

WE ARE YOUR DOL



Explosives Laws

Part 39 of Title 12 of the Official Compilation of Codes,
Rules and Regulations of the State of New York.

(Cited as 12 NYCRR 39)

Possession, Handling, Storage and Transportation of Explosives

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39.1 Application.

(a) This Part (rule) shall apply throughout the State of New York to any person who manufactures, deals in, sells, gives or disposes, purchases, owns, possesses, stores, transports or uses explosives except within the territorial boundaries of cities having more than 1,000,000 inhabitants. This Part (rule) shall not supersede but shall apply in conjunction with other Industrial Code Parts (rules) regulating particular industries, trades, occupations or processes which require the use of explosives.

(b) This Part (rule) shall not apply to the following:

(1) The armed forces of the United States, the National Guard, the State Guard or to duly constituted police and firefighting forces of the State and its civil and political subdivisions.

(2) Explosives being transported in compliance with Federal law or regulations.

(3) The authorized use (public display) of pyrotechnics, commonly known as fireworks, including but not limited to ground displays, aerial displays, aerial bombs and other signaling devices such as flares.

(4) Explosives known as pest control devices which contain 20 grains or less of explosive materials and which are used in agricultural operations for crop protection.

(c) Manufacturers of pyrotechnics as defined by this Part (rule) shall continue to be subject to the provisions of Industrial Code Part (rule) 37, relating to Manufacturing, Handling and Storage of Military Pyrotechnics, in addition to the requirements of this Part (rule).

(d) Explosives shall not be detonated in violation of the requirements of subdivisions 1 and 2 of section 322-a of the General Business Law of New York State relating to operations carried out in the vicinity of public utility facilities.

39.2 Definitions.

As used in this Part (rule) the following terms mean:

(a) Acceptable. Satisfactory to the commissioner as complying with the provisions of this Part (rule).

(b) Approved. In respect to a device or material; in compliance with a subsisting resolution of approval adopted by the board; in respect to action by the board; made the subject of a resolution of approval.

(c) Blaster. A designated person in charge of blasting operations who is at least 21 years of age; who has training, knowledge and experience in the transportation, storage, handling, use and destruction of explosives; who is in adequate physical condition to perform the work of blasting; who is not addicted to the use of narcotics, intoxicants or

similar types of drugs; and who is able to understand and give written and verbal orders in the English language.

(d) Blasting agent. Any material or mixture consisting of a fuel and an oxidizer intended for blasting, in which none of the ingredients are classified as an explosive, and which, when mixed for use or shipment, cannot be detonated by a number eight test blasting cap while unconfined. A number eight test blasting cap is one containing two grams of a mixture of 80 percent mercury fulminate and 20 percent potassium chlorate, or any blasting cap of equivalent strength.

(e) Board. The Board of Standards and Appeals of the State of New York.

(f) Certificate of competence. A document issued to a blaster by the commissioner in accordance with the provisions of this Part (rule).

(g) Commissioner. The Industrial Commissioner of the State of New York.

(h) Department. The Department of Labor of the State of New York.

(i) Designated person. A person selected and directed by an employer or by the employer's authorized agent to perform a specific task or duty.

(j) Detonators. Fuse blasting caps, instantaneous and delay electric blasting caps, detonator cord, nonelectric blasting devices and detonating cord connectors.

(k) Explosives. The term explosives is defined in subdivision 1 of section 451 of the Labor Law, but shall not be deemed to include any of the following:

- (1) Matches that will not ignite spontaneously when subjected for eight consecutive hours to a temperature of 200 degrees Fahrenheit in a properly conducted laboratory test.
- (2) Firecrackers, the explosive content of which does not exceed 12 grains each in weight when packed in strong, tight, sparkproof, wooden barrels or wooden or fibreboard boxes.
- (3) Fixed ammunition for small arms, such as is used in pistols, revolvers and rifles, which do not exceed 0.50 inches caliber, in shotguns and similar firearms or in machine guns with nonexplosive bullets, when packed in pasteboard or other similar inside boxes in strong wooden or fibreboard outside boxes or metal containers.
- (4) Primers for small arms when packed in cellular inside packages with partitions separating the layers and columns of the primers in strong, tight outside wooden boxes.
- (5) Safety fuse, consisting of a core of black powder overspun with yarns, tapes and/or waterproofing compound, and packed in outside fibreboard boxes, wooden boxes, wooden barrels, bales or metal containers.

(6) Any of the above when in their completed form and temporarily loosely stored in vented containers at the place of their manufacture prior to packaging or after removal from their original containers or packages prior to lawful use.

(l) High explosives. Explosive materials which can be caused to detonate by means of a blasting cap when unconfined as, for example, dynamite.

(m) License. A document issued by the commissioner in accordance with the provisions of section 458 of the Labor Law and of this Part (rule).

(n) Low explosives. Explosive materials which can be caused to deflagrate when confined as, for example, black powder.

(o) Permanent magazine. A nontransportable magazine used for permanent storage of explosives.

(p) Portable magazine. A transportable magazine used for temporary storage of needed explosives at a job site.

(q) Pyrotechnics. Any combustible or explosive compositions of manufactured articles designed and prepared for the purpose of producing audible or visible effects which are commonly referred to as fireworks, including signaling devices such as flares, fuses and torpedoes.

(r) Sporting use of black powder. The use of black powder in competitive shooting matches, individual target shooting practice and in hunting.

(s) Storage magazine. Facilities for the storage of explosives of which there shall be five types as follows:

(1) Type 1. Permanent facilities for the storage of high explosives. Other classes of explosives may also be stored therein.

(2) Type 2. Portable indoor or outdoor facilities for the storage of high explosives. Other classes of explosives may also be stored therein.

(3) Type 3. Portable outdoor facilities for the temporary storage of high explosives while attended.

(4) Type 4. Facilities for the storage of low explosives. Blasting agents may also be stored therein.

(5) Type 5. Facilities for the storage of blasting agents.

39.3 Responsibility to observe rules and regulations.

(a) General. Every person shall comply with all laws, rules and regulations affecting his conduct whenever he is in an area where explosives are possessed, handled, stored, used or transported. No employer who holds a valid license in accordance with the provisions of subdivision 1 of section 458 of the Labor Law shall permit any but designated, competent employees to possess or transport explosives under such license. No employees shall be designated or permitted to use or handle such explosives in blasting operations within the scope of their duties on behalf of the licensed employer unless such work is performed under the supervision of a certified blaster. Such supervision by a blaster shall not be required for any person using a jet tapper, a jet perforator or similar device utilizing not more than three ounces of explosives in manufacturing or drilling operations.

(b) Responsibility of employer. Where explosives are manufactured, stored, transported, handled or used, the employer shall use every precaution to provide for the safety of all persons and it shall be the duty of such employer to carry out the provisions of article 16 of the Labor Law and of this Part (rule) by providing the required safety devices, types of construction, materials, methods and procedures.

(c) Responsibility of employees. Every employee who handles, purchases, owns, possesses, transports or uses explosives shall comply with all pertinent provisions of article 16 of the Labor Law and of this Part (rule) which concern or affect his conduct and shall use all safety devices provided for his use and comply with all required methods and procedures.

39.4 Licenses required.

No person shall manufacture explosives for, nor sell, give or dispose of explosives to, any other person unless such other person possesses a valid license issued pursuant to section 458 of the Labor Law to purchase, own, possess, transport or use explosives and such other person displays such license for recording purposes.

