

**ENVIRONMENTAL QUALITY BOARD**  
**[25 PA CODE CHS. 210 & 211]**  
**Handling and Use of Explosives**

The Environmental Quality Board (Board) proposes to amend the explosives regulations at 25 Pa. Code Chapter 210 (relating to Blasters' License) and 25 Pa. Code Chapter 211 (relating to Storage, Handling and Use of Explosives).

This proposed rulemaking was adopted by the Board at its meeting of \_\_\_\_\_, 2015.

*A. Effective Date*

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

*B. Contact Persons*

For further information, contact Thomas Callaghan, PG, Director, Bureau of Mining Programs, Rachel Carson State Office Building, 5<sup>th</sup> Floor, 400 Market Street, P. O. Box 8461, Harrisburg, PA 17105-8461, (717) 787-5015; or Joseph Iole, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposed rulemaking appears in Section J of this preamble. Persons with a disability may use the AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department of Environmental Protection's (Department) web site at [www.dep.state.pa.us](http://www.dep.state.pa.us) (select: "Public Participation Center," then select "The Environmental Quality Board").

*C. Statutory Authority*

This proposed rulemaking is promulgated under the authority of Sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-17 & 510-20); Sections 3 and 7 of the act of July 1, 1937 (P. L. 2681, No. 537) (73 P. S. §§ 157 & 161); Section 3 of the act of July 10, 1957 (P. L. 685, No. 362) (73 P. S. § 166); Reorganization Plan No. 8 of 1981 (71 P. S. § 751-35) (transferring powers and duties conferred under 1937 and 1957 explosives acts from Department of Labor and Industry to Department of Environmental Resources); Section 2(f) of the act of May 18, 1937 (43 P. S. § 25-2(f)) (general workplace safety law regarding "pits, quarries, [noncoal] mines, trenches, excavations, and similar operations"); Reorganization Plan No. 2 of 1975 (71 P. S. § 751-22) (transferring powers and duties conferred under 1937 workplace safety law regarding pits, quarries, etc., from Department of Labor and Industry to Department of Environmental Resources); 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)).

#### *D. Background and Purpose*

The proposed rulemaking revises explosive regulations to address blasting activities for seismic exploration. While permits are currently required for this activity, a supplement to the Department's blasting activity permit application form is necessary, because detailed information is needed for site security and regulatory compliance. This seismic supplement form provides the applicant an opportunity to provide the detailed information. The specifications for this additional information are included in this proposed rulemaking. For example, it is often necessary for explosive charges to remain in the ground for extended periods of time-the regulations specify the security measures needed to protect the public safety. The proposed rulemaking will codify requirements, providing certainty to the regulated community regarding the regulatory framework for seismic exploration. The rulemaking also updates explosives use requirements to reflect current practices, eliminates antiquated requirements, and provides a more effective enforcement mechanism. The updated requirements will result in more consistency between the requirements for construction blasting and blasting for mining operations. Regarding enforcement, the current regulations entail criminal penalties for blasting-related violations, imposed by means of summary citations and possible misdemeanor charges. The proposed rulemaking provides a system for issuing civil penalty assessments for such violations. The proposed rulemaking also includes a revised fee schedule to cover costs associated with various permit-related work, license renewals, and required on-site safety inspections.

#### *Advisory Board Collaboration and Outreach*

Because the mining regulations require compliance with Chapters 210 and 211, the Department reviewed the proposed rulemaking with the Mining and Reclamation Advisory Board (MRAB) and the Aggregate Advisory Board. On April 23, 2015, the MRAB voted to recommend that the proposed rulemaking proceed. On May 20, 2015, the Aggregate Advisory Board voted to recommend the same.

There is no advisory board for the use of explosives for construction or seismic exploration. The Department did outreach through the trade groups for these industry sectors and with the Pennsylvania Chapters of the International Society of Explosives Engineers.

#### *E. Summary of Proposed Regulatory Requirements*

##### *Section 210.11 Definitions*

The proposed rulemaking includes the addition of definitions of "ATF," "employee possessor," "explosives materials," "limited" and "responsible person." The term "limited" is being added as a category of Blaster's License. This is the category that blasters who use explosives for activities where blasting is not related to excavation or demolition and which applies to seismic exploration operations. Other explosives users who fit within the limited category include those who detonate or supervise the loading of explosives charges in well perforation operations or industrial processes. The other definitions are being added because the blaster's license requirements are coordinated with the requirements of the federal Bureau of Alcohol, Tobacco,

Firearms and Explosives (ATF). The ATF regulations require background checks for explosives users so there is no need for the Department to duplicate this effort.

