

## TOWN OF CHARLESTOWN

### BLASTING AND/OR EXPLOSIVE DEMOLITION

#### REGULATIONS

##### I. PURPOSE, AUTHORITY, and ADMINISTRATION.

- a. The purpose of these regulations is to assure the preservation and promotion of public health, safety and peace and quiet within the Town of Charlestown and to assure that blasting within the town is conducted in a safe, responsible manner.
- b. These regulations are adopted under the authority of RSA 155-E:11 (for blasting conducted in conjunction with excavations), RSA 154:18 and :19 relative to fire hazards, RSA 147:1, local health regulations, and RSA 158:9-f, II.
- c. The Fire Department, by its fire chief shall administer and conduct appropriate oversight of all blasting, as set forth below, and together with other officials, departments, Planning Board and the Board of Selectmen or their appointed agent, shall enforce the proper use of blasting materials within the Town of Charlestown.

##### II. DEFINITIONS:

**Abutter:** Any person whose property adjoins or is directly across the street or a stream from the location under consideration for blasting. Further, for the purpose of notification, any person who can demonstrate their land/buildings will be adversely affected by the proposal.

**Blast Area:** The area of the blast within the influence of flyrock, gasses and concussion.

**Blaster:** The qualified person in charge of and responsible for loading and firing of a blast.

**Blasting:** The detonation of an explosive device as defined by the National Fire Protection Act (NFPA) 495

**Chief:** The Chief of the Charlestown Fire Department.

**Explosive:** Any chemical compound mixture of device whose primary purpose is to function by explosion.

##### III. PERMIT:

No person shall engage in blasting or detonation of explosive materials within the Town of Charlestown, nor shall any owner of land within the Town permit blasting or detonation of explosives on his or her property, without first obtaining a permit to conduct such operations from the Fire Chief or other designated representative of the Town. Such permits shall be valid for a period of not more than ninety (90) days. Commercial permits will be valid for 90 day increments with renewals at the discretion of the Board of Selectmen. One year from the original date of issuance, a complete new permit is required.

##### IV. FEES:

The fee for a one time or commercial permit is \$150.00. Commercial renewals granted by the Selectmen will require a \$75.00 fee paid at the time the renewal is granted.

**V. APPLICATION FORM:**

A properly executed application form shall be submitted to the Town and approved by the Fire Chief for all blasting permits, prior to commencement of any blasting or detonation. Application shall be made to the Selectmen's office during customary office hours. Approval of a blasting permit shall not relieve the applicant of full and complete responsibility for the results of the blasting operations. Prior to issuing any permits, the Fire Chief may consult with federal, state, or town officials whose area of responsibility may be affected by the proposed blasting operation. After review and verification, the Fire Chief shall approve the application and issue the permit with any and all conditions necessary to achieve the safe and responsible conditions required by the town. Any denials must be provided in writing stating the reasons for such denial.

**VI. MINIMUM STANDARDS:**

Unless more stringent provisions are contained in these regulations, the conduct of all blasting or explosive detonations shall be governed by the standards in the New Hampshire Code of Administrative Rules, Saf-C Section 1600 or as it may be amended or superseded by other regulations at any time. Those state regulations are adopted by reference herein, and may be enforced as part of these Town regulations.

**VII. LOCAL REQUIREMENTS:**

In addition to the State of New Hampshire Code of Administrative Rules Saf-C-1600, the following shall apply:

- A. **General;** All blasting operations, including the storage and handling of explosives and blasting agents, shall be performed in accordance with the NFPA 1 Fire Prevention Code, NFPA 495 Explosive Materials Code, as well as any amended regulations from time to time. All explosive materials shall be of such character and in such amount as permitted by the state and local laws, and all respective agencies having jurisdiction over them.

The Fire Chief or his agent reserves the right to visit and inspect any blasting sites to monitor the operation, and the properly-completed permit application, including signature by the landowner, shall be deemed to constitute consent to such visits and inspections. The Chief may confer with other town departments or private blasting consultants for advice or assistance in the review or monitoring of a blasting site. The Chief may require a work detail to stand by a site for safety reasons or monitoring duties. Any costs associated with a work detail or private consultants will be at the applicant's expense and will be determined during the application process.

