

# RULES AND REGULATIONS

## Title 25—ENVIRONMENTAL PROTECTION

### ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 211]

#### Handling, Use and Storage of Explosives

The Environmental Quality Board (Board) amends Chapter 211 (relating to storage, handling and use of explosives) to read as set forth in Annex A. This final-omitted rulemaking establishes standards to ensure that explosive magazines are secure from unauthorized intrusion and theft.

Notice of proposed rulemaking is omitted under section 204(2) and (3) of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. § 1204(2) and (3)), known as the Commonwealth Documents Law (CDL). Section 204(2) of the CDL provides that an agency may omit the notice of proposed rulemaking if all persons subject to the regulation are named therein and are either served with the proposed rulemaking or have actual notice of the proposed rulemaking. There are approximately 350 persons that will be directly affected by this final-omitted rulemaking. They include licensees of outdoor magazines and persons who currently store in this Commonwealth explosives in the form of fireworks, blasting agents, high explosives and detonators. These persons were sent a copy of this final-omitted rulemaking at least 2 weeks prior to the Board's January 18, 2005, and April 19, 2005, meetings. Section 204(3) of the CDL provides that an agency may omit the notice of proposed rulemaking if the agency finds for good cause that notice of proposed rulemaking is impracticable, unnecessary or contrary to the public interest. In this case, using the notice of proposed rulemaking procedure is contrary to the public's interest. As more fully explained in the background section, the existing magazine standards are inadequate to prevent the theft of explosives. This final-omitted rulemaking will provide additional significant deterrence to thefts of explosives from magazines and subsequent accidental or deliberate injury to persons and damage to property.

This final-omitted rulemaking was adopted by order of the Board at its meeting of January 18, 2005. At the April 19, 2005, Board meeting, the Board approved amendments to the final order addressing the Independent Regulatory Commission's (IRRC) March 10, 2005, disapproval of the Board's January 18, 2005, rulemaking. IRRC's disapproval order was received March 16, 2005.

#### A. Effective Date

This final-omitted rulemaking is effective upon publication in the *Pennsylvania Bulletin*.

#### B. Contact Persons and Information

For further information, contact Joseph G. Pizarchik, Director, Bureau of Mining and Reclamation, Rachel Carson State Office Building, 5th Floor, 400 Market Street, P. O. Box 8461 Harrisburg, PA 17105-8461, (717) 783-9892; or Marc A. Roda, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, 9th Floor, P. O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the AT&T Relay Service, (800) 654 5984 (TDD users) or (800)

654-5988 (voice users). This final-omitted rulemaking is available on the Department of Environmental Protection's (Department) website: [www.dep.state.pa.us](http://www.dep.state.pa.us).

#### C. Statutory Authority

The final-omitted rulemaking is being made under the authority of:

(1) Section 11 of the act of July 1, 1937 (P. L. 2681, No. 537) (Act 537) (73 P. S. § 161) and Reorganization Plan No. 8 of 1981 (71 P. S. § 751-35), which authorize the Department to promulgate implementing regulations for the licensing of blasters and the use, storage and handling of explosives in most contexts other than mining.

(2) Section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b) and section 11(e) of the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. § 3311(e)), which direct the Department to promulgate regulations concerning the handling and use of explosives at coal and noncoal surface mine sites as well as the licensing of blasters.

(3) Sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-17 and 510-20), which authorize the Board to adopt regulations to prevent the occurrence of a nuisance and to promulgate rules and regulations as are necessary for the proper work of the Department.

#### D. Background

The Department's regulations addressing the storage of explosives are in Subchapter B (relating to storage and classification of explosives). Subchapter B incorporates by reference the performance and design requirements in 27 CFR Part 555, Subpart K (relating to Storage), established by the United States Department of Justice, Bureau of Alcohol, Tobacco and Firearms (ATF). See § 211.115(a) (relating to standards for classifying and storing explosives and constructing, maintaining and siting magazines). Current ATF regulations focus on safety concerns regarding the location of magazines to reduce threat from accidental explosions. The magazine security requirements are minimal and only address design requirements for magazine construction, doors and locks on the doors. There are no effective perimeter security requirements and magazines are too readily accessible to those who want to steal explosives. See, for example, 27 CFR 555.207 (relating to construction of type 1 magazines).

As a result of inadequate security requirements, explosives have been stolen from magazines in this Commonwealth. From March 2003 to December 2003, the last period for which data from ATF is available, this Commonwealth led the nation with nine explosives thefts. In these 9 thefts, 1,859 pounds of explosives and 375 detonators, necessary to detonate the explosives, were stolen. Not all of this material has been recovered. These thefts of explosives pose a significant risk to the public's safety and the threat of future thefts may present an even greater risk to the public safety.

A recent theft of explosives investigated by the Pennsylvania State Police (PSP) resulted in the Pennsylvania Office of Homeland Security, the PSP and the Department working to develop regulatory standards for additional magazine security measures. This final-omitted rulemaking establishes specific performance standards and

include examples that meet the performance standards. The final-omitted rulemaking specifically provides magazine licensees the flexibility to propose and use other methods and technologies that meet the performance standards and which may be more cost effective.

This final-omitted rulemaking also adds a duty that magazine licensees must report thefts of explosives and attempted break-ins to the Department, this PSP and local police with jurisdiction. The information will be used to assess the effectiveness of these security standards and for possible necessary enhancements.

The Department's regulations are being amended because neither the Pennsylvania Office of Homeland Security nor the PSP have regulatory authority over the construction or operation of explosive magazines. These agencies have assisted in the development of this final-omitted rulemaking and concur that their implementation will significantly enhance security of this Commonwealth and reduce the risk of theft of explosives and the resulting risk of injury to persons and damage to property.