#### *Section 210.13 General*

The proposed rulemaking adds subsection (b) and labels existing subsections (b) through (d) to be (c) through (e). Subsection (b) requires verification that a person applying for a Blaster's License has complied with the ATF requirements.

#### *Section 210.15 License application*

The proposed rulemaking amends subsection 210.15(a) to increase the fee amount for a new blaster's license from \$50 to \$150, in order to cover the costs for administering the blaster's certification program.

#### *Section 210.16 Examinations*

The proposed rulemaking revises subsection 210.16(c) to add the timeframe of two weeks to the prior notice needed in order to avoid forfeiture of the application fee if an applicant fails to appear for a Blaster's License examination. This is necessary as the Department needs to be able to plan for classes to provide sufficient resources.

#### *Section 210.17 Issuance and renewal of licenses*

The proposed rulemaking revises subsection 210.17(a) to delete the "seismic and pole line" and "well perforation" categories of Blaster's licenses and add a category for "law enforcement." The deleted categories are properly classified under the limited category. The law enforcement category is added to reflect the unique circumstances related to the use of explosives for training by police bomb squads and for regulatory officials. Subsection 210.17(d) is revised to insert "a minimum of" to modify the 8 hours of continuing education required for each three-year renewal period. Subsection 210.17(e) is revised to increase the fee for a Blaster's license renewal from \$30 to \$150.

#### *Section 210.19 Suspension, modification and revocation*

The proposed regulations revise Section 210.19 to add a reference to Chapter 77 (relating to Noncoal Mining), Chapter 87 (relating to Surface Mining of Coal) and Chapter 88 (relating to Anthracite Coal) in order to clarify that blasting violations at mine sites are also included in the violations to be considered for suspension, modification or revocation actions. The phrase "in surface applications" is deleted from the description in order to clarify that violations in the underground mining context are also to be included.

### *Section 210.20 Fees*

The proposed rulemaking adds Section 210.20 in order to impose an additional fee of \$10 per year for administering a Blaster's License. This fee is related to the evaluation of continuing education requirements and confirmation that requirements of the ATF are met.

### *Section 211.101 Definitions*

Section 211.101 is being revised to add and delete some definitions and to revise two definitions. The term "Acts" is added in order to provide a reference to the explosive safety laws of 1937 and 1957. The term "Annual administration fee" is added in order to implement new fees for administering, blasting licenses and permits. "ATF" is being added. The definition for "blast area" is being revised to clarify that this area must include the area necessary to be secure to prevent injuries. "Cube root scaled distance" is added to evaluate the potential effects of air blasts from demolition blasting for permit review. "Display fireworks" is deleted because it is no longer used in Chapter 211-the most recent revision in 2001 eliminated the need for the definition but it was inadvertently left in the regulations at that time. "Employee possessor" is added in order to implement the cross reference with the ATF requirements. "Environmental Hearing Board or EHB" is being added because it is referred to in the civil penalty subchapter. The term "explosive" is being deleted and is replaced with "Explosive materials" in order to be consistent with the ATF requirements. The definition of "Flyrock" is revised to provide clarity through more detail. "Nuisance" is added for use relating to enforcement actions by the Department. "Purchase" is being deleted because the requirement for a permit to purchase is being eliminated in the proposed rulemaking. "Responsible person" is added in order to implement the cross reference with the ATF requirements. "Sale or sell" is being deleted because the requirement for a permit to sell is being eliminated in the proposed rulemaking. ATF has rules for the sales and purchase of explosives which are more stringent than the Department's current rules. "Unauthorized detonation of explosives," "Unauthorized handling and use of explosives" and "Unauthorized storage of explosives" are being added so it is clear that the Department can take enforcement action when these illegal activities occur.

### *Section 211.102 Scope*

Subsection (a) is revised to eliminate the reference to "purchasing and selling" since the rulemaking is removing the requirement to have a permit to purchase or a permit to sell. This section is also being revised to clarify which regulations are applicable to underground mining. Subsection (b) is revised to eliminate the reference to "the purchase or sale of explosives"

### *Section 211.103 Enforcement*

Subsection (a) is revised to add that the Department may issue orders for violations and to require corrective actions. Subsection (c) is added to cross-reference the mining-specific explosives regulations and to include interference with the Department and falsification of records as violations. Subsection (d) establishes a permit and license block for violations of state and federal explosives requirements. Persons with an outstanding violation will not be eligible for a permit or license until the outstanding violation is corrected.