- B. **Pre-Blast Condition Survey:** Prior to conducting any blasting, the applicant or their agent shall conduct a pre-blast structural condition survey of all existing structures and conditions on the site, adjacent to the site and within 250 feet of the site. The pre-blast survey shall document the existing visual conditions of the interior and exterior of the structure including improvements to the property and other physical factors that could be reasonably affected by the blasting. Structures such as pipelines, cables, transmission lines, cisterns, wells and other water systems warrant special attention; however the assessment of these structures may be limited to surface conditions and

other readily available data. The applicant as well as the owner of the property being surveyed shall sign all completed surveys. If an owner refuses to allow this survey or refuses to sign a survey form, the applicant shall provide a waiver form designating refusal; to be signed by the owner of the property owner. The applicant shall make at least three (3) attempts to notify the owner of the need for such surveys, the last attempt shall include a written notification certified, return receipt mail.

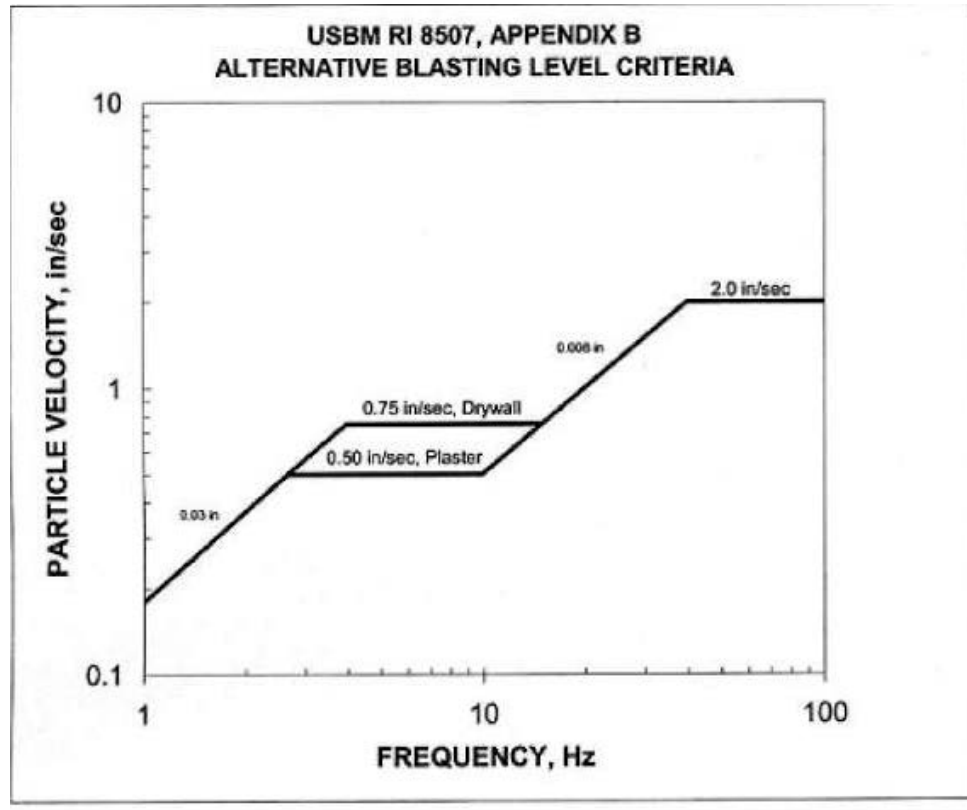
- a. The pre-blast structural inspection condition survey shall consist of an accurate description of the interior and exterior condition of each of the structures examined by means of written notes, sketches, photographic or video narrative. Descriptions shall locate any existing cracks, damage, or other defects, and shall include such information so as to make it possible to determine the effect, if any, of the blast operations on the defect. Where damage is too complicated to describe in words, photographs shall be taken.
  - b. The written survey shall be kept by the fire department for five (5) years.
  - c. The person conducting the survey shall give written notice, not less than 15 days in advance, to the owner or residents of the property. The notice shall state the dates on which surveys are to be made. Copies of all notices shall be provided to the Fire Chief.
  - d. Upon completion of all blasting work, any and all complaints of damage shall require a post-blast survey. Notice shall be given to any affected parties so they may be present during the final examination. Records of the final examination shall be distributed the same as the original pre-blast survey.
  - e. All costs associated with condition surveys shall be borne by the applicant.
- C. **Seismic Measuring Devices:** Prior to conducting any blasting, seismic measuring equipment shall be placed at the closest structures to the blasting site not owned or controlled by the project owner. Additional monitoring devices may be required to address vibration concerns or complaints or other causes. If an owner refuses to allow for or waives the placement of a device at their property, the applicant shall note this on the form.

Blasting seismographs used to monitor ground vibration and air overpressure shall comply with the ISEE "Performance Specifications for Blasting Seismographs".

When used, blasting seismographs shall be deployed in the field according to the ISEE "Field Practice Guidelines for Blasting Seismographs".