Under section 5(f) of the Regulatory Review Act (71 P. S. § 745.5(f)), on February 8, 2005, the Department submitted a copy of the January 18, 2005, final rulemaking with notice of proposed rulemaking omitted to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. On the same date, the Department also submitted this final-omitted rulemaking to the Office of Attorney General for review and approval under the Commonwealth Attorneys Act (71 P. S. §§ 732-101—732-506). In addition to the final-omitted rulemaking, IRRC and the House and Senate Committees were provided with a copy of a detailed regulatory analysis form prepared by the Department.

On March 9, 2005, the House and Senate Committees were deemed to have approved the Board's final order. On March 10, 2005, IRRC held a meeting and disapproved the Board's final order. IRRC's written disapproval order was received March 16, 2005. IRRC disapproved the final-omitted rulemaking, finding it was not in the public interest to approve the requirements. IRRC identified cost and clarity concerns. In addition, IRRC indicated that the Board should consider lower standards for compliance for the fireworks industry.

The need to move quickly to address IRRC's disapproval was highlighted by recent developments. Sometime between 1 p.m. on Friday, March 11, 2005, and 2:05 p.m. on Monday, March 14, 2005, the weekend immediately following IRRC's disapproval of the security measures to prevent unauthorized wheeled vehicles from accessing explosive storage magazines, unauthorized personnel broke into a magazine. A wheeled vehicle was used to drive up to a magazine and to pull the locking mechanism from the magazine door. A comparison of the magazine contents to the licensee's inventory records disclosed that the compromised magazine contained more explosives than the inventory records indicated were present. It was impossible to determine if anything was stolen. This was the fourth magazine break in at this site in 10 years.

As suggested at the IRRC hearing and by various legislators, representatives of the Department and PSP met with representatives of the fireworks industry and the explosives industry to obtain their input on how the Board should address the issues listed in IRRC's order. The changes approved by the Board at the April 19, 2005,

meeting are based on industry input. The following summary identifies the changes from the January 18, 2005, Board final order made in response to IRRC's order.

#### *E. Summary of the Final-Omitted Rulemaking*

This final-omitted rulemaking amends Chapter 211 to establish effective security standards for the storage of explosives. The amendments are summarized as follows.

##### *§ 211.101. Definitions.*

This section is amended to include definitions for "access point," "concertina razor wire," "indoor magazine," "inner perimeter security," "outdoor magazine site," "outer perimeter security" and "wheeled vehicle." These are critical terms used in new § 211.115(c) and (d) (relating to standards for classifying and storing explosives and constructing, maintaining and siting magazines). Defining these terms should minimize the risk of confusion in applying these new security standards.

Additionally, this section has been amended to include a definition for "display fireworks." This amendment addresses one of the stated grounds for IRRC's order, specifically: direct costs to the private sector; desirability and feasibility of setting lesser standards for small business; clarity; and adverse effects on prices of goods and services and competition. A provision specifically directed to the storage of fireworks has been added to the regulation.

##### *§ 211.111. Scope.*

This section is amended to clarify that Subchapter B does not apply to explosives stored underground in permitted underground mines.

##### *§ 211.113. Application contents.*

Subsection (b) is amended to include two new requirements for the license application. To enable risk assessment and prompt emergency response, the application is to include a plan showing the security measures being undertaken, as well as the longitude and latitude of the magazine.

##### *§ 211.115. Standards for classifying and storing explosives and constructing, maintaining and siting magazines.*

###### *Subsection (a)*

This subsection incorporates by reference the ATF regulations for classifying and storing explosives. The citation to the ATF regulations is corrected to reflect that the ATF regulations have been recodified from 27 CFR Part 55 to Part 555 as a result of moving the ATF to the Department of Justice. The Department's regulations will now contain security standards for magazines in addition to those required by the ATF. If the ATF establishes, at some time in the future, magazine security standards that conflict with the Department's regulations, the more stringent standards will apply.

###### *Subsection (c)*

This subsection requires that indoor magazines be located in buildings which are in compliance with applicable building codes and other regulations. To address the stated grounds for IRRC's order, specifically, direct costs to the private sector and adverse effects on prices of goods and services and competition, this section has been amended to no longer require indoor magazines for the storage of detonators to be located in a separate, secure room from other indoor magazines. This amendment will reduce costs to indoor magazine licensees storing detonators.

*Subsection (d)*

This subsection contains most of the new security standards established by this final-omitted rulemaking. It also clarifies that § 211.115(d) does not apply to Type 3 magazines. To address the stated grounds for IRRC's order, specifically, IRRC's desire for lower security standards for the fireworks industry, direct costs to the private sector, desirability and feasibility of setting lesser standards of compliance for small business and adverse effects on prices of goods and services and competition, this subsection has been amended to no longer require daily inspection or perimeter security measures, except for an outer perimeter gate at any access point, for Type 4 magazines storing display fireworks.

This amendment was based on industry input and to address IRRC's objection to treating explosive magazine storing fireworks the same as other explosive storage magazines when securing them against theft. The industry and IRRC believe stolen fireworks pose less of a risk to public safety compared to other explosives. This amendment will dramatically reduce the fireworks industry costs of implementing these regulations. For many small fireworks magazine licensees, some of whom are hobbyists, the only requirement beyond the standards in the current regulations will be for an outer perimeter access gate.

*Subsection (d)(1)*

This paragraph establishes the requirement that the magazine be inspected daily by the licensee or an agent. Inspections of magazines containing explosives shall occur at least once every 24 hours. A record of the inspection and any problems encountered is to be maintained for at least 3 years. To address the stated grounds for IRRC's order, specifically, direct costs to the private sector and desirability and feasibility of setting lesser standards of compliance for small business, and adverse effects on prices of goods and services and competition, this section has been amended to no longer require inspection of magazines every 24 hours provided the magazines are equipped with electronic intrusion detection devices and are located at sites that have outer perimeter gates equipped with electronic intrusion detection devices. Therefore, inspection requirements will be no more stringent than the standards in the current regulations. This amendment will significantly reduce industry costs of implementing these regulations.

