

ARTICLE XXII - BLASTING ORDINANCE

602:1 Applicability

- A. This chapter shall apply to the transportation, storage, possession, manufacture, and use of explosive materials in the Town of Allenstown.
- B. This chapter shall not apply to:
 - (1) Explosive materials while in the course of transportation via railroad, water, highway or air when explosive materials are moving under the jurisdiction of and in conformity with regulations adopted by any federal or state department or agency.
 - (2) The laboratories of schools and similar institutions when confined to the purpose of instruction or research or to explosive materials in the forms prescribed by the official United States Pharmacopoeia or the National Formulary and used in medicines and medicinal agents.
 - (3) The normal and emergency conditions of any government, including all departments, agencies and divisions thereof, provided that they are acting in their official capacity and in the proper performance of their duties or functions.
 - (4) Explosive materials for delivery to any government or any department, agency or division thereof.
 - (5) Pyrotechnics commonly known as "fireworks," including signaling devices such as flares and fuses.
 - (6) Small arms ammunition and components thereof, which are subject to the Gun Control Act of 1968 (Title 18, Chapter 44, of the United States Code) and regulations promulgated there under.
 - (7) Gasoline, fertilizers and propellants used in propellant-activated power devices or tools.

602:2 Definitions

As used in this chapter, the following terms shall have the meanings indicated:

AUTHORIZED -- Approval or authorization by the Fire Chief.

BLAST AREA -- The area of a blast within the influence of flyrock gasses and concussion.

BLASTER -- That qualified person in charge of and responsible for the loading and firing of a blast.

BLASTING AGENT -- An explosive material which meets prescribed criteria for insensitivity to initiation in conformity with Title 27 of the Code of Federal Regulations, Section 55.11 (for storage), and Title 49 of the Code of Federal Regulations (for transportation).

BLAST SITE -- The area where explosive material is handled during loading, including the perimeter of blast holes and for a distance of 50 feet in all directions from loaded holes or holes to be loaded for a given blast.

DETONATING CORD -- A flexible cord containing a center core of high-velocity explosive and used to initiate other explosives.

EXPLOSIVE -- Means any material or container containing a chemical compound or mixture that is commonly used or intended for the purpose of producing an explosion and that contains any oxidizing or combustible materials or other ingredients in such proportions, quantities, or packing that an ignition by fire, friction, concussion, or detonation of any part of the compound or mixture may cause such a sudden generation of highly heated gases that the resultant gaseous pressure is capable of producing destructive effects on contiguous objects. This definition shall not include the components for hand loading rifle, pistol, and shotgun ammunition and or rifle, pistol, and shotgun ammunition. As defined in RSA 158:29, XI, as amended.

FIRE CHIEF -- means the Chief of the Allenstown Fire Department, or his lawful designee

PERSON -- Any individual, corporation, company, association, firm, partnership, trust or other business entity.

602:3 Forms and Procedures

The Fire Chief may issue forms necessary or useful for carrying out the purposes of this chapter. The Fire Chief may also mandate that applicants under this ordinance use forms and procedures referenced, established, or promulgated hereunder.

602:4 Violations & Penalties

- A. The Fire Chief is authorized to prosecute any violations of this ordinance, or he may delegate this authority to another Board or Department.
- B. Any person who violates any provision of this chapter commits a separate violation of this chapter for each provision violated and each day which a violation exists and shall be subject to a fine of not more than \$1000 for each separate violation.

602:5 License Requirement

Safety and security are primary considerations in the manufacture, transportation, storage, sale, possession and use of explosive materials. An appropriate and thorough system of regulation and permitting is designed to promote these considerations by assuring that these products come only into the hands of qualified persons who require them for legitimate use.

- A. The license and permit requirements of this Article shall apply to all persons who manufacture, transport, store, sell, possess, or use explosive materials in Allenstown.

602:6 Manufacture of Explosives

- A. The manufacture, sale, or distribution of explosive materials within the Town of Allenstown shall be limited to those having an appropriate state and/or federal license and who have obtained site plan approval for their business, manufacturing, selling, or distributing explosive material.
- B. The manufacture of explosive materials within the Town of Allenstown shall be prohibited when such manufacture presents a threat to public safety, health, the environment, or damage to real or personal property.
- .C. Explosive materials shall not be sold, given, delivered or transferred to any person not in possession of a valid license or permit.

