

## CHAPTER 87. SURFACE MINING OF COAL

Subchap.	Sec.
<b>A. GENERAL PROVISIONS .....</b>	<b>87.1</b>
<b>B. [Reserved] .....</b>	<b>87.11</b>
<b>C. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR INFORMATION ON ENVIRONMENTAL RESOURCES .....</b>	<b>87.41</b>
<b>D. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR OPERATION AND RECLAMATION PLAN .....</b>	<b>87.61</b>
<b>E. SURFACE COAL MINES: MINIMUM ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS .....</b>	<b>87.91</b>
<b>F. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR REMINING AREAS WITH POLLUTIONAL DISCHARGES .....</b>	<b>87.201</b>

### Authority

The provisions of this Chapter 87 issued and amended under The Clean Streams Law (35 P.S. §§ 691.1—691.1001); the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.31); The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. §§ 1406.1—1406.21); the Coal Refuse Disposal Control Act (52 P.S. §§ 30.51—30.66); and Article XIX-A of The Administrative Code of 1929 (71 P.S. §§ 510.1—510.108), unless otherwise noted.

### Notes of Decisions

#### *Burden of Proof*

The protection of the waters of the Commonwealth is a primary concern of these mining regulations. Accordingly, the burden is placed upon the applicant to demonstrate affirmatively the probable impact of the mining on the waters on and adjacent to the mine site and the measures to be taken to protect these waters. No application can be approved if this has not been done. *Empire Coal Mining & Dev., Inc. v. Department of Environmental Protection*, 1995 EHB 944.

### Cross References

This chapter cited in 25 Pa. Code § 86.1 (relating to definitions); 25 Pa. Code § 86.2 (relating to scope); 25 Pa. Code § 86.5 (relating to extraction of coal incidental to noncoal surface mining); 25 Pa. Code § 86.6 (relating to extraction of coal incidental to government-financed construction or government-financed reclamation projects); 25 Pa. Code § 86.12 (relating to continued operation under interim permits); 25 Pa. Code § 86.13 (relating to compliance with permits); 25 Pa. Code § 86.16 (relating to application contents); 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 86.131 (relating to scope); 25 Pa. Code § 86.174 (relating to standards for release of bonds); 25 Pa. Code § 86.194 (relating to system for assessment of penalties); 25 Pa. Code § 86.201 (relating to procedures for assessment of civil penalties); 25 Pa. Code § 86.267 (relating to determination of data requirements); 25 Pa. Code § 87.157 (relating to cessation of operations: temporary); 25 Pa. Code § 88.131 (relating to cessation of operations: temporary); 25 Pa. Code § 88.219 (relating to cessation of operations: temporary); 25 Pa. Code § 88.332 (relating to cessation of operations: temporary); 25 Pa. Code § 88.333 (relating to cessation of operations: permanent); 25 Pa. Code § 89.5 (relating to definitions); 25 Pa. Code § 89.62 (relating to use of explosives); 25 Pa. Code § 89.145a (relating to water supply replacement: performance standards); 25 Pa. Code § 89.146a (relating to water supply replacement: procedure for resolution of water supply damage claims); 25 Pa. Code § 89.152 (relating to water supply replacement: relief from responsibility); 25 Pa. Code § 90.3 (relating to general requirements: permit); 25 Pa. Code § 90.128 (relating to coal refuse disposal: active surface mines); 25 Pa. Code § 90.167 (relating to cessation of operations: temporary); 25 Pa. Code § 90.168 (relating to cessation of operations: permanent); 25 Pa. Code § 90.305 (relating to application approval or denial); 25 Pa. Code § 92a.11 (relating to other chapters applicable); 25 Pa. Code § 92a.12 (relating to treatment requirements); 25 Pa. Code § 102.8 (relating to PCSM requirements); 25 Pa. Code § 102.14 (relating to riparian buffer requirements); 25 Pa. Code § 210.19 (relating to suspension, modification and revocation); 25 Pa. Code § 211.102 (relating to scope); 25 Pa. Code § 211.103 (relating to enforcement); 25 Pa. Code § 290.101 (relating to general requirements for beneficial use); and 25 Pa. Code § 290.104 (relating to beneficial use at coal mining activity).

## Subchapter A. GENERAL PROVISIONS

Sec.	
87.1.	Definitions.
87.2.	Scope.

**Cross References**

This subchapter cited in 25 Pa. Code § 87.201 (relating to scope); 25 Pa. Code § 87.204 (relating to application for authorization); 25 Pa. Code § 87.205 (relating to approval or denial); and 25 Pa. Code § 87.206 (relating to operational requirements).

