

DEPARTMENT OF PUBLIC SAFETY
MISSOURI DIVISION OF FIRE SAFETY



**MISSOURI
EXPLOSIVE USER
REGISTRATION &
BLASTER
LICENSING**





MISSOURI DIVISION OF FIRE SAFETY

EXPLOSIVE USER REGISTRATION & BLASTER LICENSING

I. Explosive User Registration

The "Missouri Blasting Safety Act" was passed into law by 94th Missouri General Assembly and became law on August 28, 2007. The purpose of the act is to foster the safe use of explosives in mining and construction by establishing and enforcing consistent statewide industry standards for licensing of blasters and users of explosives. The act is not to be construed to amend, supersede, or conflict with any requirement of federal law or regulation governing the manufacturing, transporting, or storage of explosives.

The Act regulates users of explosives which are defined as "any individual, proprietorship, partnership, firm, corporation, company, or joint venture that is required to hold authority to receive or use explosives under statutes or regulations administered by the U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives and who employs licensed blasters."

The following are exempt from the requirement to register with the Division of Fire Safety:

1. Any individual, proprietorship, partnership, firm, corporation, company, or joint venture defined as a "person using explosives" that does not employ blasters required to be licensed by the Division;
2. Universities, colleges, or trade schools when confined to the purpose of instruction or research;
3. The use of explosive materials in the forms prescribed by the official *U.S. Pharmacopoeia* or the *National Formulary* and used in medicines and medicinal agents;
4. The training or emergency operations of any federal, state, or local government including all departments, agencies, and divisions thereof, provided they are acting in their official capacity and in the proper performance of their duties or functions;
5. The use of explosives by the military or any agency of the United States;
6. The use of pyrotechnics, commonly known as fireworks, including signaling devices such as flares, fuses, and torpedoes;
7. The use of small arms ammunition and components thereof which are subject to the Gun Control Act of 1968, 18 U.S.C., Section 44, and regulations promulgated thereunder. Any small arms ammunition and components thereof exempted by the Gun Control Act of 1968 and regulations promulgated thereunder are also exempted from the provisions of sections 319.300 to 319.345, RSMo;
8. Any person performing duties using explosives within an industrial furnace;
9. The use of agricultural fertilizers when used for agricultural or horticultural purposes;
10. The use of explosives for lawful demolition of structures;
11. The use of explosives by employees, agents, or contractors of rural electric cooperatives organized or operating under Chapter 394, RSMo;
12. Individuals discharging historic firearms and cannon or reproductions of historic firearms and cannon; and
13. Any person using explosive materials along with a well screen cleaning device for the purpose of unblocking clogged screens of agricultural irrigation wells located within the southeast Missouri regional water district as created in section 256.643.



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The law requires explosives users or those intending to use explosives in Missouri to register with the Division of Fire Safety prior to using explosives in the state.

If you or your company meets the above definition of a user of explosives, please submit the completed "Explosive User Registration Application" and the initial \$200 registration fee to the Missouri Division of Fire Safety before first using explosives in the state.

For persons using explosives at multiple locations under the operational control of one parent company or organization, only one registration fee for the parent company or organization shall be required.

If you are involved in Missouri's blasting industry, it is your responsibility to be familiar with and know Missouri law, RSMo. 319.303 to 319.345. Copy of the Missouri Revised Statutes pertaining to blasting can be obtained at www.dfs.dps.mo.gov or by calling 573-751-2930.

INSTRUCTIONS FOR REGISTRATION

To ensure prompt processing of the Explosive Registration Application please follow the check list below:

- Please print in ink or type.
- Complete all questions on application.
- Attach a copy of current Bureau of Alcohol, Tobacco, Firearms and Explosive License/Permit.
- Submit \$200.00 registration fee. Only cashier's checks, bank drafts, money orders or business checks payable to the "Division of Fire Safety" will be accepted. (Cash or personal checks will not be accepted.)
- Completed form and fee must be submitted before first using explosives in the state.
- Mail form and fee to Division of Fire Safety, Explosives Enforcement, P.O. Box 844, Jefferson City, MO 65102.