*Subsection (d)(2), (3), (8) and (9)*

Subsection (d)(2), (3), (7) and (9) establishes the standards addressing access to magazines. Magazine licensees are to establish outer perimeter security to obstruct or deter, to the greatest extent possible, unauthorized wheeled vehicles from entering the site. Subsection (d)(3) identifies various measures or combinations which can be used to obstruct or deter, to the greatest extent possible, unauthorized vehicular access. Access through the outer perimeter security is limited to one point unless otherwise approved by the Department. Subsection (d)(9) addresses the signs to be placed on the outer perimeter system. The signs are to warn first responders and the public of the hazards on the site. These amendments provide the licensee with the flexibility to propose alternative security measures that meet the performance standards.

To address the stated grounds for IRRC's order, specifically, clarity and costs, the regulation has been amended to specify additional outer perimeter security measures including the use of guard personnel, closed circuit television and electronic intrusion detection devices.

*Subsection (d)(4), (6) and (7)*

These paragraphs require additional measures to obstruct or deter, to the greatest extent possible, unauthorized personnel access to the magazine and provide the licensee with the flexibility to propose alternative security measures that meet the performance standards.

Subsection (d)(4) provides an additional security performance standard for magazines used to store high explosives or detonators. In addition to the outer perimeter security to obstruct or deter unauthorized wheeled vehicle intrusions to all magazines, inner perimeter security to obstruct or deter the intrusion of unauthorized persons must be provided for magazines containing high explosives or detonators. To address the stated grounds for IRRC's order, specifically, clarity and costs, the final-omitted rulemaking has been amended to specify additional inner perimeter security measures, including the use of guard personnel, closed circuit television, electronic intrusion detection devices and fencing. Subsection (d)(6) has also been modified to address IRRC's belief that a single perimeter barrier was adequate. It has been amended to allow a single layer of security, if it meets the performance standards of obstructing unauthorized entry of the site by wheeled vehicles and deters unauthorized access to the magazines by personnel.

To address the stated grounds for IRRC's order, specifically, direct costs to the private sector and adverse effects on prices of goods and services and competition, the minimum distance that inner perimeter security is required to be from a magazine has been reduced from 25 feet to 6 feet. This reduction would save a magazine licensee storing high explosives or detonators in a magazine with a width and length of 10 feet and choosing fencing as inner perimeter security approximately \$3,000 or a savings of nearly 2/3 the cost to meet the requirements.

*Subsection (d)(5) and (11)*

These paragraphs require that all mobile and easily moveable magazines being used as stationary magazines must be immobilized. These amendments provide the licensee with the flexibility to propose alternative security measures that meet the performance standards. To address the stated grounds for IRRC's order, specifically, clarity and direct costs to the private sector, the paragraphs have been amended to clarify which magazines need to be secured to terrain features. These magazines can be identified by measuring their dimensions, which can easily be determined, instead of by weighing them, which would require considerably more effort and additional costs.

*Subsection (d)(12) and (13)*

Subsection (d)(12) requires the licensee to notify the PSP and local law enforcement personnel of the establishment of an explosives magazine. The police will be better informed of the magazine location and may be able to patrol the area and more timely respond to attempted thefts. Subsection (d)(13) requires the licensee to immediately report to the PSP, local law enforcement officials and the Department all thefts, break-ins, attempted break-ins and unaccounted for explosives. Timely investigation should allow for greater recovery of stolen explosives and apprehension of perpetrators. This information will also be useful in evaluating the effectiveness of this final-omitted rulemaking.

*Subsections (e) and (f)*

These subsections establish a compliance schedule for magazines licensed on June 18, 2005. The inspection and

notification requirements contained in this final-omitted rulemaking take effect immediately. The final-omitted rulemaking provides 60 days for licensees to submit to the Department plans and schedules for the implementation of inner and outer perimeter security measures. This final-omitted rulemaking provides each licensee with the flexibility to choose the sequence in which they implement the inner and outer perimeter security measures. Security measures must be implemented within 360 days of the security plan approval unless the licensee requests and justifies and the Department approves a longer time period. The time extension request can be submitted either as part of the security plan or after the licensee starts implementing the plan. To address the stated grounds for IRRC's order, specifically, reasonableness of requirements, implementation procedures and timetables for compliance and clarity, the final-omitted rulemaking has been amended to clearly state that the security measures must be implemented within 360 days of the Department's approval of the security plan rather than within 360 days of the licensee's submittal of the plan. Finally, magazine licensees will immediately have to begin the daily inspections, maintain inspection logs and notify police of storage magazines and report any thefts or break-ins. These requirements will improve security immediately at explosive magazines.

#### *Subsections (g) and (h)*

These subsections provide the licensee with the flexibility to propose to the Department alternatives to the security requirements specified in § 211.115. This final-omitted rulemaking also provides the timeframes for the Department's review and action on these proposals. A licensee can request the Department to formally approve the measures described in the security plan.

#### *Subsection (i)*

This subsection provides that a licensee who installs and maintains security measures required by the final-omitted rulemaking shall be deemed to have obstructed or deterred unauthorized intrusions upon a magazine site.

#### *F. Benefits and Costs*

##### *Benefits*

The benefits of this final-omitted rulemaking are difficult to quantify. By greatly reducing the potential for the theft of explosives, this final-omitted rulemaking makes significantly less likely that individuals will have to bear the costs associated with injuries to persons and property damage resulting from the inept or malicious use of explosives. Reducing access to magazine sites should also reduce the number of thefts and the costs of related investigations.