602:7 Blaster's License Required

- A. No person may load or fire explosive materials unless such person or his supervisor is a licensed blaster and holds a certificate of competency in conformance with RSA 158:9-b and RSA 158:9-h..
- B. Proof of said license shall be provided to the Fire Chief.

602:8 Permit Required

- A. No person shall use explosive materials within the Town of Allenstown without first obtaining the proper permit which authorizes them to use such materials.
- B. The authorized agent or person conducting an operation or activity requiring the use of explosive materials shall obtain a permit to use explosive materials and shall be responsible for the results and any other consequences of any loading and firing of explosive material and shall permit the loading and firing to be performed or supervised only by a licensed blaster.

602:9 Permit applications; fees; pre-blasting conference; renewal

- A. Application for a permit or its renewal shall be made to the Fire Chief on forms provided by the Fire Department and shall contain such information as may be required.
- B. Applications submitted shall have attached originals or copies of the following:
 - (1) State of New Hampshire license to use, purchase and transport explosive materials
 - (2) Certificate of insurance, along with a complete copy of the policy itself, showing minimum coverage of \$5,000,000 combined bodily injury and property damage by a carrier authorized by the State of New Hampshire Insurance Department to do business in New Hampshire. The insurance certificate shall state that the insurance company is authorized to do business in the State of New Hampshire.
 - (3) The blaster's license, including a certificate of competency of the person in charge of or supervising the use of explosives.
 - (4) Written permission from the owner of the land on which the use of explosives will occur for the Fire Chief to inspect the land from the date of the permit application until 20 days after the expiration of the permit.
 - (5) A written procedure for handling complaints and claims about property damage or physical injury, including a contact person, address, and telephone number.
- C. Applications must be received by the Fire Chief at least 10 and not more than 30 business days prior to the estimated start date of blasting operations.
- D. A fee shall be assessed for each application and permit. Checks shall be made payable to the Town of Allenstown and must be received by the Town Hall upon submission of the application and prior to permit approval and issuance. Application and permit fee rates shall be established annually by the Board of Selectmen.
- E. Preblasting conferences may be scheduled by the Fire Chief prior to approval of permit application. Conference attendees shall be determined by the Fire Chief

and may include but not be limited to representatives of the blaster, other town officials and/or citizens likely to be affected by blasting operations.

- F. If an application for renewal is filed with the issuing authority before expiration of the original permit, the renewal will become effective when the original permit expires.
- G. If an application for renewal is filed after the expiration of the original permit, it shall be considered as a renewal application for a permit if filed within 10 business days of the original permit expiration date. Otherwise, it shall be considered a new permit application.
- H. A permit may only be renewed once before an original permit application must be submitted.

602:10 Permit restrictions

- A. No permit shall be assigned or transferred except with the express advance written consent of the Fire Chief.
- B. Approved permits shall be dated and be valid for no more than eight (8) days from date of issue.
- C. The permit expiration date shall be no later than the expiration date of the blaster's insurance certificate.
- D. The permit shall bear the name and address of the person who applied for the permit, the name and address of the person(s) with a blaster's license who will supervise the use of explosives and the signature of the Fire Chief.

602:11 Denial, Revocation or Suspension of Permit

- A. A permit for use of explosive materials may be denied, revoked or suspended for any of the following reasons:
 - (1) Noncompliance with any order of the issuing authority.
 - (2) If it is determined that any applicant or permit holder was or is under the influence of any drug (prescription or nonprescription) or alcohol that may have impaired their judgment or ability to transport, store, possess or use any explosive material while in the Town of Allenstown in a safe and prudent manner, while operating under such permit, their permit to operate in the Town shall be suspended immediately.
 - (3) Violation by the applicant or permit holder of any provision of any law or regulation relating to explosive materials or proof that false information was willfully given or a misrepresentation was willfully made to obtain the permit.
 - (4) Determination by the issuing authority that blasting operations pose a hazard to the health or property of any person or have or will cause a public nuisance..
 - (5) For other good cause.