39.5 [Repealed and reserved for future use]

39.6 General provisions for the storage and handling of explosives.

(a) Explosive material storage.

(1) All explosive materials shall be kept in storage facilities which comply with the provisions of this Part (rule) unless such explosive materials are:

(i) in the process of manufacture;

(ii) being physically handled in the operating process of a licensee or employer;

(iii) being used in blasting operations; or

(iv) being transported to a place of storage or use by a licensee, a certified blaster or other designated person who has lawfully acquired such explosive materials.

(2) Except as otherwise provided by this Part (rule), no indoor facility for the storage of explosives shall be located in a residence or dwelling.

(b) Magazine locking. All magazines and all enclosures used for the storage of explosives shall be kept locked at all times except when opened by the employer, his authorized agent, the certified blaster or other designated person under the supervision of the blaster for the purpose of placing explosives therein, removing explosives therefrom, inspection or inventory of the contents of such magazines or enclosures. Locking systems installed in magazines shall comply with the requirements of this Part (rule).

(c) Access to explosives. No person unless duly authorized by the owner of the explosives or a certified blaster shall have access to or enter any magazine or explosives storage enclosure. Detonators or other explosives when removed from magazines shall not be left unguarded where children or other unauthorized persons may have access to them.

(d) Magazine inventory and inspection.

(1) Inventory.

(i) A running inventory of each magazine containing explosives shall be made at the end of each day during which blasting operations are conducted or whenever the magazine is opened for any purpose.

Exception:

Such daily inventory is not required for any magazine opened only for the purpose of an inspection by the commissioner.

(ii) Such inventory records shall list the total amount and kinds of explosives in each magazine and shall contain entries for each deposit and withdrawal of explosives.

(iii) Such inventory records shall be kept in duplicate with one copy located in the magazine and the other located in the office of the employer available for examination by the commissioner.

(iv) If any such daily inventory discloses missing explosives and such discrepancy has been verified by a physical inventory of the magazine performed by the employer, the New York State Police shall be notified

immediately. The commissioner shall be notified in writing of such discrepancy within 24 hours.

(2) Security inspection. Each magazine containing explosives shall be inspected at intervals not greater than three days. Such inspection shall include the magazine exterior and interior with special attention to door and locking mechanisms. Any evidence of unauthorized entry or attempted unauthorized entry or missing explosives shall be reported immediately to the New York State Police and written notification shall be forwarded to the commissioner within 24 hours.

(e) Smoking and open flames. No person shall smoke or carry open flames, lighted objects or other spark-producing devices in or within 50 feet of any magazine containing explosives nor within 50 feet of any other explosives. This subdivision shall not be construed to prohibit the lighting of fuses for the purpose of blasting.

(f) Marking explosives.

(1) Explosive containers. No person shall own, possess, store, sell or use, or authorize or permit the use of explosives unless the original package, case or container is clearly marked so as to designate the kind and grade, the manufacturer and the location, date and shift of manufacture of such explosives. The date of manufacture and shift of manufacture may be in code, provided that the key to such code shall be filed with the commissioner. All cases containing explosives for underground use shall be clearly marked with the fume classification of its contents. No explosives, other than those in fume classes 1, 2 or 3 shall be used in confined spaces.

Exception:

Broken lots of explosives may be sold if details required by this Part (rule) are noted on the bills of sale.

(2) Individual explosives.

Each individual stick, cartridge, bag or other package of dynamite, booster, blasting agent or water gel; each cannister or keg of black or smokeless powder; and the smallest cartons or boxes of detonators, detonating cord or fuse; manufactured after April 1, 1972 and delivered into New York State for use or resale, shall be marked with the identity of the manufacturer and the location, date and shift of manufacture. Such markings shall be in the English language and shall be legible. Such markings may be in code, providing the key to such code is filed with the commissioner.

(g) Bills of sale required. Every person who sells any explosives shall provide every purchaser with a bill of sale for each such transaction. Every such bill of sale shall contain the purchaser's license number and any other information that the commissioner may require.

(h) Detonator requirements. No detonator shall be sold or used unless its initiating power, as measured in the TNT-iron oxide insensitive powder test, appended hereto [see Appendix A-11, infra] and made part hereof, is at least equal to a detonator containing one gram of a mixture of 80 percent mercury fulminate and 20 percent potassium chlorate.

(i) Destroying explosives. Explosives which have deteriorated, have been damaged so as to be unfit for use or are unwanted shall be destroyed in a safe manner only by a certified blaster, a person duly licensed pursuant to section 458 of the Labor Law or by the commissioner. This provision shall not prohibit reprocessing of explosives by the manufacturer thereof.

(j) Magazines for detonators. Detonators shall be stored in separate magazines and no other explosives, materials or tools except safety fuse, wooden wedges and wooden or fibre mallets may be stored in such magazines.

(k) Magazines for all other explosives. All explosives, other than detonators, shall be stored in separate magazines devoted exclusively to such explosives in accordance with the provisions of this Part (rule).

(l) Storage of blasting equipment. All tamping poles and other tools, as well as electrical and mechanical equipment used in connection with blasting, shall be separately stored in a compartment or enclosure devoted exclusively to such purpose at all times except when in use.

Exception:

Wooden wedges and wooden and fibre mallets stored in detonator magazines.

(m) Smokeless powder.

(1) Storage by individuals.

Smokeless powder for the reloading of shells by sportsmen for use in sporting rifles, shotguns, pistols or revolvers in an amount not in excess of 15 pounds and in the original containers may be kept in a building or other structure without storing such powder in a magazine.

(2) Storage by mercantile establishments.

Not more than 100 pounds of smokeless powder in original containers shall be stored in a mercantile establishment. The storage of smokeless powder in any mercantile establishment having a gross floor area in excess of 10,000 square feet is prohibited. The storage of smokeless powder in mercantile establishments shall be subject to the following conditions:

(i) Not more than two 50-pound capacity wooden storage boxes containing smokeless powder shall be located within such an establishment and such boxes shall be placed not more than five feet apart. Each such storage box

shall be located on the floor nearest the ground level and within 10 feet of an outside exit.

(ii) Such smokeless powder storage boxes shall be constructed of lumber having a thickness of at least one inch and shall be provided with hinged covers. Such storage boxes shall be painted with red, bright orange or aluminum paint. The words "EXPLOSIVES— SMOKELESS POWDER" shall be plainly lettered on a surface of each such box which is clearly visible to any person approaching the box. Such lettering shall be in contrasting colors and shall be not less than two inches in height. Each such box shall be provided with adequate handles to facilitate rapid removal from the establishment and each box shall be of such size as to be readily passable through the existing exits.

(iii) Individual factory-sealed containers of smokeless powder which are stored in such boxes shall have a maximum weight of 10 pounds.

(iv) Each such storage box shall be so specifically located as to be readily accessible for rapid removal from the premises. Such specific locations shall be on file with both the police and firefighting authorities of the locality in which the establishment is situated.

(v) Each such storage box shall be kept locked except when deposits or withdrawals of smokeless powder containers are being made.

(vi) The owner shall obtain a certificate for each magazine where smokeless powder is stored as required by section 453 of the Labor Law.

(n) Protection of magazines. All magazines shall be so located or so protected as to prevent accidental impact from vehicles or falling objects.