##### *Compliance Costs*

Small magazine sites, where a few hundred pounds of explosives or less are stored, may cost less than \$12,000 to secure. Larger sites are estimated to cost less than \$52,000 to secure. The savings to the regulated community would be in the form of prevention of possible lawsuits stemming from explosives stolen from an inadequately secured site, resulting in harm to people or property. The cost to insure secured facilities may be less than the costs to insure unsecured facilities. The licensees' loss due to stolen explosives should also be reduced.

##### *Compliance Assistance Plan*

Compliance assistance will be in the form of allowing adequate time to implement these regulations and provid-

ing outreach and meetings to discuss the regulatory changes proposed with the affected industry community. The Pennsylvania Office of Homeland Security, the PSP and the Department also met with industry trade associations to discuss the amendments.

#### *Paperwork Requirements*

Plans showing the specifications of all security measures required by this final-omitted rulemaking will have to be prepared and submitted to the Department. Additional reporting requirements will not significantly change existing reporting, recordkeeping or other paperwork requirements. Additional recordkeeping requirements will be required to document inspection activities.

#### *Persons Affected by the Final-Omitted Rulemaking*

The final-omitted rulemaking directly affects a class of persons who hold explosive storage licenses issued by the Department and operate in this Commonwealth outdoor magazines and magazines for the storage of blasting agents, high explosives or detonators. This class of licensees consists of approximately 350 magazine site operators. The Department maintains a database that identifies the explosive storage licenseholders/magazine site operators who will receive direct notice from the Department concerning the new requirements.

#### *G. Pollution Prevention*

This final-omitted rulemaking addresses security measures to be taken to prevent unauthorized access to magazines and to prevent the theft of explosives from the magazines. As a result, the issue of pollution prevention is not applicable to this final-omitted rulemaking except as the additional security will reduce the criminal use of stolen explosives that may cause environmental pollution through the release of regulated substances.

#### *H. Sunset Review*

The final-omitted rulemaking will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

#### *I. Regulatory Review*

Under section 7(c) of the Regulatory Review Act (71 P. S. § 745.7(c)), on April 22, 2005, the Department submitted a copy of the amended final-omitted rulemaking and a copy of a Regulatory Analysis Form to IRRC and to the Chairpersons of the House and Senate Committees. On the same date, the Department also submitted this final-omitted rulemaking to the Office of Attorney General for review and approval under the Commonwealth Attorneys Act (71 P. S. §§ 732-101—732-506).

Under section 5.1(j.2) of the Regulatory Review Act, on May 26, 2005, the final-omitted rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on May 12, 2005, and approved the final-omitted rulemaking.

#### *J. Findings*

The Board finds that:

(1) The final-omitted rulemaking is appropriate to implement the requirements of Act 537, as well as the Surface Mining Conservation and Reclamation Act and the Noncoal Surface Mining Conservation and Reclamation Act.

(2) Use of the omission of notice of proposed rulemaking procedure is appropriate because the notice of

proposed rulemaking procedure specified in sections 201 and 202 of the CDL (45 P. S. §§ 1201 and 1202) is, in this instance, contrary to the public interest.

(3) The use of the notice of proposed rulemaking procedures is, in this instance, impracticable, unnecessary and contrary to the public interest in light of the current threat to the public safety from explosive magazines in this Commonwealth that have inadequate security measures. As demonstrated by recent thefts, the existing regulations leave explosives magazines vulnerable to theft.

(4) Persons directly affected by this final order were sent a copy of the proposed amendments at least 2 weeks prior to the adoption of the final-omitted rulemaking.

(5) These amendments are necessary and appropriate for administration and enforcement of the authorizing acts identified in section C of this preamble and in the public interest.

#### K. Order

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 211, are amended by amending §§ 211.101, 211.111, 211.113 and 211.115 to as set forth in Annex A.

(b) The Chairperson shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for approval and review as to legality and form as required by law.

(c) The Chairperson shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(e) This order shall take effect upon publication in the *Pennsylvania Bulletin*.

KATHLEEN A. MCGINTY,  
Chairperson

(*Editor's Note:* For the text of the order of the Independent Regulatory Review Commission, relating to this document, see 35 Pa.B. 3187 (May 28, 2005).)

**Fiscal Note:** 7-394. (1) General Fund; (2) Implementing Year 2004-05 is \$26,000; (3) 1st Succeeding Year 2005-06 is \$147,500; 2nd Succeeding Year 2006-07 is \$152,000; 3rd Succeeding Year 2007-08 is \$156,500; 4th Succeeding Year 2008-09 is \$161,000; 5th Succeeding Year 2009-10 is \$165,000; (4) 2003-04 Program—\$41,056,000; 2002-03 Program—\$43,780,000; 2001-02 Program—\$43,354,000; (7) Environmental Program Mmanagement; (8) recommends adoption. Savings are anticipated to the Pennsylvania State Police General Government Operations appropriations in the General Fund and Motor License Fund. Estimated savings for 2004-05 are \$7,356, \$29,424 for 2005-06, \$30,307 for 2006-07, \$31,217 for 2007-08, \$32,154 for 2008-09 and \$33,119 for 2009-10. About 32% of the savings will accrue to the General Fund and 68% will accrue to the Motor License Fund.

## Annex A

### TITLE 25. ENVIRONMENTAL PROTECTION PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

#### ARTICLE IV. OCCUPATIONAL HEALTH AND SAFETY

#### CHAPTER 211. STORAGE, HANDLING AND USE OF EXPLOSIVES

##### Subchapter A. GENERAL PROVISIONS

##### § 211.101. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Access point*—A point in the outer perimeter security and a point in the inner perimeter security that allows entry to or exit from the magazine or the magazine site.

*Airblast*—An airborne shock wave resulting from an explosion, also known as air overpressure, which may or may not be audible.

*Blast area*—The area around the blast site that should be cleared to prevent injury to persons and damage to property.

*Blast site*—The specific location where the explosives charges are loaded into the blast holes.