**§ 87.1. Definitions.**

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

*Abandoned*—Any operation where no coal has been produced or overburden removed for a period of 6 months, verified by monthly reports submitted to the Department by the operator and by inspections made by the Department, unless an operator within 30 days after receipt of notification by the Secretary terminating an operation abandoned submits sufficient evidence to the Secretary that the operation is in fact not abandoned and submits a timetable satisfactory to the Secretary regarding plans for the reactivation of the operation.

*Access roads*—Roads located and constructed, reconstructed, improved or maintained for minimal and infrequent use to transport equipment and personnel to current and future activity sites. The term includes the entire area within the right-of-way, including the roadbed, shoulders, parking and side areas, approaches, structures and ditches.

*Acid drainage*—Water with a pH of less than 6.0 and in which total acidity exceeds total alkalinity, discharged from an active, inactive or abandoned surface coal mine and reclamation operation or from an area affected by surface mining activities.

*Acid-forming materials*—Earth materials that contain sulfide minerals or other materials which, if exposed to air, water or weathering processes, form acids that may create acid drainage.

*Adjacent area*—Land located outside the permit area, where air, surface or groundwater, fish, wildlife, vegetation or other resources protected by this chapter may be adversely affected by surface mining activities.

*Affected area*—Land or water upon or in which surface mining activities are conducted or located. The term includes land in which the natural land surface has been disturbed as a result of or incidental to the surface activities of the operator, including, but not limited to, private ways and roads appurtenant to the area, land excavations, workings, refuse banks, spoil banks, culm banks, tailings, repair areas, storage areas, processing areas, shipping areas and areas in which structures, facilities, equipment, machines, tools or other materials or property which result from or are used in, surface mining operations are situated. The term includes the land affected by the construction of new roads or the improvement or substantial use of an existing road to gain access to the site or for hauling from the site.

*Aquifer*—A zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

*Auger mining*—A method of mining coal at a cliff or highwall by drilling holes into an exposed coal seam from the highwall and transporting the coal along an auger bit to the surface.

*Best technology currently available*—Equipment, devices, systems, methods or techniques which will:

(i) Prevent, to the extent possible, additional contributions of suspended solids to stream flow or runoff outside the permit area, but in no event result in contributions of suspended solids in excess of requirements set by applicable State or Federal laws.

(ii) Minimize, to the extent possible, disturbances and adverse impacts on fish, wildlife and related environmental values, and achieve enhancement of those resources when practicable. The term includes equipment, devices, systems, methods or techniques which are currently available anywhere as determined by the Secretary, even if they are not in routine use. The term includes, but is not limited to, construction practices, siting requirements, vegetative selection and planting requirements, scheduling of activities and design of sedimentation ponds in accordance with this chapter.

*Blast*—A detonation of explosives.

*Blasting*—The detonation of explosives

*Coal processing waste*—Earth materials which are separated and wasted from the product coal during cleaning, concentrating or other processing or preparation of coal.

*Coal refuse*—Any waste coal, rock, shale, slurry, culm, gob, boney, slate, clay and related materials, associated with or near a coal seam, which are either brought aboveground or otherwise removed from a coal mine in the process of mining coal or which are separated from coal during the cleaning or preparation operations. Coal refuse shall include underground development wastes, and coal processing wastes, excess spoil, but does not mean overburden from surface mining.

*Combustible material*—aterial that is capable of burning, either by fire or through oxidation, accompanied by the evolution of heat and a significant temperature rise.

*Compaction*—Increasing the density of a material by reducing the voids between the particles and is generally accomplished by controlled placement and mechanical effort such as from repeated application of wheel, track or roller loads from heavy equipment.

*Contouring*—Reclamation of the land affected to approximate original contour so that it closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain with no highwall, spoil piles or depressions to accumulate water and with adequate provision for drainage.

*Cropland*—Land used for the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops and other similar agronomic and horticultural crops.

*Degree*—The inclination from the horizontal.

*Disturbed area*—An area where vegetation, topsoil or overburden is removed or upon which topsoil, spoil, coal processing waste or noncoal waste is placed by surface coal mining activities. Those areas are classified as disturbed until reclamation is complete, and the performance bond or other assurance of performance required by Chapter 86 Subchapter F (relating to bonding and insurance requirements) is released.

*Diversion*—A channel, embankment or other manmade structure constructed at a controlled slope to divert water from one area to another.

*Downslope*—The land surface between the projected outcrop of the lowest coalbed being mined along each highwall and a valley floor.

*Dry weather flow*—The base flow or surface discharge from an area or treatment facility which occurs immediately prior to a precipitation event and which resumes 24 hours after the precipitation event ends.