(o) Storage of explosives by governmental agencies. Civil agencies of the United States, New York State and its political and civil subdivisions, except the police and fire departments thereof, whose employees in the course of their duties are required to purchase or possess explosives, shall store such explosives in accordance with the requirements of the Labor Law and of this Part (rule).

(p) Return of explosives to magazines. Every person who holds a valid license issued by the commissioner pursuant to section 458 of the Labor Law and every certified blaster controlling the handling and use of explosives shall be responsible for the return of all unused explosives or ingredients thereof to the magazines and shall prevent any explosives or ingredients thereof from being taken to any place not necessary to their use.

(q) Containers for explosives. No person shall possess, store or cause to be stored explosives unless such explosives are completely enclosed or encased in tight metal, wooden, plastic or fibreboard containers. Such containers shall be piled top side up so as to eliminate the danger of falling. Containers of liquid nitroglycerin shall be vented as required by subdivision (t) of this section. No person shall permit any explosives or any

grains or particles thereof to remain on the outside of or about any container. Corresponding grades and brands of explosives shall be stored together in such manner that the brands and grade marks are easily visible for inspection and inventory purposes. When any kind of explosive is removed from a magazine for use, the oldest explosive of that particular kind shall be removed first.

(r) Opening packages or containers of explosives. No person shall open packages or containers of explosives at any time within 50 feet of any magazine. In opening packages or containers of explosives, no tools except wooden wedges and either wooden, fibre or rubber mallets shall be used.

(s) Containers for storage of liquid nitroglycerin. Loaded containers of liquid nitroglycerin may be placed on shelves not more than 54 inches above the floor. Such containers shall not be stored more than one tier high.

(t) Venting containers of liquid nitroglycerin. The closure of any liquid nitroglycerin container stored in a magazine shall be loosened to permit venting. Such closure shall be securely tightened before the container is removed from the magazine.

(u) Inspection of liquid nitroglycerin containers. In addition to the inspections of explosives magazines required by this Part (rule), all liquid nitroglycerin containers shall be inspected at least once each week for leakage, rust or warp. Upon discovery of any such defect, the container shall be destroyed.

39.7 [Repealed and reserved for future use]

39.8 Construction and maintenance of magazines.

(a) General.

(1) Smokeless and black powder. Magazines for the storage of explosives shall be constructed and maintained in accordance with the provisions of this section except for the prescribed limited quantities of smokeless powder and black powder which shall be stored in accordance with the special provisions of sections 39.6 and 39.12 of this Part (rule).

(2) Lighting of magazines. Artificial lighting of the area surrounding a magazine shall be by floodlights. No lights shall be permitted in a magazine except battery-activated electric flashlights or electric lanterns, enclosed in rubber or other insulating covers.

(3) Maintenance of magazines. Magazines shall be maintained clean and dry at all times. No tools shall be kept in magazines except for wooden or fibre mallets and wedges and wooden or nonferrous conveyors. The ground around every magazine

for a distance of at least 25 feet in every direction shall be kept clean of debris, dry leaves, dry grass and other flammable material.

(4) Ventilation screening. All ventilation openings in any magazine shall be screened in a manner acceptable to the commissioner to prevent the entrance of sparks.

(5) Magazine warning signs. Signs with the words, "EXPLOSIVES—KEEP OFF" legibly printed thereon in letters not less than six inches in height shall be posted by all licensees or certificate holders in the area of every permanent magazine, on the approaches thereto. Such signs shall be so placed as to warn any person approaching the magazine of the presence of explosives but shall not be so placed as to direct general public attention to the location of the magazine. No sign shall be placed on or so located with respect to a permanent magazine that a bullet passing directly through the face of the sign will strike the magazine. Portable magazines shall be painted vermilion or aluminum and shall have the word "EXPLOSIVES" printed on the top surface thereof in letters at least three inches in height.

(6) Discharge of firearms. No person shall discharge firearms of any kind within 500 feet of any magazine or explosives factory or at or against any such magazine or building or at or against any sign or placard located in such area.

(b) Types of storage facilities. For purposes of this Part (rule), there shall be five types of storage magazines. These types, together with the classes of explosive materials which shall be stored therein, are as follows:

(1) Type 1 storage magazines. Permanent facilities for the storage of high explosives. Other classes may also be stored therein.

(2) Type 2 storage magazines. Portable indoor and outdoor facilities for the storage of high explosives. Other classes may also be stored therein.

(3) Type 3 storage magazines. Portable outdoor facilities for the temporary storage of high explosives while attended. Other classes may also be stored therein.

(4) Type 4 storage magazines. Facilities for the storage of low explosives. Blasting agents may also be stored therein.

(5) Type 5 storage magazines. Facilities for the storage of blasting agents.

(c) Construction of type 1 storage magazines. A type 1 storage facility shall be a permanent structure: a building; an igloo or army-type structure; a tunnel; or a dugout. Such storage facility shall be bullet-resistant, fire-resistant, weather-resistant, theft-resistant and well ventilated.

(1) Buildings. All building-type storage magazines shall be constructed of masonry, wood, metal or a combination of these materials and shall have no openings except

for entrance and ventilation. The ground around such storage magazines shall slope away for drainage.

(i) Masonry wall construction. Masonry wall construction shall consist of brick, concrete, tile, cement block or cinder block and shall be not less than six inches in thickness. Hollow masonry units used in such construction shall have all hollow spaces filled with well-tamped coarse dry sand or weak concrete (a mixture of one part cement and eight parts of sand with enough water to dampen the mixture while tamping in place).

(ii) Fabricated metal wall construction. Metal wall construction shall consist of sectional sheets of steel or aluminum not less than No. 14 gage securely fastened to a metal framework. Such metal wall construction shall be either lined inside with brick, solid cement blocks, hardwood not less than four inches in thickness or shall have at least a six-inch sand fill between interior and exterior walls.

(iii) Wood frame wall construction. The exterior of outer wood walls shall be covered with iron or aluminum not less than No. 26 gage. An inner wall shall be constructed so as to provide a space of not less than six inches between the outer and inner walls, which space shall be filled with coarse dry sand and weak concrete.

(iv) Floors. Floors shall be constructed of, or covered with, any suitable flooring material except steel or other ferrous metal and shall be strong enough to bear the weight of the maximum quantity to be stored.

(v) Foundations. Foundations shall be constructed of brick, concrete, cement block, stone or wood posts. If piers or posts are used in lieu of a continuous foundation, the space under the building shall be enclosed with metal.

(vi) Roofs. Roofs shall be constructed of noncombustible material, shall be watertight and shall be adequately supported for dead load, wind load and snow load, where applicable.

(vii) Bullet-resistant ceilings or roofs. Where it is possible, because of the general topography of the adjacent area and not because of the presence of adjacent trees, structures and earth barricades, for a bullet to be fired directly through the roof and into the storage magazine at such an angle that the bullet would strike a point below the top of the inner walls, the ceilings and roofs of such storage magazines shall be protected by one of the following methods:

(a) A sand tray located at the tops of the inner walls covering the entire ceiling area, except that necessary for ventilation, lined with a layer of building paper and filled with not less than four inches of coarse dry sand.

(b) A fabricated roof consisting of a combination of steel and hardwood equivalent to four inches of hardwood (each one-sixteenth inch thickness of steel will replace one inch of hardwood).