The town reserves the right to require geological surveys of the area should conditions warrant; such analysis, particularly with regards to blasting in proximity to public water supplies or sensitive groundwater areas. The applicant shall provide a vicinity map or plan, locating the blast site, and the location of all measuring devices. All costs associated with the analysis and monitoring shall be borne by the applicant.

All blasts shall conform to the safe limits for vibration and airblast using the following graph:



- D. **Timing of Blasting Operations:** Drilling is to take place between the hours of 7:00 am and 7:00 pm and shall not be permitted on Sundays or observed holidays. Blasting and/or detonation shall be conducted only between the hours of 9:00 am and 6:00 pm and shall not be permitted on Saturdays, Sundays or observed holidays.
- E. **Report of Monitoring Results:** The applicant shall provide to the Chief or Chief's agent within twenty-four (24) hours in writing the following items:
- a. Details of the round as shot.
  - b. Results of the blast monitoring at each instrument location, including PPV in millimeters per second (inches per second), as well as a copy of the strip chart recording for each monitoring location, marked with the date, time, location and signature of the seismograph operator.
  - c. If the seismic ground vibration or air concussions surpass the USBM RI 8507 established limits as illustrated in C above, the operations shall cease and the permit is revoked, pending a report explaining the exceedance and a new blasting plan being developed to mitigate the exceedance.
- F. **Warning Signals:** Adequate warnings shall be given to all personnel in the proximity to the blast site at least five (5) minutes in advance of each blast using a predetermined series of audible horn blasts for the immediate blast area. The applicant shall notify the Charlestown Fire Department and Charlestown Police Department and the Charlestown Selectmen's office not less than twenty-four (24) hours before the scheduled time of blast or explosion by phone and email.

When requested by the residents adjacent to the blasting, a call list will be established to notify those residents of the time of the blast one (1) hour prior to the blast. This may be accomplished by telephone or e-mail.

- G. **Fly Rock Control:** Blasting mats or other sufficient protective cover (earth) shall be used when determined necessary by the applicant's blaster-in-charge to prevent the rock and/or debris from being thrown beyond the blast area.
- H. **Responsibility of Blasting Operations:** Review of the applicants blasting submittals by the Town of Charlestown, or any department therein, will not relieve the applicant or the property owner of their responsibility for the accuracy, adequacy, and safety of the blast; for exercising proper supervision and field judgement; for preventing damage to structures; and for producing results in accordance with the State of New Hampshire regulations. The applicant and the property owner shall take whatever measures it deems necessary, in addition to the requirements herein, to protect the safety of persons and property, both at the site and away from the site. The applicant and the property owner shall have full and complete responsibility for the handling, discharging, or setting of any and all damage or annoyance claims resulting from the blasting activities. Any monitoring and/or review of the applicant's procedures and performance shall not relieve the applicant or the property owner of their responsibility for the safety at and away from the site, or for preventing damage to adjacent structures or property.
- I. **Prohibitions:**
  - a. No blasting shall be conducted without a valid permit.
  - b. No blasting shall be conducted after an order to cease blasting has been issued by the permitting authority and communicated to the permit holder.
  - c. The overnight storage of explosives or blasting agents, whether supervised or not, is not allowed. Loaded explosives shall have twenty-four (24) hour supervision and be guarded overnight when conditions or circumstances delayed the blast and the Fire Chief or his agent has approved the overnight delay in blasting.
  - d. No drilling shall take place within fifty (50') feet of any loaded hole.
- J. **Enforcement:** The Fire Chief or appointed agent has the authority to enforce the above regulations against both the applicant (blasting company) and the property owner including revocation of the permit, the issuance of penalties and/or injunctive relief.
- K. **Revocation of Permit:** A permit issued hereunder may be revoked by the fire chief or Board of Selectmen or appointed agent for just cause including but not limited to: failure to conduct operations in accordance with the standards herein resulting in property damage that does or has the potential to exceed the amount of liability insurance held by the applicant; lapse or revocation of the state license, or the institution of proceedings (civil, criminal, or administrative) by the state for violation of applicable state law or regulations. This permit may be restored upon showing the condition leading to the revocation has been corrected.
- L. **Appeal:** Any permit denial, revocation or suspension may be appealed, within ten (10) working days and not thereafter to the Board of Selectmen. Any such appeal shall be in

writing and shall clearly specify the facts and circumstances warranting issue or reinstatement of the permit. The Board of Selectmen shall order such issuance of reinstatement only on the appellant's showing that the denial, revocation or suspension complained of was erroneous. The Board of Selectmen may also order that appropriate conditions be attached to any permit that it finds should be issued or reinstated.