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NOTIFICATION OF BLASTING OPERATIONS

Missouri State Statute 319.339 requires any person using explosives within Missouri to notify the Division of Fire Safety at least two business days in advance of first using explosives at a site where blasting has not been previously conducted. If blasting will be conducted at an ongoing project, such as a long-term construction project, or at a permanent site, such as a quarry, the person shall only be required to make one notice to the Division of Fire Safety in advance of the first use of explosives. The law also requires that the person using explosives notify the appropriate fire protection official of the jurisdiction where blasting will occur, which may be a city fire department, fire protection district, or volunteer fire protection association. This section shall not apply to any blasting required by a contract with any agency of the state of Missouri, any federal agency, or any political subdivision.

Date of Notification:	
Firm conducting blasting operations:	
Address:	
City, State, Zip:	
Phone:	Fax:
Contact Person:	Email:

Blasting Operations being conducted for:
Blasting Location:
Address:
City, State, Zip:
Directions to blasting location:
Blasting dates:
Blasting Supervisor(s):
Blaster(s):
Reason for blasting:
Fire Dept. serving area where blasting will occur:
Name of fire official receiving notification (if available):

Fax form to the Division of Fire Safety at 573-526-4600 or email form to: Blasting@dfs.dps.mo.gov

Division of Fire Safety Use Only:	
Received by:	Date:



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All applicants shall submit the following to the Division when applying for a license:

1. A completed "Application for Licensed Blaster";
2. A copy of a valid state driver's license or state ID card as proof of applicant's age and identity;
3. An approved criminal background check conducted within the applicant's state of residence
 - a. **Only a criminal background check conducted by the Missouri State Highway Patrol or other approved law enforcement agency is approved for licensing approval.**
 - b. A personal identifier search (also known as name-based search) is acceptable to meet this licensing requirement.
 - c. Highway Patrol background check information is available at www.mshp.dps.mo.gov or by calling 573-526-6153.
4. Copy of U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives Notice of Clearance or Letter of Clearance;
5. Two passport-type photographs; and
6. A check, money order, or bank draft in the amount of \$100.00 (U.S.) payable to the Missouri Division of Fire Safety.

All applicants applying as a new blaster must also submit all the following to the Division when applying for a license:

1. Documentation of having successfully completed a training course approved by the Division; and
2. Documentation verifying at least 1,000 hours of documented experience directly relating to the use of explosives within the two years immediately prior to applying for a license.



MISSOURI DIVISION OF FIRE SAFETY APPLICATION FOR LICENSED BLASTER



*This entire application must be completed and submitted with the required documentation.
Incomplete applications will be rejected.*

Check One Only:

License by Reciprocity: **MLPA Certification** **Other:** _____
(Attach copy of certificate or license)

License by Equivalency (Attach an affidavit signed by the employer validating at least 1,000 hours of training or education and experience within previous two years and employment on or before December 31, 2000)

Blaster's License (New) (Attach verification of at least 1,000 hours of documented experience directly relating to the use of explosives within the two years immediately prior to applying for a license and completion of an approved course of instruction)

Blaster's License Renewal

Name: _____ **Date of Birth:** _____

Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone number: _____ **Email:** _____

Driver's License Number and State of Issue: _____

Employer: _____

Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone number: _____ **Email:** _____

I hereby certify that I have read and understand the explosive laws and regulations for the State of Missouri. I further certify that I have examined this application and documents submitted in support thereof and to the best of my knowledge and belief, they are true, correct, and complete.

Signature: _____ **Date:** _____

The following must be attached to all applications:

1. A copy of a valid state driver's license or state ID card;
2. An approved criminal background check conducted within the applicant's state of residence;
3. Copy of U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives Notice of Clearance or Letter of Clearance;
4. Two passport-type photographs; and
5. A check, money order, or bank draft in the amount of \$100 (U.S.) payable to the Missouri Division of Fire Safety.

For Division of Fire Safety Use Only:

License Issued **License Denied**

Signature of reviewer: _____ **Review date:** _____



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VI. Testing for Blaster Licensure

The Division of Fire Safety shall approve and administer a standard examination or examinations for the purpose of qualifying an individual to obtain a blaster's license. All examinations shall remain the property of the Division and in the possession of the Division.

Individuals applying to test as a Licensed Blaster must submit the following:

1. A completed "Application for Licensed Blaster Examination";
2. Documentation of having successfully completed a training course approved by the Division; and
3. Documentation verifying at least 1,000 hours of documented experience directly relating to the use of explosives within the two years immediately prior to applying for a license.
4. A check, money order, or bank draft for the \$25.00 (U.S.) testing/retesting fee payable to the Missouri Division of Fire Safety to be eligible to take the examination.