(viii) Doors. The doors of such buildings shall be constructed of not less than No. 14 gage metal lined with not less than four inches of hardwood or shall be constructed of not less than three-eighths inch thick steel plate lined with not less than two and five-eighths inches of hardwood. Hinges and hasps shall be attached to the doors by welding, riveting or bolting with the nuts located on the inside of the doors. Such hinges and hasps shall be installed in such a manner that they cannot be removed when the doors are closed and locked.

(ix) Locks. Each door shall be equipped with two mortise locks; or with two padlocks fastened in separate hasps and staples; or with a combination of mortise lock and padlock; or with a mortise lock that requires two keys to open; or with a three-point lock. Each padlock shall have a case-hardened shackle and at least five tumblers and shall be protected with a cap constructed of at least No. 14 gage steel so as to prevent sawing or levering on the lock or hasp.

(x) Ventilation. Such magazines shall be adequately ventilated with offset openings to prevent dampness and heating of stored explosive materials.

(xi) Exposed metal. No ferrous metal shall be exposed to contact with the stored explosive materials. All ferrous metal nails in the floors and side walls exposed to contact with explosive materials shall be blind nailed, countersunk or covered.

(2) Igloos, army-type structures, tunnels and dugouts. Igloo, army-type tunnel and dugout storage magazines shall be constructed of reinforced concrete, masonry, metal or a combination of these materials. Each such storage magazine shall have an earthmound covering of not less than 24 inches on the top, sides and rear. Storage magazines of this type shall also be constructed in conformity with the requirements of subparagraph (iv) and subparagraphs (viii) through (xi) of paragraph (1) of this subdivision.

(d) Construction of type 2 storage magazines.

(1) General. A type 2 storage magazine shall be a box, a trailer, a semitrailer or other facility. Every type 2 storage magazine shall be bullet-resistant, fire-resistant, weather-resistant, theft-resistant and well ventilated.

(2) Doors. The doors of type 2 storage magazines shall be constructed of one-quarter inch plate steel lined with two inches of hardwood and shall have hinges and hasps attached by welding, riveting or bolting with the nuts located on the inside of the doors. Such hinges and hasps shall be so installed that they cannot be removed when the doors are closed and locked.

(3) Locks. Each door of every type 2 storage magazine shall be equipped with either two mortise locks; or with two padlocks fastened in separate hasps and staples; or with a combination of a mortise lock and a padlock; or with a mortise lock that requires two keys to open; or with a three-point lock. Each padlock shall have a case-hardened shackle and at least five tumblers and shall be protected with a cap constructed of at least No. 14 gage steel so as to prevent sawing or levering action on the lock or hasp.

(4) Indoor storage magazines. No indoor storage magazine for the storage of high explosives shall be located in a residence or dwelling. When located in a warehouse, wholesale or retail establishment, such storage magazines shall be provided with substantial wheels or casters to facilitate removal therefrom. No more than two indoor storage magazines shall be kept in any one building providing one such magazine is used only for the storage of blasting caps, squibs or similar items while the other magazine is used for the storage of high explosives. Each storage magazine shall be located on the floor nearest the ground level and within 10 feet of an outside exit. Any two such storage magazines located within one building shall be separated by a distance of not less than 10 feet. No such indoor storage magazine shall contain a quantity of high explosives in excess of 50 pounds or in excess of 5,000 blasting caps. Such storage magazines shall be of wood or metal construction, as follows:

(i) Wood construction. Wood indoor storage magazines shall have sides, bottoms and covers or doors constructed of hardwood at least two inches in thickness and shall be well braced at the corners. Such hardwood storage magazines shall be covered with sheet metal of not less than No. 20 gage. No nails shall be exposed to the interior of such magazines.

(ii) Metal construction. Metal indoor storage magazines shall have sides, bottoms and covers or doors constructed of No. 12 gage metal and shall provide protection of the explosive materials from contact with steel or other ferrous metals. The edges of metal covers shall overlap the sides of the magazines by at least one inch.

(5) Outdoor storage magazines. Outdoor type 2 storage magazines shall be supported in such a manner as to prevent their direct contact with the ground. Such magazines less than one cubic yard in size shall be securely fastened to a fixed object. The sides, tops and covers or doors shall be constructed of metal lined with at least four inches of hardwood or equivalent bullet-resistant material. The floors of such magazines shall be covered with any suitable material except steel or other ferrous metals. Such magazines with top openings shall be provided with lids which overlap the sides by at least one inch when in the closed position. The ground around any such storage magazine shall slope away for drainage.

(6) Vehicular storage magazines.

(i) Walls. The walls of vehicular type 2 storage magazines shall be constructed of not less than No. 20 gage metal. Such walls shall be lined on the inside with brick, solid cement blocks or hardwood not less than four inches in thickness or shall have a six-inch space filled with coarse dry sand and an interior wall. Interior walls shall be installed in such magazines to prevent containers of explosive materials from coming into contact with masonry, steel or other ferrous metals.

(ii) Roofs. The roofs of vehicular type 2 storage magazines shall be constructed of not less than No. 20 gage metal. When required to be bullet-resistant, such roofs shall be protected with not less than four inches of coarse dry sand or hardwood not less than four inches in thickness.

(iii) Doors. The doors of such vehicular storage magazines shall be constructed of metal lined with hardwood not less than four inches in thickness.

(iv) Floors. The floors of such magazines shall be constructed of, or covered with, any suitable flooring material except steel or other ferrous metals and shall be strong enough to bear the weight of the maximum quantity to be stored.

(v) Ventilation. Such magazines shall be adequately ventilated with offset openings to prevent dampness and heating of stored explosive materials.

(vi) Locks, hasps and hinges. Every door or opening of any vehicular type 2 storage magazine shall be locked with a steel case-hardened padlock which has at least five tumblers and at least a seven-sixteenths inch diameter shackle. Such padlocks need not be protected by steel caps. The hinges and hasps of such magazines shall be securely fastened to the magazines and all locking hardware shall be secured rigidly and directly to the door frames.

(vii) Unattended vehicles. When unattended, vehicular storage magazines shall have wheels removed or shall be otherwise effectively immobilized by kingpin locking devices or other methods acceptable to the commissioner.

(7) Cap boxes. Storage magazines for blasting caps in quantities exceeding 100 shall be constructed in accordance with the requirements for type 2 indoor storage magazines in paragraph (4) of this subdivision. Storage magazines for blasting caps in quantities of 100 or less shall have the sides, bottoms and covers constructed of No. 12 gage metal. Protection shall be provided to prevent explosive materials from contacting steel or any other ferrous metals. Hinges and hasps shall be attached to such magazines by welding. A single five-tumbler proof lock shall be sufficient for locking purposes.

(e) Construction of type 3 storage magazines. A type 3 storage magazine shall be a “day box” or other portable magazine. Type 3 storage magazines shall be constructed in the same manner prescribed for type 2 outdoor storage magazines in paragraph (5) of subdivision (d) of this section, except that such magazines may be less than one cubic yard in size. Such magazines shall be bullet-resistant, fire-resistant, weather-resistant, theft-resistant and well ventilated. The ground around such storage magazines shall slope away for drainage. No explosive materials contained in such magazines shall be left unattended. The explosive materials contained therein shall be removed to type 1 or type 2 storage magazines for unattended storage. Each such storage magazine shall be locked with a steel case-hardened padlock having at least five tumblers and at least a seven-sixteenths inch diameter shackle. The hinges and hasps shall be securely fastened to the magazines in such manner that they cannot be removed when the magazines are closed and locked.