M. **Penalty:** Any person found to have violated these regulations shall be guilty of a violation and shall be punished by a maximum fine as proved by applicable state law, which is currently one thousand dollars (\$1,000). Each violations and/or each day of violation shall be regarded as a separate offence.

N. **Waiver:**

a. The Board of Selectmen, following a hearing for which notice has been given to abutters and the public in the manner set forth in RSA 155-E:7, may for good cause grant a written variance to any of the specific minimum standards contained in these regulations, if they make written findings: (1) that due to special conditions of the particular property, strict enforcement would be unreasonable, (2) that in the particular circumstances, public health, safety, peace and quiet will be adequately protected, and (3) that the variance meets the spirit of these regulations. The Selectmen may condition such a variance on reasonable alternative conditions or standards.

b. The Board of Selectmen, upon recommendation of the Fire Chief or his agent, may waive any of the requirements of a permit under Section III. A member of the Board along with the Fire Chief or his agent, shall inspect the site, and impose such requirements as it may determine are necessary to protect public health, safety, and peace and quiet.

Accepted on \_\_\_\_\_ by:

Selectmen:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fire Chief:

\_\_\_\_\_



OFFICE OF THE SELECTBOARD  
P.O. BOX 385  
CHARLESTOWN, NH 03603

Tel: (603) 826-4400  
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**BLASTING APPLICATION PERMIT**

Date: \_\_\_\_\_

Company Requesting Permit: \_\_\_\_\_

Company Address: \_\_\_\_\_

Company Phone No: \_\_\_\_\_

NH State License # \_\_\_\_\_ Date of Expiration: \_\_\_\_\_

Blasting Supervisor: \_\_\_\_\_ Phone No. \_\_\_\_\_

Supervisor's Address: \_\_\_\_\_

Cert. of Competency: # \_\_\_\_\_ Date of Expiration: \_\_\_\_\_

Location of property where blasting will be done

Property Owner's Name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Owner's Address: \_\_\_\_\_ Tax Map # \_\_\_\_\_

Date(s) of Detonation: \_\_\_\_\_

-The following documents must accompany this application:

1. Copy of applicant's license, issued by State Police pursuant to RSA 158:9-b
2. Map depicting location of blasting, monitors and all properties within 1000' thereof
3. A listing of owners of all properties identified
4. A letter of permission from the property owner
5. Certificate of liability insurance
6. Check for the required fee

By signing this application, the applicant attests that the information contained herein or attached hereto is true and correct to the best of his/her knowledge.

Approval of the blasting permit will not relieve the applicant or the property owner of full and complete responsibility for the results of the blasting operations. The applicant has full responsibility for the accuracy and adequacy of the blasting plan when implemented in the field.

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Property Owners Signature: \_\_\_\_\_

**Town Use Only**

**Permit No.:** \_\_\_\_\_

**Issue Date:** \_\_\_\_\_

**Expiration Date:** \_\_\_\_\_

**Fire Chief's Signature:** \_\_\_\_\_  
\_\_\_\_\_

**RENEWAL**

**Blasters Name:** \_\_\_\_\_

**NH State license:** \_\_\_\_\_

**Date of Expiration:** \_\_\_\_\_

**Date of Renewal:** \_\_\_\_\_

**Date of Expiration:** \_\_\_\_\_



## **RECORD REQUIREMENTS**

- A.** The following record requirements for blasting operations shall be adhered to by all individuals and companies that perform blasting operations in the Town of Charlestown. Any violation shall result in the immediate suspension of the individual's or company's blasting privileges in the Town of Charlestown.
- B.** Each holder of a blaster's permit shall keep a record of explosive material fired or otherwise disposed of for all operations. The records shall be kept for a minimum of five years, and must be made available immediately upon the request of the Fire Chief. These records shall include:
  - a.** A daily log which shall contain:
    - i.** The manufacturer's name
    - ii.** The type, size and identification number of the explosives
  - b.** A record of each blast within 24 hours following detonation, which includes the following:
    - i.** Name and certificate of competency number of the person setting off the blast
    - ii.** The date, time and location of the blast
    - iii.** Total amount of explosives detonated
    - iv.** Amount of explosive in each hole
    - v.** Amount, type and delay time of initiators
    - vi.** Maximum weight of explosive used in each delay period
    - vii.** Diameter of each hole and the distance between the last loaded explosive and the surface of the hole
    - viii.** Distance to the nearest structure, overhead or underground wires, highways, and water supplies
    - ix.** Type of matting or cover used to contain fragments and prevent fly rock
    - x.** Vibration data and the location(s) of the same



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**BLASTING AND EXPLOSIVE LICENSE CHECKLIST**

Applicant Name: \_\_\_\_\_ Company Name: \_\_\_\_\_

The following checklist has been created as a guide to assist the Selectmen, Charlestown Fire Chief and the blaster in the application process for a blasting permit in the Town of Charlestown. The blaster has also been provided with a copy the Town of Charlestown Blasting and/or Explosive Demolition Regulations that outlines the requirements of the Town of Charlestown concerning blasting operations. It is important to note that the blaster has an obligation to read and comply with all provisions as set forth by the Town of Charlestown concerning blasting operations. The blaster must also note that the regulations are intended to supplement the existing federal and state laws and regulations concerning blasting and the use of explosives.

