.)

71-8302.1. General.

- A. The purpose of this regulation is to provide reasonable safety and protection to the public, public property, private property, and operators from the manufacture, transportation, handling, use, and storage of explosives in South Carolina.
- B. This regulation shall apply to the manufacture, transportation, handling, use, and storage of explosives in South Carolina.
- C. This regulation does not apply to the sale or storage of *fireworks* as regulated by the [Board of Pyrotechnic Safety](#).

71-8302.2. Codes and Standards.

- A. All references to codes and standards found in these regulations refer to the editions adopted in R.71-8300.2 and are modified by the following regulations as shown below.
- B. The building code shall define occupancy classifications referenced in these regulations.

71-8302.3. Licensing and Permitting Fees.

- A. All applications for licenses, tests, or permits must be accompanied by the appropriate fees.
- B. The *OSFM* is responsible for all administrative activities of the licensing program. The *SFM* shall employ and supervise personnel necessary to effectuate the provisions of this article and shall establish fees sufficient but not excessive to cover expenses, including direct and indirect costs to the State for the operation of this licensing program. Fees may be adjusted not more than once each two years, using the method set out in S.C. Code Ann. Section [40-1-50\(D\)](#), 1976, as amended.
- C. Fees shall be established for the following:
 - 1. Application
 - 2. Background Check
 - 3. Testing
 - 4. Licensing
 - 5. Permitting
 - 6. Inspection
 - 7. Renewal
- D. All fees are due at time of application.
- E. Submission requirements for Blasting Permit application
 - 1. Applications for Blasting Permits shall be submitted to the *OSFM* for approval at least 48 hours before the start of blasting operations.
 - 2. Applications submitted less than 48 hours before the start of blasting operations may be subject to a \$200.00 special processing fee.
 - 3. Blasting Permit applications shall include the properly completed form and shall be accompanied by all information listed on the Blasting Permit application form when applying to the *OSFM* for a Blasting Permit.
- F. All fees paid to the *OSFM* are nonrefundable.

71-8302.4. Licenses and Permits.**A. Classification of Licenses and Permits**

	<u>Class</u>	<u>Category</u>	<u>Blasting Permitted</u>
1.	A	Unlimited	All types of blasting
2.	B	General	All phases of blasting operations in quarries, aboveground open pit mines, and aboveground construction
3.	C	General	All phases of blasting operations in underground mines, shafts, tunnels, and drifts
4.	D	Demolition	All phases of blasting in demolition projects
5.	E	Seismic	All phases of blasting in seismic prospecting
6.	G	Special	Special blasting as described on the permit

B. Licenses

1. No *person* shall be granted a license who has not successfully completed a written examination administered by the *OSFM* covering the applicable codes, state laws and regulations for the license classification for which they are applying.
2. Any applicant who fails the written examination is allowed one (1) re-test after a minimum seven (7) day waiting period. Any applicant who fails the re-test shall wait at least six (6) months before reapplying.
3. Licenses are not transferable.
4. The *OSFM* may accept determination of relief from disability incurred by reason of a criminal conviction that has been granted by the [Director](#) of the [Bureau of Alcohol, Tobacco, Firearms and Explosives](#), U. S. Department of Justice, Washington, D.C., pursuant to [Section 555.142, Subpart H, Title 27, Code of Federal Regulations](#) and [Title 18 United States Code, Chapter 40, Section 845\(b\)](#).
5. New applicants for licensing shall:
 - a. Submit an application for a new license.
 - b. Submit a completed fingerprint card with his or her application. The *OSFM* will conduct a criminal background check as part of the licensing application process.
 - c. Provide the appropriate Federal licenses to handle and use explosives or explosive materials. Applicants must provide a copy of applicable Federal licenses with their application.
 - d. Provide proof of public liability insurance for an amount not less than one million dollars (\$1,000,000). The coverage company must be an insurer which is either licensed by the *DOI* in this State or approved by the *DOI* as a nonadmitted surplus lines carrier for risks located in this State. In the event the liability insurance is canceled, suspended, or nonrenewed, the insurer shall give immediate notice to the *OSFM*.
6. Each applicant for renewal shall each year:
 - a. Submit an application for renewal.
 - b. Submit a completed fingerprint card with his or her application. The *OSFM* will conduct a criminal background check as part of the licensing application process.
 - c. Provide a copy of their current Federal licenses for handling and using explosives or explosive material with their renewal application.
 - d. Attend at least four (4) hours of continuing education acceptable to the *OSFM*. Certificates of training or other proof of training attendance must be provided when requested by the *OSFM*.