*Blaster*—An individual who is licensed by the Department under Chapter 210 (relating to blasters' licenses) to detonate explosives and supervise blasting activities.

*Blaster-in-charge*—The blaster designated to have supervision and control over all blasting activities related to a blast.

*Blasting activity*—The actions associated with the use of explosives from the time of delivery of explosives to a worksite until all postblast measures are taken, including priming, loading, stemming, wiring or connecting, detonating, and all necessary safety, notification and monitoring measures.

*Building*—A structure that is designed for human habitation, employment or assembly.

*Charge weight*—The weight in pounds of an explosive charge.

*Concertina razor wire*—Razor wire that is extended in a spiral for use as a barrier, such as along or on a fence and having a minimum of 101 coils of wire to 50 linear feet.

*Delay interval*—The designed time interval, usually in milliseconds, between successive detonations.

*Detonator*—

(i) A device containing an initiating or primary explosive that is used for initiating detonation of explosives.

(ii) The term includes electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses, detonating cord, delay connectors and nonelectric instantaneous and delay blasting caps.

*Display fireworks*—

(i) Large fireworks designed primarily to produce visible or audible effects by combustion, deflagration or detonation.

(ii) The term includes, but is not limited to, salutes containing more than 2 grains (130 mg) of explosive materials, aerial shells containing more than 40 grams of pyrotechnic compositions, and other display pieces which exceed the limits of explosive materials for classification as consumer fireworks. Display fireworks are classified as fireworks UN0333, UN0334 or UN0335 by the United States Department of Transportation at 49 CFR 172.101 (relating to purpose and use of hazardous materials table).

(iii) The term also includes fused setpieces containing components which together exceed 50 mg of salute powder.

*Explosive*—A chemical compound, mixture or device that contains oxidizing and combustible materials or other ingredients in such proportions or quantities that an ignition by fire, friction, concussion, percussion or detonation may result in an explosion.

(i) The term includes safety fuse, squibs, detonating cord and igniters.

(ii) The term does not include the following:

(A) Commercially manufactured black powder, percussion caps, safety and pyrotechnic fuses, matches and friction primers, intended to be used solely for sporting, recreational or cultural purposes in antique firearms or antique devices, as defined in 18 U.S.C.A. § 921 (relating to definitions).

(B) Smokeless powder, primers used for reloading rifle or pistol cartridges, shot shells, percussion caps and smokeless propellants intended for personal use.

*Flyrock*—Overburden, stone, clay or other material ejected from the blast area by the force of a blast.

*Indoor magazine*—A magazine located entirely within a secure intrusion-resistant and theft-resistant building which is primarily used for commercial or industrial purposes.

*Inner perimeter security*—Measures taken to increase the intrusion resistance and theft resistance of a magazine that encircles an individual or a group of magazines. These measures lie within the outer perimeter security measures.

*Magazine*—A structure used for the storage of explosives.

*Misfire*—Incomplete detonation of explosives.

*Outdoor magazine site*—The contiguous area of land upon which the following are located: a magazine or group of magazines; the outer perimeter security, and the inner perimeter security, if any.

*Outer perimeter security*—Measures taken to increase the intrusion resistance of magazines that encircle the area where the magazines are situated.

*Particle velocity*—A measure of the intensity of ground vibration, specifically the time rate of change of the amplitude of ground vibration.

*Peak particle velocity*—The maximum intensity of particle velocity.

*Person*—A natural person, partnership, association, or corporation or an agency, instrumentality or entity of state government.

*Primer*—A cartridge or package of high explosives into which a detonator has been inserted or attached.

*Purchase*—To obtain ownership of explosives from another person.

*Sale or sell*—To transfer ownership of explosives to another person.

*Scaled distance (Ds)*—A value calculated by using the actual distance (D) in feet, measured in a horizontal line from the blast site to the nearest building or structure, neither owned nor leased by the blasting activity permittee or its customer, divided by the square root of the maximum weight of explosives (W) in pounds, that is detonated per delay period of less than 8 milliseconds.

$$D_s = D / (\text{square root of } W)$$

*Stemming*—Inert material placed in a blast hole after an explosive charge for the purpose of confining the explosion gases to the blast hole, and inert material used to separate explosive charges in decked holes.

*Structure*—

(i) A combination of materials or pieces of work built or composed of parts joined together in some definite manner for occupancy, use or ornamentation.

(ii) The term includes everything that is built or constructed, including bridges, offices, water towers, silos and dwellings.

*Utility line*—An electric cable, fiber optic line, pipeline or other type of conduit used to transport or transmit electricity, gases, liquids and other media including information.

*Wheeled vehicle*—A vehicle that moves about on three or more wheels and has a gross vehicle weight of less than 11,000 pounds.

**Subchapter B. STORAGE AND CLASSIFICATION OF EXPLOSIVES**

**§ 211.111. Scope.**

(a) This subchapter applies to the classification and storage of explosives. It establishes the requirements, procedures and standards for licensing, constructing, and siting and maintaining magazines.

(b) Persons storing explosives underground in permitted underground mines are exempt from this subchapter.

**§ 211.113. Application contents.**

(a) An application to obtain, renew, modify or transfer a magazine license shall be on forms approved by the Department. Before the Department issues, renews, transfers or modifies a license, the application must demonstrate that the applicant has complied with the applicable requirements of this chapter.

(b) A completed license application shall include:

(1) The applicant's name, address and telephone number.

(2) A contact person, including name, title and telephone number.

(3) The types and quantities of explosives to be stored within the magazine.

(4) A map, plan or a sketch of the site location showing the nearest buildings, nearest railways, nearest highways, and existing barricades, if any, and proposed barricades.

(5) A plan showing the design and specifications of the magazine to be licensed.