Applications must be received by the Division no less than 20 business days prior to the scheduled exam date. **Preregistration is required for any examination.**

Scheduled examinations are held at the Missouri Division of Fire Safety Headquarters at 205 Jefferson St., 13th Floor, Jefferson City, MO 65101 and regionally throughout the state. Exam schedules are posted on the Division of Fire Safety website, www.dfs.dps.mo.gov, or can be obtained by contacting the Division at (573)751-2930.

The Division will score all exams and applicants will be notified by letter accordingly within 30 days of the exam. Notification will indicate only pass/fail status. A passing score shall be a score of 75% or above on the exam.

Should an applicant fail, he or she shall not be eligible to retest until after receiving notification of failure.

Should an applicant fail the exam a second time, he or she must retake an approved training course before being allowed to retest for a license.

If an applicant has not taken a retest within six months of original test date, he or she must take an approved course again to be eligible to test.



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APPLICATION FOR LICENSED BLASTER EXAMINATION

Test Date Requested: _____ Alternative Date: _____

Name: _____ Date of Birth: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone number: _____ Alternate Phone: _____

Driver's License Number and State of Issue: _____

Employer: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone number: _____ Alternate Phone: _____

Blasting Training Course Attended: _____

(Attach Course Certificate)

Course Instructor: _____

Course Location: _____ Date: _____

By my signature below, I verify that the information provided on this application is true, correct, and complete to the best of my knowledge.

Signature: _____ Date: _____

For Division of Fire Safety Use Only:

Test Date: _____

Approved Course Completion: _____

Notification by: _____ Date: _____



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VII. Blaster License Renewal

A blaster's license issued by the Division shall expire three years from the date of issuance.

To be eligible for renewal of a blaster's license, the individual seeking relicensure must submit all of the following to the Division no less than 30 days before the date of current license expiration:

1. A completed "Application for Licensed Blaster";
2. A copy of a valid state driver's license or state ID card;
3. Documentation of having successfully completed a total of eight hours of approved continuing education training related to the use of explosives. Four hours of which must have occurred within the 12 months immediately before the date of license expiration;
4. An approved current criminal background check conducted within the applicant's state of residence;
5. Copy of U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives Notice of Clearance or Letter of Clearance;
6. Two passport-type photographs; and
7. A check, money order, or bank draft in the amount of \$100.00 (U.S.) payable to the Missouri Division of Fire Safety.

Any individual whose license has been expired for a period of three years or less shall be required to submit documentation of successfully passing an approved state examination and completion of eight hours of approved training prior to being eligible to apply for renewal of a license.

Any individual whose license has been expired for a period of more than three years shall be required to submit documentation of successfully passing an approved state examination and completion of 20 hours of approved training prior to being eligible to apply for a blaster's license.



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VIII. Blasters Training Courses

The Division shall review and approve training courses that fulfill the training requirement of qualifying for a blaster's license and fulfill the training requirement for renewal of a blaster's license.

Any person applying to the Division for approval of a course of instruction that meets the blasters' training requirement shall submit the following:

1. A completed "Application for Blaster Training Course Approval";
2. A description and copy of instructional materials to be used in the course;
3. An outline of the subject matter to be taught, including course objectives and the minimum hours of instruction on each topic;
4. A description of the qualifications of the instructor or instructors; and
5. Copies of the tests, quizzes, activities, and/or projects included in the course.

To be approved by the Division, a blaster's training course shall contain at least 20 hours of instruction to prepare attendees for obtaining a blaster's license the first time, or eight hours of instruction to prepare attendees for obtaining a license renewal.

The Division shall review the application regarding the knowledge and experience of proposed instructors, the total hours of training, and the adequacy of proposed training in subject matter.

If the Division determines that training proposed by the applicant is adequate, a letter of approval shall be issued to the applicant. Course approval shall be effective for a period of three years, after which the materials required above must be submitted again.

If at any time the Division determines that an approved training course no longer meets the standards of this section, the letter of approval may be revoked with written notice.

The Division or any person providing a course of instruction may charge an appropriate fee to recover the cost of conducting such instruction.

The Division shall maintain a current list of persons who provide approved training and shall make this list available by any reasonable means to professional and trade associations, labor organizations, universities, vocational schools, and others upon request. Any person providing training in an approved course shall submit a list of individuals that attended any such course to the Division within 10 business days after completion of the course.