(f) Construction of type 4 storage magazines. A type 4 storage magazine may be a building, an igloo, an army-type structure, a tunnel, a dugout, a box, a trailer or semitrailer or other mobile magazine. Such magazines shall be fire-resistant, weather-resistant and theft-resistant.

(1) General. Type 4 storage magazines shall be constructed of masonry, metal-covered wood, fabricated metal or a combination of these materials. Protection shall be provided in the interior of such magazines to prevent explosive materials from contacting steel or other ferrous metals.

(2) Doors. The doors of type 4 storage magazines shall be constructed of plate steel at least one-quarter inch thick and lined with hardwood at least two inches thick. Hinges and hasps shall be attached to such doors by welding, riveting or bolting with nuts located on the inside of the doors. The hinges and hasps shall be so installed that they cannot be removed when the doors are closed and locked.

(3) Locks. Each door of such storage magazine shall be equipped with two mortise locks; or with two padlocks fastened in separate hasps and staples; or with a combination of mortise lock and padlock; or with a mortise lock that requires two keys to open; or with a three-point lock. Locks shall be five-tumbler proof and all padlocks shall be protected with one-quarter inch steel caps constructed so as to prevent sawing or levering action on the locks or hasps.

(4) Outdoor storage magazines. The ground around such storage magazines shall slope away for drainage. When unattended, vehicular type 4 storage magazines shall have wheels removed or shall be otherwise effectively immobilized by kingpin locking devices or other methods acceptable to the commissioner.

(5) Indoor storage magazines. No indoor magazine for the storage of low explosives shall be located in a residence or dwelling except as provided in this Part (rule) for the storage of five pounds or less of black powder or of not more than 15 pounds of smokeless powder. When located in warehouses, wholesale or retail establishments, such storage magazines shall be provided with substantial wheels

or casters to facilitate removal therefrom. No more than one indoor storage magazine shall be kept in any one building. Each such indoor storage magazine shall be located on the floor nearest the ground level and within 10 feet of an outside exit. No indoor storage magazine shall contain a quantity of low explosives in excess of 50 pounds.

(g) Construction of type 5 storage magazines. A type 5 storage magazine may be a building, an igloo, an army-type structure, a tunnel, a dugout, a bin, a box, a trailer, a semitrailer or other mobile magazine. Type 5 magazines shall be theft-resistant. Type 5 storage magazines shall be of substantial construction with doors or covers of solid wood or metal.

(1) Locks. Except for vehicular storage magazines, each door of a type 5 storage magazine shall be equipped with two mortise locks; or with two padlocks fastened in separate hasps and staples; or with a combination of mortise lock and a padlock; or with a mortise lock that requires two keys to open; or with a three-point lock. Padlocks shall have case-hardened shackles of at least five tumblers and shall be protected with caps constructed of at least No. 15 gage steel to prevent any sawing or levering action on the locks or hasps.

(2) Indoor storage magazines. No indoor type 5 storage magazine used for the storage of blasting agents shall be located in a residence or dwelling.

(3) Outdoor storage magazines. The ground around type 5 outdoor storage magazines shall slope away for drainage.

(4) Vehicular storage magazines. Every type 5 vehicular storage magazine shall be locked with case-hardened steel padlocks having at least five tumblers and at least seven-sixteenths inch diameter shackles. One such padlock shall be provided for each door or opening and such padlocks need not be protected with caps. Hinges and hasps shall be securely fastened and all locking hardware shall be secured rigidly and directly to the door or opening frame. When unattended, such vehicular storage magazines shall have their wheels removed or shall otherwise be effectively immobilized by kingpin locking devices or other methods acceptable to the commissioner.

(h) Repair of storage magazines. Prior to the interior repair of any storage magazine, all explosive materials stored therein shall be removed and the interior shall be cleaned. Prior to the exterior repair of any storage magazine, all explosive materials shall be removed therefrom if there exists any possibility that such exterior repairs may produce sparks or flame. Any explosive materials removed from a storage magazine that is to be repaired shall either be placed in other magazines appropriate for the storage of such explosive materials under this section or shall be placed in a safe location at a safe distance from the magazine under repair where such explosives shall be properly guarded and protected until the repairs have been completed.

39.9 Location of magazines.

(a) Quantity and distance tables.

(1) The following tables show the distances from nearest buildings, railroads or highways, as these terms are defined in article 16 of the Labor Law, that the respective quantities and types of explosive materials may be stored.

(2) For the purpose of compliance with this Part (rule), the weight of finished fireworks shall be considered as the weight of explosive materials stored in a magazine.

(3) The following distances in Table 1, "High Explosives Quantity and Distance Table," may be reduced by one half when the building, railroad or highway to be protected is effectively screened from the explosives factory or magazine by an efficient barricade as defined in article 16 of the Labor Law.

(4) The board may authorize temporary deviations from the following quantity and distance tables when compliance therewith entails practical difficulties or unnecessary hardship, provided public safety is preserved.

(b) Quantity and distance requirements for blasting caps and detonating cord.

(1) Blasting caps. The quantity and distance requirements for blasting caps shall be as follows:

(i) Cap sizes up to and including No. 8—1,000 caps shall be rated equivalent to one and one-half pounds of explosives.

(ii) Cap sizes larger than No. 8—1,000 caps shall be rated equivalent to three pounds of explosives.

(2) Detonating cord. The quantity and distance requirements for detonating cord shall be as follows:

(i) Detonating cord containing up to and including 60 grains per foot shall be rated equivalent to nine pounds of explosives per 1,000 feet of cord.

(ii) Detonating cord containing more than 60 grains per foot shall be rated equivalent to 15 pounds of explosives per 1,000 feet of cord.

Table 1
High Explosives Quantity and Distance Table

<i>Explosives in Pounds</i>			<i>Distances in Feet</i>			
<i>Pounds over</i>		<i>Pounds Not Over</i>	<i>From Nearest Building</i>	<i>From Nearest Railway</i>	<i>From Nearest Highway</i>	<i>Separation of Magazines</i>
0	—	5	140	60	60	12
5	—	10	180	70	70	16
10	—	20	220	90	90	20
20	—	30	250	100	100	22
30	—	40	280	110	110	24
40	—	50	300	120	120	28
50	—	75	340	140	140	30
75	—	100	380	150	150	32
100	—	125	400	160	160	36
125	—	150	430	170	170	38
150	—	200	470	190	190	42
200	—	250	510	210	210	46
250	—	300	540	220	220	48
300	—	400	590	240	240	54
400	—	500	640	260	260	58
500	—	600	680	270	270	62
600	—	700	710	290	290	64
700	—	800	750	300	300	66
800	—	900	780	310	310	70
900	—	1,000	800	320	320	72
1,000	—	1,200	850	340	330	78