- (6) The blaster's insurance has expired or has been cancelled by the insurance company for any reason.
- B. Notification:
 - (1) In any case where the Fire Chief determines that it may be appropriate to deny a permit, he shall promptly notify the applicant. Said notice will set forth specific basis for the denial and state that the applicant shall have 10 days to respond or submit additional information. Following said response, the Chief or his designee will make a final determination as to whether to grant or deny the applicant a permit.
 - (2) In any case where the Fire Chief determines that it may be appropriate to revoke a permit from a current permit holder, he shall promptly notify the applicant that the applicant's current permit is temporarily suspended pending further review. Said notice will set forth specific basis for the suspension and anticipated revocation and state that the permit holder has 10 days to respond to the reasons for suspending the permit. Following said response, the Chief will make a final determination as to whether to revoke the permit.
- C. Within 15 days after written response, the Fire Chief shall make a final determination, in writing, and transmit a copy to the applicant or permit holder.
- D. Upon notice of the revocation or suspension of any permit, the former permit holder shall immediately surrender to the issuing authority the permit and all copies thereof.

602:12 License and permits available for public inspection; protection of permits

- A. Licenses (or copies thereof) to deal in explosive materials shall be visibly posted for inspection at each place of operation.
- B. A permit to blast (or copies thereof) shall be kept visibly posted at each place of operation.
- C. Permit holders shall take reasonable precautions to protect their permits from loss, theft, destruction or unauthorized duplication, and any such occurrence shall be reported immediately to the Fire Chief.

602:13 Record keeping and reporting

- A. All persons holding a blaster's permit shall make daily records for each blast that at a minimum contains the information required by the current version of the Allenstown Fire Department's Records Requirements for Blasting. If the Allenstown Fire Department has not promulgated any records or requirements for blasting, the permit holder shall, at a minimum, submit the information required by the New Hampshire Department of Transportation. These records shall be remitted to the Allenstown Fire Department within three (3) business days. These records shall be retained for five years.
- B. The Fire Chief shall be notified promptly by any permit holder of a change in business address or phone number and home address, if applicable.
- C. The theft or loss of explosive materials shall be reported immediately to the Fire Chief and to the Allenstown Police Department.
- D. Records made and kept pursuant to regulations promulgated by any federal or state agency need not be duplicated to satisfy the requirements of this section unless requested by the Fire Chief.

602:14 General regulations

- A. In addition to this ordinance, the conduct of all blasting operations shall be governed by the Department of Safety, Chapter Saf-C 1600, Explosives, the Department of Transportation, 2006 Standard Specifications, and the Department of Environmental Services, Guidance on “Blasting on Water Supply Wells Constructed in Crystalline Bedrock and Measures That Can Be Implemented To Prevent or Mitigate These Impacts”.
- A. In the case of conflicting rules or regulations, the most stringent rule or regulation shall apply.
- B. While explosive materials are being handled or used, smoking shall not be permitted, and no one near the explosive material shall possess matches, open flame or fire- or flame- producing devices, except that the blaster may possess a device for the specific purpose of igniting the safety fuse.
- C. No one shall handle explosive materials while under the influence of alcohol, narcotics or other substances that may impair one's judgment or physical ability.
- E. For all blasts, the blaster shall exercise precautions to prevent injury to persons and damage to property and to prevent earth vibrations and atmospheric sounds from exceeding regulatory limits.
- F. When conducting blasting operations, the holder of the permit shall use reasonable precautions, including but not limited to warning signals, flags, barricades or mats as may be required or appropriate to maximize safety.
- G. Blasting operations shall be conducted during the hours of 8 am to 5 pm Monday through Friday only, unless expressly authorized in advance in writing by the Fire Chief.
- H. No explosive materials shall be intentionally abandoned in any location for any reason, nor left in such a manner that they may easily be obtained by members of the public or other unauthorized persons. All unused explosive materials shall be returned to proper storage facilities.
- I. Explosive materials shall be loaded and used in a manner that is consistent with any recommendations or instructions of the manufacturer for that explosive material.

602:15 Notification

- A. Notification of intent to conduct blasting operations shall be published in a local daily newspaper on at least three consecutive days prior to the start of blasting.

Said notification shall also be published in the local weekly newspaper at least once prior to the start date of blasting. Notification shall include the area of operations and the name of the company responsible for operations. Notification of intent to blast can be waived by the Fire Chief upon application, in writing, and for good cause shown.