- e. Provide proof of insurance. The coverage company must be an insurer which is either licensed by the *DOI* in this State or approved by the *DOI* as a nonadmitted surplus lines carrier for risks located in this State. In the event the liability insurance is canceled, suspended, or nonrenewed, the insurer shall give immediate notice to the *OSFM*.
- f. An expired license shall not be renewed. A new license shall be obtained by complying with all requirements and procedures for an original license.

C. Blasting Permits

1. Blasting Permit application forms shall be available on the *OSFM* website and shall contain the information deemed appropriate by the *OSFM*. At a minimum, the application form shall include:
 - a. Applicant name and contact information;
 - b. Blaster name, license, and contact information;
 - c. Blast site information including location, purpose of blasting, and fire department responsible for responding to the site;
 - d. Anticipated date and time range of blasting operations;
 - e. Information on separation distances detailing the actual distances to the nearest gas lines, power transmission lines, public roads, and structures;
 - f. The type(s) of explosive used;
 - g. Information on quantities of explosive used including the estimated amount of explosives for the duration of the permit, amount per shot, and amount per charge; and,
 - h. Information regarding whether a seismograph will be used.
2. Blasting Permit application forms shall list all information required to be submitted with the form per R.71-8302.3.E. This list shall include at least the following:
 - a. Current certificate of insurance;
 - b. Directions to the blast site;
 - c. Site plan of the blast site showing measured distances to adjacent buildings, streets, utilities, wells, and other facilities that have been superimposed on officially published maps, electronic satellite imagery, or another means of showing the site area and its vicinity that *OSFM* determines to be acceptable;
 - d. Blasting plan that addresses proposed blasting procedures, quantity of material to be removed by blasting, number of blasts to be detonated, quantity and type of explosives to be used, maximum amount of explosives per delay, the maximum number of holes per delay, and the proposed placement of seismographs; and
 - e. Safety plan that addresses on-site storage, traffic control, barricading, signage plan, and adverse weather operation plan.
3. No permit will be granted without submission of a complete Blasting Permit application form and payment of application fee.
4. No variations from the terms of the blasting permit are allowed without authorization from the *OSFM*.

D. Magazine Permits

1. Magazine Permit Application Forms shall contain the information deemed appropriate by the *OSFM*.
2. Magazine Permit Application Forms shall be available on the *OSFM* website.
3. Magazine permits expire at 12:01 AM on January 1 of each licensing cycle. Any magazine permit not renewed by December 31 may incur a late fee of \$100.00 (each).
4. Magazine permits shall be visible on the exterior of all magazines. Defaced or destroyed permits will be reported to the *OSFM* when discovered. The *OSFM* may, at their discretion, charge the administrative costs of replacing the magazine permit.
5. Each magazine shall be inspected and approved by the *OSFM* before use.

71-8302.5. Records.