The Division or its authorized agent shall offer annually at least two courses of instruction that fulfill the training requirement to qualify for a blaster's license and two courses that fulfill the training requirement for renewal of a blaster's license.



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REQUEST FOR BLASTING COURSE APPROVAL



*This entire application must be completed and submitted with the required documentation.
Incomplete applications will be rejected.*

Company Name: _____

Address: _____

City: _____ *State:* _____ *Zip:* _____

Phone number: _____ *Email Address:* _____

Applicant Name: _____ *Date of Birth:* _____

Address: _____

City: _____ *State:* _____ *Zip:* _____

Phone number: _____ *Email Address:* _____

The following must be submitted with this application:

- A description and copy of instructional materials to be used in the course
- An outline of the subject matter to be taught, including course objectives and the minimum hours of instruction on each topic
- A description of the qualifications of the instructor or instructors
- Copies of the tests, quizzes, activities, and/or projects included in the course

By my signature below, I verify that the information provided on this application is true, correct, and complete to the best of my knowledge.

Signature: _____ *Date:* _____

For Division of Fire Safety Use Only:

Course Approved: *Yes* *No*

Reviewed by: _____ *Date:* _____



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IX. Blasting Requirements

Missouri regulations (11CSR40-7.010) set requirements for blasting operations within the state. The effective date of these regulations was July 1, 2008. These regulations state:

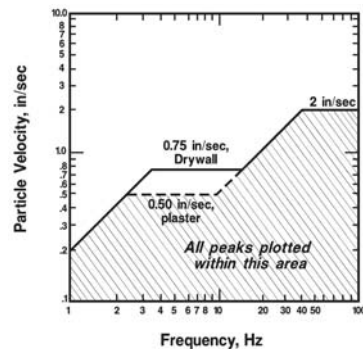
- (9) It shall be the duty of each licensed blaster and each person using explosives to assure that the requirements of this section are met.
- (A) Any person using explosives in the state of Missouri shall calculate the scaled distance to the nearest uncontrolled structure. If more than one (1) uncontrolled structure is the same approximate distance from the blast site, then the person using explosives may select one (1) representative structure for calculation of scaled distance.
- (B) In any instance when the calculated scaled distance value is fifty-five (55) or less, any person using explosives shall use at least one (1) seismograph calibrated to the manufacturer's standard for use to record the ground vibration and acoustic levels that occur from the use of such explosives or explosive materials.
- (C) When measuring ground vibration and acoustic levels, the seismograph shall be placed in the proximity of the nearest uncontrolled structure or, at the option of the person using explosives, closer to the blast site. If more than one (1) uncontrolled structure is the same approximate distance from the blast site, then the person using explosives may select one (1) representative structure for placement of the seismograph.
- (D) Any person using explosives who is voluntarily using a seismograph calibrated to the manufacturer's standard for use for all blasting is exempt from the requirements of this section.
- (E) Seismograph recordings of the ground vibration and acoustic levels created by the use of explosives, when required as above, shall be retained for at least three (3) years. Such recordings shall be made available to the Division within twenty-four (24) hours of a request by any representative of the Division.
- (F) Each seismograph recording and the accompanying records shall include the—
1. Maximum ground vibration and acoustics levels recorded;
 2. Specific location of the seismograph equipment, its distance from the detonation of the explosives, the date of the recording, and the time of the recording;
 3. Name of the individual responsible for operation of the seismograph equipment and performing an analysis of each recording; and
 4. Type of seismograph instrument, its sensitivity and calibration signal, or certification date of the last calibration.
- (G) Any person using explosives in the state of Missouri in which monitoring with a seismograph is required shall limit acoustic values from blasting to one hundred thirty-three decibels (133 dB) using a two hertz (2 Hz) flat response measuring system based on the Office of Surface Mining regulation 30 CFR 816.67(b)(1)(i).