(6) A plan showing the design, specifications, dimensions and locations of all security measures to be installed

under § 211.115(d) (relating to standards for classifying and storing explosives and constructing, maintaining and siting magazines).

(7) The latitude and longitude of outdoor magazines except for Type 3 magazines as defined in 27 CFR 555.203(c) (relating to types of magazines).

(8) The latitude and longitude of indoor magazines containing high explosives.

(c) A license renewal application shall include:

(1) The applicant's name, address and telephone number.

(2) A contact person, including name, title and telephone number.

(3) The maximum amount and type of explosives for which the magazine is currently licensed.

**§ 211.115. Standards for classifying and storing explosives and constructing, maintaining and siting magazines.**

(a) The provisions of 27 CFR Part 555, Subpart K (relating to storage), are incorporated herein by reference. If any provision of 27 CFR Part 555, Subpart K addresses an issue addressed in this section, the more stringent provision applies. These provisions shall be used to:

(1) Classify explosives.

(2) Determine which class of explosives may be stored in each type of magazine.

(3) Determine the quantity of explosives that may be stored.

(4) Determine the applicable construction standards for each type of magazine.

(5) Site the magazine.

(6) Specify maintenance and housekeeping standards for a magazine.

(7) Grant variances.

(b) For purposes of incorporation by reference of 27 CFR Part 555, Subpart K, the term "Department" is substituted for the term "director" and the term "representatives of the Department" is substituted for the term "ATF Official."

(c) Indoor magazines shall be located in buildings which are in compliance with all applicable building codes and other applicable regulations

(d) Persons storing only display fireworks in Type 4 magazines as defined in 27 CFR 555.203(d) (relating to types of magazines) are exempt from this subsection except for paragraphs (8) and (9). Type 3 magazines as defined in 27 CFR 555.203(c), are exempt from this subsection. The following security measures apply to outdoor magazines and to indoor magazines located in buildings that are not intrusion-resistant and theft-resistant:

(1) Each magazine site shall be inspected by the licensee or his agent at least daily at approximately 24-hour intervals. If all magazines and outer perimeter security gates at the site are equipped with electronic intrusion detection devices conforming with paragraphs (3)(ii) or (iii), and (4)(ii) or (iii), or otherwise approved, in writing, by the Department, the inspection shall be conducted at least every 7 days. Individual magazines or entire magazine sites which do not contain explosives are not required to be inspected provided the inspection records reflect the date the last explosives were removed from the

magazine. Each inspection shall include the magazine itself, the access points and perimeter security. The inspection can be performed by a person or electronically by remote cameras. A record of the inspections shall be kept and made available to the Department. Records shall be maintained for at least 3 years. The record of each inspection shall include:

(i) The names of the persons who inspected the site.

(ii) The date and time each inspection began and ended.

(iii) Any information related to the integrity of the magazine site.

(iv) Actions taken on problems discovered.

(v) The dates on which no inspections were conducted because no explosives were contained in the magazine.

(2) There may be no more than one access point to each magazine site. The Department may approve, in writing, more than one access point to a magazine site if the Department determines that the security of the site will be maintained.

(3) Each magazine must have outer perimeter security that obstructs, to the greatest extent possible, unauthorized access to the magazine by wheeled vehicles. The outer perimeter security must surround the entire magazine site and be located at least 25 feet away from the exterior of any magazine within the site or at least 25 feet away from the inner perimeter security measures, whichever is applicable. The Department may approve, in writing, a lesser distance upon request when the Department determines a lesser distance is appropriate and will not compromise the security of the magazine site. The outer perimeter security requirements can be met by measures approved by the Department as provided for in subsection (g) or by one or a combination of the following:

(i) A sufficient number of personnel assigned to physically inspect each magazine containing explosives or detonators at least once every hour. All persons acting in this capacity shall at all times be equipped with a communications device capable of providing direct verbal communications with either the police department having jurisdiction or another person who has the ability to contact the police department having jurisdiction.

(ii) Closed Circuit Television (CCTV) continuously monitoring the entire outer perimeter, or any portion of the outer perimeter that is not protected by another measure.

(A) The images shall be recorded and maintained at least until magazine integrity is confirmed during the next required site inspection.

(B) The latest output images of all CCTV cameras shall be viewed at least once every hour by a person having direct verbal communications with the police department having jurisdiction.

(iii) Electronic intrusion detection devices including, but not limited to: microwave sensors, seismic detectors, vehicle detectors, alarms or infrared motion detectors.

(A) If microwave sensors, seismic sensors, vehicle detectors or similar devices are used, the zone of detection of the devices shall encompass the entire outer perimeter, or any portion of the outer perimeter that is not protected by another measure.

(B) All systems shall have the capability of providing initial notification of an alert within 15 minutes of an event and an onsite presence in response to an alert within 1 hour.

(C) All systems shall have a backup power supply, and provide an alert in the event of a power loss or a compromise of the system integrity.

(iv) An earthen barrier, a minimum of 7 feet in height. Earthen barriers shall be constructed to obstruct, to the greatest extent possible, unauthorized access by wheeled vehicles. If made of loose soils the earthen barrier shall be compacted and vegetated to the greatest extent possible.

(v) A barrier constructed of boulders. The boulders shall be of a size and weight sufficient to deter, to the greatest extent possible, defeat of the barrier by wheeled vehicles.

(vi) A highwall that is a minimum of 7 feet in height and whose face or slopes are sufficient to obstruct, to the greatest extent possible, unauthorized access to the magazine site by wheeled vehicles.

(vii) Barriers composed of natural terrain features which are impassable, to the greatest extent possible, to wheeled vehicles.

(viii) A fencing system constructed of members that are of sufficient size, strength and anchorage to deter, to the greatest extent possible, the fencing system from being bent over, broken through or uprooted by a wheeled vehicle.

(ix) Other equivalent barriers approved by the Department, in writing.