- B.** Persons intending to conduct blasting operations within the Town of Allenstown pursuant to a permit issued under this ordinance shall submit written notification of such intent to the Fire Chief. Notification of the blast shall be made not less than 24 hours prior to the estimated start date of blasting and shall be submitted on forms provided by the Fire Department.
- C.** The blaster shall notify the Allenstown Fire Department no less than 30 minutes prior to each blast. The blaster shall provide:

 - (1) The name of the company conducting the blasting;
 - (2) The address of the blasting;
 - (3) The time of the blasting; and
 - (4) The amount of explosive material to be used

602:16 Pre-blast surveys

- A.** Prior to conducting any blasting operations, the applicant or their agent shall conduct a preblast structural inspection condition survey of all existing structures and conditions on the site, adjacent to the site or in the vicinity of the site at no cost to the property owner or the Town of Allenstown. This survey shall extend to such structures or conditions as may be affected by the applicant's blasting operations. As a minimum, preblast structural inspection condition surveys shall be performed on all structures, including homes, foundations, driveways, roadbeds, swimming pools, wells and mobile homes within 500 feet of the anticipated blasting area. The applicant as well as the owner of the property being surveyed shall sign all such surveys once completed. If an owner refuses to allow for or sign a preblast survey form for whatever reason the applicant shall note this on the form. The applicant shall make at least three attempts to notify the owner of the need for such surveys; the last such attempt shall include written notification and the name and contact number of a person that they may contact who will conduct a pre-blast survey upon request.
- A.** The preblast structural inspection condition survey shall consist of a written description of the interior and exterior condition of each of the structures examined. 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 blasting operations on the structure. Where significant cracks or damage exist, or for defects too complicated to describe in words, photographs shall be taken. A good quality videotape survey with appropriate audio description of locations, conditions and defects can be used in lieu of a written

form. Prior to the start of work, a copy of the preblast condition survey shall be submitted to the homeowner or occupant, along with a procedure for handling complaints of property damage or physical injury, including a contact person with address and telephone number.

- B. The individual person conducting the survey shall give written notice to the owner of the property concerned and tenants of the property. The notice shall state the dates on which the surveys are to be conducted. Copies of all notices shall also be provided to the Fire Chief.
- C. Following completion of blasting operations, but in no event later than fifteen (15) days after the expiration of the blasting operation, the permit holder shall offer every homeowner who permitted a pre-blast structural inspection condition survey of their property to have a post-blast structural inspection condition survey performed.

602:17 Blasting Operations

- A. During the time that holes are loaded or are being loaded with explosives, blasting agents or detonators, the blast site shall be barred to all but those authorized personnel engaged in the drilling and loading operations or otherwise authorized to enter that site. The blast site shall be guarded or barricaded and posted.
- A. After loading for a blast is completed, and before firing, all excess explosive materials shall be removed from the area and returned to proper storage.
- B. As soon as practical after all blast holes are connected, prior to connecting to a source of initiation, such as a blasting machine, and until the shot has been fired and subjected to post-blast examination, the blast area shall be guarded or barricaded and posted or flagged against unauthorized entry.

602:18 Warning Required

- A. No blast shall be fired until the blaster in charge has made certain that all surplus explosive materials are properly stored, all persons and equipment are at a safe distance or under sufficient cover and that an adequate warning signal has been given.
- B. The blaster shall inform the Fire Chief or his designee of the method by which a signal is sounded and the type of signal prior to starting blasting operations

602:19 Supervision or Operations

- A. Loading and firing shall be performed or supervised only by a person possessing an appropriate blaster's permit.
- B. The Fire Chief may, at his discretion, monitor at or near the blast site any blasting operations conducted within the Town of Allentown.

- C. If, after making the required thirty-minute prior notification, the blaster is informed that the blast will be monitored, the blaster shall delay initiation of the shot until such time as the Fire Department representative is in position to monitor the blast.

602:20 Seismographic monitoring.

- A. The blaster shall locate at least three (3) seismographic monitoring points for each blast, at least one (1) of which shall be along the property line of the nearest property line with an inhabited residential structure.
- B. The Fire Chief may require that seismographic monitoring be conducted at additional points and locations by the blaster for any or all blasts initiated.
- C. The location of seismographic equipment for tests may be determined by the Fire Chief in coordination with the blaster.
- D. The seismographic instrumentation shall, at a minimum, meet the specifications as outlined in section 602:22. The original seismographic strip chart, digital seismographic data and calibration data be provided no later than one (1) business day after the blast is performed.

602:21 Damage Complaints

- A. Complaints received by the Fire Department which allege damage to property as a result of blasting operations shall be provided the complaint procedure submitted by the permit holder.
- B. The Fire Chief may elect to inspect the alleged damage and shall be authorized to document and/or photograph such evidence as he deems appropriate in his sole discretion.
- D. Repeated or excessive numbers of complaints of physical injury or property damage with respect to a specific blasting operation may result in an action by the Fire Chief to reduce these complaints. Such action may include, but not be limited to, requiring the applicant to provide alternative blasting plans, hiring a blasting consultant for the Town at the applicant's expense to determine ways of mitigating the complaints, suspending blasting operations until a satisfactory solution is developed or such other reasonable means of addressing the situation.