Charlestown Fire Chief to review all items noted below with the applicant and initial in the box to the right of each statement to signify that it has been reviewed with the applicant.

1. Has the applicant provided proof that they possess a current blaster's license?	
2. Does the applicant possess a license from the State of NH to use, purchase and transport explosive materials?	
3. Does the applicant possess a State of NH certificate of competency to conduct blasting operations?	
4. Does the applicant possess a certificate of insurance showing the minimum coverage of \$1,000,000 for bodily injury and \$1,000,000 for property damage? Note: The blasting permit expiration date will be no later than the expiration date of the blaster's insurance certificate.	
5. Did the applicant provide a written permission from the owner of the land on which the explosives will occur? (signed the permit)	
6. All applicants for blasting operations must be received by the Charlestown Selectmen's office at least 10 days prior to the estimated start date of the blasting operations.	
7. Is there a need to have a pre-blast survey completed on every property prior to the start date of blasting operations? Check list of abutters	
8. A copy of licenses to deal in explosive materials and the current blasting permit shall be kept available for inspection at each blasting location.	

<p>9. The holder of the permit to use explosive materials shall make a record of all operations within the Town of Charlestown and retain them for a period of 5 years. Copies of these records shall be supplied to the Charlestown Fire Chief.</p>	
<p>10. All persons holding a blasting permit shall complete a daily blasting report to include the following information and submit copies to the Selectmen’s Office and Charlestown Fire Department:</p> <ul style="list-style-type: none"> <li>a. Date, time and place of each blast</li> <li>b. The amounts of explosive material fired in each blast</li> <li>c. Results of seismographic test shall also be retained for a period of 5 years.</li> </ul>	
<p>11. In the event of any theft or loss of explosive materials, the persons issued the blasting permit shall notify the Charlestown Fire Chief and the Charlestown Police Chief immediately.</p>	
<p>12. When blasting operations are performed, precautions shall be exercised to prevent damage and to minimize earth vibrations, air blast and thrown fragments</p>	
<p>13. Notification of intent to conduct blasting operations shall be published in local weekly newspapers at least twice prior to the start date of the blasting. Notification shall include the area of operations and the name of the company responsible for the blasting operations and the date of the blast.</p>	
<p>14. Persons intending to conduct blasting operations within the Town of Charlestown shall notify the Charlestown Police Department, Charlestown Fire Chief and Charlestown Selectmen’s office 24 hours prior to the start of blasting by phone and email.</p>	
<p>15. What method of notification (signaling) will be used prior to the start of blasting operations?</p>	
<p>16. The persons that have been issued the blasting permit are responsible for any actual and verifiable damage that occurred due to the blasting operations that are conducted in the Town of Charlestown. In resolving any damage complaint received in writing by the Town of Charlestown Fire Department as a result of the Applicant’s blasting operations, the Applicant must respond to the property owner within 30 days of the Applicant’s receipt of such claim from the Fire Department. Failing to do so, the Charlestown Fire Chief may direct the suspension or termination of all blasting operations conducted by the Applicant in the Town of Charlestown.</p>	

Signature of Blasting/Explosive Applicant: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Charlestown Fire Chief: \_\_\_\_\_

Date: \_\_\_\_\_

TOWN OF CHARLESTOWN  
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**Blasting Report**

**Blast Location:** \_\_\_\_\_

**Property Owner:** \_\_\_\_\_

**Blasting Contractor:** \_\_\_\_\_

**Blaster:** \_\_\_\_\_

**Date of Blast:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Total LBS:** \_\_\_\_\_ **# of Holes:** \_\_\_\_\_

**Video Taped:** Yes \_\_\_ No \_\_\_ **Location:** \_\_\_\_\_

**Seismic Reading:** Yes \_\_\_ No \_\_\_ **Location:** \_\_\_\_\_

**Wind Speed:** \_\_\_\_\_

**Direction:** \_\_\_\_\_

**Notes/Problems:**

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**Reported By:** \_\_\_\_\_ **Date:** \_\_\_\_\_