### *Section 211.112 Magazine license and fees*

The proposed rulemaking adds subsection (b) to require verification of compliance with ATF requirements prior to approval of a storage magazine license by the Department. The insertion of subsection (b) requires the relettering of existing sections (b) through (d) to be (c) through (e). Newly relettered subsection (d) is revised to remove the restrictions on the expiration date and period of time that a magazine license may be issued for. This will allow the Department to more efficiently manage the workload of processing magazine license renewals by preventing all of the applications from being due every year by December 31. The Department may allow for storage magazine licenses to be renewed for more than a one-year period.

### *Section 211.113 Application contents*

The proposed rulemaking amends subsection (b)(1) to add the ATF license or permit number as required information for a magazine license application.

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

The proposed rulemaking adds subsection (j) to require that a magazine licensee has a person who is available to respond to emergencies and that the Department be granted access to the magazines within 4 hours of requesting access to the magazines to conduct inspections.

### *Section 211.116 Decommissioning magazines*

Section 211.116 is added to provide the requirements for when an explosives storage magazine license is no longer valid. When magazines are no longer used, a process to ensure that the explosives are removed from the magazines and either used or moved to another storage location is necessary for public safety. In a recent case, a magazine from a long-closed sporting goods store was scrapped without being emptied. A worker was fatally injured while cutting up the magazine.

### *Section 211.117 Daily summary of magazine transactions*

Section 211.117 is added to require that the explosives inventory records required by ATF be made available to the Department upon request.

### *Section 211.121 General Requirements*

Revisions are proposed in subsections (a), (b), and (d) to reflect the elimination of the requirement for permits to purchase and permits to sell. In addition, subsection (f) is added in order to clarify that three parties are each responsible for compliance with permits -- the permittee, the listed subcontractor or subcontractors, and the blaster-in-charge.

### *Section 211.122 Permits to sell explosives*

This section is deleted in order to eliminate the requirement to have a permit in order to sell explosives in Pennsylvania. The requirement to have a permit to sell explosives predates the requirement for a blasting activity permit and the more stringent ATF requirements put in place in the aftermath of the Oklahoma City bombing. These more recent requirements render the permit to sell explosives obsolete.

### *Section 211.123 Permits to purchase explosives*

This section is deleted in order to eliminate the requirement to have a permit in order to purchase explosives in Pennsylvania. The rationale for permits to sell also applies to permits to purchase. The recent requirements render the permit to purchase explosives obsolete.

### *Section 211.124 Blasting activity permits*

Subsection (a) is revised to require that an application for a blasting activity permit be prepared by a blaster licensed in a category that would be required to conduct the blasting proposed under the application. For example, a blaster licensed in the limited category would not be eligible to prepare a blasting activity permit application to conduct blasting for a trenching and construction project. Subsections (a)(2) and (a)(3) are being added to require a signature by the applicant and documentation of the ATF authorization for the applicant. Under the existing regulations, only the licensed blaster's signature is required. Requiring the applicant to sign provides documentation that the permit holder has requested the authorization to be granted under the blasting activity permit. The requirement for documentation of the ATF authorization confirms that the applicant or contract blasting company meets the federal regulatory standards.

The insertion of subsections (a)(2) and (a)(3) necessitates the renumbering of existing subsections (a)(2) through (a)(6) to be (a)(4) through (a)(8). Proposed subsection (a)(4) is revised to state more clearly the requirement for a contact person to be listed on an application. Proposed subsection (a)(6) is revised to include the term "specific" as a modifier for the types of explosives to be used. Different explosives have different characteristics and densities which affect how the explosives perform when detonated and the quantity per volume of the explosives loaded into a borehole. For example, some blasting agent blends have higher detonation velocities than others. Blasting agents with higher detonation velocities produce a stronger shock wave which is ideal for breaking harder rock such as granite. Blasting agent blends with lower detonation velocity produce greater gas pressure and are ideal for breaking sandstone or hard shale. Blast performance is related to the level adverse effects with more efficient blasts resulting in less adverse effects. Including the specific type of explosives in a blasting activity permit application helps the permit reviewer better understand the intent of the applicant so the reviewer can make an informed decision on the feasibility of the activity proposed on the application resulting in regulatory compliance. Proposed subsection (a)(9) is added to require the minimum scaled distance to be included in the application and to specify that for demolition projects the scaled distance to be used is the cube root scaled distance. Scaled distance is an important planning tool in order to limit the adverse effects of blasting. Cube root scaled

distance is used to plan for the effects of air blast which is the most common impact of demolition blasting.