(4) In addition to the requirements contained in paragraph (3), a magazine or group of magazines within a site that contains high explosives or detonators shall be enclosed by inner perimeter security designed to obstruct, to the greatest extent possible, access by unauthorized persons. The additional inner perimeter security shall be located at least 6 feet away from the exterior of any magazine within the site and at least 25 feet inside and away from the outer perimeter security. The inner perimeter security requirement can be met by measures approved by the Department as provided for in subsection (g) or by one or a combination of the following:

(i) A sufficient number of personnel assigned to physically inspect each magazine containing high explosives or detonators at least once every hour. All persons acting in this capacity shall at all times be equipped with a communications device capable of providing direct verbal communications with either the police department having jurisdiction or another person who has the ability to contact the police department having jurisdiction.

(ii) CCTV continuously monitoring the magazine interior or the exterior of the doors of each magazine containing high explosives or detonators.

(A) The images shall be recorded and maintained at least until magazine integrity is confirmed during the next required site inspection.

(B) The latest output images of all CCTV cameras shall be viewed at least once every hour by a person having direct verbal communications with the police department having jurisdiction.

(iii) Electronic intrusion detection devices including, but not limited to: microwave sensors, seismic detectors, alarms or infrared motion detectors.

(A) If alarms, infrared motion detectors or other similar devices are used, they shall be installed on each magazine containing high explosives or detonators. Alarms shall be installed on all magazine doors. Infrared

motion detectors and other similar devices shall be installed on the interior of each magazine.

(B) If microwave sensors, seismic sensors or similar devices are used, the zone of detection of the devices shall encompass the entire inner perimeter, or any portion of the inner perimeter that is not protected by another measure.

(C) All systems shall have the capability of providing initial notification of an alert within 15 minutes of an event and an onsite presence in response to an alert within 1 hour.

(D) All systems shall have a backup power supply, and shall provide an alert in the event of a power loss or a compromise of the system integrity.

(iv) A highwall that is a minimum of 20 feet in height and whose face or slopes are sufficient to obstruct, to the greatest extent possible, access by unauthorized persons.

(v) A fence constructed of a minimum of 9 gauge chain link fencing with a maximum 2-inch mesh that is kept in a condition which maintains its original functionality. The fence shall:

(A) Be buried at least 1 foot at the base or be equipped with a minimum 1.66 inch outside diameter bottom rail.

(B) Have a minimum height of 8 feet above the ground.

(C) Have a top rail with a minimum 1.66 inch outside diameter.

(D) Have firmly anchored posts 10 feet or less on center. End, corner and pull posts shall have a minimum outside diameter of 2.875 inches if round or 2.5-inch square. Intermediate posts shall have a minimum outside diameter of 2.375 inches if round or 2.25-inch C-Section. Posts shall be set in concrete at a minimum depth of 33 inches. The post holes shall be a minimum of 12 inches in diameter and be completely filled with concrete.

(E) Have outriggers at the top with concertina razor wire attached.

(F) Have concertina razor wire attached on the inside at the bottom.

(G) Have as many gates as the licensee demonstrates are necessary to provide for the safe exit of employees in the event of an emergency.

(H) All inner perimeter security emergency exit gates shall meet the requirements specified in paragraph (6).

(I) Vegetation shall be kept trimmed or suppressed to a distance of 6 feet from each side of the fence.

(vi) The Department may approve, in writing, the use of other security fence systems or other barriers that provide at least equivalent security.

(5) In addition to outer perimeter security, all portable magazines being used as stationary magazines and magazines having an a volume of less than 3 cubic yards shall be immobilized by fastening the magazine securely to the earth or a terrain feature in a manner sufficient to prevent displacement of the magazine by a wheeled vehicle.

(6) Any single layer of perimeter security measures that obstructs, to the greatest extent possible, unauthorized access to the magazine by wheeled vehicles and deters, to the greatest extent possible, access by unauthorized persons, and is located at least 25 feet away from the exterior of any magazine within the site may be employed to satisfy the requirements of both paragraphs (3) and (4).

(7) Inner perimeter security gates shall be constructed at all access points. Gates shall have firmly anchored posts and shall be kept in a condition which maintains their original functionality. Each gate shall be securely padlocked whenever the site is unoccupied.

(i) Gates shall be constructed of a minimum of 9 gauge chain link fencing with a maximum 2-inch mesh. Gate frame members shall be a minimum outside diameter of 1.9 inches if round or 2.0-inch if square.

(ii) Gates shall have firmly anchored gate posts with a minimum 6.625-inch outside diameter. Posts shall be set in concrete at a minimum depth of 42 inches. The postholes shall be a minimum of 16 inches in diameter and shall be completely filled with concrete.

(iii) Gates shall have outriggers at the top with concertina razor wire attached.

(iv) The construction of the gates shall be contiguous with the surrounding fence.

(v) All gates shall have 2 locks. The locks shall have separate hasps and staples.

(vi) Each lock shall have a hood of at least 1/4-inch thick steel. The hoods must prevent sawing or lever-cutting action on the locks, hasps, and staples.

(vii) Each lock shall have at least five tumblers and a case-hardened shackle of at least 3/8 inches in diameter.

(viii) When a lock and chain are used to secure a gate, the minimum specification of the chain shall be 3/8 inch Grade 70, Transport.

(ix) The Department may approve, in writing, the use of other security gate systems that provide at least equivalent security.

(8) Outer perimeter security gates shall be constructed at all access points. Gates shall be designed and constructed to deter, to the greatest extent possible, defeat of the gate by wheeled vehicles. Gates shall have firmly anchored posts and be kept in a condition which maintains their original functionality. Gateposts shall be a minimum 6.625-inch outside diameter. Posts shall be set in concrete at a minimum depth of 42 inches. The postholes shall be a minimum of 16 inches in diameter and be completely filled with concrete. The Department may approve, in writing, the use of gateposts having smaller diameters or other shapes or alternate gatepost anchoring methods, or both, that provide at least equivalent security.