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- (H) Any person using explosives in the state of Missouri in which monitoring with a seismograph is required shall comply with ground vibration limits based on the U.S. Bureau of Mines Report of Investigations 8507, Appendix B:



- (I) In lieu of the ground vibration limit established above, the person using explosives may submit a written request to the Division to use an alternate compliance method. Such written request shall be supported by sufficient technical information, which may include, but not be limited to, documented approval of such method by other federal, state, or local political subdivisions which regulate the use of explosives. Upon submittal by the person using explosives of a request to use an alternate compliance method, the State Blasting Safety Board shall issue a written determination as to whether the technical information submitted provides sufficient justification for the alternate method to be used as a method of demonstrating compliance with the provisions of this section.
- (J) A record of use of explosives shall be made and retained for at least three (3) years.
1. Licensed blasters shall create the record required in this section and provide such record to the person using explosives, who shall be responsible for maintaining records required in this section.
 2. The record shall be completed on a form provided or approved by the Division and completed by the end of the business day following the day in which the explosives were detonated.*
 3. Such records shall be made available to the Division, upon request, within twenty-four (24) hours of the request.
 4. Each record shall include the—
 - A. Name of the person using the explosives;
 - B. Location, date, and time of the detonation;
 - C. Name of the licensed blaster responsible for use of the explosives;
 - D. Type of material blasted;
 - E. Number of bore holes, burden, and spacing;

* *A blasting record is acceptable if it contains all of the information required in these regulations. A copy of an approved blasting record is provided on pages 18-19. Although use of this form is not mandated, this form may be used in lieu of any form without all of the required information.*



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- F. Diameter and depth of bore holes;
 - G. Type of explosives used;
 - H. Weight of explosives used per bore hole and total weight of explosives used;
 - I. Maximum weight of explosives detonated within any eight (8)-millisecond period;
 - J. Maximum number of bore holes or decks detonated within any eight (8)-millisecond period;
 - K. Initiation system, including number of circuits and the timer interval, if a sequential timer is used;
 - L. Type and length of stemming;
 - M. Type of detonator and delay periods used, in milliseconds;
 - N. Sketch of delay pattern, including decking;
 - O. Distance and scaled distance to the nearest uncontrolled structure; and
 - P. Location of the nearest uncontrolled structure, using the best available information.
5. If the type of blasting being recorded by a seismograph does not involve bore holes, then the record required in paragraph (9)(J)4. shall contain the:
- A. Name of the person using the explosives;
 - B. Location, date, and time of the detonation;
 - C. Name of the licensed blaster responsible for use of the explosives;
 - D. Type of material blasted;
 - E. Type of explosives used;
 - F. Weight of explosives used per shot and total weight of explosives used;
 - G. Maximum weight of explosives detonated within any eight (8)-millisecond period;
 - H. Initiation system, including number of circuits and the timer interval, if a sequential timer is used;
 - I. Type of detonator and delay periods used, in milliseconds;
 - J. Sketch of delay pattern;
 - K. Distance and scaled distance, if required under the provisions of section 319.309, RSMo, to the nearest uncontrolled structure; and
 - L. Location of the nearest uncontrolled structure, using the best available information.

MISSOURI DIVISION OF FIRE SAFETY BLASTING REPORT

Project Name:	
Blast Location Address:	
City:	County:
Blasting Company:	
Contact Person:	Phone:
Name of Blaster:	Blaster License No:

Date of Blasting:	Time:	Day:
Shot Type: Quarry: Road Construction: Trench: Construction: Other:		
Material Blasted:		

Burden (feet):	No. of Holes:	Hole Diameter (inches):	Hole Depth (feet):	Spacing (feet):
Stemming Type:			Top Stemming (feet):	

Explosive Weight per hole:		Total Explosive Weight in shot:		
Delay Periods Used (in milliseconds):	Maximum weight denoted per delay:	Maximum holes/decks per delay:		
Initiation System: Electric: Nonelectric:		No. of circuits:	Timer interval (if used):	
Explosive Type Used:				
Explosive Type Used:				
Explosive Type Used:				
Explosive Type Used:				
Explosive Type Used:				

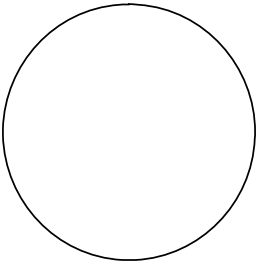
Location of Nearest Uncontrolled Structure:
Direction & Distance to Nearest Uncontrolled Structure:
Calculated Scaled Distance to Nearest Uncontrolled Structure:

MISSOURI DIVISION OF FIRE SAFETY BLASTING REPORT

Time: _____ a.m. p.m. Location: _____ Date: _____

A large rectangular grid consisting of 30 columns and 30 rows of small squares, intended for drawing or recording data.

Typical Borehole



Indicate North