The insertion of subsection (a)(9) necessitates the renumbering of subsections (a)(7) through (a)(17) to be (a)(10) through (a)(20).

Proposed subsection (a)(10) is revised to include that public roads, buildings or other structures must be shown on the map submitted with the application. Proposed subsection (a)(14) is revised to increase the minimum required liability insurance limits and to require that the permittee be covered by the insurance for what is widely accepted as a minimum industry standard amount. Proposed subsection (a)(17) provides standardization for the requirement for identifying the building that will be closest to the blasting. Subsection (a)(20) is revised to change the minimum distance from 200 feet to 300 feet, or another distance to be specified by the applicant or the Department in the permit, for when notification of residents is required. This is necessary due to the potential effects of carbon monoxide produced by blasts. Subsection (a)(21) is added to require specific loading plans describing the ranges of blast design parameter dimensions to more accurately describe how blasts are to be designed and better evaluate the feasibility of the blasting activity to be conducted in compliance with the regulations. Blast design parameter dimensions can be compared to widely accepted norms to evaluate feasibility. Subsection (a)(22) is added to require a description of the stemming material which is proposed to be used. Drill cuttings or crushed stone are typically used as stemming. While drill cuttings may be effective in some cases, crushed stone is better to ensure that the energy of the detonation of the explosives is contained within the rock. In some cases, such as when blasting is conducted in close proximity to people or structures, the only reasonable type of stemming is crushed stone.

Subsection (e) is added to require that the blaster-in-charge have the blasting activity permit or blast plan in his or her possession. This helps assure that the blasting will be conducted as planned and approved.

#### *Section 211.125 Blasting activity permit-by-rule*

Subsection (a) is revised to exclude demolition and seismic exploration projects from the automatic approval associated with the permit-by-rule. It is necessary to permit blasting for demolition and seismic exploration with individual permits because these uses of explosives are complex and require site-specific planning.

#### *Section 211.126 Fees*

Section 211.126 is added to impose fees for the first time for blasting activity permit applications, magazine security plan applications and revisions, magazine decommissioning and monitoring magazines. The fees are based upon the Department's costs for personnel to complete the work. A lower fee is proposed for a blasting activity permit filed on-line than for one filed by way of a paper application because it is more efficient to process the applications which are filed electronically. Magazine security plan review requires a site visit by the blasting and explosives inspector in order to confirm that the proposed security measures will be effective in the location where the explosives storage is proposed. Magazine decommissioning requires an

inspection to confirm that the magazine has been emptied of the explosives. The monitoring fee is based upon inspecting a magazine at least every other year to determine compliance with the performance standards for explosives storage.

#### *Section 211.131 Sales records*

This section is deleted to implement the elimination of the requirement for permits to sell explosives.

#### *Section 211.132 Purchase records*

This section is deleted to implement the elimination of the requirement for permits to purchase explosives.

#### *Section 211.133 Blast Reports*

The proposed regulations amend Section 211.133 to provide clarifications about the information needed to document each blast. These revisions provide specificity about how to comply with the general requirement in subsection (a) “to provide the Department with sufficient information to reconstruct the conditions and events surrounding a blast.” Subsection (a)(1) is revised to specify that the blast location must be identified using at least one corner of the blast pattern as a reference point. Subsection (a)(2) is added to require the distance and direction from the blast to the location where seismograph monitoring was done. Subsection (a)(3) is added to specify that the latitude and longitude is required for these monitoring locations and that a 911 address be provided for buildings where monitoring is done.

Existing subsections (a)(2) through (a)(6) are renumbered to be (a)(4) through (a)(8), respectively, due to the insertion of new subsections (a)(2) and (a)(3). Existing subsection (a)(7) is renumbered and revised to add the delay timing and description of the ground around the blast site to required items to be included on the sketch which must accompany the blast record. This information is needed in order to verify the amount of explosives and the number of holes or decks detonated per delay period and to determine the degree of horizontal relief provided for the blast, which affects levels of adverse effects such as ground vibration and the risk of flyrock.

Existing subsection (a)(8) is renumbered to be (a)(10) and is revised to specify that the diameter and depth of each blast hole is needed on the blast record. To accurately describe how a blast was loaded, the diameter and depth of each hole must be provided rather than ranges or averages.

Existing subsection (a)(9) is renumbered to be (a)(11). New subsection (a)(12) is added to specify that the amount of explosives loaded in each hole needs to be reported. Subsection 211.154 (f)(5) requires that while loading a blast hole, each blast hole shall be logged throughout the loading process to measure the amount and location of explosives placed in the blast hole and that the information is to be recorded on the blast report required by 211.133. This regulatory requirement is met by specifying that the amount of explosives loaded in each borehole be provided on blast reports.



Existing subsection (a)(10) is renumbered to be (a)(13). Existing subsection (a)(11) is renumbered to be (a)(14) and revised to insert the requirement to include the product density for bulk blasting agents and the weight for packaged blasting agents. This information is needed in order to verify the scaled distance and the maximum number of pounds per delay for the blast. Existing subsections (a)(12) and (a)(13) are renumbered to be (a)(15) and (a)(16), respectively.

Existing subsection (a)(14) is renumbered to be (a)(17) and revised to insert the requirement to provide the direction in degrees to the nearest building and to include leased buildings in the exception to this requirement. Existing subsection (a)(15) is renumbered to be (a)(18) and is revised to include the street address and latitude and longitude for the nearest building and delete the reference to local landmarks. Existing subsection (a)(16) is renumbered to be (a)(19) and is revised to describe where the scaled distance is measured to. Existing subsections (a)(17) through (a)(22) are numbered to be (a)(20) through (a)(25), respectively.

New subsection (a)(26) is added to require a drill log which shows the condition of all holes which were drilled for a blast whether they were loaded or not. Borehole conditions can vary with some boreholes being in rock that is badly cracked and some in rock that isn't cracked. Whether a borehole is cracked throughout its length or not is usually not evident on the surface. It is necessary to provide this information on a blast record because borehole conditions have a significant effect on blast performance. Existing subsections (a)(23) and (a)(24) are renumbered to be (a)(27) and (a)(28), respectively.

#### *Section 211.141 General requirements*

The reference to purchase and sale permittees is deleted since the requirement to obtain these permits is being eliminated by this proposed rulemaking. Subsection (13) is revised to specify that it is on-road vehicles that need to pass the state inspection requirements. Subsection (14) is added to require that any vehicle used off-road to transport explosives be properly equipped to do so. Subsection (15) is added to require that explosives be removed from a vehicle before maintenance or repairs are done on the vehicle.

#### *Section 211.151 Prevention of damage or injury*

The subsection title is proposed to be revised to include injury. Subsection (a) is revised to insert the concept of prevention of injury. These revisions are focused on safety. The proposed revisions also delete the modifier "real" to property to prevent any property damage, not just damage to real property. Subsection (b) is added to introduce the concept that blasting needs to be conducted in a manner that prevents a nuisance. Existing subsection (b) is relettered to be (c). Existing subsection (c) is relettered to be (d) and revised to specify the location where the scaled distance applies and to remove the grandfather clause which applies to blasting activities approved prior to July 14, 2001. This is no longer needed since enough time has passed that there aren't any remaining cases which qualify for this exception.

Existing subsection (d) is relettered to be (e) and is revised to apply the 133 dBL air blast standard under all circumstances. Table 1 is deleted in order to do this. Table 1 was needed in

the past because of the variety of instruments used to measure air blast. Technology has provided standardization and the variable limits are no longer applicable.

Existing subsection (e) is relettered to be (f) and is revised to describe the circumstances under which an alternate ground movement limit may be applied by the Department.

Subsection (g) is added to require the self-reporting of air blast and ground vibration limit violations within 24 hours of when the violation is identified. High air blast or ground vibration levels are indicative of inefficient blast designs. If inefficient blast designs continue to be employed then other adverse effects such as flyrock or toxic gas migration are more likely to occur. The Department needs to be aware of exceedances of the ground vibration and air blast limits so that it can evaluate the situation to determine if action is necessary to ensure public safety.

Subsection (h) is added to require that blasting be conducted in a manner that protects utility lines. Sections 211.181 and 211.182 provide for the protection of underground utilities. The addition of this section clarifies that all utilities, including overhead utilities must be protected.

*Section 211.152 Control of noxious gases, including carbon monoxide (CO) and oxides of nitrogen (NOx)*

The title of Section 211.152 is revised to specify carbon monoxide and oxides of nitrogen. Subsection (a) is revised to insert “toxic” to modify the term gases, specify carbon monoxide and oxides of nitrogen and describe the measures which can be taken to reduce the risk of and adverse impact from the gases. Carbon monoxide has become a more prominent issue in recent years due to the proximity of blasting to homes and the availability of CO detectors. Workers and residents of nearby homes are subject to this risk because blasting produces large volumes of gases.

Subsection (b) is added in order to require reporting to the Department of incidents where gases have affected the health or safety of workers or neighbors. In cases where gases have affected the health or safety of workers or neighbors, the Department needs to evaluate the situation to determine what safeguards should be put in place to ensure public safety prior to further blasting operations on the site.

*Section 211.154 Preparing the blast*

Subsection (a) is revised to specify that both the blaster-in-charge and the permittee are responsible for the effects of a blast. Subsection (b) adds a description of the documentation needed in a request for a lower distance limitation for equipment operation not related to the blast loading. Subsection (d) is revised to specify that at-the-hole communication or written drill logs are required in order for the blaster-in-charge to know the condition of the holes which are to be loaded. It is necessary that this information is provided to blasters because borehole conditions should be used to determine if, or how, each borehole is loaded. These conditions have a significant effect on blast performance. This is necessary to determine how to load boreholes in a manner that results in a safe and efficient blast. Subsection (f)(5) is revised to

correct the erroneous term “leading” to be the correct term “loading.” Subsection (n) is revised to provide very specific options for protecting the traveling public. These measures are consistent with the requirements in Chapter 87 (relating to Surface Mining of Coal).

#### *Section 211.155 Preblast measures*

Subsection (7) is added to require the posting of signs at the blast site to provide warning that blasting operations are underway.

#### *Section 211.158 Mudcapping*

Section 211.158 is revised to reduce the amount of explosives that may be used since the mudcapping technique results in open-air detonation which can produce extremely high air blasts and presents a higher risk for flyrock.

#### *Section 211.171 General provisions for monitoring*

Existing subsection (b) is deleted. It is no longer necessary to allow for this exception for monitoring since technology improvements have made seismographs more readily available compared to 1972 when this exception was established. Existing subsections (c) through (e) are relettered to be (b) through (d) respectively. New subsection (e) is added to require that seismographs meet industry standards as established by the International Society of Explosives Engineers, an international organization comprised of blasters and other explosives industry personnel such as blasting vibration and safety consultants and seismograph manufacturers.

#### *Section 211.172 Monitoring instruments*

Section labels (a) through (d) are added to provide specific reference to the reorganized requirements. Existing subsections (1) and (2) are deleted because blasting seismographs have been standardized to eliminate the need for these distinctions. Subsection (b) is added to establish equipment specifications based upon industry standards as established by the International Society of Explosives Engineers.

#### *Subchapter H Blasting activities near underground utility lines*

“Underground” is inserted in the title for Subchapter H in order to be consistent with the scope described in Section 211.181.

#### *Section 211.182 General provisions*

A new subsection (a) is added to require notification to the owner of an underground utility line when blasting is planned within 200 feet of the line. Notifying a pipeline owner when blasting is proposed within 200 feet of a pipeline is a statutory requirement and is also required under 25 Pa. Code Chapters 77, 87, and 88. The requirement to notify the owners of all underground utility lines is necessary to insure that measures necessary to protect the utility line are implemented. In many cases, PA One Call can be used to make the notification to the underground utility line

owner. Existing subsection (a) is relettered to be (b). Existing subsections (b) and (c) are deleted. These subsections are no longer necessary due to advances in explosives product technology and research focused on the effects of ground vibration on utility lines. The insertion of new subsection (a) and the deletion of existing subsections (b) and (c) result in the relettering of existing subsections (d) and (e) to be (c) and (d), respectively.

### *Subchapter I Seismic Exploration*

Subchapter I is new. It is intended to address the requirements that are unique to the use of explosives for seismic exploration.

#### *Section 211.191 Scope*

This section establishes the applicability of Subchapter I to the use of explosive for seismic exploration. This use of explosives requires that explosives remain in the ground for extended periods of time due to the large number of holes to be loaded.

#### *Section 211.192 Permits*

This section describes the additional information that is needed in a permit application for the use of explosives for seismic exploration. Subsection (a)(1) requires a plan for control and security of loaded holes. In seismic exploration operations, unlike other blasting operations, the explosives charges remain in the ground for a significant time after loading. Subsection (a)(2) requires reporting of the length of time that the explosives are expected to be in the ground before they are detonated. Two factors must be weighed in the evaluation of an application for seismic blasting. These are the product durability and longevity after loading and how long the explosives remain in the ground. Subsection (a)(3) requires a map showing where the explosives will be loaded and any mine permit areas within 500 feet of this area. For a permit reviewer to make an informed decision as to the degree of risk to public safety or property it is necessary to know where the explosives are proposed to be loaded relative to public activity, infrastructure, homes, other buildings, mining activity or any other area of concern. Subsection (a)(4) requires the specifications for the explosives to be used. This is necessary to minimize the risk for misfires due to product failure.

#### *Section 211.193 Blasting records*

This section describes the additional information that is needed on blast records for the use of explosives for seismic exploration. Subsection (a)(1) requires the time and date when each hole was loaded. This is needed because the blast holes are loaded over the course of a number of days. Subsection (a)(2) requires identification of the blaster-in-charge who supervised loading or loaded each hole. Subsection (a)(3) requires the latitude and longitude of each hole. Subsection (a)(4) requires identification of the blaster-in-charge who detonated the explosives in each hole. Subsection (a)(5) requires the time and date when the charges were detonated. This reflects the fact that the holes may be detonated over the course of a number of days.

### *Section 211.194 General requirements for handling explosives on a seismic exploration operation*

This section describes the requirements for the handling and use of explosives for seismic exploration. Subsection (a) excludes subsections 211.153(e) and (f) because in seismic exploration it is necessary to load explosives over the course of a number of days so the explosives remain in the ground for days or weeks. In the alternative, subsections (b)(1) and (b)(3) provide requirements to prevent misfires and provide blast site security. Subsection (b)(2) prohibits the placement of explosives in the ground within 300 feet of a building or other structure, but allows for exceptions to be authorized.

Subsection (b)(4) excludes mining permit areas from the area where explosives may be placed and provides a process for an exception from this exclusion. The exemption process includes requirements for the demonstration of the legal right to enter the property, a safety plan, a map and documentation of any required mine safety training.

Subsection (b)(5) addresses the security of all loaded blast holes. Subsection (b)(6) requires the removal or destruction in place for any explosives which may have been compromised. Subsection (b)(7) sets an upper limit of one year as the amount of time that explosives may remain undetonated in the ground. This time frame was established based upon the characteristics of the explosives typically used for seismic exploration.

### *Subchapter J Civil penalties*

Subchapter J is new. It is intended to provide a system for assessing civil penalties for violations of Chapter 211 that occur at operations where explosives are used for construction, demolition, seismic exploration and other non-mining uses. This provides an alternative to filing summary citations with local magistrates. The system and procedure is modeled after the system and procedure applicable to mining under Chapters 77 (relating to noncoal mining) and 86 (relating to surface and underground coal mining: general). It will make penalties for violations relating to blasting activities conducted in non-mining applications consistent with mining operations.

### *Section 211.201 Scope*

Section 211.201 establishes the scope to be blasting activity sites and for unauthorized activities involving explosives. This section clarifies that for mining violations, if the procedures under the mining regulations are followed, then this subchapter is not applicable.

### *Section 211.202 Inspection-general*

Section 211.202 describes the notification process in cases where an inspection results in the identification of a violation.

### *Section 211.203 Assessment of civil penalty*

Section 211.203 describes the circumstances under which the Department will assess a civil penalty.

### *Section 211.204 System for assessment of penalties*

Section 211.204 establishes the system for calculating civil penalty amounts. Subsection (b) includes seriousness, culpability, speed of compliance, cost to the commonwealth, savings to the violator and history of violations as the factors to be considered in calculating a civil penalty amount.

Subsection (b)(1) provides examples of the elements to be considered in determining the seriousness of a violation. These include injury or death, damage, costs of restoration, interference with person's right to enjoyment of life or property and unauthorized activities. Subsection (b)(2) addresses the culpability factor. The culpability includes evaluation of negligence, willfulness, recklessness and intentional violations. Subsection (b)(3) provides for a credit of up to \$1,000 for rapid compliance with the requirements of an order. Subsection (b)(4) provides for recovery for costs to the Department resulting from a violation. Subsection (b)(5) provides for a calculation to address the cost saving to the violator for avoided costs as a result of a violation. Subsection (b)(6) addresses the history of violations providing for an increase of the penalty based upon other violations for the violator in the one-year period preceding the violation.

Subsection (c) provides for a minimum penalty amount of \$750 if the violation results in the cessation of operations and for a minimum \$750 per day for each day when a violator fails to comply with a previously issued order.

Subsection (d) provides that each day of violation may be considered as a separate violation. Subchapter (e) provides for an upper limit on the penalty amount and that if the violations are attributable to more than one person each person is subject to the maximum penalty amount.