(9) Outer perimeter security gates shall be padlocked whenever the site is unoccupied. All gates shall have 2 locks which meet the specifications of paragraph (7)(vi)—(viii).

(10) "No Trespassing" signs shall be placed around the outer perimeter of the site. Warning signs shall be placed at all access points. Signs shall be well maintained.

(i) "No Trespassing" signs shall be spaced so that, except for corners, adjacent signs are visible.

(ii) Signs shall be placed so that a bullet passing directly through the sign will not impact a magazine.

(iii) Warning signs at all access points shall provide notice of private property and no trespassing, in addition to providing a notice substantially conforming to the following: "Danger, never fight explosives fires, explosives are stored on this site" to warn first responders and the public of the hazards contained within.

(iv) Warning signs at all access points shall provide an emergency contact phone number.

(v) Signs may not be obscured by vegetation or other obstructions.

(vi) Signs shall be constructed of a durable, weather-resistant material. Letters and numbers shall be of a minimum height of 2 inches that can be easily seen and read.

(11) Magazines shall be constructed to the standards contained in this paragraph. Magazines shall be constructed according to the construction standards found in 27 CFR Part 555, Subpart K (relating to storage) with the following additions:

(i) Mobile type 5 magazines being used as stationary magazines for more than 1 year must be located within the outer perimeter security, shall be immobilized in accordance with 27 CFR 555.211 (relating to construction of type 5 magazines) and be fastened securely to the earth or a terrain feature in a manner sufficient to prevent movement of the magazine by a motor vehicle. Motor vehicles used to transport bulk blasting agents that are left unattended at a magazine site must have two Department approved methods of disabling the vehicles to render them effectively immobilized and the vehicles must be kept within the outer perimeter security. Disabling methods may include:

(A) Steering locking devices

(B) Pedal locking devices

(C) Fuel or electrical system disablers.

(D) Other equivalent disabling measures approved by the Department.

(ii) Systems of pumps or tanks, or both, used to store, mix or dispense bulk blasting agents at magazine sites shall be equipped with locks or shall otherwise be constructed to prevent the unauthorized removal of blasting agents from the system.

(12) A person who stores explosive materials shall notify both the local police having jurisdiction in the area where the explosives are being stored and the Pennsylvania State Police of the storage. This notification must be made in the manner of and in addition to the notification requirements in 27 CFR 555.201(f) (relating to general).

(13) A person who stores explosive materials shall immediately notify the Department, the Pennsylvania State Police and the local police jurisdiction, if any, when any of the following occur:

(i) Evidence is discovered of a break-in or theft at the magazine, or an attempted theft or break-in has occurred.

(ii) The security measures required by this section have been breached or disabled or partially breached or disabled. Short-term partial breaches of security of less than 48-hour duration need not be reported under this subsection if all of the following apply:

(A) The partial breach was due to equipment failure or accidental or natural causes.

(B) An account of the partial breach was recorded under paragraph (1).

(C) Immediate measures are being taken to repair or replace the partial breach.

(iii) Unauthorized persons exhibiting suspicious behavior are observed in the vicinity of the magazine.

(iv) Inventory records indicate that explosive material is missing and unaccounted for.

(14) The notifications to State and local agencies required in paragraphs (12) and (13) are in addition to any notification required by agencies of the United States.

(e) Licensees of magazines licensed prior to June 18, 2005, shall comply with this section according to the following schedule except as approved by the Department under subsections (f) and (g):

(1) Immediately upon June 18, 2005, the inspection and notification requirements shall be implemented.

(2) Within 180 days of approval of the plan required by subsections (f) or (g), implement either the outer or inner perimeter security measure requirements.

(3) Within 360 days of approval of the plan required by subsections (f) or (g), implement the remaining perimeter security measure requirements.

(4) The Department, at its sole discretion, may approve, in writing, a time extension to the requirements of either paragraph (2) or (3) if the licensee has demonstrated a good faith effort to comply with the perimeter security measure requirements imposed under this chapter.

(f) By August 17, 2005, licensees of magazines licensed prior to June 18, 2005, shall submit to the Department on forms provided by the Department:

(1) The plan required by § 211.113(b)(6) (relating to application contents).

(2) A schedule for the implementation of the plan required by § 211.113(b)(6).

(3) If the security enhancements required by subsection (d) cannot be implemented in the time frames required by subsection (e), the plan must include a request for a time extension. The request for a time extension must include a schedule and a justification for the extension. The

Department will act upon time extension requests within 30 days of the receipt of the request.

(g) After consultation with the Pennsylvania State Police and the Pennsylvania Office of Homeland Security, the Department may approve, in writing, alternatives to specific requirements of this section which are based upon advanced technology or other alternatives and which, either alone or in combination with other measures, provide at least equivalent security at magazines or magazine sites. The Department will act upon requests for approval of alternative security measures or, upon the written request of the licensee, for approval of plans submitted pursuant to subsection (f) within 30 days of the receipt of the request. The Department may extend this review period for up to an additional 30 days if additional time is necessary to properly review the request.

(h) Requests for Department approval of plans submitted under subsection (f) or alternate requirements, including alternative security measures and time extensions under this section, shall be on forms provided by the Department.

(i) A licensee will be deemed to be in compliance with this section as to having deterred or obstructed, to the greatest extent possible, unauthorized intrusion upon a magazine site if the licensee constructs, installs, implements and maintains the security measures specified in subsection (d), which meet the requirements of this section and which are specified by the licensee in one of the following:

(1) A plan submitted to the Department under subsection (f).

(2) A plan submitted to and approved by the Department under subsection (g).

(3) A plan submitted to the Department under § 211.113(b)(6) (relating to application contents).

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