602:22 Seismographic Instrumentation Minimum Specifications

The seismographic instrumentation shall, at a minimum, meet the following specifications:

- A. Capability to measure, display and record digitally three mutually perpendicular components of particle velocity.

- (1) Frequency response of 3 to 150 Hz
 - (2) 12-bit A/D converter.
 - (3) Trigger levels from .02 to .25 ips
 - (4) Particle velocity range of 0.00 to 9.00 ips.
 - (5) Digital storage capacity for 100 events.
 - (6) Analysis capabilities for OSM alternative criteria
 - (7) Printing of the records on a permanent strip chart
- B. The seismograph shall have been calibrated within 12 months of any blast monitored by it, and such calibration shall have been performed with standards traceable to NIST.
- C. The maximum peak particle velocity (PPV) of ground vibration, in any of the three (3) mutually perpendicular components of particle velocity, for above ground structures, shall not exceed the following above ground limits:

Ground Vibration Limits
Maximum PPV, in/s (mm/s)

<u>Type of Structure</u>	<u>Frequency Below 40/42</u>	<u>Frequency 40/42 or Greater</u>
Residential with primarily sheetrock, drywall interior	.75 (19)	2.0 (50)
Residential with primarily plaster on wood, lath.	.50 (13)	2.0 (50)
Non-residential structure	.75 (19)	2.0 (50)
Utilities underground	.75 (19)	2.0 (50)

- D. Deteriorated structures or utilities, structures housing computers or other sensitive equipment, and manufacturing processes that are sensitive to vibrations may require lower PPV limits than stated above. If such structures are identified in the pre-blast survey, the applicant shall notify the Fire Chief and take appropriate steps to accommodate these structures in their blast plan, and shall amend their application, if necessary, to reflect these circumstances.

- E. No blasting shall occur within twenty (20) feet of concrete, which is less than fifteen (15) days old.

602:23 Records Requirement for Blasting

- A. The following Records Requirements for Blasting Operations shall be adhered to by all individuals and companies that perform blasting operations or other operations utilizing explosives in the Town of Allenstown. All blasting records required in this section shall be sent to the Allenstown Fire Department, Ferry Street, Allenstown, NH 03275 within one (1) business day after the initial blast has occurred. Any violation shall result in the immediate suspension of the individual's or company's blasting permit in the Town of Allenstown.
- B. At a minimum, the permit holder shall keep a record of each blast completed prior to or immediately following detonation that includes the following:
 - (1) Name and certificate of competency number of the person setting off the blast
 - (2) The date, time and location of the blast
 - (3) Total amount of explosive detonated
 - (4) Amount of explosive in each hole
 - (5) Amount, type and delay time of initiators
 - (6) Maximum weight of explosive used in each delay period
 - (7) Diameter of each hole and the distance between the last loaded explosive and the surface of the hole
 - (8) Distance between the closest explosive and nearest structure
 - (9) Type of matting or cover used to contain fragments and to prevent particles from being discharged in the direction of workers, the general public, and abutting properties.
 - (10) The readings and printouts of vibration recording instruments prior to, during, and following the blast.
- C. Written description or diagram showing the following:
 - (1) Location and spacing of loaded holes
 - (2) Location and amount of each delay period
- D. Location of blast site and distance to the following:
 - (1) The nearest structures
 - (2) Overhead wires
 - (3) Underground pipes, wires, or other utilities.

- (4) Public ways which are within 500 feet or which are close enough to be affected by ground vibration or air blast, whichever is greater.
 - (5) Location of and the distance from the blast site to the vibration recording instruments
- E. Each holder of a blaster's permit shall keep a record of explosive material fired or otherwise disposed of for all operations in the Town of Allentown. The records shall be kept for a minimum of five years, and they shall be made available immediately upon the request of the Fire Chief. These records shall include:
 - (1) A daily log, which shall contain:
 - (2) The manufacturer's name
 - (3) The type, size and identification number of the explosives
- F. Such other or additional information which the Fire Chief reasonably requests.
- G. The Fire Chief may adopt forms for the provision of this information, and he may mandate their exclusive use by permit holders.