1,200	—	1,400	900	360	340	82
1,400	—	1,600	940	380	350	86
1,600	—	1,800	980	390	360	88
1,800	—	2,000	1,010	410	370	90
2,000	—	2,500	1,090	440	380	98
2,500	—	3,000	1,160	470	390	104
3,000	—	4,000	1,270	510	420	116
4,000	—	5,000	1,370	550	450	122
5,000	—	6,000	1,460	590	470	130
6,000	—	7,000	1,540	620	490	136
7,000	—	8,000	1,600	640	500	144
8,000	—	9,000	1,670	670	510	150
9,000	—	10,000	1,730	690	520	156
10,000	—	12,000	1,750	740	540	164
12,000	—	14,000	1,770	780	550	174
14,000	—	16,000	1,800	810	560	180
16,000	—	18,000	1,880	840	570	188
18,000	—	20,000	1,950	870	580	196
20,000	—	25,000	2,110	940	630	210
25,000	—	30,000	2,260	1,000	680	224
30,000	—	35,000	2,410	1,050	720	238
35,000	—	40,000	2,550	1,100	760	248
40,000	—	45,000	2,680	1,140	800	258
45,000	—	50,000	2,800	1,180	840	270
50,000	—	55,000	2,920	1,220	880	280
55,000	—	60,000	3,030	1,260	910	290

60,000	—	65,000	3,130	1,290	940	300
65,000	—	70,000	3,220	1,320	970	310
70,000	—	75,000	3,310	1,350	1,000	320
75,000	—	80,000	3,390	1,380	1,020	330
80,000	—	85,000	3,460	1,410	1,040	340
85,000	—	90,000	3,520	1,440	1,060	350
90,000	—	95,000	3,580	1,460	1,080	360
95,000	—	100,000	3,630	1,490	1,090	370
100,000	—	110,000	3,670	1,540	1,100	390
110,000	—	120,000	3,710	1,580	1,110	410
120,000	—	130,000	3,750	1,620	1,120	430
130,000	—	140,000	3,780	1,670	1,130	450
140,000	—	150,000	3,800	1,700	1,140	470
150,000	—	160,000	3,870	1,740	1,160	490
160,000	—	170,000	3,930	1,780	1,180	510
170,000	—	180,000	3,980	1,810	1,200	530
180,000	—	190,000	4,020	1,840	1,210	550
190,000	—	200,000	4,060	1,870	1,220	570
200,000	—	210,000	4,110	1,910	1,240	590
210,000	—	230,000	4,200	1,960	1,270	630
230,000	—	250,000	4,310	2,020	1,300	670
250,000	—	275,000	4,430	2,080	1,340	720
275,000	—	300,000	4,550	2,150	1,380	770

Table 2**Low Explosives Quantity and Distance Table**

<i>Pounds Over</i>		<i>Pounds Not Over</i>	<i>Inhabited Building (Distance in Feet)</i>	<i>Public Railroad and Highway (Distance in Feet)</i>	<i>Aboveground Magazine (feet)</i>
0	—	1,000	75	75	50
1,000	—	5,000	115	115	75
5,000	—	10,000	150	150	100
10,000	—	20,000	190	190	125
20,000	—	30,000	215	215	145
30,000	—	40,000	235	235	155
40,000	—	50,000	250	250	165
50,000	—	60,000	260	260	175
60,000	—	70,000	270	270	185
70,000	—	80,000	280	280	190
80,000	—	90,000	295	295	195
90,000	—	100,000	300	300	200
100,000	—	200,000	375	375	250
200,000	—	300,000	450	450	300

Table 3
Ammonium Nitrate and Blasting Agents
Quantity and Distance Table

<i>Donor Weight</i>			<i>Minimum Separation Distance of Receptor When Barricaded in Feet (See § 39.11 [a])</i>		<i>Minimum Thickness of Artificial Barricades in Inches (See § 39.11[d])</i>
<i>Pounds Over</i>		<i>Pounds Not Over</i>	<i>Ammonium Nitrate (See § 39.11[b])</i>	<i>Blasting Agent (See § 39.11[c])</i>	
0	—	100	3	11	12
100	—	300	4	14	12
300	—	600	5	18	12
600	—	1,000	6	22	12
1,000	—	1,600	7	25	12
1,600	—	2,000	8	29	12
2,000	—	3,000	9	32	15
3,000	—	4,000	10	36	15
4,000	—	6,000	11	40	15
6,000	—	8,000	12	43	20
8,000	—	10,000	13	47	20
10,000	—	12,000	14	50	20
12,000	—	16,000	15	54	25
16,000	—	20,000	16	58	25
20,000	—	25,000	18	65	25
25,000	—	30,000	19	68	30
30,000	—	35,000	20	72	30
35,000	—	40,000	21	76	30
40,000	—	45,000	22	79	35

45,000	—	50,000	23	83	35
50,000	—	55,000	24	86	35
55,000	—	60,000	25	90	35
60,000	—	70,000	26	94	40
70,000	—	80,000	28	101	40
80,000	—	90,000	30	108	40
90,000	—	100,000	32	115	40
100,000	—	120,000	34	122	50
120,000	—	140,000	37	133	50
140,000	—	160,000	40	144	50
160,000	—	180,000	44	158	50
180,000	—	200,000	48	173	50
200,000	—	220,000	52	187	60
220,000	—	250,000	56	202	60
250,000	—	275,000	60	216	60
275,000	—	300,000	64	230	60

39.10 General provisions for the possession, handling, storage and transportation of blasting agents.

All of the provisions of this Part (rule) relating to the possession, handling, storage and transportation of explosives shall also apply to blasting agents with the following exceptions:

- (a) Separation distances of blasting agents and ammonium nitrate from explosives or other blasting agents are given in Table 3 of this Part (rule). Table 3 applies only to the separation of stores. Table 1 shall be used in determining separation distances from inhabited buildings, public highways and passenger railways. Separation distances to prevent the explosion of ammonium nitrate and ammonium nitrate-based blasting agents are referred to in Table 3 of this Part (rule) as the donor. Ammonium nitrate, by itself, is not considered to be a donor when applying this table. Ammonium nitrate, ammonium nitrate fuel oil, or combinations thereof, are acceptors. If stores of ammonium nitrate are located within the sympathetic detonation distance of explosives or blasting agents, one half of the mass of the ammonium nitrate shall be included in the mass of the donor.
- (b) When the ammonium nitrate and/or blasting agents are not barricaded, the distances shown in Table 3 of this Part (rule) shall be multiplied by six. Such distances allow for the possibility of high-velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers and similar materials which may enclose the donor. Where storage is in bullet-resistant magazines recommended for explosives or where the storage is protected by a bullet-resistant wall, distances in excess of those listed in Table 1 of this Part (rule) are not required.
- (c) The distances in Table 3 of this Part (rule) apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer promulgated by the National Plant Food Institute. Ammonium nitrate which fails to pass such insensitivity test shall be stored at separation distances determined by the licensee and such distances shall be acceptable to the commissioner.
- (d) The separation distances listed in Table 3 of this Part (rule) also apply to nitro-carbo-nitrates and blasting agents which pass the insensitivity test prescribed in the United States Department of Transportation (DOT) regulations.
- (e) Earth, sand dikes or enclosures filled with the prescribed minimum thickness of earth or sand are acceptable artificial barricades. Natural barricades, such as hills or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the "donor" when the trees are bare of leaves, are also acceptable.

(f) When the ammonium nitrate must be counted in order to determine the separation distances from inhabited buildings, public highways and passenger railways, it may be counted at one half of its actual weight.

(g) Pneumatic loading equipment when handling sensitized ammonium nitrate blasting agents shall not be grounded to water lines, air lines, rails or permanent electrical grounding systems.