- A.** Licensed blasters shall keep records of each blast. The Blaster's Log shall contain the following minimum data:
1. Name of company or contractor;
 2. Location, date, and time of blast;
 3. Name, signature, and license number of blaster in charge of blast;
 4. Type of material blasted;
 5. Number of holes, burden and spacing;
 6. Diameter and depth of holes;
 7. Types of explosives used;
 8. Total amount of explosives used;
 9. Maximum amount of explosives per delay period of 8 milliseconds or greater;
 10. Method of firing and type of circuit;
 11. Direction and distance in feet to nearest dwelling house, public building, school, church, commercial or institutional building neither owned nor leased by the *person* conducting the blasting;
 12. Weather conditions;
 13. Type and height or length of stemming;
 14. Whether mats or other protections were used;
 15. Type of delay electric blasting caps used and delay periods used;
 16. Exact location of seismograph, if used, and the distance of seismograph from blast as indicated accurately by the *person* taking the seismograph reading;
 17. Seismograph records, where required including:
 - a. Name of *person* and *firm* analyzing the seismograph record; and
 - b. Seismograph reading;
 18. Maximum number of holes per delay period of eight milliseconds or greater.
- B.** Blasters will provide a blast report on forms approved by the *OSFM* and submit these forms within three working days of the blast when deemed necessary by the *OSFM*.
- C.** Blasting records shall be retained by the licensed blaster and available for inspection by *SFM* during normal work hours at their place of business. These blast records shall include as a minimum for each blast:
1. Blasting Permit;
 2. Seismograph reports when used;
 3. Blaster's Record/log;
 4. Pre-Blast Survey (if applicable).
- D.** Magazine log shall be available for inspection by *OSFM* upon request during normal work hours or hours of operation of the magazine.

71-8302.6. Blasting Safety and Operations.

- A. The contractor, operator, and the blaster are responsible for the conduct of blasting operations on any site.
- B. These regulations do not relieve the contractor, operator, blaster or other *persons* of their responsibility and liability under any other laws.
- C. The *OSFM* may require the use of a seismograph on any blasting operation where damage to personal property has or may occur.
- D. A Seismograph shall be used on all blasting operations: (1) within 1500 feet of a building, (2) where the scaled distances shown in *NFPA 495* are not followed, or (3) when directed by the *OSFM*.
- E. Operators must notify the *OSFM* within 24 hours of any fires or thefts involving explosives. The operators shall provide the *OSFM* with a copy of the report filed with the police department or the incident report from the fire department. Operators must also provide the *OSFM* Office with a copy of [ATF Form 5400.5](#).
- F. The operator shall have their license in their possession when handling, possessing or using explosive materials and shall show their license when asked by any *AHJ*.
- G. A copy of the blasting permit shall be kept at the firing station.
- H. This section shall be followed for firing the blast:
 - 1. A warning signal shall be given before every blast. Warning signals shall comply with the following:
 - a. Warning signal is a one (1) minute series of long horn or siren blasts five (5) minutes before the blast signal.
 - b. Blast signal is a series of short horn or siren blasts one (1) minute before the shot.
 - c. All clear signal is a prolonged horn or siren blast following the inspection of the blast area.
 - 2. The signal shall be made from an air horn, siren or other device, and must be loud enough to be clearly heard in all areas that could be affected by the blast or flyrock from the blast. The signal must be distinctive and unique so that it cannot be confused with any other signaling system that might occur on the site. A vehicle horn shall not be used as a signaling system.

71-8302.7. Explosives and Investigations.

All costs incurred by the *OSFM* for investigations involving explosives or blasting operations shall be reimbursed to the State by the individual or company involved in the investigation. Such reimbursements will only apply when the individual or company has been found in violation of the South Carolina Explosives Control Act (S.C. Code Ann. [23-36-10](#), et seq., 1976, as amended) or these Regulations.

71-8302.8. Variances.

- A. This section provides licensees the opportunity to request variances of the regulations under specific conditions.
 - 1. The *OSFM* may grant variances when it can be demonstrated the variance improves safety or provides an equivalent level of safety as provided in the regulations and adopted codes.
 - 2. Such a variance may be modified or revoked by the *OSFM*.
 - 3. When applicable, these variances must also be approved by the U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives.