PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CHS. 287 AND 290]

Beneficial Use of Coal Ash

The Environmental Quality Board (Board) proposes to amend Article IX (relating to residual waste management) by adding Chapter 290 (relating to beneficial use of coal ash) to read as set forth in Annex A.

The proposed rulemaking consists of amendments to Chapter 287 (relating to residual waste management—general provisions) and the addition of Chapter 290. New Chapter 290 contains the standards, procedures and requirements that apply to the beneficial use of coal ash, which are further modified by four defined terms in § 287.1 (relating to definitions). Proposed Chapter 290 includes regulations that currently exist in Subchapter H (relating to beneficial use), §§ 287.661—287.666 (relating to beneficial use of coal ash), along with recent additions. Proposed Chapter 290 adopts recommendations from the National Academy of Sciences' 2006 report, *Managing Coal Combustion Residues in Mines* and the Department of Environmental Protection's (Department) amended policies, "Certification Guidelines for the Chemical and Physical Properties of Coal Ash Beneficially Used at Mines," Document Number 563-2112-224 and "Mine Site Approval for the Beneficial Use of Coal Ash," Document Number 563-2112-225. Incorporating appropriate recommendations and policy provisions into regulations clarifies for the Department, regulated community and public, the procedures and standards that apply to coal ash and will be enforced by the Department.

This proposal was adopted by the Board at its meeting on July 21, 2009.

A. *Effective Date*

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

B. *Contact Persons*

For further information, contact Stephen Socash, Chief, Division of Municipal and Residual Waste, P. O. Box 8472, Rachel Carson State Office Building, Harrisburg, PA 17105-8472, (717) 787-7381, or Susan Seighman, 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 proposal appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department's web site at www.depweb.state.pa.us (select Public Participation).

C. *Statutory Authority*

This proposed rulemaking is being made under the authority of the following:

The Solid Waste Management Act (SWMA) (35 P. S. §§ 6018.101—6018.1003), which in section 105(a) (35 P. S. § 6018.105(a)) grants the Board the power and duty to adopt the rules and regulations of the Department to accomplish the purposes and carry out the provisions of the SWMA. Sections 102(4) and 104(6) of SWMA (35 P. S. §§ 6018.102 and 104), which provide the Department with the power and duty to regulate the storage, collection, transportation, processing, treatment and disposal of solid waste to protect the public health, safety and welfare. Section 508 of SWMA (35 P. S. § 6018.508), which provides the Department with the authority to regulate the beneficial use of coal ash, including establishing siting criteria and design and operating standards governing the storage of coal ash prior to beneficial use and the use and certification of coal ash as structural fill, soil substitutes and soil additives.

The Clean Streams Law (CSL) (52 P. S. § 691.1—691.1001), which in section 5 (35 P. S. § 691.5(b)) grants the Department the authority to formulate, adopt, promulgate and repeal the rules and regulations that are necessary to implement the provisions of the CSL. Section 402 of the CSL (35 P. S. § 691.402), which grants the Department the authority to adopt rules and regulations that require permits or conditions under which an activity shall be conducted when an activity creates a danger of pollution to waters of the Commonwealth or regulation of an activity is necessary to avoid pollution.

Section 4.2(a) of the Surface Mining Conservation and Reclamation Act (SMCRA), (52 P. S. § 1396.4b(a)), which authorizes the Board to adopt regulations the Department deems necessary to fulfill the purposes and provisions of SMCRA. Section 4(a) of SMCRA (52 P. S. § 1396.4(a)), which authorizes the Department to charge and collect a reasonable filing fee from persons submitting applications for a surface mining permit to cover the costs of reviewing and administering such permits. Section 3.2 of the Coal Refuse Disposal Control Act (52 P. S. § 30.53b) (CRDA), which grants the Board the power and duty to adopt regulations to accomplish the purposes of the CRDA.

The Administrative Code of 1929 (Code) (71 P. S. §§ 510-1—510-27), which in section 1917-A (71 P. S. § 510-17) authorizes and requires the Department to protect the people of this Commonwealth from unsanitary conditions and other nuisances, including any condition that is declared to be a nuisance by any law administered by the Department. Section 1920-A of the Code (71 P. S. § 510-20), which grants the Board the power and duty to formulate, adopt and promulgate rules and regulations as may be determined by the Board for the proper performance of the work of the Department.

D. *Background and Purpose*

This proposed rulemaking incorporates the key provisions of the Department's policies and procedures on the beneficial use of coal ash into the Department's regulations. The key provisions address the general and specific operating requirements for beneficial use, which include certification guidelines for the chemical and physical properties of coal ash beneficially used at active and abandoned mine sites. These provisions also relate to water quality monitoring and the storage of coal ash in piles and surface impoundments. This proposed rulemaking also adopts recommendations by the National Academy of Sciences in their 2006 report, *Managing Coal Combustion Residues in Mines*.

This Commonwealth has hundreds of thousands of acres of mine lands that need to be reclaimed. These lands contain many dangerous pits and highwalls that have

caused the deaths of numerous citizens over the years. The use of coal ash to reclaim these mines eliminates the dangers associated with the open pits and highwalls and restores a safe environment. Reclamation also restores positive drainage to watersheds by allowing rain water to flow on the surface to streams, rather than infiltrating into deep mines into which it discharges as acid mine drainage. Reclamation of these lands cannot be accomplished fully through Federal and State funds. Therefore, a program that allows for the beneficial use of coal ash for mine reclamation in an environmentally responsible manner can aid in closing the gap between available and necessary resources.

The Department has been involved successfully with mine reclamation using coal ash for approximately 25 years. Information on several mine reclamation projects is contained in the 2006 report on the collaboration between the Department and the Materials Research Institute at the Pennsylvania State University, entitled *Coal Ash Beneficial Use in Mine Reclamation and Drainage Remediation in Pennsylvania*.

In addition to unreclaimed mines, more than 2 billion tons of waste coal piles are scattered across the Anthracite and Bituminous Coal Regions of this Commonwealth. These piles can cause several different types and degrees of adverse impacts on the environment. Waste coal piles produce some of the most significant mine drainage in the State, often having a pH less than 3.0 and acidity in the hundreds to thousands of milligrams per liter and are also a troublesome source of sediment that has impacted hundreds of miles of stream. Stormwater runoff from waste coal piles also carries large loads of metals including iron, manganese, zinc, nickel, arsenic and cadmium. Finally, waste coal piles can catch fire and produce noxious fumes.

The use of waste coal to fuel power plants has assisted in the elimination of these waste coal piles and remedied the potentially harmful conditions resulting from the continued existence of the piles. To date, 145 million tons of waste coal has been used to fuel power plants. Annually 10% of this Commonwealth's power is produced from power plants burning waste coal. The ash that is generated from the waste coal has been used to reclaim thousands of acres of abandoned mines. ARIPPA places a value of $90 million on the reclamation that has been achieved at abandoned mine sites by the coal and power industries through the burning of waste coal and subsequent reclamation with the coal ash that was generated. Additionally, the Department has observed numerous instances where removal of the piles and reclamation has significantly reduced pollutant loads for metals, such as arsenic, zinc, nickel, iron and manganese.

Prior to this proposed rulemaking, the beneficial use of coal ash, including abandoned and active mine reclamation, was managed through existing residual waste regulations and Department technical guidance. In 2008, the Department proposed amendments to the technical guidance documents "Mine Site Approval for the Beneficial Use of Coal Ash," Document Number 563-2112-225 and "Certification Guidelines for the Chemical and Physical Properties of Coal Ash Beneficially Used at Mines," Document Number 563-2112-224. The most frequent comment received during the public comment period on these amendments was that the content of the technical guidance should be placed in regulations rather than Department technical guidance. The Board agrees with the commentators and has included the key provisions of the technical guidance in this proposed rulemaking and further enhanced the existing residual waste regulations related to the beneficial use of coal ash.

This proposed rulemaking includes operating requirements for the beneficial use of coal ash in a general nature and more specifically for use: as structural fill; a soil substitute or soil additive; at active and nonactive coal mine sites; and other beneficial uses, including the manufacture of concrete, extraction or recovery of materials within the coal ash, stabilized product, antiskid material, raw material for a commercial product, drainage material or pipe bedding, and mine subsidence control, mine fire control and mine sealing. The general requirements incorporate the chemical and physical characteristics of the certification process. A chemical analysis must demonstrate that the coal ash does not exceed any of the maximum acceptable leachate levels established under that process. Similarly, the physical characteristics must be met for the intended use. These requirements also provide that a water quality monitoring plan must be developed when more than 10,000 tons of coal ash per acre is to be used on a project or more than 100,000 tons in total on a project.

The specific sections include notification and other operating requirements. At least 60 days prior to beneficial use, the Department must be notified by the person proposing the beneficial use. The Department publishes a summary of each notice in the *Pennsylvania Bulletin*. Public notice by the person proposing to beneficially use coal ash as structural fill, at a coal mine activity site and at an abandoned mine are included in this proposed rulemaking. Public notice will be accomplished through a series of newspaper advertisements and applies to structural fill and abandoned mine requests above the identified threshold amounts. Public notice at coal mining activity sites is a current requirement under the mining regulations. The Board believes public notification to be an integral part of implementing this program.

The notification process to the Department requires that construction plans be submitted, along with a stability analysis if necessary, as prepared by a professional engineer. Engineering requirements related to lift and compaction rates have been added for mine reclamation and structural fill. The engineering requirements were carried over from the technical guidance documents to ensure that the coal ash will form a stable structure. Insufficient structural stability of coal ash placed more than 50 years ago led to a landslide in Forward Township in 2005. Although regulations were not in effect at the time of placement, this landslide illustrates the need for proper engineering when placed at mine sites or when used as structural fill.

The certification guidelines for certifying coal ash for beneficial use at mine sites have been transferred into the regulations. The guidelines that must be followed to receive a certification set the chemical leaching levels and testing standards for physical characteristics that must be met for beneficial use. Parameters have been added to these guidelines to account for changes in the combustion process and to incorporate the recommendations of the National Academy of Sciences. The bulk chemistry ash analysis contains additional parameters for Ag, Be, Co, TI, V, Ca, Mg, K and S. The leaching chemistry analysis has added parameters for Ag, Be, Co, TI, V, NO_2, NO_3, Ca, Mg, K, Na, SO_4, CI and F.

The proposed rulemaking also includes expanded water quality requirements. Water quality monitoring has been required for many years at permitted coal mining activity sites that use coal ash for reclamation purposes. The

Board believes water quality monitoring is appropriate at sites where large quantities of coal ash are placed to ensure that no water quality degradation occurs. The proposed regulations expand water quality monitoring to any site where large quantities of coal ash are beneficially used. It also requires water quality monitoring at all coal ash storage impoundments.

Although contamination of groundwater and surface water has not been observed, coal ash may contain metals at levels above normal soil background levels. To further address this issue, several provisions have been added. A minimum of 12 monthly background samples from each monitoring point is required prior to placement of coal ash. The following chemical parameters have been incorporated for monitoring: Ag, B, Ba, Be, Co, Mo, Sb, TI, V, Na, Cl, Ca, Mg and K. Additionally, monitoring requirements have been included for water elevations and flow, upgradient monitoring points, and at least three downgradient monitoring points. The requirement for a complete water monitoring analysis has been increased from annually to quarterly for 5 years after placement and annually for years 6 through 10. If water monitoring shows the potential for contamination of groundwater, a groundwater assessment is required to determine whether groundwater degradation has occurred. If degradation of groundwater quality is detected at a site, an abatement plan must be submitted and implemented.

Finally, the proposed rulemaking includes design and operating standards for the storage of coal ash in piles and surface impoundments. Isolation distances are provided to ensure that storage is prohibited within certain areas. These standards aid in protecting groundwater and surface water. Further protection is afforded through the permit requirement imposed upon impoundments under the Department's Dams and Waterways Program.

E. *Summary of Regulatory Requirements*

Section 287.1.

The proposed rulemaking adds a definition in § 287.1 for "water table" and amends definitions for "coal ash," "solid waste" and "structural fill" to provide clarity.

Sections 287.661—287.666.

The proposed rulemaking rescinds §§ 287.661—287.666 and replaces these sections with proposed Chapter 290, Subchapter B.

Subchapter A. General

Proposed § 290.1.

Subsection (a) establishes that this chapter applies to the beneficial use of coal ash.

Subsection (b) specifies that beneficial use of coal ash mixed with residual waste or ash produced by co-firing coal and alternative fuels must be authorized by a residual waste permit and meet the requirements of this chapter.

Subsection (c) specifies that beneficial use of coal ash mixed with construction and demolition waste must be authorized by a municipal waste permit and meet the requirements of this chapter.

Subsection (d) specifies that coal ash mixed with municipal waste, other than construction and demolition waste, shall not be beneficially used by direct placement into the environment. Other beneficial uses may be authorized by a municipal waste permit.

Subsection (e) establishes that beneficial use of coal ash under this chapter does not require a disposal permit.

Subchapter B. Beneficial Use of Coal Ash

Proposed § 290.101.

Subsection (a) establishes that use of coal ash that is not consistent with this chapter is considered disposal and requires a disposal permit.

Subsection (b) specifies that maximum leachate levels and sampling and analysis requirements for certification in Subchapter C apply to all beneficial uses of coal ash. For other uses under § 290.106(1)—(3), the Department may waive or modify this requirement.

Subsection (c) specifies that the physical characteristics required for certification for the intended beneficial use of the coal ash in Subchapter C must be met.

Subsection (d) establishes that a water quality monitoring plan is required for any project involving use of more than 10,000 tons of coal ash per acre or more than 100,000 tons. The Board seeks comment on the appropriateness of these threshold quantities for triggering monitoring.

Subsection (e) specifies that coal ash may not be placed within 8 feet of the water table. It allows the Department to approve placement within 8 feet at mining activity sites if it can be demonstrated that groundwater contamination will not occur.

Subsection (f) specifies that coal ash may not be used in ways that may cause water pollution.

Proposed § 290.102.

Subsection (a) establishes the notification requirements for coal ash to be used as structural fill. This notification includes a description of the project, including maps, estimated project starting and completion dates, construction plans, estimated volume of coal ash to be utilized, chemical analysis and landowner consent. The landowner consent is a recordable document for projects involving use of more than 10,000 tons of coal ash per acre. The Board seeks comment on the appropriateness of this threshold quantity for triggering recording.

Subsection (b) establishes that the Department will publish a notice in the *Pennsylvania Bulletin* of each notification received for use of coal ash as structural fill.

Subsection (c) specifies that notices in local newspapers must be published for coal ash structural fill projects involving use of more than 10,000 tons of coal ash per acre or more than 100,000 tons. The notice must include the name and business address, a brief description of location and scope of the project, and the Departmental office location where the request was sent. The Board seeks comment on the appropriateness of these threshold quantities for triggering monitoring.

Subsection (d) establishes additional requirements for coal ash used as structural fill, including, compaction and layer thickness, runoff minimization and stormwater management, surface water diversion, cover, minimum compaction and dust minimization. The requirements specify that coal ash must be either spread and compacted within 24 hours or stored in accordance with Subchapter E. The Board seeks comment on the appropriateness of the pH range, 6.0—9.0, for coal ash used as structural fill.

Subsection (e) establishes siting restrictions for structural fill, including distances from streams, water sources, bedrock outcrops, sinkholes and areas draining into sinkholes, floodplains and wetlands.

Subsection (f) establishes annual reports required for projects involving use of more than 10,000 tons of coal ash per acre. The report must include contact information, site location, identity of each source of coal ash and the volume and weight of coal ash from each source. The Board seeks comment on the appropriateness of this threshold quantity for triggering recording.

Proposed § 290.103.

Subsection (a) establishes that coal ash may be beneficially used as a soil substitute or soil amendment without a permit if the user complies with this section.

Subsection (b) establishes the notification requirements for coal ash to be used as a soil substitute or soil amendment. This notification includes a description of the project, including maps, estimated project starting and completion dates, construction plans, estimated volume of coal ash to be utilized, chemical analysis of the coal ash and soil at placement site, an analysis showing that coal ash will be beneficial to productivity or soil properties and landowner consent.

Subsection (c) establishes that the Department will respond to the notifier as to whether the proposed use is consistent with this section.

Subsection (d) establishes additional requirements for coal ash used as a soil substitute or soil amendment, including coal ash and soil pH, calcium carbonate equivalency, surface runoff minimization and stormwater management, surface water diversion, application rate, protection of biota and dust minimization. It specifies that coal ash must be either incorporated within 24 hours or stored in accordance with Subchapter E. The Board seeks comment on the appropriateness of the pH range, 6.5—8.0, for coal ash used as a soil substitute or soil amendment.

Subsection (e) establishes siting restrictions for coal ash used as a soil substitute or soil amendment, including distances from streams, water sources, occupied dwellings, sinkholes and areas draining into sinkholes and wetlands.

Subsection (f) establishes cumulative contaminant loading rates for coal ash used as a soil substitute or soil amendment.

Proposed § 290.104.

Subsection (a) establishes the laws and regulations upon which this section is based.

Subsection (b) establishes the procedures for requesting beneficial use of certified coal ash at a specific mine site.

Subsection (c) establishes the amount of the permit filing fee for permits that will be beneficially using coal ash and where the money will be deposited.

Subsection (d) establishes the requirement for public notice.

Subsection (e) establishes appropriate beneficial uses for coal ash at active coal mine sites.

Subsection (f) establishes operational requirements for beneficial use of coal ash at active coal mines.

Subsection (g) establishes operational requirements for beneficial use of coal ash when used as a soil substitute or soil additive.

Subsection (h) establishes operational requirements for the beneficial use of coal ash at coal refuse disposal sites.

Subsection (i) establishes the requirement for mine site monitoring of coal ash.

Subsection (j) establishes annual reporting requirements pertaining to the amount and sources of ash used at a mine site.

Proposed § 290.105.

Subsection (a) establishes procedures and requirements for proposals to use coal ash at abandoned coal surface mine sites.

Subsection (b) establishes the elements required to submit a request for a proposal to use coal ash at an abandoned coal surface mine site. This includes a requirement to publish a notice in local newspapers of the proposed use of coal ash at an abandoned coal surface mine site involving use of more than 10,000 tons of coal ash per acre or more than 100,000 tons in total at any project.

Subsection (c) establishes that the Department may issue contracts for the reclamation of abandoned coal surface mine sites that include the beneficial use of coal ash. Contracts that include the beneficial use of coal ash shall be based on the requirements and conditions established in this section.

Subsection (d) establishes that the Department will publish a notice in the *Pennsylvania Bulletin* of each approved use of coal ash at abandoned coal surface mine sites.

Subsection (e) establishes additional requirements for coal ash used at abandoned coal surface mine sites including: pH range of the ash; maximum slope of the reclaimed area; compaction and layer thickness; runoff minimization and stormwater management; surface water diversion; cover; minimum compaction; dust minimization; minimum distances for ash placement from streams, water sources, sinkholes and areas draining into sinkholes; floodplains; and requirements for the beneficial use of coal ash as a soil substitute or soil additive at abandoned coal surface mine sites.

Subsection (f) establishes the reporting requirements pertaining to the amount and sources of ash used at abandoned coal mine sites.

Proposed § 290.106.

Subsection (a) specifies that the section applies to other uses of coal ash not covered under §§ 290.102—290.105.

Subsection (b) identifies specific other uses of coal ash and requirements for storage and use. These other uses of coal ash are used in concrete, extraction or recovery of materials and chemicals from coal ash; use of fly ash as a stabilized product; use of bottom ash or boiler slag as antiskid or surface preparation material; use of coal ash as a raw material for a product with commercial value; use as pipe bedding or drainage material; and use for mine subsidence control, mine fire control and mine sealing.

Proposed § 290.107.

Subsection (a) allows the Department to request documentation and information to demonstrate compliance with this subchapter.

Subsection (b) establishes that failure to have documentation of compliance with this subchapter may lead to a presumption that the person is disposing of residual waste without a permit.

Subchapter C. Coal Ash Certification

Proposed § 290.201.

Subsection (a) establishes the chemical and physical certification standards for coal ash to meet beneficial use requirements. Chemical leaching standards are established. Low permeability standards are established for ashes that will be used as low permeability material. Minimum calcium carbonate equivalence standards are established for ashes that will be used for alkaline addition.

Subsection (b) establishes certification exceptions for ashes that meet primary MCL parameters, but fail to meet a secondary MCL parameter.

Subsection (c) establishes informational requirements to be provided by the ash generator, including sampling and analysis of the ash.

Subsection (d) establishes that the Department will provide written notification to the generator of the Department's decision on whether the generator's coal ash is certified. If the certification requirements are met, the Department will provide the certification identity number.

Subsection (e) establishes coal ash monitoring requirements.

Subsection (f) requires the generator of the coal ash and person beneficially using the coal ash to notify the Department of any changes that may affect the coal ash certification.

Proposed § 290.202.

Subsection (a) establishes procedures for revoking coal ash certification for coal ashes that fail to meet certification requirements.

Subsection (b) establishes that a revoked coal ash certification cannot be used at mine sites.

Subsection (c) establishes the procedures for recertifying a revoked coal ash, including resampling and establishing adequacy of chemical and physical properties.

Proposed § 290.203.

This section establishes procedures when exceedances of certification standards occur.

Subchapter D. Water Quality Monitoring

Proposed § 290.301.

Subsection (a) establishes that water quality monitoring plans submitted to the Department for approval must contain the location and design of upgradient and downgradient monitoring points, provisions for background sampling prior to placement of coal ash and quarterly sampling after approval.

Subsection (b) establishes sources of quality assurance/quality control procedures for sampling and in the laboratory.

Subsection (c) establishes sources of analytical methods used for water quality monitoring and that the laboratory must be accredited.

Subsection (d) specifies the nonmetal parameters to be determined in water monitoring samples.

Subsection (e) specifies the metal parameters to be determined in water monitoring samples and that water elevation at monitoring point be recorded.

Subsection (f) gives the Department the ability to require additional parameters based on site conditions.

Subsection (g) specifies the minimum frequency and duration of water quality monitoring and allows the Department to require more frequent and a longer duration monitoring if results indicate contamination may be occurring.

Subsection (h) specifies that water quality monitoring data is to be submitted quarterly to the Department.

Subsection (i) establishes that attainment with groundwater remediation standards must be demonstrated if there is water degradation due to placement of coal ash.

Proposed § 290.302.

Subsection (a) establishes location and number of upgradient and downgradient groundwater monitoring points and that surface water monitoring points must be approved by the Department.

Subsection (b) establishes that the number, location and depth of monitoring wells must be representative of water quality and located so as not to interfere with site operations. The subsection also specifies the maximum distance from the coal ash placement site.

Subsection (c) establishes that upgradient monitoring points be located where they will not be affected by coal ash placement.

Subsection (d) establishes that downgradient monitoring points be located where they will not be affected by coal ash placement.

Subsection (e) establishes that well drillers must be licensed.

Subsection (f) specifies that well construction materials be decontaminated prior to installation.

Proposed § 290.303.

Subsection (a) establishes well standards, including casing, diameter, screening, filter packing, viability above ground and angular space sealing and must be designed to prevent cross contamination. The section also allows alternative casing designs for wells located in stable formations.

Subsection (b) establishes standards for protective casings around well casings, including strength, length above and below surface of ground, collar and grouting, labeling, protrusion above well casing, locked cap and material of construction.

Proposed § 290.304.

Subsection (a) establishes when an assessment plan is to be submitted based on monitoring data or data from public or private water supplies.

Subsection (b) establishes that assessment is not required if resampling shows degradation is not occurring or if degradation is a result of seasonal variation or activities unrelated to coal ash placement.

Subsection (c) establishes the elements of an assessment plan, including monitoring point location, design and construction information, sampling and analytical methods to be used, an implementation schedule and identification of the abatement standard.

Subsection (d) establishes Department approval and notification of public and private water supplies.

Subsection (e) establishes contents of a report after assessment is completed, including data, analysis and recommendations.

Subsection (f) establishes procedures if an abatement plan is not required.

Subsection (g) establishes that the Department may require abatement or water supply replacement prior to or concurrent with the assessment.

Proposed § 290.305.

Subsection (a) requires that an abatement plan be submitted to the Department when certain conditions exist. An abatement plan is required when an assessment plan shows groundwater or surface water degradation and the analysis under subsection (c) indicates that an abatement standard will not be met. A plan is also required when data from the Department or other person from one or more compliance points indicates an abatement standard has been exceeded.

Subsection (b) establishes the elements of an abatement plan, including identification of the specific methods or techniques to be used to abate degradation and to prevent future degradation, and an implementation schedule.

Subsection (c) establishes standards for abatement.

Subsection (d) allows compliance point for secondary contaminants to be set beyond that for contaminants with Statewide Health Standards.

Subsection (e) establishes a time limit for completion and submittal of abatement plans.

Subsection (f) establishes that the Department may modify inadequate plans.

Subsection (g) establishes a time frame for implementation of the abatement plan after approval.

Subsection (h) establishes orders that may be issued by the Department if an abatement plan is found to be inadequate after approval or implementation.

Proposed § 290.306.

This section establishes recordkeeping requirements for water quality monitoring data.

Subchapter E. Coal Ash Storage

Proposed § 290.401.

Subsection (a) establishes that best engineering design and construction practices are to be used for all phases of construction and operation.

Subsection (b) specifies that coal ash storage is not to exceed the design capacity of the storage facility.

Subsection (c) specifies that the Department may require a water quality monitoring system to be installed if coal ash storage has the potential to cause groundwater degradation.

Subsection (d) specifies that the person storing coal ash must periodically inspect the storage facility for evidence of failure and take any necessary immediate corrective actions. Records of inspections and corrective actions are to be maintained for 3 years.

Proposed § 290.402.

Subsection (a) specifies a general maximum storage time limit at the site of beneficial use for uses not having a specific time limit in subsection (b) or (c).

Subsection (b) specifies a maximum storage time limit for bottom ash and requires a significant quantity to be utilized annually, stored on a pad or floor, and stored either in an enclosed building or in an area where runoff is collected and treated.

Subsection (c) specifies maximum storage time limits for storage at other areas dependant on the percentage of coal ash being used and manner of storage.

Subsection (d) establishes that storage contrary to subsections (a)—(c) is presumed to be disposal.

Subsection (e) establishes operational record storage retention to overcome the presumption of disposal in subsection (d).

Subsection (f) specifies that this section does not supersede other regulations and requirements that specify shorter storage time limits.

Proposed § 290.403.

Subsection (a) specifies minimization of surface water runoff from storage areas and stormwater management.

Subsection (b) specifies minimization of surface water run-on to storage areas.

Subsection (c) specifies that coal ash is not to be stored in a manner to cause degradation of groundwater.

Proposed § 290.404.

Subsection (a) establishes siting restrictions for coal ash storage, other than in surface impoundments. Restrictions include distances from streams, water sources, bedrock outcrops, sinkholes and areas draining into sinkholes and wetlands.

Subsection (b) establishes siting restrictions for coal ash storage in surface impoundments. Restrictions include distances from floodplains, streams, water sources, bedrock outcrops, occupied dwellings, property lines, sinkholes and areas draining into sinkholes, wetlands, schools, parks, and playgrounds and areas underlain by limestone or carbonate formations or areas serving as habitat for endangered or threatened flora or fauna.

Proposed § 290.405.

Subsection (a) establishes a requirement to prevent dispersion of coal ash from storage piles.

Subsection (b) establishes separation distance from water table for coal ash stored in piles.

Subsection (c) establishes a requirement for berms around storage piles, collection of runoff and leachate, and when necessary, treatment of runoff and leachate.

Subsection (d) establishes that the Department may require groundwater monitoring for coal ash storage piles without liner systems or pads.

Proposed § 290.406.

Subsection (a) establishes that this section applies to storage of coal ash on liners or pads.

Subsection (b) establishes performance and design criteria for the liner system or pad and addresses leachate migration and collection, chemical and physical compatibility, integrity of liner or pad, permeability, constructed so there is no contact with groundwater or surface water, constructed of nonwaste and noncoal ash materials, inspection during construction and installation, and, if required by the Department, have a monitoring system capable of detecting whether coal ash or leachate has penetrated the liner or pad.

Proposed § 290.407.

Subsection (a) establishes that storage piles with a pad or liner system must have leachate and runoff collection and a leachate storage system.

Subsection (b) establishes design requirements for the leachate storage system that must consist of tanks or impoundments. The requirements address sizing, chemical compatibility, strength, cleanouts and sealing.

Subsection (c) establishes that leachate treatment or disposal must be in accordance with The CSL.

Proposed § 290.408.

Subsection (a) establishes that this section and §§ 290.409—290.413 apply to surface impoundments used to store coal ash prior to beneficial use.

Subsection (b) establishes that this section and §§ 290.409—290.413 apply to surface impoundments used to store only stormwater.

Subsection (c) establishes a definition of stormwater for this section.

Proposed § 290.409.

This section establishes that a coal ash surface impoundment must be permitted under The CSL and comply with Chapter 105 (relating to dam safety and waterway management) requirements.

Proposed § 290.410.

This section establishes design criteria for coal ash storage impoundments. The criteria include the linear system, subbase location in relation to water table, subbase performance criteria, leachate detection zone, liner performance criteria, protective cover performance criteria, leachate collection system performance criteria, leachate storage system, leachate collection and handling, and design, construction, operation and maintenance.

Proposed § 290.411.

Subsection (a) establishes minimum distance to be maintained between the bottom of the liner system's subbase and the water table.

Subsection (b) specifies marking the edge of the liner.

Subsection (c) establishes that a fence or barrier be maintained around the impoundment and the leachate collection and treatment system.

Subsection (d) establishes fugitive air containment control measures for impoundments.

Subsection (e) establishes that water quality monitoring is required for impoundments.

Subsection (f) establishes coal ash removal performance requirements for impoundments and includes removal without damage to the impoundment, liner inspection, providing for the beneficial use of removed coal ash, and ensuring coal ash is not accumulated speculatively.

Proposed § 290.412.

Subsection (a) establishes procedures and Department notification if impoundment fails.

Subsection (b) establishes procedures to restore to service impoundments that have failed.

Subsection (c) establishes closure for failed impoundments that cannot be cleaned up in a manner satisfactory to the Department.

Proposed § 290.413.

This section establishes that the Department will inspect coal ash storage impoundments.

Proposed § 290.414.

This section establishes closure of storage areas, including removal of coal ash and, if required by the Department, regrading and revegetation.

F. *Benefits, Costs and Compliance*

Benefits

The largest volume proportion of coal ash under the beneficial use program is utilized in abandoned mine placement for reclamation and mixed with coal refuse for reclamation. Coal ash used in this way to reclaim mine lands that would not otherwise be reclaimed saves the Commonwealth and the Federal government millions of dollars each year towards reclamation. Utilizing ash to stabilize coal refuse and neutralize acid mine drainage prevents a future acid mine drainage pollution source that would cost millions of dollars per year in perpetual treatment across the State. For over 20 years, the Department has seen no significant pollution events that would require abatement related to coal ash beneficial use and has documented many successfully reclaimed sites. Among the greatest successes environmentally have been coal refuse reprocessing sites, where waste coal is used by power plants to generate electricity and steam. Un-reclaimed, these piles produce acid mine drainage, catch on fire and billow noxious fumes, and erode silt into local streams. The alkaline ash generated by the power plants is returned to the waste coal site. The Department has seen dramatic improvements in water quality at these sites, with 90% reduction of some pollutants.

The public will be better served by the following aspects that this proposed rulemaking will enable:

- Increased coal ash monitoring to ensure coal ash meets certification criteria.
- Increased water quality monitoring for a longer duration to create a robust dataset to facilitate the evaluation and documentation of water quality at sites where coal ash is beneficially used.
- Requirement for minimum number of monitoring wells to characterize the groundwater or other water quality points.
- Requirement for recording a landowner consent for placement of coal ash for beneficial use.
- Improved reporting requirements to track volumes and location of sites where coal ash is beneficially used.
- Consistent operational and monitoring standards for all types of beneficial use.
- A centralized process to certify coal ash for beneficial use at mine sites.
- An annual fee payable to the Department to offset its costs for coal ash and water quality sampling and testing at mine sites where coal ash is beneficially used.
- Requirements for the storage of coal ash including provisions for design and operations.

Compliance Costs

The Department has already implemented many of the measures that would be required in the regulations. Guidance documents have implemented the increased monitoring requirements, including sampling frequency, additional chemical parameters to be tested and additional preash placement and postash placement monitoring. Thus, most costs that would be associated with the regulations are already part of the Department's program.

The regulated community will be required to complete four water samples per year for each monitoring point. Typically, two to four monitoring points exist for each site resulting in a water monitoring cost of $2,400—$4,800 per year. Four ash dry weight/leachate samples are

required every year from the generation site. This results in a cost of approximately $2,000 per source. Compaction tests for use of coal ash as a structural fill and for mine reclamation must be conducted two times per year at a cost of approximately $150 per test.

These proposed regulations impose an annual assessment of a permit filing fee of $2,000. This fee is required to assure that the Department has funds to conduct comparative sampling of the coal ash and water quality related to individual coal ash beneficial use sites. This fee amount covers the cost of one ash sample (~$500) and five water samples (~$300 × 5) per year.

Sampling requirements have increased from the previous regulations, and the filing fee adds these additional costs. These costs are justified to assure protection of human health and aquatic life and to ensure operational and performance standards for beneficial use of coal ash.

More than 11 million tons of coal ash has been beneficially used for mine reclamation each of the past several years. The estimated cost of disposing this material at a landfill would be at least $275 million per year. Costs of placement at mine sites are on the order of $55 million per year. Use of coal ash at mine sites as opposed to land filling the material is a savings to the industry of at least $220 million per year.

Additional costs incurred to State government are exclusively to the Department. Costs include additional staff time for review of beneficial use applications and source certification requests. The proposed rulemaking mandates reviews that will take more time compared to previous reviews to account for additional information requirements, recordkeeping and inspection. This increased staff time will be absorbed by current staff. Additional comparative sampling costs are reimbursed, for the most part, through the yearly permit filing fee. This does not include unforeseen samples necessary in cases of potential degradation.

Compliance Assistance Plan

The Department intends to educate and assist the public and regulated community in understanding the newly revised requirements and how to comply with them. Fact sheets explaining the changes will be developed and made available on the Department's web site.

Paperwork Requirements

The proposed rulemaking continues the current practice of notifying the Department prior to use of coal ash as structural fill, soil substitute or soil additive, at a mining activity site, at an abandoned mine site, as a stabilized product, as drainage material or pipe bedding, or for mine subsidence control, mine fire control and mine sealing. For use as structural fill in § 290.102(f), this shall be by a written notice that includes a description and map of the project, estimated start and end dates for the project, construction plans, estimated volume of coal ash to be used, chemical analysis and landowner consent. For use as a soil substitute or soil additive, the written notice in § 290.103(b) must include a description of the use and storage, a map of the project, estimated start and end dates for the project, estimated volume of coal ash to be used for the proposed application rate, chemical analysis of the coal ash and soil at the application site, an analysis showing how the application will be beneficial to the productivity or properties of the soil and landowner consent.

For use at a mining activity site in § 290.104(b), a request for mining permit modification shall include the permit filing fee, a description of the use and storage, a map of the project, estimated start and end dates for the project, estimated volume of coal ash to be used, identity of the generator and the certification number, landowner consent and a coal ash monitoring plan. When used at an abandoned mine site, the notice shall either be through a contract with the Department under § 290.105(c), or a written request under § 290.105(b) that includes a description of the use and storage, a map of the project, estimated start and end dates for the project, estimated volume of coal ash to be used, identity of the generator and the certification number, landowner consent and, if required, a coal ash monitoring plan.

For other beneficial uses, § 290.106(b)(6) requires advanced written notice to the Department with an evaluation of pH and chemical analysis when coal ash is used as drainage material or pipe bedding. When used as a stabilized product or for mine subsidence control, mine fire control and mine sealing, § 290.106(b)(3) and (7) only requires advanced written notice to the Department.

Public notice by the person proposing to beneficially use coal ash as structural fill at a coal mine activity site and at an abandoned mine are included in this proposed rulemaking in §§ 290.102(c), 290.104(d) and 290.105(b)(6). Public notice will be accomplished through a series of newspaper advertisements and applies to structural fill and abandoned mine requests above the identified threshold amounts. Public notice at coal mining activity sites is a current requirement under §§ 86.31 and 86.54.

The proposed rulemaking includes annual reporting requirements in § 290.102(f) for persons using more than 10,000 tons of coal ash per acre as structural fill and §§ 290.104(j) and 290.105(f) for coal ash used at mining activity sites or abandoned mine sites. The person beneficially using coal ash will have to submit an annual report that includes contact information and the identity and the volume in cubic yards and the weight in dry tons for each source. For use as structural fill, the location of the site where the coal ash was utilized must be included in the report. For use at a mining activity site, the report shall include the mining permit number and the certification of the coal ash. For use at an abandoned mine site, the report must include the identity of the reclamation contract with the Department or approval by the Department and the certification of the coal ash.

The Department is required under §§ 290.102(b) and 290.105(d) in the proposed rulemaking to publish a notice in the *Pennsylvania Bulletin* of each notice for use of coal ash as structural fill or at an abandoned mine site. (Note: The Department already is required to publish a notice in the *Pennsylvania Bulletin* under § 86.39(b)(2) for mining activity sites.)

The proposed rulemaking requires generators whose coal ash will be used at a coal mining activity site or an abandoned mine site to submit a request to the Department for certification of their coal ash. The request under § 290.201(c) must include contact information, identification of the beneficial uses for which certification is sought, a description of the generation process, fuel sources, chemical analysis and physical testing of the coal ash, and the physical and chemical characteristics of any material added to the coal ash. In § 290.201(e) quarterly submittals by the generators that include chemical analysis and an annual report with coal ash volumes and locations where sent for beneficial use are required for the coal ash to remain certified. Both the generator of the coal ash and the person using it are required in the

proposed rulemaking to report changes in information used to certify the coal ash and any evidence that it may no longer meet the certification requirements. The proposed rulemaking in § 290.201(d) requires the Department to notify generators of their coal ash certification number or the reason it was not certified for beneficial use.

The proposed rulemaking in § 290.301(a) (relating to water quality monitoring) requires a water quality monitoring plan to be submitted by the person proposing to beneficially use or store coal ash for those uses or storage that requires water quality monitoring. The plan must include the location and design of monitoring points, background samples and quarterly monitoring. The proposed rulemaking requires in § 290.301(h) quarterly submittal of the water quality monitoring data to the Department and in § 290.306 (relating to recordkeeping) to retain water quality monitoring data and evaluations for at least 3 years after water quality monitoring ceases.

The proposed rulemaking requires an assessment plan to be submitted to the Department by the user of coal ash when a triggering event in § 290.304(a) (relating to assessment plan) occurs. The assessment plan is to include the number type, design and location of assessment points, sampling and analytical methods to be employed, the evaluation procedures to be utilized, an implementation schedule and the abatement standard that will be met. After implementation of an assessment plan, § 290.304(e) in the proposed rulemaking requires submission of a report to the Department that includes the data collected and its analysis and recommendations on abatement.

The proposed rulemaking requires an abatement plan to be submitted to the Department by the user of coal ash when a triggering event in § 290.305(a) (relating to abatement plan) occurs. The plan must include the methods or techniques to abate water degradation and to prevent further degradation, and a schedule for implementation.

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, or 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 will continue to assure that the citizens and the environment of this Commonwealth experience the advantage of our beneficial coal ash program. The proposed regulations move and expand the environmentally-friendly reuse of coal ash from a policy driven program to a program with a regulatory framework.

The proposed regulations include an enhanced coal ash certification standard. The water monitoring criteria for storage, reclamation and engineering sites that utilize coal ash have been expanded. Groundwater assessment procedures are provided and the requirements of an abatement plan have been outlined. Further, the regulations establish loading rates for coal ash as a soil amendment and engineering criteria for use as structural fill.

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*

In accordance with section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on October 28, 2009, the Department submitted a copy of the proposed amendments to the Independent Regulatory Review Commission (IRRC) and the House and Senate Environmental Resources and Energy Committees (Committees). In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed Regulatory Analysis Form prepared by the Department. 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 after 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*

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by December 22, 2009. 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 December 22, 2009. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final-form regulation will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by December 22, 2009. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

K. *Public Hearings*

The Board will hold three public hearings for the purpose of accepting comments on this proposed rulemaking. The hearings will be held as follows:

December 7, 2009 1 p.m.	Department of Environmental Protection Southwest Regional Office Waterfront A and B Conference Rooms 400 Waterfront Drive Pittsburgh, PA 15222-4745

December 8, 2009 1 p.m.	Department of Environmental Protection Cambria District Office 286 Industrial Park Road Ebensburg, PA 15931
December 9, 2009 1 p.m.	Department of Environmental Protection Pottsville District Office 5 West Laurel Boulevard Pottsville, PA 17901-2454

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526, at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans With Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) to discuss how the Board may accommodate their needs.

JOHN HANGER,
Chairperson

Fiscal Note: 7-442. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

ARTICLE IX. RESIDUAL WASTE MANAGEMENT

CHAPTER 287. RESIDUAL WASTE MANAGEMENT—GENERAL PROVISIONS

Subchapter A. GENERAL

§ 287.1. Definitions.

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

* * * * *

Coal ash—Fly ash, bottom ash or boiler slag resulting from the combustion of coal, that is or has been beneficially used, reused or reclaimed for a commercial, industrial or governmental purpose. The term includes **[such] the** materials that are stored, processed, transported or sold for beneficial use, reuse or reclamation. **[For purposes of this article, the term also includes fly ash, bottom ash or boiler slag resulting from the combustion of coal, that is not and has not been beneficially used, reused or reclaimed for a commercial, industrial or governmental purpose.]**

* * * * *

Solid waste—Waste, including, but not limited to, municipal, residual or hazardous waste, including solid, liquid, semisolid or contained gaseous materials. The term does not include coal ash that is beneficially used under **[Subchapter H] Chapter 290** (relating to beneficial use **of coal ash**) or drill cuttings.

* * * * *

Structural fill—The engineered use of **[coal ash] material** as a base or foundation for a construction activity that is completed promptly after the placement of the **[coal ash] material**, including the use **[of coal ash]** as **[a]** backfill **[material]** for retaining walls, foundations, ramps or other structures. The term does not include valley fills or the use of **coal ash or** solid waste to fill open pits from coal or noncoal mining.

* * * * *

Water table—

(i) The top of the saturated zone.

(ii) The term includes the regional groundwater table, perched water tables, seasonal high water table and the surface of mine pools.

* * * * *

Subchapter H. BENEFICIAL USE

SCOPE

§ 287.601. Scope.

(a) This subchapter sets forth requirements for the processing and beneficial use of residual waste**[, including coal ash, and sets forth requirements for certain beneficial uses of coal ash]**. Sections 287.611, 287.612, 287.621—287.625, 287.631, 287.632, 287.641—287.644, 287.651 and 287.652 establish procedures and standards for general permits for the beneficial use or processing of residual waste **[other than certain uses of coal ash, and §§ 287.661—287.666 (relating to beneficial use of coal ash) establish procedures and standards for certain beneficial uses of coal ash]**.

* * * * *

[BENEFICIAL USE OF COAL ASH]

(*Editor's Note*: As part of this proposed rulemaking, the Board is proposing to rescind the text of §§ 287.661—287.666 which appear in 25 Pa. Code pages 287-140—287-150, serial pages (273506) to (273516).)

§§ 287.661—287-666. [Reserved.]

(*Editor's Note*: This Chapter 290 under Article IX is new and printed in regular type to enhance readability.)

CHAPTER 290. BENEFICIAL USE OF COAL ASH

Subch.

A. GENERAL
B. BENEFICIAL USE OF COAL ASH
C. COAL ASH CERTIFICATION
D. WATER QUALITY MONITORING
E. COAL ASH STORAGE

Subchapter A. GENERAL

Sec.

290.1 Scope.

§ 290.1. Scope.

(a) This chapter sets forth requirements for beneficial use of coal ash.

(b) If coal ash is mixed with residual waste or ash produced by co-firing coal or waste coal with an alternative fuel, the beneficial use must be authorized by a permit issued under this article and the requirements of this chapter must be met.

(c) If coal ash is mixed with construction and demolition waste, the beneficial use must be authorized under a

permit issued under Article VIII (relating to municipal waste) and the requirements of this chapter must be met.

(d) Coal ash mixed with municipal waste, other than construction and demolition waste, may not be beneficially used by direct placement into the environment. Other types of beneficial use of coal ash mixed with municipal waste may be authorized by a permit issued under Article VIII and any applicable requirements of this chapter must be met.

(e) Beneficial use activities that are subject to and meet the requirements of this chapter are not required to obtain an individual disposal permit under this article.

Subchapter B. BENEFICIAL USE OF COAL ASH

Sec.
290.101. General requirements for the beneficial use of coal ash.
290.102. Use of coal ash as structural fill.
290.103. Use of coal ash as a soil substitute or soil additive.
290.104. Beneficial use of coal ash at coal mining activity sites.
290.105. Coal ash beneficial use at abandoned coal surface mine sites.
290.106. Other beneficial uses of coal ash.
290.107. Requests for information.

§ 290.101. General requirements for the beneficial use of coal ash.

(a) Coal ash may be beneficially used without a permit from the Department under the act if the person proposing the use complies with this chapter. Use of coal ash that is not consistent with this chapter is considered disposal and must be authorized under a disposal permit from the Department under the act and the regulations promulgated thereunder.

(b) Chemical analysis must demonstrate that the coal ash does not exceed any of the maximum acceptable leachate levels in § 290.201(a) (relating to coal ash certification). The minimum sampling and analysis procedures must satisfy the requirements in § 290.201(c). The Department may waive or modify this requirement for uses under § 290.106(b)(1)—(3) (relating to other beneficial uses of coal ash).

(c) The coal ash must satisfy the physical characteristics for the intended use in § 290.201(a).

(d) A water quality monitoring plan in accordance with § 290.301 (relating to water quality monitoring) and, if applicable, Chapters 86—90 must be developed and implemented if either more than 10,000 tons of coal ash per acre is to be used on a project or more than 100,000 tons of coal ash in total will be used at a project. Contiguous projects will be considered a single project for purposes of this section. The Department may require a water quality monitoring plan for projects involving lesser quantities of coal ash where site conditions warrant. The Department may waive or modify this requirement for uses under § 290.106(b)(1)—(6).

(e) Coal ash may not be placed within 8 feet of the water table, unless the Department approves placement within 8 feet at a coal mining activity site based upon a demonstration that groundwater contamination will not occur.

(f) Coal ash may not be used in a way that causes water pollution.

§ 290.102. Use of coal ash as structural fill.

(a) At least 60 days before using coal ash as structural fill, the person proposing the use shall submit a written notice to the Department. The notice must contain, at a minimum, the following information:

(1) A description of the nature, purpose and location of the project, including a topographic map showing the project and available soils maps of the area of the project.

(2) The estimated beginning and ending dates for the project.

(3) Construction plans for the structural fill, including a stability analysis when necessary, which shall be prepared by a registered professional engineer in accordance with sound engineering practices and which shall be signed and sealed by the engineer.

(4) An estimate of the volume of coal ash to be used for the project.

(5) A bulk chemical and leaching analysis for the coal ash to be used in the project. If the coal ash was generated at a facility for which the Department has previously approved a chemical and leaching analysis and the analysis is not older than 1 year, the person may submit a copy of the analysis that was approved.

(6) A signed statement by the owner of the land on which the structural fill is to be placed, acknowledging and consenting to the use of coal ash as structural fill.

(7) The statement by the landowner in paragraph (6) shall be a recordable document for any project, or set of contiguous projects involving placement of more than 10,000 tons of coal ash per acre. Prior to beneficial use of more than 10,000 tons of coal ash per acre under this section, the statement by the landowner shall be recorded at the office of the recorder of deeds in the county in which the proposed coal ash beneficial use will take place.

(b) The Department will publish a summary of each notice in the *Pennsylvania Bulletin*.

(c) A person proposing to use coal ash as structural fill where more than 10,000 tons of coal ash per acre is to be used on a project or more than 100,000 tons of coal ash in total will be used at a project shall place at the time of filing a request with the Department, an advertisement in a local newspaper of general circulation in the locality of the proposed coal ash beneficial use activities at least once a week for 3 consecutive weeks. Contiguous projects will be considered a single project for purposes of this section. The Department may require public notice for projects involving less than 10,000 tons of coal ash per acre if the Department determines that the proposed beneficial use activities are of significant interest to the public or site conditions warrant. At a minimum, the notice must contain the following information:

(1) The name and business address of the person proposing to beneficially use coal ash.

(2) A brief description of the location and scope of the proposed beneficial use.

(3) The location of the public office where a copy of the request that is being or was sent to the Department is available for public inspection.

(d) For coal ash to be beneficially used as a structural fill, the following additional requirements must be satisfied:

(1) The pH of the coal ash as placed must be in the range of 6.0 to 9.0, unless otherwise approved by the Department. Lime may be added to raise pH.

(2) The slope of a structural fill may not be greater than 2.5 horizontal to 1.0 vertical. The Department may approve a greater slope based on a demonstration of structural stability.

(3) Coal ash shall be spread uniformly and compacted in layers not exceeding 2 feet in thickness. The coal ash shall be spread and compacted within 24 hours of its delivery to the site unless stored in accordance with Subchapter E (relating to coal ash storage).

(4) Surface runoff from the fill area shall be minimized during filling and construction activity. Stormwater shall be managed in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

(5) Surface water shall be diverted away from the disturbed area during filling and construction activity.

(6) Coal ash shall be covered with 12 inches of soil, unless infiltration is prevented by other cover material.

(7) Coal ash must achieve a minimum compaction of 90% of the maximum dry density as determined by the Modified Proctor Test, or 95% of the maximum dry density as determined by the Standard Proctor Test. Ash from each source shall be tested individually. The Proctor Test shall be conducted by a certified laboratory.

(8) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(e) Coal ash used as structural fill may not be located:

(1) Within 100 feet of an intermittent or perennial stream, unless the structural fill is otherwise protected by a properly engineered diversion or structure that is permitted by the Department under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27).

(2) Within 300 feet of a water supply unless the person obtains, in a form acceptable to the Department, a written waiver from the owner of the water supply, allowing for another distance.

(3) Within 25 feet of a bedrock outcrop, unless the outcrop is properly treated to minimize infiltration into fractured zones or otherwise approved by the Department.

(4) Within 100 feet of a sinkhole or area draining into a sinkhole.

(5) Within a 100-year floodplain of a water of this Commonwealth, unless a properly engineered dike, levee or other structure that can protect the structural fill from a 100-year flood is permitted by the Department in a manner that is consistent with the Flood Plain Management Act (32 P. S. §§ 679.101—679.601), the Storm Water Management Act (32 P. S. §§ 680.1—680.17) and the Dam Safety and Encroachments Act.

(6) In or within 100 feet of a wetland, other than an exceptional value wetland.

(7) In or within 300 feet of an exceptional value wetland.

(f) Prior to January 31, any person that placed more than 10,000 tons of coal ash per acre at any project or contiguous projects in the previous calendar year shall submit a report for the previous calendar year to the Department that includes contact information, the location of the site where the coal ash was utilized, the identity of each source of coal ash, and the volume in cubic yards and the weight in dry tons for each source.

§ 290.103. Use of coal ash as a soil substitute or soil additive.

(a) Coal ash may be beneficially used as a soil substitute or soil additive without a permit from the Department under the act if the person proposing the use complies with this section.

(b) At least 60 days before using coal ash as a soil substitute or soil additive, the person proposing the use shall submit a written notice to the Department. The notice must contain, at a minimum, the following information:

(1) A description of the nature, purpose and location of the project, including a topographic map showing the project area and available soils maps of the project area. The description must include an explanation of how coal ash will be stored prior to use, how the soil will be prepared for the application of coal ash, how coal ash will be spread and, when necessary, how coal ash will be incorporated into the soil.

(2) The estimated beginning and ending dates for the project.

(3) An estimate of the volume of coal ash to be used for the project, the proposed application rate and a justification for the proposed application rate.

(4) A chemical and leaching analysis and pH for the coal ash to be used in the project. If the coal ash was generated at a facility for which the Department has previously approved a chemical and leaching analysis and the analysis is not older than 1 year, the person may submit a copy of the analysis that was approved.

(5) A chemical analysis of the soil on which the coal ash is proposed to be placed.

(6) An analysis showing how the application of coal ash will be beneficial to the productivity or properties of the soil to which it is proposed to be applied. The analysis shall be prepared and signed by an expert in soil science.

(7) A signed statement by the owner of the land on which the coal ash is to be placed, acknowledging and consenting to the use of coal ash as a soil substitute or soil additive.

(c) After receiving the information required under subsection (b), the Department will inform the person that provided the information whether the proposed use of coal ash as a soil substitute or soil additive is consistent with this section.

(d) Coal ash used as a soil substitute or soil additive may not be considered a beneficial use unless the following requirements are met:

(1) The pH of the coal ash and the pH of the soil must be in the range of 6.5 to 8.0 when mixed together in the manner required by the project, as shown by field and laboratory testing. Lime may be added to raise pH.

(2) Chemical analysis demonstrates that the coal ash satisfies the minimum calcium carbonate equivalency requirement in § 290.201(a) (relating to coal ash certification).

(3) Surface runoff from the project area shall be controlled during the project. Stormwater shall be managed in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

(4) Coal ash shall be incorporated into the soil within 48 hours of application, unless otherwise approved by the Department. The coal ash shall be incorporated into the top 1-foot layer of surface soil. If 1 foot of surface soil is not present, coal ash may be combined with the surface soil that is present until the layer of combined surface soil and coal ash is 1 foot. The coal ash required for the beneficial use is limited to the amount necessary to enhance soil properties or plant growth.

(5) Coal ash shall be applied at a rate per acre that will protect public health, public safety and the environment.

(6) Coal ash may not be applied to soil being used for agriculture where the soil pH is less than 5.5.

(7) Coal ash may not be applied if resultant chemicals or physical soil conditions would be detrimental to biota.

(8) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(e) Coal ash may not be used as a soil substitute or soil additive:

(1) Within 100 feet of an intermittent or perennial stream, or a wetland other than an exceptional value wetland.

(2) In or within 300 feet of an exceptional value wetland.

(3) Within 300 feet of a water supply unless the person obtains, in a form acceptable to the Department, a written waiver from the owner of the water supply, allowing for another distance.

(4) Within 100 feet of a sinkhole or area draining into a sinkhole.

(5) Within 300 feet measured horizontally from an occupied dwelling, unless the current owner has provided a written waiver consenting to the activities closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(f) Coal ash may not be used as a soil substitute or soil amendment in amounts that exceed the following maximum cumulative loading rates:

Contaminant	*Cumulative Contaminant Loading Rate*
arsenic	36 lbs/acre (41 kg/hectare)
boron	60 lbs/acre (67.2 kg/hectare)
cadmium	34 lbs/acre (38 kg/hectare)
chromium	2,672 lbs/acre (3,014 kg/hectare)
copper	1,320 lbs/acre (1,490 kg/hectare)
lead	264 lbs/acre (296 kg/hectare)
mercury	15 lbs/acre (17 kg/hectare)
molybdenum	16 lbs/acre (18 kg/hectare)
nickel	370 lbs/acre (420 kg/hectare)
selenium	88 lbs/acre (99 kg/hectare)
zinc	2,464 lbs/acre (2,780 kg/hectare)

§ 290.104. Beneficial use of coal ash at coal mining activity sites.

(a) *Coal ash approval at coal mining activity sites.* Approval for the beneficial use of coal ash at coal mining activity sites as defined in § 86.1 (relating to definitions) will, at a minimum, be based on the following:

(1) Compliance with this section, The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder, the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a), the Coal Refuse Disposal Control Act (52 P. S. §§ 30.51—30.66), the applicable provisions of Chapters 86—90 and other applicable environmental statutes and regulations promulgated thereunder.

(2) Certification under § 290.201 (relating to coal ash certification) by the Department for the intended beneficial uses.

(3) Approval of a request submitted pursuant to subsection (b).

(b) *Request.* A person shall submit to the Department a request to beneficially use the certified coal ash at a specific coal mining activity site as part of the reclamation plan under the mining permit. This request must contain the permit filing fee in subsection (c) and, at a minimum, the following:

(1) A narrative description of the project, including an explanation of how coal ash will be placed, where and how coal ash will be stored prior to placement, identification of the sources of coal ash and an estimate of the cubic yards of coal ash to be used. For the beneficial use of coal ash as a soil substitute or additive, the proposed application rate and justification for the application rate shall also be included.

(2) Information demonstrating that the coal ash has been certified for its intended use in accordance with § 290.201, including the identity of the generator and the certification number.

(3) A signed statement by the owner of the land on which the coal ash is to be placed, acknowledging and consenting to the placement of coal ash. This statement by the landowner shall be a recordable document. Prior to beneficial use of coal ash under this section, the statement by the landowner shall be recorded at the office of the recorder of deeds in the county in which the proposed beneficial use of coal ash will take place.

(4) A monitoring plan that meets the requirements of Subchapter D (relating to water quality monitoring).

(c) *Permit filing fee.*

(1) A nonrefundable permit filing fee payable to the "Commonwealth of Pennsylvania" for the beneficial use of coal ash at a coal mining activity site is to be paid annually in the amount of $2,000. This annual filing fee is to be paid until final bond release for the coal mining activity site.

(2) Money received from the permit filing fee for the beneficial use of coal ash will be deposited in the Surface Mining Conservation and Reclamation Fund and will be used by the Department for the cost of reviewing, administering and enforcing the requirements of the authorization for beneficial use of coal ash under the coal mining activity permit.

(3) The Department will review the adequacy of the fees established in this section at least once every 3 years and provide a written report to the EQB. The report will identify any disparity between the amount of program income generated by the fees and the costs to administer these programs, and contain recommendations to adjust fees to eliminate the disparity, including recommendations for regulatory amendments to adjust program fees.

(d) *Public notice.* A person proposing to use coal ash at coal mining activity sites shall provide public notice pursuant to § 86.31 or § 86.54 (relating to public notices of filing of permit applications; and public notice of permit revision).

(e) *Operating requirements.* The beneficial use of coal ash for reclamation purposes at a coal mining activity site shall be designed to achieve an overall improvement in water quality or shall be designed to prevent the degradation of water quality. Coal ash shall only be beneficially used for reclamation at the following locations:

(1) The pit or area from which coal is extracted under a surface coal mining permit.

(2) Abandoned coal mining areas located within the surface coal mining permit area.

(3) Coal refuse disposal sites and coal refuse reprocessing sites.

(4) Other beneficial uses that are part of the approved reclamation plan at the coal mining activity site.

(f) *Additional operating requirements for the placement of coal ash at coal surface mining and coal refuse reprocessing sites.* The following applies to placement of coal ash at coal surface mining and coal refuse reprocessing sites:

(1) The volume of coal ash placed at the site may not exceed the volume of coal, coal refuse, culm or silt removed from the site by the active mining operation on a cubic yard basis unless approved by the Department.

(2) Placement of coal ash shall be accomplished by mixing with spoil material or by spreading in horizontal layers no greater than 2 feet thick unless otherwise approved by the Department. The reclamation plan of the approved mining permit must address the placement of the coal ash.

(3) The coal ash shall be spread and compacted within 24 hours of its delivery to the site unless stored in accordance with Subchapter E (relating to coal ash storage).

(4) Coal ash must achieve a minimum compaction of 90% of the maximum dry density as determined by the Modified Proctor Test, or 95% of the maximum dry density as determined by the Standard Proctor Test. Ash from each source must be tested individually. The Proctor Test shall be conducted by a certified laboratory on a semiannual basis unless the Department requires more frequent testing.

(5) For coal refuse reprocessing sites where refuse material is presently deposited in large surface piles, the piles may not be rebuilt with coal ash. The placement of coal ash shall be accomplished in a manner that blends into the general surface configuration, and complements the surface drainage pattern of the surrounding landscape.

(6) For a project involving multiple refuse reprocessing sites, the Department may allow a greater volume of coal ash to be placed at an individual site than the volume of coal refuse removed from that site if the following conditions are met:

(i) A single person shall control a project involving the coordinated use of multiple coal refuse reprocessing sites.

(ii) A reclamation plan is approved for each of the sites and each plan identifies the total cubic yards of coal ash that may be placed at each site.

(iii) The total cubic yards of coal ash placed on the sites is less than the total cubic yards of refuse, culm or silt removed from the sites. Only coal ash from the integrated project can be used.

(iv) The integrated project shall be designed to achieve an overall improvement of surface water or groundwater quality at each site, where acid mine drainage is evident. If acid mine drainage is not evident, the project shall be designed to prevent degradation of the surface or groundwater quality.

(v) The integrated project shall be accomplished in a manner that blends into the general surface configuration and complements the surface drainage pattern of the surrounding landscape.

(7) The person shall maintain information identifying the sources and the volume in cubic yards and the weight in dry tons of coal ash used.

(8) The site shall be monitored in accordance with the requirements of Subchapter D.

(9) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(g) *Additional operating requirements for the beneficial use of coal ash as a soil substitute or soil additive.* The following apply to the beneficial use of coal ash as a soil substitute or soil additive:

(1) Coal ash shall be applied at a rate per acre that will protect public health, public safety and the environment.

(2) The coal ash that is applied will be part of the approved reclamation plan of the coal mining activity to increase the productivity or properties of the soil.

(3) The coal ash may not be used in amounts that exceed the maximum cumulative loading rates in § 290.103(f) (relating to use of coal ash as a soil substitute or soil additive).

(4) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(h) *Additional operating requirements for the beneficial use of coal ash at coal refuse disposal sites.* The following apply to the beneficial use of coal ash at coal refuse disposal sites:

(1) Placement of coal ash as part of coal refuse disposal operations permitted under Chapters 86—90 must meet the following:

(i) The cubic yards of coal ash does not exceed the total cubic yards of coal refuse to be disposed based on uncompacted volumes of materials received at the site.

(ii) The coal ash has physical and chemical characteristics that meet the following requirements:

(A) Improve compaction and stability within the fill.

(B) Reduce infiltration of water into coal refuse.

(C) Improve the quality of leachate generated by the coal refuse.

(2) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(i) *Additional coal ash sampling.* A person using coal ash at a coal mining activity site shall, each quarter that coal ash is being used at the site, sample the ash after it has been placed at the site and such sample shall be analyzed in accordance with § 290.201(c)(5). The results of the analysis shall be submitted quarterly to and in the format required by the Department.

(j) *Annual report.* Prior to January 31, the permittee of a coal mining activity site where coal ash was placed in the previous calendar year shall submit a report for the previous calendar year to the Department that includes permit number, mining company contact information, the identity of each source of coal ash and its certification number, and the volume in cubic yards and the weight in dry tons for each source of coal ash that was placed at the site.

§ 290.105. Coal ash beneficial use at abandoned coal surface mine sites.

(a) *Department approval.* Coal ash may be beneficially used at abandoned coal surface mine sites if the reclamation work is approved in writing by the Department. The beneficial use of coal ash at abandoned coal surface mine sites will, at a minimum, be based on the following:

(1) Beneficial use of the coal ash must comply with this section, and the applicable environmental statutes and regulations promulgated thereunder.

(2) The coal ash is certified under § 290.201 (relating to coal ash certification) by the Department for the intended use.

(b) *Request.* The request for the use of coal ash at abandoned mine sites must contain the following:

(1) A narrative description of the project, including an estimated beginning date and ending date for the project, an explanation of how coal ash will be placed, where and how coal ash will be stored prior to placement, identification of the sources of coal ash and an estimate of the cubic yards of coal ash to be used. For the beneficial use of coal ash as a soil substitute or additive, the proposed application rate and justification for the application rate shall also be included.

(2) Information demonstrating that the coal ash has been certified for its intended use in accordance with § 290.201, including the identity of the generator and the certification identity number.

(3) Reclamation plans, including a stability analysis, when necessary, prepared by a registered professional engineered in accordance with sound engineering practice and signed and sealed by the engineer.

(4) A signed statement by the owner of the land on which the coal ash is to be placed, acknowledging and consenting to the placement of coal ash. This statement by the landowner shall be a recordable document. Prior to beneficial use of coal ash under this section, the statement by the landowner shall be recorded at the office of the recorder of deeds in the county in which the proposed coal ash beneficial use will take place.

(5) A water quality monitoring plan, if applicable.

(6) A person proposing to use coal ash for reclamation involving use of more than 10,000 tons of coal ash per acre on a project or more than 100,000 tons of coal ash in total at any project shall place at the time of filing a request with the Department, an advertisement in a local newspaper of general circulation in the locality of the proposed coal ash beneficial use activities at least once a week for 3 consecutive weeks. Contiguous projects will be considered a single project for purposes of this section. The Department may require public notice for projects involving lesser amounts of coal ash if the Department determines that the proposed beneficial use activities are of significant interest to the public or site conditions warrant. At a minimum, the notice must contain the following information:

(i) The name and business address of the person proposing to beneficially use coal ash.

(ii) A brief description of the location and scope of the proposed beneficial use.

(iii) The location of the public office where a copy of the request that is being or was sent to the Department is available for public inspection.

(c) *Approved under contract.* Contracts issued by the Department for the reclamation of abandoned coal surface mine sites may include the beneficial use of coal ash. The beneficial use of coal ash for the reclamation of abandoned coal surface mine sites will, at a minimum, be based on the conditions established in subsection (a).

(d) *Department notification.* The Department will publish a summary of each request or contract in the *Pennsylvania Bulletin*.

(e) *Operating requirements.* The use of coal ash as part of the reclamation activity at abandoned coal surface mine sites must satisfy the following additional requirements:

(1) The pH of the coal ash as placed must be in the range of 6.0 to 9.0, unless otherwise approved by the Department. Lime may be added to raise pH.

(2) The slope of the reclaimed area may not be greater than 2.5 horizontal to 1.0 vertical. The Department may approve a greater slope based on a demonstration of stability.

(3) Coal ash shall be spread uniformly and compacted in layers not exceeding 2 feet in thickness. The coal ash shall be spread and compacted within 24 hours of its delivery to the site unless stored in accordance with Subchapter E (relating to coal ash storage).

(4) Surface runoff from the reclamation area shall be minimized during construction activity. Storm water shall be managed in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

(5) Surface water shall be diverted away from the disturbed area during construction activity.

(6) Coal ash shall be covered with 12 inches of soil, unless infiltration is prevented by other cover material.

(7) Coal ash must achieve a minimum compaction of 90% of the maximum dry density as determined by the Modified Proctor Test, or 95% of the maximum dry density as determined by the Standard Proctor Test. Ash from each source shall be tested individually. The Proctor Test shall be conducted by a certified laboratory.

(8) The offsite dispersion of dust from coal ash and other materials shall be minimized.

(9) Coal ash used for reclamation may not be located:

(i) Within 100 feet of an intermittent or perennial stream, unless the reclamation area is otherwise protected by a properly engineered diversion or structure that is permitted by the Department under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27) or the ash has been placed as a low permeability material to function as an aquatard as part of an engineered stream channel restoration.

(ii) Within 300 feet of a water supply unless the person obtains, in a form acceptable to the Department, a written waiver from the owner of the water supply, allowing for another distance.

(iii) Within 100 feet of a sinkhole or area draining into a sinkhole.

(iv) Within a 100-year floodplain of a water of this Commonwealth, unless a properly engineered dike, levee or other structure that can protect the reclamation area from a 100-year flood is permitted by the Department in a manner that is consistent with the Flood Plain Management Act (32 P. S. §§ 679.101—679.601), the Storm Water Management Act (32 P. S. §§ 680.1—680.17) and the Dam Safety and Encroachments Act.

(v) In or within 100 feet of a wetland, other than an exceptional value wetland.

(vi) In or within 300 feet of an exceptional value wetland.

(10) The following apply to the beneficial use of coal ash as a soil substitute or soil additive:

(i) Coal ash shall be applied at a rate per acre that will protect public health, public safety and the environment.

(ii) The coal ash that is applied will be part of the approved reclamation plan to increase the productivity or properties of the soil.

(iii) The coal ash is not used in amounts that exceed the maximum cumulative loading rates in § 290.103(f) (relating to use of coal ash as a soil substitute or soil additive).

(f) *Annual report.* Prior to January 31, any person that placed coal ash at an abandoned mine site in the previous calendar year shall submit a report for the previous calendar year to the Department that includes company contact information, the identity of the reclamation contract with the Department or approval by the Department, the identity of each source of coal ash and its certification identity number, and the volume in cubic yards and the weight in dry tons for each source of coal ash that was placed at the site.

§ 290.106. Other beneficial uses of coal ash.

(a) This section sets forth beneficial uses of coal ash other than use as a structural fill, soil substitute or soil additive.

(b) The following uses of coal ash are deemed to be beneficial and do not require a permit from the Department under the act provided the uses are consistent with the requirements of this section:

(1) The use of coal ash in the manufacture of concrete. The coal ash shall be utilized within 24 hours of its delivery to the site unless stored in accordance with Subchapter E (relating to coal ash storage).

(2) The extraction or recovery of one or more materials and compounds contained within the coal ash if the following conditions are met:

(i) Storage of coal ash before and after extraction or recovery shall be subject to Subchapter E.

(ii) Disposal of the unrecovered fraction of coal ash shall be subject to the applicable requirements for residual waste.

(3) The use of fly ash as a stabilized product. Other uses of fly ash in which physical or chemical characteristics are altered prior to use or during placement will be considered a beneficial use under this section if the following conditions are met:

(i) The person proposing the use has first given advance written notice to the Department.

(ii) The coal ash is not mixed with solid waste, unless otherwise approved, in writing, by the Department prior to the use.

(iii) The use of the coal ash results in a demonstrated reduction of the potential of the coal ash to leach constituents into the environment.

(4) The use of bottom ash or boiler slag as an antiskid material or road surface preparation material, if the use is consistent with Department of Transportation specifications or other applicable specifications. The use of fly ash as an antiskid material or road surface preparation material is not deemed to be a beneficial use.

(5) The use of coal ash as raw material for a product with commercial value, including the use of bottom ash in construction aggregate. Storage of coal ash prior to processing is subject to Subchapter E.

(6) The use of coal ash as a drainage material or pipe bedding, if the person proposing the use has first given advance written notice to the Department, and has provided to the Department an evaluation of the pH of the coal ash and a chemical analysis of the coal ash.

(7) The use of coal ash for mine subsidence control, mine fire control and mine sealing, if the following requirements are met:

(i) The person proposing the use gives advance written notice to the Department.

(ii) The pH of the coal ash is in a range that will not cause or allow the ash to contribute to water pollution.

(iii) The use of the coal ash in projects funded by or through the Department is consistent with applicable Departmental requirements and contracts.

(iv) The coal ash shall be utilized within 24 hours of its delivery to the site unless stored in accordance with Subchapter E.

§ 290.107. Requests for information.

(a) The Department may request documents and other information from a person to demonstrate that the person is conducting or proposing to use coal ash in a manner that is compliant with this subchapter.

(b) Failure to have documentation of compliance with this subchapter may lead to a presumption that the person is disposing of residual waste without a permit.

Subchapter C. COAL ASH CERTIFICATION

Sec.
290.201. Coal ash certification.
290.202. Revocation of certification.
290.203. Exceedance of certification requirements.

§ 290.201. Coal ash certification.

(a) Certification standards are as follows:

(1) Maximum acceptable leachate levels for certification:

(i) For metals and other cations, 25 times the waste classification standard for a contaminant.

(ii) For contaminants other than metals and cations, the waste classification standard for a contaminant.

(2) The pH of the coal ash must be above 7.0 for mine backfilling, alkaline addition, or use as low-permeability material.

(3) For coal ash used as an alkaline additive, whether as a placement fill or as an alkaline soil additive, the calcium carbonate equivalency, as determined by the Neutralization Potential Test in the Department's *Overburden Sampling and Testing Manual* (Noll, et al., 1988) or other method approved by the Department, must be a minimum of 100 parts per thousand (10% by weight).

(4) For coal ash used as a low permeability material, the hydraulic conductivity (permeability) of the coal ash must be 1.0×10^{-6} cm/sec or less based on hydraulic conductivity testing using ASTM D 5084 (Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Perimeter) or other method approved by the Department. An additive may be used with the coal ash to meet this hydraulic conductivity. Hydraulic conductivity testing should use compaction and other preparation techniques that will duplicate the expected conditions at the mine site.

(b) Certification may be granted for use of coal ash not meeting all the appropriate standards in subsection (a) if the following conditions are met:

(1) The coal ash will be used only at specified mine sites. The coal ash certification is limited for use only at a specified site.

(2) Only standards based on secondary MCLs (aluminum, chloride, iron, manganese, sulfate, silver and zinc) are exceeded. All other limits shall be met.

(3) The mine site operator can demonstrate that use of the coal ash at these levels will not adversely impact the surface water or groundwater quality and that the use of the coal ash will achieve an overall benefit in groundwater quality.

(c) A request for coal ash certification must contain the following information on a form provided by the Department:

(1) The name and location of the generator of the coal ash.

(2) A designation of the beneficial use or uses for which certification is requested

(3) A description of the coal ash generation process specific to the generator, including the combustion and pollution control processes, the fuel sources utilized, and the expected percentages of coal ash derived from different processes that will be incorporated into the final coal ash stream to be delivered to the beneficial use site.

(4) A description of the physical properties and chemical characteristics of any material mixed with the coal ash, the extent of mixing, and the mixing methods used.

(5) A detailed chemical analysis on at least four representative samples spaced throughout a 2—6-month sampling period within the last year that fully characterizes the composition of the coal ash. This analysis must include:

(i) Total and leachable concentrations for aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, sulfate, thallium, vanadium and zinc and leachable concentrations for ammonia, chloride, fluoride, nitrate and nitrite using methods found in EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846) or comparable methods approved by the Department. Leachate concentrations shall be determined using EPA Method 1312, the Synthetic Precipitation Leaching Procedure, or another leaching procedure approved by the Department.

(ii) Information to show that the laboratory making a chemical analysis for the application is in compliance with 27 Pa.C.S. Chapter 41 (relating to environmental laboratory accreditation).

(6) A laboratory analysis for optimum moisture content and dry density (Standard or Modified Proctor Test).

(7) An analysis of permeability reported in cm/sec.

(8) A determination of neutralization potential as determined by the Neutralization Potential Test in the Department's *Overburden Sampling and Testing Manual* (Noll, et al., 1988) or other method approved by the Department.

(9) A detailed description of the sampling methodology used, date the samples were taken, and name and contact information of the person performing the sampling.

(10) Other physical testing results, if required in subsection (a) for the particular beneficial uses being proposed.

(d) The Department will review the certification request and notify the generator in writing of the certification identity number or the reason that the source was not certified for beneficial use.

(e) If the coal ash is certified, a representative of the coal ash source generator shall submit regular monitoring information to demonstrate that the coal ash continues to meet the requirements for certification. This information shall be submitted on dates specified by and on forms provided by the Department. At a minimum, monitoring requirements must consist of the following:

(1) At least one representative sample analysis of the coal ash submitted every three months.

(2) A representative sample analysis collected whenever there is a change in operation of the combustion unit generating the coal ash or a significant change in the fuel source.

(3) Prior to January 31, a yearly report, that includes the volume in cubic yards and the weight in dry tons of ash produced for beneficial use in the previous calendar year and the locations, such as mine sites, where the ash was delivered.

(f) The coal ash generator and the person beneficially using the coal ash must notify the Department of any changes to the information filed in the certification application or of any evidence that the coal ash may not meet certification requirements.

§ 290.202. Revocation of certification.

(a) The Department will revoke certification for a source of coal ash if any of the following occur:

(1) The generator fails to comply with monitoring requirements as described in § 290.201(e).

(2) The results from the analyses of the coal ash consistently exceed the certification criteria.

(3) There are physical or chemical characteristics that make the coal ash unsuitable for beneficial use.

(b) If certification is revoked, the coal ash cannot be used at a coal mining activity site or an abandoned coal surface mine site in the Commonwealth unless the coal ash generator requests recertification under subsection (c) and the coal ash is recertified by the Department.

(c) The generator of coal ash that had its certification revoked may request recertification. For certification to be reinstated, the generator shall demonstrate to the Department's satisfaction that:

(1) A detailed chemical analysis on three recent monthly representative samples establish that the coal ash meets the certification requirements.

(2) There are no other physical or chemical characteristics that make the coal ash unsuitable for beneficial use.

§ 290.203. Exceedance of certification requirements.

If the coal ash sample analysis results exceed any certification requirement, this source may continue to be used if the person can demonstrate to the Department's satisfaction that the exceedance was a rare event and is not a typical representation of the coal ash as a whole. This demonstration must include comparisons with prior coal ash analyses, a new sampling strategy and new

sample analyses. The demonstration must explain the cause of any high value and how this type of event will be avoided in the future.

Subchapter D. WATER QUALITY MONITORING

Sec.
290.301. Water quality monitoring.
290.302. Number, location and depth of monitoring points.
290.303. Standards for wells and casing of wells.
290.304. Assessment plan.
290.305. Abatement plan.
290.306. Recordkeeping.

§ 290.301. Water quality monitoring.

(a) A water quality monitoring plan shall be submitted to the Department for approval prior to placement or storage of coal ash at the sites identified in §§ 290.101(d), 290.104, 290.405(d) or 290.411(e). At a minimum, the plan must include the following information:

(1) The location and design of downgradient and upgradient monitoring points.

(2) A minimum of 12 background samples from each monitoring point taken at monthly intervals prior to placement of coal ash, unless a different number or frequency is approved by the Department.

(3) The samples to be taken quarterly after approval from each monitoring point, unless a different number or frequency is approved by the Department.

(b) The person taking the samples and the laboratory performing the analysis required by subsection (a) shall employ the quality assurance/quality control procedures described in the EPA's "Handbook for Analytical Quality Control in Water and Wastewater Laboratories" (EPA 600/4-79-019) or "Test Methods for Evaluating Solid Waste" (SW-846).

(c) The analytical methodologies used to meet the requirements of subsection (a) must be those in the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste" (SW-846), "Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020), "Standard Methods for Examination of Water and Wastewater," prepared and published jointly by the American Public Health Association, American Waterworks Association, and Water Pollution Control Federation or a comparable method approved by the EPA or the Department. The laboratory making any chemical analysis for water quality monitoring must be in compliance with 27 Pa.C.S. Chapter 41 (relating to environmental laboratory accreditation).

(d) Samples shall be analyzed for pH (determined in the field), temperature (determined in the field), specific conductance (at 25° C; determined in the field), alkalinity, acidity, sulfate, chloride, fluoride, nitrate, nitrite, ammonia, and total suspended solids without filtration.

(e) Samples shall be analyzed for total and dissolved aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc. In addition, the static water elevation for monitoring wells and the flow for springs, seeps and mine discharges must be measured.

(f) Additional parameters may be required by the Department based on conditions at the site.

(g) Water quality monitoring shall continue quarterly for a minimum of 5 years after final placement or storage of coal ash at the site, and annually thereafter from the end of year 5 through 10 years after final placement or storage of coal ash at the site. The Department may require more frequent or longer water quality monitoring if the results of water quality monitoring indicate that contamination may be occurring.

(h) Water quality monitoring data shall be submitted quarterly to and in the format required by the Department.

(i) The person required to develop and implement a water quality monitoring plan in accordance with § 290.101(d) (relating to general requirements for the beneficial use of coal ash) shall demonstrate attainment with applicable groundwater or surface water remediation standards as required in the event of groundwater or surface water degradation attributable to the placement of the coal ash. The applicable groundwater remediation standards are identified in §§ 290.304 and 290.305 (relating to assessment plan; and abatement plan).

§ 290.302. Number, location and depth of monitoring points.

(a) The water quality monitoring system must accurately characterize groundwater flow, groundwater chemistry and flow systems on the site and adjacent area. The system must consist of the following:

(1) At least one monitoring well at a point hydraulically upgradient from the coal ash placement area in the direction of increasing static head that is capable of providing representative data of groundwater not affected by placement of coal ash, except when the coal ash placement area occupies the most upgradient position in the flow system. In that case, sufficient downgradient monitoring points shall be placed to determine the extent of adverse effects on groundwater from the coal ash placement.

(2) At least three groundwater monitoring points hydraulically downgradient in the direction of decreasing static head from the area in which coal ash has been or will be placed. The Department may accept two downgradient monitoring points on small sites that can be well represented by two points. The Department may allow one or more springs, seeps and mine discharges to substitute for wells if these points are hydraulically downgradient from the area in which coal ash has been or will be placed and if these points will be as effective or more effective at monitoring the ash placement area than wells. Downgradient monitoring points must be hydrologically connected to the area of ash placement, and must be located and constructed so as to detect any chemical influence of the ash placement area. The downgradient points must be proximate enough to detect contaminants within the life of the placement operation. All monitoring points must be developed and protected in a manner approved by the Department. In addition to groundwater monitoring points, the Department may require downstream monitoring where downstream monitoring is likely to show any chemical influence that the ash placement area may have on the hydrologic regime.

(3) Surface water monitoring points approved by the Department.

(b) The upgradient and downgradient monitoring wells must be:

(1) Sufficient in number, location and depth to be representative of water quality.

(2) Located so as not to interfere with routine operations at the site.

(3) Located within 200 feet of the coal ash placement area, except as necessary to comply with subsection (c), and located at the points of compliance.

(c) In addition to the requirements of subsection (b), upgradient monitoring points shall be located so that they will not be affected by effects on groundwater or surface water from the ash placement area.

(d) In addition to the requirements of subsection (b), downgradient monitoring points shall be located so that they will provide early detection of effects on groundwater or surface water from the coal ash placement area.

(e) Wells drilled under this section shall be drilled by drillers licensed under the Water Well Drillers License Act (32 P. S. §§ 645.1—645.13).

(f) The well materials shall be decontaminated prior to installation.

§ 290.303. Standards for wells and casing of wells.

(a) A monitoring well shall be cased as follows:

(1) The casing must maintain the integrity of the monitoring well borehole and be constructed of material that will not react with the groundwater being monitored.

(2) The minimum casing diameter must be 4 inches unless otherwise approved by the Department in writing.

(3) The well must be constructed with a screen that meets the following requirements:

(i) The screen must be factory-made.

(ii) The screen may not react with the groundwater being monitored.

(iii) The screen must maximize open area to minimize entrance velocities and allow rapid sample recovery.

(4) The well must be filter-packed with chemically inert clean quartz sand, silica or glass beads. The material must be well-rounded and dimensionally stable.

(5) The casing must be clearly visible and protrude at least 1 foot aboveground, unless the Department has approved flush mount wells.

(6) The annular space above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

(7) The casing must be designed and constructed to prevent cross contamination between surface water and groundwater.

(8) Alternative casing designs for wells in stable formations may be approved by the Department.

(b) Monitoring well casings must be enclosed in a protective casing that must:

(1) Be of sufficient strength to protect the well from damage by heavy equipment and vandalism.

(2) Be installed for at least the upper 10 feet of the monitoring well, as measured from the well cap, with a maximum stick up of 3 feet, unless otherwise approved by the Department in writing.

(3) Be grouted and placed with a concrete collar at least 3 feet deep to hold it firmly in position.

(4) Be numbered for identification with a label capable of withstanding field conditions and painted in a highly visible color.

(5) Protrude above the monitoring well casing.

(6) Have a locked cap.

(7) Be made of steel or other material of equivalent strength.

§ 290.304. Assessment plan.

(a) A person shall prepare and submit to the Department an assessment plan within 60 days after one of the following occurs:

(1) Data obtained from monitoring by the Department or the person indicates a significant change in the quality of groundwater or surface water from background levels determined under § 290.301(a)(2) (relating to water quality monitoring) at any downgradient monitoring point.

(2) Laboratory analysis of one or more public or private water supplies indicates groundwater or surface water contamination that could reasonably be attributed to the coal ash placement.

(b) The person is not required to conduct an assessment under this section if one of the following applies:

(1) Within 10 working days after receipt of sample results indicating groundwater or surface water degradation, the person resamples the affected monitoring points and analysis from resampling shows, to the Department's satisfaction, that groundwater or surface water degradation has not occurred.

(2) Within 20 working days after receipt of sample results indicating groundwater or surface water degradation, the person demonstrates that the degradation was caused entirely by seasonal variations or activities unrelated to coal ash placement.

(c) The assessment plan must specify the manner in which the person will determine the existence, quality, quantity, areal extent and depth of groundwater or surface water degradation and the rate and direction of migration of contaminants. An assessment plan shall be prepared and sealed by an expert in the field of hydrogeology who is a licensed professional geologist in the Commonwealth. The plan must contain the following information:

(1) For wells, lysimeters, borings, pits, piezometers, springs, seeps, mine discharges and other assessment structures or devices, the number, location, size, casing type and depth, as appropriate. If the assessment points are wells, they shall be constructed in accordance with §§ 290.302 and 290.303 (relating to number location and depth of monitoring points; and standards for wells and casing of wells).

(2) The sampling and analytical methods for the parameters to be evaluated.

(3) The evaluation procedures, including the use of previously gathered groundwater or surface water quality and quantity information, to determine the concentration, rate and extent of groundwater or surface water degradation from the facility.

(4) An implementation schedule.

(5) An identification of the abatement standard that will be met.

(d) The assessment plan shall be implemented upon approval by the Department in accordance with the approved implementation schedule, and be completed in a reasonable time not to exceed 6 months, unless otherwise approved by the Department. If the Department determines that the proposed plan is inadequate, it may modify the plan and approve the plan as modified. If the groundwater or surface water assessment indicates that contamination is leaving the coal ash placement site, the person shall notify, in writing, each owner of a private or public water supply that is located within 1/2-mile

downgradient of the coal ash placement area that an assessment has been initiated.

(e) Within 45 days after the completion of the assessment plan, the person shall submit a report containing the new data collected, analysis of the data and recommendations on the necessity for abatement.

(f) If the Department determines after review of the assessment report that implementation of an abatement plan is not required by § 290.305 (relating to abatement plan), the person shall submit a revised water quality monitoring plan to the Department for approval that contains any necessary changes to the plan and an application for permit modification, if applicable. The person shall implement the modifications within 30 days of the Department's approval.

(g) This section does not prevent the Department from requiring or the person from conducting abatement or water supply replacement concurrently with or prior to implementation of the assessment.

§ 290.305. Abatement plan.

(a) The person that is required to conduct water quality monitoring as part of coal ash beneficial use or storage shall prepare and submit to the Department an abatement plan whenever one of the following occurs:

(1) The assessment plan prepared and implemented under § 290.304 (relating to assessment plan) shows the presence of groundwater or surface water degradation for one or more contaminants at one or more monitoring points and the analysis under § 290.304(c) indicates that an abatement standard under subsection (c) will not be met.

(2) Monitoring by the Department or person shows the presence of an abatement standard exceedance from one or more compliance points as indicated in subsection (c) even if a assessment plan has not been completed. The person is not required to implement an abatement plan under this paragraph if the following apply:

(i) Within 10 days after receipt of sample results showing an exceedance of an abatement standard at a point of compliance described in subsection (c), the person resamples the affected monitoring points.

(ii) Analysis from resampling shows to the Department's satisfaction that an exceedance of an abatement standard has not occurred.

(b) An abatement plan shall be prepared and sealed by an expert in the field of hydrogeology who is a licensed professional geologist in this Commonwealth. The plan must contain the following information:

(1) The specific methods or techniques to be used to abate groundwater or surface water degradation at the facility.

(2) The specific methods or techniques to be used to prevent further groundwater or surface water degradation from the facility.

(3) A schedule for implementation.

(c) If abatement is required in accordance with subsection (a), the person shall demonstrate compliance with one or more of the following standards at the identified compliance points:

(1) For constituents for which Statewide health standards exist, the Statewide health standard for that constituent at and beyond 500 feet of the perimeter of the permitted coal ash placement area or at and beyond the property boundary, whichever is closer.

(2) The background standard for constituents at and beyond 500 feet of the perimeter of the permitted coal ash placement area or at and beyond the property boundary, whichever is closer. Load-based standards at groundwater discharge points are acceptable if the permit was issued under Chapter 87, Subchapter F or Chapter 88, Subchapter G (relating to surface coal mines: minimum requirements for remining areas with pollutional discharges; and anthracite surface mining activities and anthracite bank removal and reclamation activities: minimum requirements for remining areas with pollutional discharges).

(3) For constituents for which no primary MCLs under the Federal and State Safe Drinking Water Acts (42 U.S.C.A. §§ 300f—300j-18; and 35 P. S. §§ 721.1—721.17) exist, the risk-based standard at and beyond 500 feet of the perimeter of the permitted coal ash placement area or at and beyond the property boundary, whichever is closer, if the following conditions are met:

(i) The risk assessment used to establish the standard assumes that human receptors exist at the property boundary.

(ii) The level is derived in a manner consistent with Department guidelines for assessing the health risks of environmental pollutants.

(iii) The level is based on scientifically valid studies conducted in accordance with good laboratory practice standards (40 CFR Part 792 (relating to good laboratory practice standards)) promulgated under the Toxic Substances Control Act (15 U.S.C.A. §§ 2601—2692) or other scientifically valid studies approved by the Department.

(iv) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level of 1×10^{-5} at the property boundary.

(d) For measuring compliance with secondary contaminants under subsection (c)(1) or (3), the Department may approve a compliance point beyond 500 feet on land owned by the owner of the coal ash placement area.

(e) The abatement plan shall be completed and submitted to the Department for approval within 90 days of the time the obligation arises under this section unless the date is otherwise modified, in writing, by the Department.

(f) If the Department determines that the proposed plan is inadequate, the Department may modify the plan and approve the plan as modified or require the submission of an approvable modification.

(g) The abatement plan shall be implemented within 60 days of approval by the Department in accordance with the approved implementation schedule.

(h) If, after plan approval or implementation, the Department finds that the plan is incapable of achieving the groundwater or surface water protection contemplated in the approval, the Department may issue one or more of the following:

(1) An order requiring the person to submit proposed modifications to the abatement plan.

(2) An order requiring the person to implement the abatement plan as modified by the Department.

(3) Another order the Department deems necessary to aid in the enforcement of the acts.

§ 290.306. Recordkeeping.

A person subject to the requirements of this subchapter shall retain records of analyses and evaluations of monitoring data and groundwater elevations required under

this subchapter for a minimum of 3 years after water quality monitoring ceases and shall make the records available to the Department upon request.

Subchapter E. COAL ASH STORAGE

Sec.
290.401. Design and operation.
290.402. Duration of storage.
290.403. Surface and groundwater protection.
290.404. Areas where coal ash storage is prohibited.
290.405. Storage piles—general requirements.
290.406. Storage piles—storage pad or liner system.
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290.411. Storage impoundments—operating requirements.
290.412. Storage impoundments—failure.
290.413. Storage impoundments—inspection.
290.414. Storage areas—closure.

§ 290.401. Design and operation.

(a) A person storing coal ash shall employ best engineering design and construction practices for all phases of construction and operation.

(b) A person may not store coal ash in a manner that exceeds the design capacity of the storage facility.

(c) The Department may require a person to install a water quality monitoring system in accordance with Subchapter D (relating to water quality monitoring) if storage of the coal ash has the potential to cause groundwater degradation.

(d) A person storing coal ash shall routinely inspect the facility, its equipment and the surrounding area for evidence of failure and shall immediately take necessary corrective actions. The person shall maintain records of inspections and corrective actions that were taken for a minimum of 3 years, and make the records available to the Department upon request.

§ 290.402. Duration of storage.

(a) Except as provided in subsection (b) or (c), coal ash may not be stored at the immediate area where it will be put to beneficial use for a longer period of time than necessary to complete the project or 90 days, whichever is less, unless the Department approves a different period in writing.

(b) Bottom ash being stored for use as antiskid material may be stored in areas adjacent to roads or highways for a period of more than 90 days without Department approval if the following conditions are met:

(1) A significant quantity of the bottom ash is used annually for antiskid material.

(2) Bottom ash is stored on an impermeable floor or pad, and it is stored either in an enclosed facility or an area where runoff is collected or treated. The Department may waive or modify, in writing, this requirement if there is no runoff from the storage.

(c) Coal ash may not be stored at another area as follows:

(1) For more than 1 year unless a minimum of 75% of the volume of the ash being stored is processed for beneficial use in the previous year.

(2) For more than 90 days unless it is stored on an impermeable floor or pad and either in an enclosed facility or in an area where runoff is collected and treated. The Department may waive or modify, in writing, this requirement if there is no runoff from the storage.

(d) The Department will presume that a person storing coal ash contrary to subsections (a)—(c) is operating a waste disposal facility and is subject to the applicable requirements of the act and regulations thereunder for waste disposal.

(e) A person that stores coal ash shall maintain for a minimum of 3 years accurate operational records that are sufficiently detailed to demonstrate to the Department that coal ash is being stored under subsections (a)—(c). The records shall be made available to the Department upon request. The presumption in subsection (d) may be overcome by the operational records required by this subsection.

(f) Nothing in this section supersedes a regulation or other requirement providing for a storage period of less than 1 year.

§ 290.403. Surface and groundwater protection.

(a) Surface water runoff from storage areas shall be minimized. Storm water shall be managed in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

(b) Surface water run-on to storage areas shall be minimized.

(c) Coal ash may not be stored in a manner that causes groundwater degradation.

§ 290.404. Areas where coal ash storage is prohibited.

(a) Coal ash storage areas, other than storage impoundments, may not be operated as follows, unless otherwise authorized by the Department in writing:

(1) Within 100 feet of an intermittent or perennial stream.

(2) Within 300 feet of a groundwater water source.

(3) Within 1,000 feet upgradient of a surface drinking water source.

(4) Within 25 feet of a bedrock outcrop, unless the outcrop is properly treated to minimize infiltration into fractured zones.

(5) Within 100 feet of a sinkhole or area draining into a sinkhole.

(6) Within 100 feet of a wetland, other than an exceptional value wetland.

(7) In or within 300 feet of an exceptional value wetland.

(b) Coal ash storage impoundments may not be operated as follows:

(1) In the 100-year floodplain of waters of this Commonwealth.

(2) In or within 100 feet of a wetland other than an exceptional value wetland.

(3) In or within 300 feet of an exceptional value wetland.

(4) In an area where the operation would result in the elimination, pollution or destruction of a portion of an intermittent stream or perennial stream.

(5) Within 100 feet of an intermittent stream or perennial stream.

(6) In areas underlain by limestone or carbonate formations, where the formations are greater than 5 feet thick and present at the topmost geologic unit. These areas include areas mapped by the "Pennsylvania Geological

Survey" as underlain by these formations, unless competent geologic studies demonstrate the absence of limestone and carbonate formations under the site.

(7) Within 900 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the coal ash storage impoundment being closer than 900 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner. A closed coal ash storage impoundment that submits an application to reopen and expand shall also be subject to this paragraph.

(8) Within 100 feet of a property line, unless the current owner has provided a written consent to the coal ash storage impoundment being closer than 100 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(9) Within 1/4 mile upgradient, and within 300 feet downgradient, of a private or public water source, except that the Department may waive or modify these isolation distances if the person demonstrates and the Department finds, in writing, that the following conditions have been met:

(i) The owners of the public or private water sources in the isolation area have consented, in writing, to the location of the proposed the coal ash storage impoundment.

(ii) The person storing coal ash and each water source owner have agreed, in writing, that the person will construct and maintain at the person's expense a permanent alternative water supply of like quantity and quality at no additional cost to the water source owner if the existing source is adversely affected by the coal ash storage impoundment.

(iii) The person storing coal ash has demonstrated that a replacement water source is technically and economically feasible and readily available for every public or private water source in the isolation area.

(10) At a school, park or playground as follows:.

(i) Within 900 feet of the following:

(A) A building that is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 900-foot prohibition by signing a written waiver.

(11) In areas that serve as habitat for fauna or flora listed as "threatened" or "endangered" under the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. §§ 4601—9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531—1543), the Wild Resource Conservation Act (32 P. S. §§ 5301—5314), 30 Pa.C.S. (relating to the Fish and Boat Code) or 34 Pa.C.S. (relating to the Game and Wildlife Code), unless the applicant demonstrates compliance with applicable Federal and State requirements that would allow operations in such areas.

§ 290.405. Storage piles—general requirements.

(a) A person storing coal ash in piles shall prevent the dispersal of coal ash by wind or water erosion.

(b) The coal ash being stored shall be separated from the water table by at least 4 feet without the use of a groundwater pumping system. The Department may waive, in writing, this requirement.

(c) A person storing coal ash in a pile shall design, install and maintain berms around the storage area and other structures or facilities to collect and, when necessary, treat runoff or leachate, or both, from the storage area. The Department may waive, in writing, the berm requirement when other collection methods are in place.

(d) For storage piles without a liner system or storage pad, the Department may require the person to install and implement water quality monitoring in accordance with Subchapter D (relating to water quality monitoring) where site conditions warrant.

§ 290.406 Storage piles—storage pad or liner system.

(a) A person that installs a storage pad or liner system to prevent groundwater degradation shall meet the requirements of this section. This section does not preclude a person from using other means to prevent groundwater degradation, such as enclosure in a building.

(b) The storage pad or liner system must meet the following requirements:

(1) Prevent the migration of leachate through the storage pad or liner system.

(2) May not be adversely affected by the physical or chemical characteristics of coal ash, coal ash constituents or leachate from the coal ash storage piles.

(3) Be designed, constructed and maintained to protect the integrity of the pad or liner during the storage of coal ash.

(4) Be designed to collect leachate and runoff.

(5) Be constructed of nonsolid waste and non-coal ash material.

(6) Be no less permeable than 1×10^{-7} cm/sec., as demonstrated by field and laboratory testing.

(7) Be inspected for uniformity, damage and imperfections during construction and installation.

(c) The person shall install and operate a monitoring system capable of verifying whether coal ash or leachate has penetrated the pad or liner, if required by the Department.

(d) Coal ash may not be stored where continuous or intermittent contact could occur between the coal ash and groundwater or surface water.

§ 290.407. Storage piles—leachate and runoff control.

(a) A person that installs a storage pad or liner system shall collect leachate and runoff from the coal ash pile and divert it into a leachate storage system.

(b) A leachate storage system must consist of a collection tank or surface impoundment. The tank or impoundment must be:

(1) Sized for the anticipated leachate and runoff flow, including a 30-day reserve capacity.

(2) Chemically compatible with the leachate.

(3) Of sufficient strength to withstand expected loads.

(4) Equipped with cleanouts, if necessary.

(5) Sealed to prevent the loss of leachate and runoff.

(c) Collected leachate shall be treated or disposed in a manner that complies with the act, The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

§ 290.408. Storage impoundments—scope.

(a) This section and §§ 290.409—290.413 apply to persons that store coal ash in surface impoundments prior to beneficial use.

(b) This section and §§ 290.408—290.413 do not apply to the storage impoundments that are designed for the express purpose of storing stormwater runoff and that store runoff composed entirely of stormwater. Impoundments that store stormwater runoff must comply with the applicable requirements of The Clean Streams Law (35 P. S. §§ 691.1—691.1001), section 13 of the Stormwater Management Act (32 P. S. § 680.13) and Chapters 92, 102 and 105 (relating to national pollutant discharge elimination system permitting, monitoring and compliance; erosion and sediment control; and dam safety and waterway management).

(c) For purposes of this section, "stormwater" means drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

§ 290.409. Storage impoundments—general requirements.

A person that operates a storage impoundment to hold coal ash shall meet the following conditions:

(1) Hold a valid permit from the Department for the storage under sections 308 and 402 and other applicable provisions of The Clean Streams Law, Chapter 91 (relating to general provisions) and other applicable regulations promulgated thereunder, and comply with the permit.

(2) Comply with Chapter 105 (relating to dam safety and waterway management).

§ 290.410. Storage impoundments—design requirements.

Impoundments used to store coal ash must meet the following minimum design criteria:

(1) The liner system for a coal ash storage impoundment must include the following elements:

(i) The subbase, which is the prepared layer of soil or earthen material upon which the remainder of the liner system is constructed.

(ii) The leachate detection zone, which is a prepared layer placed on top of the subbase and upon which the liner is placed, and in which a leachate detection system is located.

(iii) The composite liner, which is a continuous layer of synthetic material over earthen material, placed on the leachate detection zone. The upper component is no more permeable than 1.0×10^{-7} cm/sec. based on laboratory testing. The composite component is no more permeable than 1.0×10^{-6} cm/sec., based on laboratory testing and field testing.

(iv) The protective cover and leachate collection zone, which is a prepared layer placed over the liner in which a leachate collection system is located.

(2) The bottom of the subbase of the liner system cannot be in contact with the water table without the use of groundwater pumping systems.

(3) The subbase must meet the following performance standards. The subbase must:

(i) Bear the weight of the liner system, coal ash, and equipment operating on the coal ash storage impoundment without causing or allowing a failure of the liner system.

(ii) Accommodate potential settlement without damage to the liner system.

(iii) Be a barrier to the transmission of liquids.

(iv) Cover the bottom and sidewalls of the coal ash storage impoundment.

(4) The leachate detection zone must meet the following performance standards. The leachate detection zone must:

(i) Rapidly detect and collect liquid entering the leachate detection zone, and rapidly transmit the liquid to the leachate treatment system.

(ii) Withstand chemical attack from coal ash or leachate.

(iii) Withstand anticipated loads, stresses and disturbances from overlying coal ash and equipment operation.

(iv) Function without clogging.

(v) Prevent the liner from puncturing, cracking, tearing, stretching or otherwise losing its physical integrity.

(vi) Cover the bottom and sidewalls of the coal ash storage impoundment.

(5) The liner must meet the following standards of performance:

(i) The liner must prevent the migration of leachate through the liner to the greatest degree that is technologically possible.

(ii) The effectiveness of the liner in preventing the migration of leachate may not be adversely affected by the physical or chemical characteristics of the coal ash or leachate from the coal ash storage impoundment.

(iii) The liner must be resistant to physical failure, chemical failure, and other failure.

(iv) The liner must cover the bottom and sidewalls of the coal ash storage impoundment.

(6) The protective cover must meet the following performance standards. The protective cover must:

(i) Protect the primary liner from physical damage from stresses and disturbances from overlying coal ash and equipment operation.

(ii) Protect the leachate collection system within the protective cover from stresses and disturbances from overlying coal ash and equipment operation.

(iii) Allow the continuous and free flow of leachate into the leachate collection system within the protective cover.

(iv) Cover the bottom and sidewalls of the coal ash storage impoundment.

(7) The leachate collection system within the protective cover must meet the following performance standards. The leachate collection system must:

(i) Ensure that free flowing liquids and leachate will drain continuously from the protective cover to the leachate treatment system.

(ii) Withstand chemical attack from leachate.

(iii) Withstand anticipated loads, stresses and disturbances from overlying coal ash and equipment operation.

(iv) Function without clogging.

(v) Cover the bottom and sidewalls of the coal ash storage impoundment.

(8) An onsite leachate storage system shall be part of each leachate treatment method used by the person. The storage system must contain impoundments or tanks for storage of leachate. The tanks or impoundments must have a storage capacity at least equal to the maximum expected production of leachate for a 30-day period. No more than 25% of the total leachate storage capacity may be used for flow equalization on a regular basis. Leachate storage capacity may not be considered to include leachate that may have collected in or on the liner system.

(9) Leachate may be collected and handled by one of the following:

(i) Onsite treatment and discharged into a receiving stream under a permit issued by the Department under The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations thereunder, if the Department approves this method in the permit.

(ii) Direct discharge into a permitted publicly-owned treatment works, following pretreatment, if pretreatment is required by Federal, State or local law or by discharge into another permitted treatment facility.

(iii) Transport to an offsite treatment facility that is operating in compliance with The Clean Streams Law and regulations thereunder, and is otherwise capable of accepting and treating leachate from the coal ash storage impoundment.

(10) Impoundments shall be designed, constructed, operated and maintained in accordance with the following:

(i) An impoundment must have sufficient freeboard to prevent overtopping, including overtopping caused by the 24-hour precipitation event in inches to be expected once in 25 years. The freeboard may not be less than 2 feet.

(ii) The dike must have sufficient structural integrity to prevent failure. The liner system of the impoundment may not be considered in determining the structural integrity of the dike.

(iii) The inside slope shall be designed and constructed with sufficient protective cover to prevent wind and water erosion, and to preserve the structural integrity of the dike.

(iv) The dike must be capable of withstanding anticipated static and dynamic loadings with a minimum safety factor for the most critical failure surface of 1.5 for static loading and 1.2 for dynamic loading.

(v) The outside slopes of the dike may not exceed 25% unless the following requirements are met:

(A) A horizontal terrace with a minimum width of 10 feet is constructed at each 20-foot vertical rise of the slope, or the Department approves in the permit a terrace with different dimensions.

(B) Surface water on the terrace is collected and discharged so that it does not erode or otherwise adversely affect the stability of the dike.

(C) The final slope does not exceed 50%.

(vi) Dikes and berms must be free of burrowing mammals and plants with root systems capable of displacing earthen materials upon which the structural integrity of the dikes or berms is dependent.

(vii) An impoundment must be surrounded by structures sufficient to prevent surface runoff from a 25-year, 24-hour precipitation event from entering the impoundment.

§ 290.411. Storage impoundments—operating requirements.

(a) At least 8 feet shall be maintained between the bottom of the subbase of the liner system and the top of the confining layer or the shallowest level below the bottom of the subbase where groundwater occurs as a result of upward leakage from natural or other preexisting causes. The integrity of the confining layer may not be compromised by excavation.

(b) The edge of the liner shall be clearly marked.

(c) A fence or other suitable barrier shall be maintained around the coal ash storage area, including impoundments, leachate collection and treatment systems sufficient to prevent unauthorized access, unless the Department approves, in the permit, an alternative means of protecting access to the area that afford an equivalent degree of protection.

(d) The person shall implement fugitive air contaminant control measures and otherwise prevent and control air pollution in accordance with the Air Pollution Control Act (35 P. S. §§ 4001—4015); Article III (relating to air resources) and § 289.228 (relating to nuisance minimization and control). Minimization and control measures must include the following:

(1) Ensuring that operation of the coal ash storage impoundment will not cause or contribute to an exceedance of an ambient air quality standard under § 131.3 (relating to ambient air quality standards).

(2) Minimizing the generation of fugitive dust emissions from the coal ash storage impoundment.

(e) The person shall implement water quality monitoring, as required under Subchapter D (relating to water quality monitoring).

(f) A person that stores coal ash in a coal ash storage impoundment shall remove coal ash from the impoundment as follows:

(1) Without damage to the impoundment.

(2) Inspecting the liner to ensure its integrity, and make necessary repairs prior to returning the impoundment to service.

(3) Providing for the beneficial use of the removed coal ash in accordance with this chapter.

(4) Removal from the impoundment shall be sufficient so that the coal ash is not accumulated speculatively.

§ 290.412. Storage impoundments—failure.

(a) If a coal ash storage impoundment fails, the person storing coal ash shall immediately:

(1) Stop adding coal ash to the impoundment.

(2) Contain any discharge that has occurred or is occurring.

(3) Empty the impoundment in a manner approved by the Department, if leaks cannot be stopped.

(4) Notify the Department of the failure of the impoundment and the measures taken to remedy the failure.

(b) A coal ash storage impoundment that has been removed from service due to failure may not be restored to service unless the following conditions are met:

(1) The impoundment has been repaired.

(2) The repair has been certified to the Department, in writing, by a registered professional engineer.

(3) The Department has approved, in writing, the restoration of the impoundment to service.

(c) If a storage impoundment fails and the impoundment or surrounding area cannot be cleaned up in a manner that is satisfactory to the Department, the impoundment shall be closed in accordance with this section.

§ 290.413. Storage impoundments—inspections.

The Department will inspect storage impoundments in accordance with sections 5, 7, 10, 11 and 17 of the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27).

§ 290.414. Storage areas—closure.

Upon cessation of coal ash storage, the person storing coal ash shall remove coal ash and materials containing coal ash, and provide for the beneficial use or disposal of the coal ash under the act and the regulations promulgated thereunder. The person shall also regrade and revegetate the site as required by the Department.

[Pa.B. Doc. No. 09-2062. Filed for public inspection November 6, 2009, 9:00 a.m.]

[25 PA. CODE CH. 261a]

Hazardous Waste Management System; Proposed Exclusion for Identification and Listing of Hazardous Waste

The Environmental Quality Board (Board) proposes to amend Chapter 261a (relating to identification and listing of hazardous waste). The proposed rulemaking would modify an existing hazardous waste delisting previously granted to Geological Reclamation Operations and Waste Systems, Inc. (GROWS), whose successor by merger, Waste Management Disposal Services of Pennsylvania, Inc. (WMDSPA), petitioned the Board to increase the maximum annual volume covered by the current delisting.

This proposal was adopted by the Board at its meeting of August 18, 2009.

A. *Effective Date*

The proposed rulemaking will go into effect upon final-form publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

For further information, contact Dwayne Womer, Environmental Engineer Manager, Division of Hazardous Waste Management, P. O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 787-6239, or Kurt Klapkowski, Assistant Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (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.depweb.state.pa.us.

C. *Statutory Authority*

The proposed rulemaking is being made under the authority of sections 105, 402 and 501 of the Solid Waste Management Act (SWMA) (35 P. S. §§ 6018.105, 6018.402 and 6018.501) and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20). Under sections 105, 402 and 501 of the SWMA, the Board has the power and duty to adopt rules and regulations concerning the storage, treatment, disposal and transportation of hazardous waste that are necessary to protect the public's health, safety, welfare and property, and the air, water and other natural resources of this Commonwealth. Section 1920-A of The Administrative Code of 1929 grants the Board the authority to promulgate rules and regulations that are necessary for the proper work of the Department.

D. *Background and Purpose*

1. Delisting Petitions

A delisting petition is a request to exclude waste from a particular facility from the list of hazardous wastes under the Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C.A. §§ 6901—6986) and SWMA regulations. Under 40 CFR 260.20 and 260.22 (relating to general; and petitions to amend part 261 to exclude a waste produced at a particular facility), which are incorporation by reference in § 260a.1 (relating to incorporation by reference, purpose, scope and applicability) and modified by § 260a.20 (relating to rulemaking petitions), a person may petition the United States Environmental Protection Agency (EPA) or a state administering an EPA-approved hazardous waste management program to remove waste or the residuals resulting from effective treatment of a waste from a particular generating facility from hazardous waste control by excluding the waste from the lists of hazardous wastes in 40 CFR 261.31 and 261.32 (relating to hazardous wastes from non-specific sources; and hazardous wastes from specific sources). Specifically, 40 CFR 260.20 allows a person to petition to modify or revoke any provision of 40 CFR Parts 260—266, 268 and 273. Section 260.22 of 40 CFR provides a person the opportunity to petition to exclude a waste on a "generator specific" basis from the hazardous waste lists.

Under the Commonwealth's hazardous waste regulations in § 260a.20, these petitions are to be submitted to the Board in accordance with the procedures established in Chapter 23 (relating to Environmental Quality Board policy for processing petitions—statement of policy) instead of the procedures in 40 CFR 260.20(b)—(e).

Effective November 27, 2000, the Department received approval from the EPA, under the RCRA, to administer the Commonwealth's hazardous waste management program instead of RCRA. As part of that program approval and delegation, the Department and the Board are authorized to review and approve petitions for the delisting of hazardous waste.

In a delisting petition, the petitioner must show that waste generated at a particular facility does not meet any of the criteria for which the waste was listed in 40 CFR 261.11 (relating to criteria for listing hazardous waste) and the background document for the waste. In addition,

a petitioner must demonstrate that the waste does not exhibit any of the hazardous waste characteristics (that is, ignitability, reactivity, corrosivity and toxicity) and must present sufficient information for the agency to decide whether factors other than those for which the waste was originally listed warrant retaining it as a hazardous waste.

2. The WDMSA Petition

WMDSPA operates a commercial landfill and associated wastewater treatment plant in Falls Township, Bucks County, PA. In 1991, WMDSPA's predecessor, GROWS submitted a delisting petition under 40 CFR 260.20 and 260.22. In response to the petition, the EPA excluded the wastewater treatment sludge filter cake derived from the treatment of landfill leachate originating from the closed "Old GROWS" landfill, that contains a mixture of solid wastes and hazardous wastes, and other nonhazardous waste landfills. The EPA noted that the petitioner submitted sufficient information to allow the EPA to determine that the filter cake was not hazardous based upon the criteria for which it was listed and no other hazardous constituents were present in the waste at levels of regulatory concern. Accordingly, using risk assessment tools in use by the EPA at that time to evaluate the potential risk to human health and the environment associated with the disposal of the filter cake as a nonhazardous waste, the EPA excluded the filter cake generated from the treatment of EPA Hazardous Waste No. F039, multisource leachate, from the list of hazardous wastes found in 40 CFR 261.31 (relating to hazardous wastes from non-specific sources). This delisting was limited to a maximum annual volume of 1,000 cubic yards of filter cake and was conditioned upon the petitioner performing certain verification testing of the filter cake to demonstrate compliance with maximum allowable concentrations limits (MACLs). The MACLs were selected for organic and inorganic constituents of the filter cake and were established as delisting conditions by EPA to be met before the delisted waste could be disposed in an RCRA Subtitle D (nonhazardous waste) landfill. The original petition and subsequent amendments, including the one proposed by this petition, do not address the wastes disposed in any landfill whose leachate is treated at the treatment plant, or the grit generated during the physical removal (for example, screening) of heavy solids from the landfill leachate.

In 2001, GROWS petitioned EPA to increase the volume of excluded wastewater treatment sludge filter cake to 2,000 cubic yards because of increased filter cake production attributable to improved efficiencies in its wastewater treatment operations. In support of the petition to amend its delisting, the petitioner submitted the verification testing results it had generated in the preceding 2 years and supplemented that data with the total constituents analyses of inorganic constituents for four samples at the request of the EPA. The EPA applied its Delisting Risk Assessment Software (DRAS) program to analyze the risk associated with the request to amend the delisting. The DRAS contains more advanced risk assessment models than those the EPA used in the 1991 delisting. The EPA ultimately concluded that the filter cake sample results and the results of the risk assessment modeling supported the delisting of the filter cake at the increased volume of 2,000 cubic yards annually. This conclusion was subject to the filter cake continuing to meet new MACLs set by the EPA based on the more conservative of: 1) the values generated by the DRAS program; or 2) the toxicity characteristic regulatory levels. The 2001 delisting amendment also required verification testing to show that the MACLs continued to be met.

Recently the volume of leachate treated by WMDSPA at the treatment plant has increased coincident with increased concentrations of certain leachate constituents. Accordingly, WMDSPA is generating substantially more filter cake and, to accommodate the disposal of this increased volume as a nonhazardous waste, it is requesting an increase in the volume limit established in its delisting from 2,000 to 4,000 cubic yards annually.

On December 18, 2008, WMDSPA submitted a petition to the Board requesting the increase in the volume limit to 4,000 cubic yards annually. The Board accepted the petition at its April 21, 2009, meeting and directed the Department to review the contents of the petition under § 23.6 (relating to notice of acceptance and Department report).

In support of its petition, WMDSPA submitted 3 years of verification testing—41 sets of sample results of leachate analyses for inorganic constituents and totals analyses for organic constituents collected over the period from December 2005 through December 2008 along with the total constituents analyses for inorganic constituents for four samples collected in 2008. The scope of data was comparable to, though more extensive than, the data submitted to the EPA in connection with the 2001 amendment. WMDSPA also submitted the results of the modeling of this data that it performed using the DRAS program to evaluate the potential risk associated with treating the filter cake as a nonhazardous waste and to generate MACLs for the filter cake at the proposed increased annual level of disposal. The MACLs were generated in a similar fashion to those generated by the EPA in connection with the 2001 delisting.

The petition demonstrates that the filter cake sample results and the results of the risk assessment modeling support the delisting of the filter cake at the increased volume of 4,000 cubic yards annually. Accordingly, the Board proposes to approve the amended delisting to increase the annual volume of filter cake that may be disposed of as nonhazardous waste and also proposes to include conditions in the amended delisting governing the testing and management of the filter cake similar to the conditions required by the EPA in the current delisting. The Board proposes to adopt this delisting by amending Chapter 261a, Appendix IXa Table 2a (relating to wastes excluded from specific sources) to exclude an annual volume of 4,000 cubic yards of filter cake subject to the terms and conditions as set forth in the accompanying proposed rule.

The Department carefully and independently reviewed the information contained in the petition submitted by WMDSPA. Review of this petition included consideration of the original listing criteria, as well as the additional factors required by the Hazardous and Solid Waste Amendments of 1984 (HSWA), as reflected in section 222 of the HSWA (42 U.S.C.A. § 6921(f)) and 40 CFR 260.22(d)(2)—(4). In addition, the Department contacted

the municipalities near the WMDSPA landfill and the Bucks County Health Department to gauge local concern over the petition. Based on the Department's review and report, on June 16, 2009, the Board directed the Department to develop this proposed rulemaking granting the changes requested by the WMDSPA petition.

E. *Summary of Regulatory Requirements*

Chapter 261a contains the provisions for the identification and listing of hazardous waste. Section 261a.32 was added in 2006 to refer to Appendix IXa (relating to wastes excluded under 25 Pa. Code § 260a.20 and 40 CFR 260.20 and 260.22). Appendix IXa contains Table 2a (relating to wastes excluded from specific sources), which lists wastes from specific sources that have been delisted through the petition process by the Department and the Board. This numbering scheme is being used to parallel the Federal regulations for clarity and consistency with the incorporation by reference of the Commonwealth's hazardous waste regulations.

The proposal proposed to amend Appendix IXa Table 2a to provide a specific conditional delisting of wastewater treatment sludge filter cake at the WMDSPA facility (as opposed to incorporating the existing EPA delisting). The delisting levels in Appendix IXa were established by using the more conservative of health-based values calculated by DRAS or toxicity characteristic regulatory levels. WMDSPA will perform verification testing on the filter cake as set forth in the proposed delisting.

F. *Benefits, Costs and Compliance*

Benefits

The proposed rulemaking will provide additional delisted volume of filter cake commensurate with WMDSPA's increased production of wastewater treatment sludge filter cake resulting from its operations. Allowing WMDSPA to dispose of the filter cake in a permitted Subtitle D landfill after performing certain verification testing provides a cost-effective and environmentally responsible method of disposal for this nonhazardous waste. Based on the current costs incurred by WMDSPA to properly dispose of the hazardous filter cake sludge at Model City Landfill in New York, the company will save over $400,000 annually in avoided disposal costs as a result of this delisting amendment.

Compliance Cost

WMDSPA will be required to continue to comply with the conditions set forth in the delisting regulation, including testing and recordkeeping requirements. However, the delisting of the filter cake should result in an overall reduced waste management cost for the WMDSPA facility which would otherwise send the filter cake it generates beyond 2,000 cubic yards to a Subtitle C landfill.

Compliance Assistance Plan

The proposed rulemaking should not require any educational, technical or compliance assistance efforts. The Department has and will continue to provide manuals, instructions, forms and web site information consistent with the proposed rulemaking. In the event that assistance is required, the Department's central office will provide it.

Paperwork Requirements

The proposed rulemaking creates no new paperwork requirements to be satisfied by WMDSPA beyond those it already implements under the existing delisting to demonstrate ongoing compliance with the conditions of the current delisting regulation.

G. Pollution Prevention

For this proposed rulemaking, the Department would require no additional pollution prevention efforts. The Department already provides pollution prevention educational material as part of its hazardous waste program.

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 October 28, 2009, 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 the House and Senate 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 must 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-form publication of the rulemaking.

J. *Public Comments*

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by December 7, 2009. 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 December 7, 2009. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final-form regulation will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by December 7, 2009. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to ensure receipt.

JOHN HANGER,
Chairperson

Fiscal Note: 7-445. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VII. HAZARDOUS WASTE MANAGEMENT

CHAPTER 261a. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subchapter D. LISTS OF HAZARDOUS WASTES

§ 261a.32. Hazardous wastes from specific sources.

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APPENDIX IXa. WASTES EXCLUDED UNDER 25 Pa. Code § 260a.20 AND 40 CFR 260.20 AND 260.22.

Table 2a. Wastes Excluded from Specific Sources

* * * * *

(*Editor's Note*: The following addition to the appendix is new. It has been printed in regular type to enhance readability.)

Facility	*Address*	*Waste description*
Waste Management Disposal Systems of Pennsylvania, Inc.	100 New Ford Mill Road, Morrisville, PA 19067	Wastewater treatment sludge filter cake from the treatment of EPA Hazardous Waste No. F039, generated at a maximum annual rate of 4,000 cubic yards, after _____ (*Editors Note*: The blank refers to the effective date of adoption of this proposed rulemaking.) and disposed of in an RCRA Subtitle D landfill. The exclusion covers the filter cake resulting from the treatment of hazardous waste leachate derived from only the "old" Geological Reclamation Operations and Waste Systems, Inc. (GROWS) landfill and nonhazardous leachate derived from only nonhazardous waste sources. The exclusion does not address the waste disposed in the "old" GROWS landfill or the grit generated during the removal of heavy solids from the landfill leachate. To ensure that hazardous constituents are not present in the filter cake at levels of regulatory concern, WMDSPA must implement a testing program for the petitioned waste. This testing program must meet the conditions listed below in order for the exclusion to be valid:
		(1) Testing: Sample collection and analyses, including quality control (QC) procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.
		(i) Sample Collection: Each batch of waste generated over a 4-week period must be collected in containers with a maximum capacity of 20 cubic yards. At the end of the 4-week period, each container must be divided into four quadrants and a single, full-depth core sample shall be collected from each quadrant. All of the full-depth core samples then must be composited under laboratory conditions to produce one representative composite sample for the 4-week period.
		(ii) Sample Analysis: Each 4-week composite sample must be analyzed for all of the constituents listed in Condition (3). The analytical data, including quality control information, must be submitted to the Pennsylvania Department of Environmental Protection, Bureau of Waste Management, Rachel Carson State Office Building, 400 Market Street, 14th Floor, Harrisburg, PA 17105. Data from the annual verification testing must be compiled and submitted to the Department within 60 days from the end of the calendar year. All data must be accompanied by a signed copy of the statement set forth in 40 CFR 260.22(i)(12) to certify to the truth and accuracy of the data submitted. Records of operating conditions and analytical data must be compiled, summarized, and maintained onsite for a minimum of 3 years and must be furnished upon request by any employee or representative of the Department, and made available for inspection.

Facility	*Address*	*Waste description*
		(2) Waste Holding: The dewatered filter cake must be stored as hazardous until the verification analyses are completed. If the 4-week composite sample does not exceed any of the delisting levels set forth in Condition (3), the filter cake waste corresponding to this sample may be managed and disposed in accordance with all applicable solid waste regulations. If the 4-week composite sample exceeds any of the delisting levels set forth in Condition (3), the filter cake waste generated during the time period corresponding to the 4-week composite sample must be retreated until it meets these levels (analyses must be repeated) or managed and disposed in accordance with Subtitle C of RCRA. Filter cake which is generated, but for which analyses are not complete or valid, must be managed and disposed in accordance with Subtitle C of RCRA, until valid analyses demonstrate that the waste meets the delisting levels.
		(3) Delisting Levels: If the concentrations in the 4-week composite sample of the filter cake waste for any of the hazardous constituents listed below exceed their respective maximum allowable concentrations (mg/l or mg/kg) also listed below, the 4-week batch of failing filter cake waste must either be retreated until it meets these levels or managed and disposed in accordance with Subtitle C of RCRA. WMDSPA has the option of determining whether the filter cake waste exceeds the maximum allowable concentrations for the organic constituents by either performing the analysis on a TCLP leachate of the waste or performing total constituent analysis on the waste, and then comparing the results to the corresponding maximum allowable concentration level.
		(i) Inorganics — Maximum Allowable Leachate Conc. (mg/l)
		Constituent: Arsenic ..... 1.83e-01 Barium ..... 1.43e+01 Cadmium ..... 1.10e-01 Chromium ..... 5.00e+00 Lead ..... 5.00e+00 Mercury ..... 1.59e-02 Nickel ..... 5.52e+00 Selenium ..... 4.25e-01 Silver ..... 7.50e-01 Cyanide ..... 2.64e+00 Cyanide extractions must be conducted using distilled water in place of the leaching media specified in the TCLP procedure.
		(ii) Organics — Maximum allowable leachate conc. (mg/l) — Maximum allowable total conc. (mg/kg)
		Constituent: Acetone ..... 1.39e+01 2.78e+02 Acetonitrile ..... 3.25e+01 6.50e+02 Acetophenone ..... 1.39e+01 2.78e+02 Acrolein ..... 2.60e+02 5.20e+03 Acrylonitrile ..... 4.76e-03 9.52e-02 Aldrin ..... 7.72e-06 1.54e-04 Aniline ..... 9.24e-01 1.85e+01 Anthracene ..... 4.88e+00 9.76e+01 Benz(a)anthracene ..... 2.56e-04 5.12e-03 Benzene ..... 8.86e-02 1.77e+00 Benzo(a)pyrene ..... 1.57e-05 3.14e-04 Benzo(b)fluoranthene ..... 1.42e-04 2.84e-03 Benzo(k)fluoranthene 1.98e-03 3.96e-02

Facility	*Address*	*Waste description*		
		Bis(2-chloroethyl)ether	1.95e-02	3.90e-01
		Bis(2-ethylhex yl)phthalate	1.19e-01	2.38e+00
		Bromodichloromethane	4.14e-02	8.28e-01
		Bromoform (Tribromomethane)	3.25e-01	6.50e+00
		Butyl-4,6-dinitrophenol, 2-sec- (Dinoseb)	1.39e-01	2.78e+00
		Butylbenzylphthalate	5.67e+00	1.13e+02
		Carbon disulfide	1.39e+01	2.78e+02
		Carbon tetrachloride	2.75e-02	5.50e-01
		Chlordane	6.79e-04	1.36e-02
		Chloro-3-methylphenol 4-	1.81e+02	3.62e+03
		Chloroaniline, p-	5.57e-01	1.11e+01
		Chlorobenzene	2.79e+00	5.58e+01
		Chlorobenzilate	5.02e-02	1.00e+00
		Chlorodibromomethane	3.06e-02	6.12e-01
		Chloroform	4.75e-02	9.50e-01
		Chlorophenol, 2-	6.97e-01	1.39e+01
		Chrysene	2.71e-02	5.42e-01
		Cresol	6.97e-01	1.39e+01
		DDD	7.74e-04	1.55e-02
		DDE	1.82e-04	3.64e-03
		DDT	3.42e-04	6.84e-03
		Dibenz(a,h)anthracene	7.43e-06	1.49e-04
		Dibromo-3-chloropropane, 1,2-	2.14e-03	4.28e-02
		Dichlorobenzene 1,3-	1.36e-02	2.72e-01
		Dichlorobenzene, 1,2-	7.60e+00	1.52e+02
		Dichlorobenzene, 1,4-	1.07e-01	2.14e+00
		Dichlorobenzidine, 3,3'-	5.71e-03	1.14e-01
		Dichlorodifluoromethane	1.28e+01	2.56e+02
		Dichloroethane, 1,1-	7.33e-01	1.47e+01
		Dichloroethane, 1,2-	1.57e-03	3.14e-02
		Dichloroethylene, 1,1-	4.28e-03	8.56e-02
		Dichloroethylene, trans-1,2-	2.79e+00	5.58e+01
		Dichlorophenol, 2,4-	4.18e-01	8.36e+00
		Dichlorophenoxyacetic acid, 2,4-(2,4-D)	1.39e+00	2.78e+01
		Dichloropropane, 1,2-	6.93e-02	1.39e+00
		Dichloropropene, 1,3-	2.57e-02	5.14e-01
		Dieldrin	8.28e+01	1.66e+03
		Diethyl phthalate	1.35e+02	2.70e+03
		Dimethoate	3.67e+01	7.34e+02
		Dimethyl phthalate	7.33e+01	1.47e+03
		Dimethylbenz(a)anthracene, 7,12-	2.05e-06	4.10e-05
		Dimethylphenol, 2,4-	2.79e+00	5.58e+01
		Di-n-butyl phthalate	3.23e+00	6.46e+01
		Dinitrobenzene, 1,3-	1.39e-02	2.78e-01
		Dinitromethylphenol, 4,6-,2-	1.32e-02	2.64e-01
		Dinitrophenol, 2,4-	2.79e-01	5.58e+00
		Dinitrotoluene, 2,6-	3.99e-03	7.98e-02

Facility	*Address*	*Waste description*		
		Di-n-octyl phthalate	6.83e-03	1.37e-01
		Dioxane, 1,4-	2.34e-01	4.68e+00
		Diphenylamine	2.29e+00	4.58e+01
		Disulfoton	2.32e+02	4.64e+03
		Endosulfan	8.36e-01	1.67e+01
		Endrin	2.00e-02	4.00e-01
		Ethylbenzene	1.02e+01	2.04e+02
		Ethylene Dibromide	2.52e-03	5.04e-02
		Fluoranthene	3.15e-01	6.30e+00
		Fluorene	1.08e+00	2.16e+01
		Heptachlor	8.00e-03	1.60e-01
		Heptachlor epoxide	8.00e-03	1.60e-01
		Hexachloro-1,3-butadiene	1.28e-02	2.56e-01
		Hexachlorobenzene	1.29e-04	2.58e-03
		Hexachlorocyclohexane, gamma-(Lindane)	4.00e-01	8.00e+00
		Hexachlorocyclopentadiene	8.61e+02	1.72e+04
		Hexachloroethane	1.84e-01	3.68e+00
		Hexachlorophene	1.91e-04	3.82e-03
		Indeno(1,2,3-cd) pyrene	8.02e-05	1.60e-03
		Isobutyl alcohol	4.18e+01	8.36e+02
		Isophorone	2.70e+00	5.40e+01
		Methacrylonitrile	1.39e-02	2.78e-01
		Methoxychlor	1.00e+01	2.00e+02
		Methyl bromide (Bromomethane)	7.80e+01	1.56e+03
		Methyl chloride (Chloro-methane)	1.21e-02	2.42e-01
		Methyl ethyl ketone	8.36e+01	1.67e+03
		Methyl isobutyl ketone	1.11e+01	2.22e+02
		Methyl methacrylate	2.11e+02	4.22e+03
		Methyl parathion	7.74e+01	1.55e+03
		Methylene chloride	1.76e-01	3.52e+00
		Naphthalene	2.53e-01	5.06e+00
		Nitrobenzene	6.97e-02	1.39e+00
		Nitrosodiethylamine	1.71e-05	3.42e-04
		Nitrosodimethylamine	5.04e-05	1.01e-03
		Nitrosodi-n-butylamine	4.76e-04	9.52e-03
		N-Nitrosodi-n-propylamine	3.67e-04	7.34e-03
		N-Nitrosodiphenylamine	5.24e-01	1.05e+01
		N-Nitrosopyrrolidine	1.22e-03	2.44e-02
		Pentachlorobenzene	7.01e-03	1.40e-01
		Pentachloronitrobenzene (PCNB)	6.64e-03	1.33e-01
		Pentachlorophenol	5.44e-03	1.09e-01
		Phenanthrene	1.27e-01	2.54e+00
		Phenol	8.36e+01	1.67e+03
		Polychlorinated biphenyls	3.99e-05	7.98e-04
		Pronamide	1.04e+01	2.08e+02
		Pyrene	2.41e-01	4.82e+00
		Pyridine	1.39e-01	2.78e+00

Facility	*Address*	*Waste description*		
		Styrene	3.71e+00	7.42e+01
		Tetrachlorobenzene, 1,2,4,5-	5.75e-03	1.15e-01
		Tetrachloroethane, 1,1,2,2-	1.48e-01	2.96e+00
		Tetrachloroethylene	5.22e-02	1.04e+00
		Tetrachlorophenol, 2,3,4,6-	1.10e+00	2.20e+01
		Tetraethyl dithiopyrophosphate (Sulfotep)	1.83e+05	3.66e+06
		Toluene	2.79e+01	5.58e+02
		Toxaphene	5.00e-01	1.00e+01
		Trichlorobenzene, 1,2,4-	4.41e-01	8.82e+00
		Trichloroethane, 1,1,1-	4.63e+00	9.26e+01
		Trichloroethane, 1,1,2-	4.76e-02	9.52e-01
		Trichloroethylene	1.86e-01	3.72e+00
		Trichlorofluoromethane	1.24e+01	2.48e+02
		Trichlorophenol, 2,4,5-	5.59e+00	1.12e+02
		Trichlorophenol, 2,4,6-	2.34e-01	4.68e+00
		Trichlorophenoxyacetic acid, 2,4,5-(245-T)	1.39e+00	2.78e+01
		Trichlorophenoxypropionic acid, 2,4,5-(Silvex)	1.00e+00	2.00e+01
		Trichloropropane, 1,2,3-	4.69e-04	9.38e-03
		Trinitrobenzene, sym-	3.96e+00	7.92e+01
		Vinyl chloride	1.81e-03	3.62e-02
		Xylenes (total)	1.95e+02	3.90e+03
		(4) Changes in Operating Conditions: If WMDSPA significantly changes the treatment process or the chemicals used in the treatment process, WMDSPA may not manage the treatment sludge filter cake generated from the new process under this exclusion until it has met the following conditions: (a) WMDSPA must demonstrate that the waste meets the delisting levels set forth in Condition 3; (b) it must demonstrate that no new hazardous constituents listed in Appendix VIII of 40 CFR Part 261 have been introduced into the manufacturing or treatment process; and (c) it must obtain prior written approval from the Department to manage the waste under this exclusion.		
		(5) Reopener:		
		(i) If WMDSPA discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then WMDSPA must report any information relevant to that condition, in writing, to the Department within 10 days of discovering that condition.		
		(ii) Upon receiving information described in subparagraph (i) of this Condition, regardless of its source, the Department will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.		

[Pa.B. Doc. No. 09-2063. Filed for public inspection November 6, 2009, 9:00 a.m.]

[25 PA. CODE CHS. 121 AND 129]
Paper, Film and Foil Surface Coating Processes

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 129 (relating to general provisions; and standards for sources), to read as set forth in Annex A.

The proposed rulemaking would amend Chapter 129 to limit emissions of volatile organic compounds (VOCs) from the use and application of coatings and cleaning

materials in paper, film and foil surface coating processes. The proposal would add § 129.52b (relating to control of VOC emissions from paper, film and foil surface coating processes), and amend §§ 129.51 and 129.52 (relating to general; and surface coating processes). The proposal would also amend § 121.1 (relating to definitions).

This proposal was adopted by the Board at its meeting on September 15, 2009.

A. *Effective Date*

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

B. *Contact Persons*

For further information, contact Arleen J. Shulman, Chief, Division of Air Resource Management, P. O. Box 8468, Rachel Carson State Office Building, Harrisburg, PA 17105-8468, (717) 772-3436, or Kristen Campfield Furlan, 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 proposal appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) web site at www.depweb.state.pa.us (Quick Access: Public Participation).

C. *Statutory Authority*

This proposed rulemaking is authorized under section 5 of the Air Pollution Control Act (APCA) (35 P. S. § 4005), which in subsection (a)(1) grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth, and which in subsection (a)(8) grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA).

D. *Background and Purpose*

The purpose of this proposed rulemaking is to reduce VOC emissions from paper, film and foil surface coating operations. VOCs are a precursor for ozone formation. Ground-level ozone is not emitted directly by surface coatings to the atmosphere, but is formed by a photochemical reaction between VOCs and nitrogen oxides (NOx) in the presence of sunlight. The proposed rulemaking adopts the emission limits and other requirements of the United States Environmental Protection Agency's (EPA's) 2007 Control Techniques Guidelines (CTG) for paper, film and foil coating to meet Federal CAA requirements.

The EPA is responsible for establishing National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment: ozone, particulate matter, NOx, carbon monoxide, sulfur dioxide and lead. The CAA established two types of NAAQS: primary standards, limits set to protect public health; and secondary standards, limits set to protect public welfare, including protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA has established primary and secondary ozone NAAQS to protect public health and welfare.

When ground-level ozone is present in concentrations in excess of the Federal health-based 8-hour NAAQS for ozone, public health and welfare are adversely affected. Ozone exposure correlates to increased respiratory disease and higher mortality rates. Ozone can inflame and damage the lining of the lungs. Within a few days, the damaged cells are shed and replaced. Over a long time period, lung tissue may become permanently scarred, resulting in permanent loss of lung function and a lower quality of life. When ambient ozone levels are high, more people with asthma have attacks that require a doctor's attention or use of medication. Ozone also makes people more sensitive to allergens including pet dander, pollen and dust mites, all of which can trigger asthma attacks.

The EPA has concluded that there is an association between high levels of ambient ozone and increased hospital admissions for respiratory ailments including asthma. While children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to high levels of ambient ozone while engaged in activities that involve physical exertion. High levels of ozone also affect animals in ways similar to humans.

In addition to causing adverse human and animal health effects, the EPA has concluded that ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests and other environmental stresses, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production and visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including grass, flowers and shrubs. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks.

High levels of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas. The implementation of additional measures to address ozone air quality nonattainment in this Commonwealth is necessary to protect the public health and welfare, animal and plant health and welfare and the environment.

In July 1997, the EPA established primary and secondary ozone standards at a level of 0.08 parts per million (ppm) averaged over 8 hours. See 62 FR 38855 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. This Commonwealth is meeting the 1997 standards in all areas except the five-county Philadelphia and seven-county Pittsburgh-Beaver Valley areas. The areas in which the 1997 standard has been attained are required to have permanent

and enforceable control measures to ensure violations do not occur for the next decade. The Commonwealth must demonstrate that the two areas currently not attaining the 1997 standard will meet the 1997 standard as expeditiously as practicable. Should these two areas not attain the standard during the 2009 ozone season, additional reductions will be required.

In March 2008, the EPA lowered the standards to 0.075 ppm averaged over 8 hours to provide even greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. See 73 FR 16436 (March 27, 2008). As required by the CAA, the Commonwealth submitted recommendations to the EPA in 2009 to designate 29 counties as nonattainment for the 2008 8-hour ozone NAAQS. The EPA is expected to take final action on the designation recommendation by March 2010. The EPA's designations will take effect 60 days after the EPA publishes a notice in the *Federal Register*. Monitors in most urban areas and some rural areas of this Commonwealth are currently not meeting the 2008 ozone standard.

There are no Federal statutory or regulatory limits for VOC emissions from paper, film and foil surface coating operations. State regulations to control VOC emissions from paper, film and foil surface coating operations are required under Federal law, however, and will be reviewed by the EPA for whether they meet the "reasonably available control technology" (RACT) requirements of the CAA and its implementing regulations. *Consumer and Commercial Products; Control Techniques Guidelines in lieu of Regulations for Paper, Film, and Foil Coatings; Metal Furniture Coatings; and Large Appliance Coatings*, 72 FR 57215, 57218 (October 9, 2007).

Section 172(c)(1) of the CAA provides that State Implementation Plans (SIPs) for nonattainment areas must include "reasonably available control measures," including RACT, for sources of emissions. 42 U.S.C.A. § 7502(c)(1). Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, states must revise their SIPs to include RACT for sources of VOC emission covered by a CTG document issued by the EPA prior to the area's date of attainment. 42 U.S.C.A. § 7511a(b)(2). More importantly, section 184(b)(1)(B) of the CAA requires that states in the Ozone Transport Region, including this Commonwealth, submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG. 42 U.S.C.A. § 7511c(b)(1)(B).

Section 183(e) of the CAA directs the EPA to list for regulation those categories of products that account for at least 80% of the VOC emissions from consumer and commercial products in ozone nonattainment areas. 42 U.S.C.A. § 7511b(e). Section 183(e)(3)(C) of the CAA further provides that the EPA may issue a CTG in place of a National regulation for a product category where the EPA determines that the CTG will be "substantially as effective as regulations" in reducing emissions of VOC in ozone nonattainment areas. 42 U.S.C.A. § 7511b(e)(3)(C).

In 1995, the EPA listed paper, film and foil coatings on its section 183(e) list and, in 2007, issued a CTG for this product category. See 60 FR 15264 (March 23, 1995) and 72 FR 57215 (October 9, 2007). In the 2007 notice, the EPA determined that the CTG would be substantially as effective as National regulations in reducing VOC emissions from this product category in ozone nonattainment areas. See 72 FR at p. 57220.

The CTG provides states with the EPA's recommendation of what constitutes RACT for the covered category. States can use the recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered category. State air pollution control agencies are free to implement other technically sound approaches that are consistent with the CAA requirements and the EPA's implementing regulations or guidelines.

The Department has reviewed the recommendations included in the 2007 CTG for paper, film and foil coatings for their applicability to the ozone reduction measures necessary for this Commonwealth. The Department has determined that the measures provided in the CTG for paper, film and foil coatings are appropriate to be implemented in this Commonwealth as RACT for this category.

This rulemaking, if adopted as a final rule, would assist in reducing VOC emissions locally as well as reducing the transport of VOC emissions and ground-level ozone to downwind states. Adoption of VOC emission requirements for paper, film and foil surface coating operations is part of the Commonwealth's strategy, in concert with other OTR jurisdictions, to further reduce transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS. The proposed rulemaking is required under the CAA requirements that states regulate sources covered by CTGs issued by the EPA and is reasonably necessary to attain and maintain the health-based 8-hour ozone NAAQS in this Commonwealth. When final, this rulemaking will be submitted to the EPA as a revision to the SIP.

The concepts of the proposed rulemaking were discussed with the Air Quality Technical Advisory Committee (AQTAC) at its October 30 and December 11, 2008, meetings. The proposed rulemaking was discussed with the AQTAC on May 28, 2009. The AQTAC concurred with the Department's recommendation to present the proposed amendments to the Board for approval for publication as a proposed rulemaking. One AQTAC member commented that the equation in proposed § 129.52b (c)(1)(ii) for calculating the VOC content of a dip coating was missing the coating density factor in the denominator. This correction was made to the proposed equation. The Department also consulted with the Citizens Advisory Council on July 21, 2009, and with the Small Business Compliance Advisory Committee on October 22, 2008, and April 22 and July 22, 2009.

E. *Summary of Regulatory Requirements*

This proposed rulemaking adds the term and definition of "coating line" to § 121.1. This proposed rulemaking also amends the definition of the term "paper coating" to correspond to the broader terms, "paper, film or foil coating" and "paper, film or foil surface coating," which are used in other sections in Chapter 129 and also in this rulemaking.

The proposed rulemaking would amend § 129.51(a) to extend its coverage to paper, film and foil surface coating processes covered by this proposed rulemaking, as well as to large appliance and metal furniture surface coating

processes and flat wood paneling surface coating processes, which are covered in parallel rulemakings. Section 129.51(a) provides an alternative method for owners and operators of facilities to achieve compliance with air emission limits.

The proposed rulemaking would amend § 129.52 by adding subparagraph (i). Section 129.52 specifies requirements and emission limits for various surface coating processes. The amendment in this proposed rulemaking would clarify in new subparagraph (i) that the requirements and limits already specified in § 129.52 for metal furniture coatings, large appliance coatings and paper coatings are superseded by the requirements and limits that will be adopted in this proposed rulemaking and in the proposed rulemaking for large appliance and metal furniture coating processes.

The proposed rulemaking would add § 129.52b to regulate VOC emissions from paper, film and foil surface coating processes. The applicability of this new section is described in subsection (a), which establishes that emission limits and other requirements of this section apply to the owner and operator of a paper, film or foil surface coating process if an individual paper, film or foil surface coating line has a potential to emit at least 25 tpy of VOC from coatings, prior to controls. This is more stringent than the current applicability threshold in § 129.52, and is consistent with the recommended applicability threshold in the CTG.

Proposed subsection (a) specifies that the emission limits and other requirements of § 129.52b supersede the emission limits and other requirements of § 129.52.

Proposed subsection (a) also establishes that the work practice requirements specified in subsection (h) for cleaning materials, and the related compliance monitoring and recordkeeping and reporting requirements specified in subsections (d)(3) and (4) and (e), apply to the owner and operator of a paper, film or foil surface coating process if the total actual VOC emissions from all paper, film or foil surface coating operations, including related cleaning activities, at the facility are equal to or greater than 15 pounds (6.8 kilograms) per day or 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls. Basing the applicability on a 12-month rolling period is generally considered to be more stringent than basing it on a calendar year, as in § 129.52, but is consistent with the CTG.

Proposed subsection (b) explains that the requirements of § 129.52b supersede the requirements of a RACT permit for VOC emissions from a paper, film or foil surface coating operation already issued to the owner or operator of a source subject to § 129.52b, except to the extent the RACT permit contains more stringent requirements.

Proposed subsection (c) establishes VOC emission limits. Beginning January 1, 2011, a person may not cause or permit the emission into the outdoor atmosphere of VOCs from a paper, film or foil surface coating process, unless: (1) the VOC content of each as applied coating is equal to or less than the limit specified in Table I (relating to emission limits of VOCs for paper, film and foil surface coatings) in § 129.52b; or (2) the overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery, incineration or another method that is acceptable under § 129.51(a). The second option also addresses the overall efficiency of a control system.

Proposed subsection (d) identifies daily records that must be kept to demonstrate compliance with § 129.52b. An owner or operator of an individual paper, film or foil surface coating line that is subject to this section by virtue of having a potential to emit at least 25 tpy of VOC from coatings, prior to controls, must keep daily records that include the parameters and VOC content of each coating, thinner, component and cleaning solvent, as supplied, and the VOC content of each as applied coating or cleaning solvent. The daily records required of an owner or operator of a paper, film or foil surface coating process subject to the cleaning material-related requirements of § 129.52b are similar but relate only to cleaning solvents.

Proposed subsection (e) requires that the records be maintained for 2 years and submitted to the Department on request.

Under proposed subsection (f), an owner or operator of an individual paper, film or foil surface coating line that is subject to § 129.52b by virtue of having a potential to emit at least 25 tpy of VOC from coatings, prior to controls, may not cause or permit the emission into the outdoor atmosphere of VOCs from the application of paper, film or foil surface coatings, unless the coatings are applied using rotogravure coating, reverse roll coating, knife coating, dip coating, slot die coating, flexographic coating, extrusion coating or calendaring. An owner or operator may use another coating application method if a request is submitted in writing that demonstrates that the method is capable of achieving a transfer efficiency equivalent to or better than that achieved by the other methods listed in subsection (f), and is approved in writing by the Department prior to use.

Proposed subsection (g) exempts from the VOC coating content limits in Table I of proposed § 129.52b a coating used exclusively for determining product quality and commercial acceptance and other small quantity coatings, if the quantity of coating used does not exceed 50 gallons per year for a single coating and a total of 200 gallons per year for all coatings combined for the facility and if the owner or operator of the facility requests, in writing, and the Department approves, in writing, the exemption prior to use of the coating.

Proposed subsection (h) establishes work practices that an owner or operator of a paper, film or foil surface coating process subject to the cleaning material-related requirements of § 129.52b must comply with, for the use or application of, cleaning materials.

Proposed Table I establishes emission limits for VOCs for paper, film and foil surface coatings, expressed in weight of VOC per weight of coating solids, as applied.

F. *Benefits, Costs and Compliance*

Benefits

Implementation of the proposed control measure would benefit the health and welfare of the approximately 12 million humans, animals, crops, vegetation and natural areas of this Commonwealth by reducing emissions of VOCs, which are precursors to ground-level ozone air pollution. Although the proposed amendments are designed primarily to address ozone air quality, the reformulation or substitution of coating products to meet the VOC content limits applicable to users may also result in reduction of hazardous air pollutant (HAP) emissions, which are also a serious health threat.

The proposed rulemaking provides as one compliance option that coatings used on or applied to paper, film and foil products manufactured in this Commonwealth meet specified limits for VOC content, usually through substi-

tution of low VOC-content solvents or water for the high VOC-content solvents. The reduced levels of high VOC-content solvents would also benefit water quality through reduced loading on water treatment plants and in reduced quantities of high VOC-content solvents leaching into the ground. Owners and operators of affected paper, film and foil surface coating process facilities may also reduce VOC emissions through the use of add-on controls, or a combination of complying coatings and add-on controls.

In this Commonwealth, approximately 15 paper, film and foil coating operations combine to emit an estimated total of 458 tons of VOCs per year.

The EPA estimates that implementation of the recommended control options for paper, film or foil surface coating processes will result in approximately a 47% reduction in VOC emissions. The maximum anticipated additional annual VOC reductions from the paper, film or foil surface coating facilities as a result of this rulemaking is approximately 215 tons (458 tons × 47%).

Compliance Costs

The costs of complying with the proposed new requirements include the cost of using alternative product formulations, such as low-VOC or water-based coatings, and the cost of using add-on controls such as thermal oxidizers. The facility owner or operator is given the flexibility to choose controls. Based on information provided by the EPA in the paper, film and foil coating CTG, the cost effectiveness of reducing VOC emissions from paper, film or foil surface coating operations is estimated to be $1,200 per year per ton of VOC reduced. This estimate is based on the use of thermal oxidizer add-on controls, which are the most costly option to reduce VOC emissions on an annual operating basis. The estimated total annual cost for the owners or operators of the affected noncomplying paper, film or foil surface coating facilities in this Commonwealth, combined, is $258,000 (215 tons VOC reduced per year x $1,200 per year per ton reduced). Based on total VOC emissions reported to the Department for the 2008 calendar year, the annual compliance costs for each affected noncomplying facility will range from an estimated $2,312 to an estimated $88,548, depending on actual VOC emissions.

The potential total annual costs to the regulated industry of $258,000 for paper, film or foil surface coating operations are negligible compared to the improved health and environmental benefits that would be gained from this proposed rulemaking.

The implementation of the work practice requirements for cleaning materials is expected to result in a net cost savings. The recommended work practices should reduce the amount of cleaning materials used by reducing the amount of cleaning materials lost to evaporation, spillage and waste.

Compliance Assistance Plan

The Department plans to educate and assist the public and regulated community in understanding the newly revised requirements and how to comply with them. This will be accomplished through the Department's ongoing compliance assistance program.

Paperwork Requirements

The owners and operators of affected paper, film or foil surface coating operations would be required to keep daily operational records of information for coatings and cleaning solvents sufficient to demonstrate compliance, including identification of materials, VOC content and volumes used. The records must be maintained for 2 years and submitted to the Department upon request. Persons claiming the small quantity exemption or use of exempt coating would be required to keep records demonstrating the validity of the exemption. Persons seeking to comply through the use of add-on controls would be required to meet the applicable reporting requirements specified in Chapter 139 (relating to sampling and testing).

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 regulation has incorporated the following pollution prevention incentives:

The proposed amendments will assure that the citizens and the environment of this Commonwealth experience the benefits of reduced emissions of VOCs and HAPs from paper, film and foil surface coating processes. Although the proposed amendments are designed primarily to address ozone air quality, the reformulation or substitution of coating products to meet the VOC content limits applicable to users may also result in reduction of HAP emissions, which are also a serious health threat. The proposed rulemaking provides as one compliance option that coatings used on or applied to paper, film and foil products manufactured in this Commonwealth meet specified limits for VOC content, usually through substitution of low VOC-content solvents or water for the high VOC-content solvents. The reduced levels of high VOC-content solvents would also benefit water quality through reduced loading on water treatment plants and in reduced quantities of high VOC-content solvents leaching into the ground. Owners and operators of affected paper, film and foil surface coating process facilities may also reduce VOC emissions through the use of add-on controls, or a combination of complying coatings and add-on controls.

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 October 28, 2009, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the House and Senate Environmental Resources and Energy Committees (Committees). In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed Regulatory Analysis Form prepared by the Department. 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-form publication of the regulations.

J. *Public Comments*

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by January 13, 2010. 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 January 13, 2010. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final-form regulation will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by January 13, 2010. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

K. *Public Hearings*

The Board will hold public hearings in Harrisburg, Norristown and Pittsburgh for the purpose of accepting comments on this proposed rulemaking. The hearings will be held as follows:

Department of Environmental Protection Southwest Regional Office Waterfront Conference Rooms A and B 400 Waterfront Drive Pittsburgh, PA 15222-4745	December 9, 2009 1 p.m.
Department of Environmental Protection Rachel Carson State Office Building Conference Room 105 400 Market Street Harrisburg, PA 17105	December 11, 2009 1 p.m.
Department of Environmental Protection Southeast Regional Office Delaware Conference Room 2 East Main Street Norristown, PA 19401	December 14, 2009 1 p.m.

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526, at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing Chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans With Disabilities Act of 1990 should contact the Board at (717) 787-4526, or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD users), or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

JOHN HANGER,
Chairperson

Fiscal Note: 7-448. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

SUBPART C. PROTECTION OF NATURAL RESOURCES

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

***Coating line*—The equipment and activities of the manufacturing process used to apply coatings onto or into a substrate.**

* * * * *

*Paper**, film or foil** coating* **or *paper, film or foil surface coating***—Coatings applied in a uniform layer to paper and pressure-sensitive tapes regardless of substrate. The term includes related web coating processes on plastic films and decorative coatings on metal foil. The term does not include coatings applied in whole or in part as nonuniform layers such as patterns, designs or print.

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CHAPTER 129. STANDARDS FOR SOURCES

SOURCES OF VOCs

§ 129.51. General.

(a) *Equivalency*. Compliance with §§ 129.52**, 129.52a** (*Editor's Note*: The Department will propose to add § 129.52a at a later date.)**, 129.52b, 129.52c** (*Editor's Note*: The Department proposed to add § 129.52c at 39 Pa.B. 6061, 6067 (October 17, 2009).) and 129.54—129.73 may be achieved by alternative methods if the following exist:

* * * * *

(3) Compliance by a method other than the use of a low VOC coating or ink which meets the applicable emission limitation in §§ 129.52, **129.52a, 129.52b, 129.52c,** 129.67 and 129.73 **[(relating to surface coating processes; graphic arts systems; and aerospace manufacturing and rework)]** shall be determined on the basis of equal volumes of solids.

* * * * *

(6) The alternative compliance method is incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with § 129.52, § **129.52a,** § **129.52b,** § **129.52c,** § 129.67, § 129.68(b)(2) and (c)(2) or § 129.73.

* * * * *

§ 129.52. Surface coating processes.

* * * * *

(i) Beginning January 1, 2011, the requirements and limits for metal furniture coatings, large appliance coatings and paper coatings are superseded by the requirements and limits in §§ 129.52a and 129.52b (relating to control of VOC emissions from large appliance and metal furniture surface coating processes; and control of VOC emissions from paper, film and foil surface coating processes), respectively.

* * * * *

[*Editor's Note*: Section 129.52b is new and printed in regular type to enhance readability.]

§ 129.52b. Control of VOC emissions from paper, film and foil surface coating processes.

(a) *Applicability.* This section applies to the owner and operator of a paper, film or foil surface coating process, as follows, if the surface coating process meets one or both of the following:

(1) The emission limits and other requirements of this section apply to the owner and operator of a paper, film or foil surface coating process if an individual paper, film or foil surface coating line has a potential to emit at least 25 tpy of VOC from coatings, prior to controls. For these processes, the emission limits and other requirements of this section supersede the emission limits and other requirements of § 129.52 (relating to surface coating processes).

(2) The work practice requirements for cleaning materials found in subsection (h), and the related compliance monitoring and recordkeeping and reporting requirements of subsections (d)(3) and (4) and (e), apply to the owner and operator of a paper, film or foil surface coating process if the total actual VOC emissions from all paper, film or foil surface coating operations, including related cleaning activities, at the facility are equal to or greater than 15 pounds (6.8 kilograms) per day or 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls.

(b) *Existing RACT permit.* The requirements of this section supersede the requirements of a RACT permit issued to the owner or operator of a source subject to subsection (a) prior to January 1, 2011, under §§ 129.91—129.95 (relating to stationary sources of NOx and VOCs) to control, reduce or minimize VOCs from a paper, film or foil surface coating process, except to the extent the RACT permit contains more stringent requirements.

(c) *Emission limits.* Beginning January 1, 2011, a person subject to subsection (a)(1) may not cause or permit the emission into the outdoor atmosphere of VOCs from a paper, film or foil surface coating process, unless one of the following limitations is met:

(1) The VOC content of each as applied coating is equal to or less than the limit specified in Table I.

(i) The VOC content of the as applied coating, expressed in units of weight of VOC per weight of coating solids, shall be calculated as follows:

$$VOC_B = (W_o)/(W_n)$$

Where:

VOC_B = VOC content in lb VOC/lb of coating solids
W_o = Weight percent of VOC (W_v-W_w-W_{ex})
W_v = Weight percent of total volatiles (100%-weight percent solids)
W_w = Weight percent of water
W_{ex} = Weight percent of exempt solvents
W_n = Weight percent of solids of the as applied coating

(ii) The VOC content of a dip coating, expressed in units of weight of VOC per weight of coating solids, shall be calculated on a 30-day rolling average basis using the following equation:

$$VOC_A = \frac{\Sigma_i (W_{oi} \times D_{ci} \times Q_i) + \Sigma_J (W_{oJ} \times D_{dJ} \times Q_J)}{\Sigma_i (W_{ni} \times D_{ci} \times Q_i)}$$

Where:

VOC_A = VOC content in lb VOC/lb of coating solids for a dip coating, calculated on a 30-day rolling average basis

W_{oi} = Percent VOC by weight of each as supplied coating (i) added to the dip coating process, expressed as a decimal fraction (that is 55% = 0.55)

D_{ci} = Density of each as supplied coating (i) added to the dip coating process, in pounds per gallon

Q_i = Quantity of each as supplied coating (i) added to the dip coating process, in gallons

W_{ni} = Percent solids by weight of each as supplied coating (i) added to the dip coating process, expressed as a decimal fraction

W_{oJ} = Percent VOC by weight of each thinner (J) added to the dip coating process, expressed as a decimal fraction

D_{dJ} = Density of each thinner (J) added to the dip coating process, in pounds per gallon

Q_J = Quantity of each thinner (J) added to the dip coating process, in gallons

(iii) Sampling and testing shall be done in accordance with the procedures and test methods specified in Chapter 139 (relating to sampling and testing).

(2) The overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery or incineration or another method that is acceptable under § 129.51(a) (relating to general). The overall efficiency of a control system, as determined by the test methods and procedures specified in Chapter 139, may be no less than 90% or may be no less than the equivalent overall efficiency as calculated by the following equation, whichever is less stringent:

$$O = (1 - E/V) \times 100$$

Where:

V = The VOC content of the as applied coating, in lb VOC/lb of coating solids.

E = The Table I limit in lb VOC /lb of coating solids.

O = The overall required control efficiency.

(d) *Compliance monitoring procedures.* The owner or operator of a facility subject to this section shall maintain records sufficient to demonstrate compliance as follows:

(1) The owner or operator of a facility subject to subsection (a)(1) shall maintain daily records of the following parameters for each coating, thinner, component or cleaning solvent, as supplied:

(i) Name and identification number of the coating, thinner, component or cleaning solvent.

(ii) Volume used.

(iii) Mix ratio.

(iv) Density or specific gravity.

(v) Weight percent of total volatiles, water, solids and exempt solvents.

(vi) VOC content.

(2) The owner or operator of a facility subject to subsection (a)(1) shall maintain daily records of the VOC content of each as applied coating or cleaning solvent.

(3) The owner or operator of a facility subject to subsection (a)(2) shall maintain daily records of the following parameters for each cleaning solvent, as supplied:

(i) Name and identification number of the cleaning solvent.

(ii) Volume used.

(iii) Weight percent of total volatiles, water and exempt solvents.

(iv) VOC content.

(4) The owner or operator of a facility subject to subsection (a)(2) shall maintain daily records of the VOC content of each as applied cleaning solvent.

(e) *Recordkeeping and reporting requirements.* The records required under subsection (d) shall be maintained for 2 years and submitted to the Department on request.

(f) *Coating application methods.* A person subject to subsection (a)(1) may not cause or permit the emission into the outdoor atmosphere of VOCs from the application of paper, film or foil surface coatings, unless the coatings are applied using one or more of the following coating application methods:

(1) Rotogravure coating.

(2) Reverse roll coating.

(3) Knife coating.

(4) Dip coating.

(5) Slot die coating.

(6) Flexographic coating.

(7) Extrusion coating.

(8) Calendaring.

(9) Other coating application method, if approved in writing by the Department prior to the use of the application method.

(i) The coating application method must be capable of achieving a transfer efficiency equivalent to or better than that achieved by a method listed in paragraphs (1)—(8).

(ii) The request for approval must be submitted in writing by the owner or operator of the paper, film or foil surface coating facility.

(g) *Exempt coatings.* The VOC coating content limits in Table I do not apply to a coating used exclusively for determining product quality and commercial acceptance and other small quantity coatings, if the coating meets the following criteria:

(1) The quantity of coating used does not exceed 50 gallons per year for a single coating and a total of 200 gallons per year for all coatings combined for the facility.

(2) The owner or operator of the facility requests, in writing, and the Department approves, in writing, the exemption prior to use of the coating.

(h) *Work practice requirements for cleaning materials.* The owner or operator of a paper, film or foil surface coating process subject to subsection (a)(2) shall comply with the following work practices for cleaning materials:

(1) Store all VOC-containing cleaning materials and used shop towels in closed containers.

(2) Ensure that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all times, except when depositing or removing these materials.

(3) Minimize spills of VOC-containing cleaning materials and clean up spills immediately.

(4) Convey VOC-containing cleaning materials from one location to another in closed containers or pipes.

(5) Minimize VOC emissions from cleaning of storage, mixing and conveying equipment.

Table I

Emission Limits of VOCs for Paper, Film and Foil Surface Coatings

Weight of VOC per Weight of Coating Solids, as Applied

	RACT Limits	
Units	*Pressure Sensitive Tape and Label Surface Coating*	*Paper, Film, and Foil Surface Coating (Not including Pressure Sensitive Tape and Label Surface Coating)*
kg VOC/kg solids (lb VOC/lb solids)	0.20	0.40
kg VOC/kg coating (lb VOC/lb coating)	0.067	0.08

[Pa.B. Doc. No. 09-2064. Filed for public inspection November 6, 2009, 9:00 a.m.]

[25 PA. CODE CH. 95]

Wastewater Treatment Requirements

The Environmental Quality Board (Board) proposes to amend 25 Pa. Code Chapter 95 (relating to Wastewater Treatment Requirements). The proposed amendments include the elimination of a redundant provision, the recognition of applicable TMDL requirements, and the establishment of new effluent standards for new sources of wastewaters containing high Total Dissolved Solids (TDS) concentrations.

The proposal was adopted by the Board at its meeting of August 18, 2009.

A. *Effective Date*

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final-form rulemaking.

B. *Contact Persons*

For further information, contact Ronald C. Furlan, Chief, Division of Planning and Permits, P. O. Box 8774, Rachel Carson State Office Building, Harrisburg, PA 17105-8774, (717) 787-8184 or William Cumings, 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 proposal appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) web site at http://www.dep.state.pa.us.

C. *Statutory Authority*

The proposed rulemaking is being made under the authority of section 5 of The Clean Streams Law (35 P. S. § 691.5), which grants the Department the authority to adopt rules and regulations in establishing policy and priorities for issuing orders and permits and in taking other actions under this law, and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-7 and 510-20).

D. *Background and Purpose*

Total dissolved solids (TDS) is comprised of inorganic salts, organic matter and other dissolved materials in water. They can be naturally present in water or the result of runoff, mining or industrial or municipal treatment of water. TDS contain minerals and organic molecules that provide benefits such as nutrients, but also may contain contaminants such as toxic metals and organic pollutants. However, the benefits noted are when considered in moderation, which is likely not the case in a high TDS discharge. The concentration and composition of TDS in natural waters is determined by the geology of the drainage, atmospheric precipitation and the water balance (evaporation/precipitation).

TDS causes toxicity to water bodies through increases in salinity, changes in the ionic composition of the water, and toxicity of individual ions. The composition of specific ions determines toxicity of elevated TDS in natural waters. Also, as the hardness increases, TDS toxicity may decrease. The major concern associated with high TDS concentrations relates to direct effects of increased salinity on the health of aquatic organisms.

Water quality analyses performed for the major watersheds of this Commonwealth to date, show that many of the rivers and streams of this Commonwealth have a very limited ability to assimilate additional TDS, sulfates and chlorides. This phenomenon was most evident during the fall of 2008, when actual water quality issues related to these parameters emerged in the Monongahela River basin. While river flows reached seasonal lows, the concentrations of TDS and sulfates in the river increased to historic highs, exceeding the water quality standards at all of the 17 Potable Water Supply intakes from the border with West Virginia to Pittsburgh. Exceedances of water quality standards for TDS and sulfate persisted in the river through November and December of 2008. Elevated chloride levels were observed on at least one major tributary—South Fork Tenmile Creek—and for the first time, elevated bromide levels were observed in these streams.

During this period, several environmental agencies performed studies on the effects of TDS, sulfate and chloride discharges on the Monongahela and some of its tributaries. A study conducted by the Environmental Protection Agency (EPA), the Department and the Allegheny County Health Department (ACHD) also identified bromides as a key parameter of concern in these waters. The study concluded that a high percentage of the Disinfection By-Products (DBPs) being formed in the drinking water systems were brominated DBPs, which pose a greater health risk than chlorinated DBPs; and, subsequent formation of brominated DBPs increases overall DBP concentrations, specifically trihalomethanes (THMs). The study also concluded that based on the speciation there appears to be a strong correlation between THM formation and elevated source water bromide concentrations in the Monongahela River. As a result, the 17 potable water supply intakes on the Monongahela River are subject to higher levels of the more toxic brominated DBPs, creating increased risks of bladder cancer to their consumers.

Several studies on the potential impacts to aquatic life from these large TDS discharges were also conducted on major tributaries flowing into the Monongahela River in Greene County, PA. Each of these studies documents the adverse effects of discharges of TDS, sulfates and chlorides on the aquatic communities in these receiving streams. The former concludes that there is a high abundance of halophilic (salt-loving) organisms downstream from the discharges of TDS and chlorides and a clear transition of fresh water organisms to brackish water organisms in the receiving stream from points above the discharge to points below. It is evident from this study that increases in salinity have caused a shift in biotic communities.

The Monongahela River Watershed is being adversely impacted by TDS discharges and many points in the watershed are already impaired, with TDS, sulfates and chlorides as the cause.

Although the Monongahela has received the most attention, it is not an anomalous situation. The Department has studied the results of stream monitoring and has conducted an analysis on the water quality of the Beaver River in western Pennsylvania. These results show upward trends in TDS concentrations. The Department has also conducted similar studies on the Shenango and Neshannock Rivers, with similar upward trends in TDS concentrations.

In addition, watershed analyses conducted by the Department of the West Branch of the Susquehanna River and the Moshannon River Watersheds have documented that they are also severely limited in the capacity to assimilate new loads of TDS and sulfates. The Department has received several permit applications in these

areas where the permits will not be able to be issued with limits greater than the water quality standards due to the high background concentrations of TDS.

The surveys, analyses and studies referenced establish that the extent of existing and potential pollution from TDS, sulfates and chlorides is widespread. The Department is constrained from approving any significant portion of the pending proposals and applications for new sources of discharge high-TDS wastewater that include sulfates and chlorides, and still protect the quality of streams in this Commonwealth.

The existing practice for high TDS wastewaters is the removal of heavy metals, but currently no treatment exists for TDS, sulfates and chlorides, other than dilution. As documented by the rising levels of TDS in the waters of this Commonwealth, dilution can no longer be considered adequate treatment for high TDS wastewaters.

The Clean Streams Law (35 P. S. §§ 691.1—691.1001) delegates the authority to preserve and improve the purity of its waters and develop remedies to purify those waters currently polluted to the Department, in the form of adopting rules and regulations as necessary to accomplish these tasks.

The Department's "Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges" (April 11, 2009) outlines the foundation and scientific rationale for promulgation of such rules and regulations necessary to address the existing and potential pollution of this Commonwealth's waters from large sources of TDS, sulfates and chlorides. This approach relies upon the basic water quality management premise that discharges of these pollutants must be managed through permit limitations required by the more stringent of treatment-based or water quality-based standards.

The goal of this permitting strategy is that by January 1, 2011, new sources of High-TDS wastewaters will be prohibited from this Commonwealth's waters. To achieve this goal, the Department proposes to amend Chapter 95 to establish new effluent standards.

In addition to moving this regulatory package forward, the Department is considering, on a parallel track, the formation of a work group in the Monongahela River Watershed to review possible alternative approaches that would also be protective of this Commonwealth's water resources.

The proposed rulemaking was presented to the Water Resources Advisory Committee (WRAC) at a special meeting on June 19, 2009, and considered at the WRAC's regular meeting on July 15, 2009. The WRAC, by majority vote, recommended that the Department work in conjunction with the WRAC to form a Statewide stakeholders group to analyze the issues and develop appropriate solutions, in lieu of proceeding with the currently proposed rulemaking.

E. *Summary of Regulatory Requirements*

Section 95.2. Effluent standards for industrial wastes.

The Department has proposed to retitle the section for clarity. The Department also proposes to delete paragraph (1) because it is redundant. The other paragraphs have been renumbered as a result of the deletion of paragraph (1).

Section 95.10. Effluent standards for new sources of wastewaters containing high Total Dissolved Solids (TDS) concentrations.

This is a new section. Subsection (a) defines high TDS wastewater. Subsection (b) establishes effluent standards for TDS, total chlorides and total sulfates, and provides for exceptions to these criteria for industries that have established Federal criteria for TDS, sulfates and chlorides. Subsection (c) establishes criteria for new sources of wastewaters resulting from fracturing, production, field exploration, drilling or completion of oil and gas wells. Subsection (d) establishes that the effluent limitations in § 95.10 will not apply if an NPDES permit has established more stringent limitations than the limits specified in this section.

The term "new discharge" is also defined in subsection (a). This definition is intended to make it clear that a new discharge from an existing facility, an additional discharge from an existing facility or an expanded discharge from an existing facility are included. It is not intended to include discharges from treatment facilities for abandoned mine discharges (AMD), which existed on April 1, 2009, where new treatment facilities are installed or existing facilities are modified. This is important to assure that efforts to treat AMD by third parties (watershed groups, trustees or the government) are not thwarted by imposing limits on these projects with overwhelming positive environmental benefits. Remining projects authorized under Chapter 87 Subchapter F or Chapter 88 Subchapter G are also not included in this definition because the discharges associated with them existed as of April 1, 2009.

F. *Benefits, Costs and Compliance*

Benefits

The Monongahela River has been significantly impacted by discharges of wastewaters containing high TDS concentrations. These high TDS concentrations have caused exceedances of drinking water standards at many drinking water treatment plants in this Commonwealth. Some of these exceedances include bromides. Bromides in drinking water may result in the formation of disinfection byproducts that are more toxic than the byproducts from chlorination. This proposed rulemaking will address these high TDS discharges as well as high levels of chlorides and sulfates, resulting in cleaner streams. This reduction will also reduce the number of brominated disinfection byproducts and help to ensure safe drinking water for this Commonwealth.

Compliance Costs

The regulation will impose new costs on new or increased discharges of high TDS wastewater. New or increased discharges will be required to install advanced treatment to meet the requirements of this proposed rulemaking. It is anticipated that treatment costs could be on the order of $0.25/gallon. Since there is currently no treatment required for TDS, chlorides, and sulfates, any cost is an increase over the existing cost.

Existing facilities will have minimal additional costs as a result of this proposed rulemaking. The additional costs will be the result of additional monitoring and recordkeeping that will be required to comply with this rulemaking.

Compliance Assistance Plan

The Department has conducted many outreach sessions to educate stakeholders about the new regulations, at least as they apply to Marcellus Shale activities. These include:

• On October 16, 2008, the Department sent a letter to existing treatment plants in this Commonwealth explaining the requirements that would apply to each plant that chooses to accept high TDS wastewater, including additional monitoring.

• On April 15, 2009, the Department held a meeting of the Marcellus Shale Wastewater Partnership to introduce and discuss the Permitting Strategy for High TDS Wastewater Discharges.

• On April 16, 20 and 21, 2009, industry sponsored Marcellus Shale application training, including wastewater transportation and delivery, was held in Williamsport, Canonsburg and Clarion. Questions were taken and answered, and a Question and Answer document has been posted on the Department's web site.

• In the spring of 2009, a wastewater generation, transportation and disposal powerpoint presentation was developed, and is posted on the Department's web site.

• In 2009, the Department will be offering Industry Training Workshops at six locations throughout this Commonwealth. Wastewater management issues will be addressed in the training after the regulation has been finalized.

Paperwork Requirements

This proposal will result in additional paperwork only for existing wastewater treatment plants that choose to accept high TDS wastewater. This additional paperwork will include additional monitoring and recordkeeping requirements, as well as the requirement to develop or revise a pretreatment program and to modify their existing NPDES permit to reflect the constituents present in the high TDS wastewater.

G. *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.

H. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on October 28, 2009, the Department submitted a copy of the proposed rulemaking to the Independent Regulatory Review Commission (IRRC) and the Senate and House Environmental Resources and Energy Committees (Committees). In addition to submitting the proposed amendments, the Department provided IRRC and the Committees with a copy of a detailed Regulatory Analysis Form prepared by the Department. 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 amendments 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.

I. *Public Comments*

The Department is particularly interested in comments regarding economic impacts and treatment technologies, including levels of treatment and associated costs, from industries covered by this regulatory change. Comments on this and other aspects of the draft regulation can be submitted in hard or electronic copy as explained as follows.

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed regulation to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17105-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by February 5, 2010. 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 February 5, 2010. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final-form regulation will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@dep.state.pa.us and must also be received by the Board by February 5, 2010. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to ensure receipt.

J. *Public Hearings*

The Board will hold four public hearings for the purpose of accepting comments on this proposal. The hearings will be held at 5 p.m. on the following dates:

December 14, 2009 5 p.m.	Cranberry Township Municipal Building 2525 Rochester Road Cranberry Township, PA 16066-6499
December 15, 2009 5 p.m.	Department of Environmental Protection Cambria District Office 286 Industrial Park Road Ebensburg, PA 15931
December 16, 2009 5 p.m.	Department of Environmental Protection Northcentral Regional Office Goddard Conference Room 208 West Third Street, Suite 101 Williamsport, PA 17701-6448
December 17, 2009 5 p.m.	Lehigh County Government Center 17 S. 7th Street Allentown, PA 18101

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-

4526, at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing Chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans With Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) to discuss how the Board may accommodate their needs.

JOHN HANGER,
Chairperson

Fiscal Note: 7-446. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE II. WATER RESOURCES

CHAPTER 95. WASTEWATER TREATMENT REQUIREMENTS

§ 95.2. **[Quality standards and oil-bearing wastewaters] Effluent standards for industrial wastes**.

Industrial **[waste shall] wastes must** meet the following **[quality] effluent** standards:

(1) **[There may be no discharge of wastes which are acid.**

(2)] Wastes **[shall] must** have a pH of not less than 6 and not greater than 9, except where:

* * * * *

[(3)] (2) Oil-bearing wastewaters, except those subject to paragraph **[(4), shall] (3), must** comply with **[all of]** the following:

* * * * *

[(4)] (3) Petroleum marketing terminals **[shall] must**:

* * * * *

[(5)] (4) Waste may not contain more than 7 milligrams per liter of dissolved iron.

[(6)] (5) When surface waters are used in the industrial plant, the quality of the effluent need not exceed the quality of the raw water supply if the source or supply would normally drain to the point of effluent discharge, unless otherwise required under the **[State Act] act** or Federal Act or regulations promulgated thereunder.

(*Editor's Note*: Section 95.10 is new and printed in regular print to enhance readability.)

§ 95.10. Effluent standards for new discharges of wastewaters containing high Total Dissolved Solids (TDSs) concentrations.

(a) For the purpose of implementing this section, a new discharge of High-TDS wastewater is a discharge that did not exist on April 1, 2009, and includes a TDS concentration that exceeds 2,000 mg/L or a TDS loading that exceeds 100,000 pounds per day. The term "new discharge" includes an additional discharge, an expanded discharge or an increased discharge from a facility in existence prior to April 1, 2009.

(b) Unless specifically exempted under paragraph (6), new discharges of wastewater with High-TDS must comply with the following:

(1) Section 95.2 (relating to effluent standards for industrial wastes).

(2) The discharge may not contain more than 500 mg/L of TDS as a monthly average.

(3) The discharge may not contain more than 250 mg/L of total chlorides as a monthly average.

(4) The discharge may not contain more than 250 mg/L of total sulfates as a monthly average.

(5) In addition to paragraphs (1)—(4), discharges to groundwater, including land application and discharges to existing mine pools, must comply with §§ 91.51 and 91.52 (relating to underground disposal).

(6) Discharges of wastewater produced from industrial subcategories with applicable Effluent Limit Guidelines for TDS, Chlorides or Sulfates established as Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), or new source standards of performance, by the Administrator of the EPA under sections 303(b) and 306 of the Federal Act (33 U.S.C.A. §§ 1314(b) and 1316) are exempt from the effluent standards in this section.

(c) New discharges of wastewaters resulting from fracturing, production, field exploration, drilling or completion of oil and gas wells must comply with the following provisions, in addition to the provisions in subsection (b):

(1) There may be no discharge of wastewater into waters of this Commonwealth from any direct source or site of fracturing, production, field exploration, drilling, or well completion, (that is, produced water, drilling muds, drill cuttings, and produced sand).

(2) Treated discharges of wastewater generated from fracturing, production, field exploration, drilling, or well completion may be authorized by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System Permitting, Monitoring and Compliance). The discharges shall be authorized only from centralized waste treatment (CWT) facilities and approved Publicly Owned Treatment Works (POTWs).

(3) The discharge may not contain more than 10 mg/L of total barium as a monthly average.

(4) The discharge may not contain more than 10 mg/L of total strontium as a monthly average.

(5) Where a discharge from a CWT facility is proposed, the discharge must comply with the performance standards in 40 CFR 437.34 (relating to new source performance standards (NSPS)), in addition to complying with paragraphs (2)—(4).

(6) Where a discharge through a POTW is proposed, in addition to compliance with the requirements of paragraphs (2)—(4) the following apply:

(i) Pretreatment shall be provided and comply with the performance standards found in 40 CFR 437.36 (relating to pretreatment standards for new sources).

(ii) The POTW shall develop and implement a Federal pretreatment program meeting the applicable standards found in 40 CFR 403.8 (relating to pretreatment program requirements: development and implementation by POTW).

(d) Any wastewater treatment requirement established under this chapter does not apply if an NPDES permit limitation established under Chapter 92 provides a more stringent effluent limitation requirement than would be provided by application of this chapter.

[Pa.B. Doc. No. 09-2065. Filed for public inspection November 6, 2009, 9:00 a.m.]