39.11 Transportation of explosives.

(a) General. Explosives shall be transported in accordance with the provisions of this section except for quantities of five pounds or less of black powder which shall be transported in accordance with the special provisions relating to black powder of section 39.12 of this Part (rule).

(b) Marking of vehicles. No person shall transport or cause or permit the transportation of explosives in any vehicle unless the front, rear and both sides of such vehicle are marked or placarded with the word "EXPLOSIVES" legibly printed in red letters at least six inches in height with letter strokes at least five-eighths inch in width. Such letters shall be on a white background. When such transportation of explosives takes place during the hours of darkness, such marking or placard shall consist of reflecting materials which shall be legible from a distance of at least 250 feet by a person approaching in a motor vehicle using undimmed headlights on an unlighted highway. This provision shall not apply to the transportation of not more than 15 pounds of smokeless powder.

(c) Smoking and other personal conduct. No person shall approach, ride upon, drive, load or unload a vehicle carrying explosives while:

- (1) under the influence of or carrying any intoxicant or narcotic;
- (2) at any time in a careless or reckless manner; or
- (3) while smoking or carrying matches or other flame-producing devices.

(d) Loading.

(1) No person shall place or carry, or cause to be placed or carried, in or upon a vehicle containing explosives any metal tool, piece of metal, fire, firearms, loaded cartridges, match or other device or material which produces spark, flame or heat. This provision shall not apply to tools used for the operation and repair of such vehicle when such tools are in a compartment separate from the loading space, nor to a wooden or nonferrous conveyor. This provision shall not be construed to prohibit the transportation of detonators in or upon the same vehicle with other explosives provided that such detonators be packed in the original outside shipping containers or in packages in an outside box made of one-inch lumber lined with suitable padding material not less than one-half inch thick. Such boxes other than

the original shipping containers shall be equipped with hinged covers and fastening devices and shall be securely closed. Detonators in quantities of 50 or less may be transported on the same vehicle with other explosives if they are inside shipping containers or other equivalent containers or wrapped in cloth with a fold of cloth separating each detonator. Detonators transported on the same vehicle with other explosives shall be located in a place remote from such other explosives on the vehicle and in a position easily accessible for quick removal.

(2) Bale hooks or ferrous metal tools shall not be used for loading or handling explosives.

(3) Explosives shall be transported only in the body of a vehicle and shall be loaded only to the height of the sides of the vehicle body. Any such vehicle shall not be loaded beyond its rated capacity and explosives shall be so placed thereon that packages thereof cannot fall from the vehicle. When transported in a vehicle with an open body, explosives shall be covered with a fire-retardant tarpaulin which shall be secured.

(e) Riders. No person shall carry, or permit or cause to be carried, any person other than the driver and his authorized helper or helpers in or upon any vehicle containing explosives.

(f) Qualifications for drivers. Vehicles transporting explosives shall be driven by and be in charge of competent, physically fit, reliable and experienced drivers; who are able to read and write the English language; who are familiar with and duly licensed to operate such vehicles; who are not addicted to the use or under the influence of intoxicants or narcotics; who know and obey the State motor vehicle laws, local ordinances and all rules and regulations governing the transportation of explosives. A copy of Industrial Code Part (rule) 39 shall be in the possession of each driver and helper.

(g) Condition and equipment of vehicles. No person shall load, unload or transport or cause or permit the loading, unloading or transportation of explosives of any vehicle unless such vehicle is in compliance with the following requirements:

(1) Such vehicle shall be in good working condition and capable of safely carrying the load placed upon it.

(2) The sides and ends of an open-bodied vehicle shall be high enough to prevent packages of explosives from falling off. The floor shall be tight and sound.

(3) Exposed ferrous metal on the inside of the vehicle body which is likely to come in contact with packages of explosives shall be covered or protected with wood or other nonferrous material.

(4) Any such vehicle, when carrying more than 200 pounds of explosives, shall be equipped with not less than two approved carbon dioxide fire extinguishers of from 10 to 12 pounds capacity each or two approved dry chemical fire extinguishers (ordinary or multi-purpose) of from four to seven pounds capacity each. Such

extinguishers shall be maintained in accordance with the manufacturer's instructions and with the board's resolution of approval.

(5) Trailers shall not be used for the transportation of explosives, nor shall any trailer be attached to a vehicle transporting explosives. This provision shall not apply to semi-trailers.

(6) The battery and electrical wiring of any motor vehicle used for the transportation of explosives shall be so located that they cannot come in contact with any package of explosives.

(7) The electric wiring of any such motor vehicle shall be completely insulated and securely fastened to prevent short-circuiting.

(8) The chassis, engine, pan and bottom of the body of any such motor vehicle shall be clean and free from excess oil and grease.

(9) The gasoline tank and fuel line of any such motor vehicle shall be free from leaks.

(10) The use of ferrous tire chains and ferrous studs in tires on any such vehicle is permitted when necessary to maintain vehicle control under hazardous driving conditions. Such chains shall be inspected and maintained to insure that no part of any such chain strikes the vehicle.

(11) The tires of any such vehicles shall have no defects and shall be properly inflated.

(h) Requirements for vehicles transporting explosives while in transit. No person in charge of a vehicle transporting explosives shall:

(1) Allow such vehicle to remain unguarded or unattended;

Exception:

An explosive-laden vehicle may be left unattended if it is parked at a magazine site or other location established solely for the purpose of storing explosives.

(2) Permit such vehicle to enter any structure;

(3) Even though attended, park such vehicle in close proximity to any building or other structure where persons work, congregate or assemble or on any bridge or in any tunnel or on any public street in a city, town or village unless otherwise allowed by law or as necessary for blasting operations.

(4) Load explosives upon or unload explosives from such vehicle unless the engine is turned off and the brakes securely set;

(5) With the exception of the lights necessary for the operation of such vehicle, use any type of lighting in or about such a vehicle except portable, explosion-proof, battery-operated flood lights or explosion-proof, battery-operated lanterns;

(6) Deliver explosives to anyone except those persons holding valid licenses authorizing such persons to receive explosives or to magazines having valid certificates issued in accordance with the provisions of section 458 of the Labor Law and of this Part (rule);

(7) Fill or cause or permit to be filled the fuel tank of such vehicle while explosives are on the vehicle, except in case of emergency and then only when the engine is turned off.

Exception:

When route to be traveled exceeds fuel tank capacity.

(8) Make any unnecessary stops.

If a stop is unavoidable, the precautions given in paragraphs (1) and (2) of this subdivision shall be observed and, in addition, the engine shall be turned off, the brakes securely set and the ignition key removed;

(9) Place any explosive immediately behind or in close proximity to the exhaust pipe of such motor vehicle;

(10) Allow travel through congested areas and heavy traffic. However, where routes through congested areas have been designated by local authorities, such routes shall be followed.

(11) Allow a flat tire or hot tire to remain on the vehicle. After removal, such a tire shall be placed sufficiently far from the vehicle so that in the event of spontaneous ignition the burning tire will not endanger the vehicle;

(12) Allow the vehicle to enter any area in which a riot or civil disorder is occurring. If the driver of such a vehicle finds himself in such an area, he shall immediately drive the vehicle out of the area and contact the nearest police agency for assistance and escort.