### *Section 211.205 Procedures for assessment of civil penalties*

Subsection (a) provides for an opportunity for a person cited with a violation to provide information to the Department for consideration in determining the penalty amount and for the Department to revise the penalty calculation. Subsection (b) requires the Department to serve a copy of a civil penalty assessment by registered or certified mail or by personal service. Subsection (c) allows for an informal conference to discuss an assessment, either upon request of the person to whom the assessment is issued or by the Department's own volition. Subsection (d) establishes the requirements for an informal civil penalty conference.

### *Section 211.206 Final action*

Subsection (a) provides that an assessment of civil penalty is appealable to the Environmental Hearing Board (EHB). Subsection (b) describes how the Department is to handle the money posted as escrow during the pendency of an appeal of a civil penalty. Subsection (c) requires the

posting of an appeal bond or cash in order to perfect an appeal of a civil penalty. Subsection (d) provides that both the fact of the violation and the amount of the civil penalty may be challenged when an appeal is filed.

#### *Section 211.207 Final assessment and payment of penalty*

Subsection (a) provides that an assessment of civil penalty becomes final and the payment is due upon the lapse of the appeal period. Subsection (b) provides that a request for judicial review of an EHB civil penalty appeal decision results in the retention of the escrow status and that otherwise the escrow fund will be transferred. Subsection (c) provides that if the penalty is reduced as a result of the appeal process, the Department will refund the appropriate escrowed amount, with interest within 30 days of the EHB or court order. Subsection (d) provides that if the result of the appeal process is an increase in the civil penalty amount, then the responsible party must pay the difference within 30 days of the EHB or court order.

#### *F. Benefits, Costs and Compliance*

This proposed rulemaking updates the existing regulatory framework regarding blasting and explosives. The proposed updates will increase the cost of compliance, but provide more certainty to the regulated community with regard to operational requirements. The fact that these requirements will also improve public safety and documentation of blasting activities suggests that the benefits greatly outweigh the costs.

##### *Benefits*

The proposed rulemaking eliminates the obsolete requirements for permits related to the purchase and sale of explosives. It also improves public safety and provides for more complete documentation of blasting activities. Adding a specific subchapter for seismic exploration provides relief from requirements that cannot be met by that segment of the regulated community and provides alternatives that protect the public safety.

##### *Compliance costs*

The proposed rulemaking is expected to result in increased costs, specifically due to new or increased fees. However, the new or increased fees are nominal in comparison with the other costs associated with the use of explosives. The fees are intended to recover a portion of the Department's costs associated with the administration of the explosives safety laws in the Commonwealth. The new subchapter imposing civil penalties for violations will also increase costs for those in the regulated community who do not comply with the requirements. It is anticipated that the increased costs from the assessment of civil penalties will be partially offset by the reduction or elimination of the need to pursue enforcement through summary citations.

##### *Compliance Assistance Plan*

Compliance with the proposed rulemaking is expected to be seamless since many of the more stringent requirements are in place through permitting or are incremental changes to the existing

requirements. Compliance assistance for this rulemaking will be provided through routine interaction with trade groups and individual applicants.

#### *Paperwork requirements*

This rulemaking requires additional information as part of a permit application and for records of blasting activities. The additional requirements are more focused and clarify the requirements.

#### *G. Pollution Prevention*

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a national policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. This proposed rulemaking has minimal impact on pollution prevention since it is focused on public safety.

#### *H. Sunset Review*

These regulations 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 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on \_\_\_\_\_, 2015, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Regulatory Review Act specifies detailed procedures for review of these issues by the Department, the General Assembly and the Governor prior to final publication of the regulations.

#### *J. Public Comments*

Interested persons are invited to submit written comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board. Comments, suggestions or objections must be received by the Board by \_\_\_\_\_. In addition to the submission of



comments, interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by the Board by \_\_\_\_\_. The one-page summary will be distributed to the Board and available publicly prior to the meeting when the final rulemaking will be considered.

Comments including the submission of a one-page summary of comments may be submitted to the Board online, by e-mail, by mail or express mail as follows. If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Comments may be submitted to the Board by accessing eComment at [www.ahs.dep.pa.gov/eComment](http://www.ahs.dep.pa.gov/eComment). Comments may be submitted to the Board by e-mail at [RegComments@pa.gov](mailto:RegComments@pa.gov). A subject heading of the proposed rulemaking and a return name and address must be included in each transmission.

Written comments should be mailed to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

John Quigley  
Chairman,  
Environmental Quality Board