(i) Transportation of nitroglycerin. Vehicles used for the transportation of nitroglycerin shall be equipped with rubber insulated compartments for each container of such dimensions as to hold each container rigid, and the bodies of such vehicles shall be equipped with tops. The capacity of each such container shall not exceed 10 quarts. Leaking, rusty or warped containers shall not be used. Frozen nitroglycerin shall not be transported over public highways.

39.12 Special provisions relating to black powder.

(a) General.

- (1) The provisions of this section shall apply only in connection with the transportation, storage and sporting use of black powder in quantities of five pounds or less when such powder is used in antique firearms or weapons or replicas thereof.
- (2) Persons shall use, store, buy, sell, possess, transport, receive or dispose of black powder only in accordance with the provisions of the Labor Law and of this Part (rule).

(b) Transportation.

- (1) Vehicles carrying five pounds or less of black powder and carrying no other explosives shall be marked or placarded either on both sides or on both front and rear with circular signs or decals. Every such sign or decal shall have a minimum diameter of six inches and shall contain the letters "LOW-EX" in legible black letters at least one and one-quarter inches in height on a yellow background.
- (2) A trailer may be attached to a vehicle carrying five pounds or less of black powder and carrying no other explosives. This paragraph does not modify the provisions of paragraph 39.11(g) (5) of this Part (rule) which prohibits the use of trailers for the transportation of explosives.
- (3) A vehicle in transit carrying no other explosives than five pounds or less of black powder may be parked on a public street of a city, town or village near a dwelling, building or place where persons work, congregate or assemble provided that a designated person remains in such vehicle to guard the black powder.
- (4) Passengers other than the driver may be permitted in any vehicle transporting five pounds or less of black powder and carrying no other explosives and provided the black powder is located in the trunk of the vehicle or otherwise separated from the passenger compartment.
- (5) Smoking, if otherwise permitted by law, may be permitted by persons driving or riding in a vehicle containing five pounds or less of black powder and carrying no other explosives provided the black powder is located in the trunk of the vehicle or is otherwise separated from the passenger compartment. The other provisions of subdivision 39.11(c) of this Part (rule) shall remain in effect.
- (6) Unloaded firearms may be permitted in a vehicle transporting five pounds or less of black powder and carrying no other explosives provided such firearms are securely fastened to a portion of the vehicle or located in a case or box and are separated from the black powder box.

(c) Storage.

(1) Five pounds or less of black powder may be transported in a vehicle, stored in a residence other than a multiple dwelling or stored in a building other than a place of public assembly in accordance with the provisions of this paragraph.

(i) The black powder shall be either in the original shipping canisters, powder horns, powder flasks or as prepared charges in plastic or paper tubes. Such containers shall be kept in locked boxes constructed of wood at least three-quarters inch nominal thickness. Handles shall be provided on each end or a single handle shall be centered on the top of each such box for quick removal in case of any emergency.

(ii) Each such box shall be painted red with the letters "LOWEX" at least one and one-quarter inches in height printed in yellow or white on the cover.

(iii) When located in a residence or building, every such box shall be located in the basement, cellar or on the first floor and shall be within 10 feet of an outside exit or stairway leading to an outside exit.

(2) When stored in magazines, black powder shall be separated from other explosive materials. Kegs containing black powder shall be stored on ends with bung ends down, stored on their sides with seam sides down or stored in an equally secure manner.

(d) Sporting use.

(1) No person shall discharge firearms at, against or within 100 feet of a black powder storage box where such storage box contains five pounds or less of black powder.

(2) Persons over 14 and under 18 years of age shall be allowed to use black powder in firearms for sporting usage if such persons have qualified for or have been duly issued a current New York State hunting license issued by the New York State Department of Environmental Conservation. Such usage shall be under the direct supervision of such person's parents, guardians or other qualified persons over 18 years of age having written authorizations from the parents or guardians for such supervision.

39.12 Special provisions relating to black powder.

(a) General.

(1) The provisions of this section shall apply only in connection with the transportation, storage and sporting use of black powder in quantities of five pounds or less when such powder is used in antique firearms or weapons or replicas thereof.

(2) Persons shall use, store, buy, sell, possess, transport, receive or dispose of black powder only in accordance with the provisions of the Labor Law and of this Part (rule).

(b) Transportation.

(1) Vehicles carrying five pounds or less of black powder and carrying no other explosives shall be marked or placarded either on both sides or on both front and rear with circular signs or decals. Every such sign or decal shall have a minimum diameter of six inches and shall contain the letters "LOW-EX" in legible black letters at least one and one-quarter inches in height on a yellow background.

(2) A trailer may be attached to a vehicle carrying five pounds or less of black powder and carrying no other explosives. This paragraph does not modify the provisions of paragraph 39.11(g) (5) of this Part (rule) which prohibits the use of trailers for the transportation of explosives.

(3) A vehicle in transit carrying no other explosives than five pounds or less of black powder may be parked on a public street of a city, town or village near a dwelling, building or place where persons work, congregate or assemble provided that a designated person remains in such vehicle to guard the black powder.

(4) Passengers other than the driver may be permitted in any vehicle transporting five pounds or less of black powder and carrying no other explosives and provided the black powder is located in the trunk of the vehicle or otherwise separated from the passenger compartment.

(5) Smoking, if otherwise permitted by law, may be permitted by persons driving or riding in a vehicle containing five pounds or less of black powder and carrying no other explosives provided the black powder is located in the trunk of the vehicle or is otherwise separated from the passenger compartment. The other provisions of subdivision 39.11(c) of this Part (rule) shall remain in effect.

(6) Unloaded firearms may be permitted in a vehicle transporting five pounds or less of black powder and carrying no other explosives provided such firearms are securely fastened to a portion of the vehicle or located in a case or box and are separated from the black powder box.

(c) Storage.

(1) Five pounds or less of black powder may be transported in a vehicle, stored in a residence other than a multiple dwelling or stored in a building other than a place of public assembly in accordance with the provisions of this paragraph.

(i) The black powder shall be either in the original shipping canisters, powder horns, powder flasks or as prepared charges in plastic or paper tubes. Such

containers shall be kept in locked boxes constructed of wood at least three-quarters inch nominal thickness. Handles shall be provided on each end or a single handle shall be centered on the top of each such box for quick removal in case of any emergency.

(ii) Each such box shall be painted red with the letters "LOWEX" at least one and one-quarter inches in height printed in yellow or white on the cover.

(iii) When located in a residence or building, every such box shall be located in the basement, cellar or on the first floor and shall be within 10 feet of an outside exit or stairway leading to an outside exit.

(2) When stored in magazines, black powder shall be separated from other explosive materials. Kegs containing black powder shall be stored on ends with bung ends down, stored on their sides with seam sides down or stored in an equally secure manner.

(d) Sporting use.

(1) No person shall discharge firearms at, against or within 100 feet of a black powder storage box where such storage box contains five pounds or less of black powder.

(2) Persons over 14 and under 18 years of age shall be allowed to use black powder in firearms for sporting usage if such persons have qualified for or have been duly issued a current New York State hunting license issued by the New York State Department of Environmental Conservation. Such usage shall be under the direct supervision of such person's parents, guardians or other qualified persons over 18 years of age having written authorizations from the parents or guardians for such supervision.

39.13 Severability.

If any provision of this Part (rule) or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this Part (rule) which can be given effect without the invalid provisions or applications and to this end the provisions of this Part (rule) are declared to be severable