*Embankment*—An artificial deposit of material that is raised above the natural surface of the land and used to contain, divert or store water, support roads or railways or for other similar purposes.

*Ephemeral stream*—A water conveyance which lacks substrates associated with flowing waters and flows only in direct response to precipitation in the immediate watershed or in response to melting snowpack and which is always above the local water table.

*Fugitive dust*—That particulate matter not emitted from a duct or stack which becomes airborne due to the forces of wind or surface coal mining activities, or both. During surface coal mining activities, it may include emissions from haul roads; wind erosion of exposed surfaces; storage piles and spoil piles; reclamation operations; and other activities in which material is either removed, stored, transported or redistributed.

*Ground cover*—The area of ground covered by the combined aerial parts of vegetation and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement.

*Groundwater*—All subsurface waters of the Commonwealth.

*Haul road*—Includes the following:

- (i) Roads that are planned, designed, located, constructed, reconstructed or improved, utilized and maintained for the transportation of equipment, fuel, personnel, coal, spoil and other operating resources from a public road to points within the surface mine or between principal operations on the mine site or both, but not including roads within the pit or on unreclaimed spoil areas.

(ii) Roads (including public roads) which are constructed, reconstructed, improved, maintained or substantially used as an integral part of the coal mining activities.

(iii) The entire area within the right-of-way, including the roadbed, shoulders, parking and side areas, approaches, structures and ditches.

*Highwall*—The face of exposed overburden and coal in an open cut of a surface mining activity or for entry to underground mining activities.

*Historically used for cropland*—

(i) Lands that have been used for cropland for any 5 years or more out of the 10 years immediately preceding the acquisition, including purchase, lease or option of the land for the purpose of conducting or allowing, through resale, lease or option, the conduct of surface coal mining activities.

(ii) Lands that the Department determines, on the basis of additional cropland history of the surrounding lands and the lands under consideration, that the permit area is clearly cropland but falls outside the specific 5-years-in-10 criterion. In which case, the regulations from prime farmland may be applied to include more years of cropland history only to increase the prime farmland acreage to be preserved.

(iii) Lands that would likely have been used as cropland for any 5 out of the last 10 years immediately preceding the acquisition, but for the same fact of ownership or control of the land unrelated to the productivity of the land.

*Hydrologic balance*—The relationship between the quality and quantity of water inflow to, water outflow from and water storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake or reservoir. It encompasses the dynamic relationships among precipitation, runoff, evaporation and changes in groundwater and surface water storage.

*Hydrologic regime*—The entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

*Impoundment*—A closed basin, naturally formed or artificially built, which is dammed or excavated for the retention of water, sediment or waste.

*Include*—Including but not limited to.

*Intermittent stream*—A body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges.

*Land use*—Specific uses or management-related activities, rather than the vegetation or cover of the land. Land uses may be identified in combination when joint or seasonal uses occur. Changes of land use from one of the follow-

ing categories to another shall be considered as a change to an alternative land use which is subject to approval by the Department. Land use may be defined as:

(i) *Cropland*. Includes land used for the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops and other similar agronomic and horticultural crops. Land used for facilities in support of cropland farming operations which is adjacent to or an integral part of these operations is also included for purposes of these land use categories.

(ii) *Pastureland or land occasionally cut for hay*. Land used primarily for the long-term production of adapted, domesticated forage plants to be granted by livestock or occasionally cut and cured for livestock feed. Land used for facilities in support of pastureland or land occasionally cut for hay which is adjacent to or an integral part of these operations is also included.

(iii) *Forestland*. Land used for the long-term production of wood, wood fiber or wood-derived products; watershed protection; site stabilization and for the production, protection and management of species of fish and wildlife. Land used for facilities in support of forestry and watershed management operations which is adjacent to or an integral part of these operations is also included.

(iv) *Commercial forestland*. Land used and managed primarily for the long-term production of wood, wood fiber or wood-derived products. Land used for facilities in support of forest harvest and management operations which is adjacent to or an integral part of these operations is also included.

(v) *Residential*. Includes single and multiple family housing, mobile home parks and other residential lodgings. Land used for facilities in support of residential operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, vehicle parking and open space that directly relate to the residential use.

(vi) *Industrial/commercial*. Land used for one or more of the following:

(A) Extraction or transformation of materials for fabrication of products, wholesaling of products or for long-term storage of products. This includes heavy and light manufacturing facilities such as lumber and wood processing, chemical manufacturing, petroleum refining and fabricated metal products manufacture. Land used for facilities in support of these operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, rail, road and other transportation facilities.

(B) Retail or trade of goods or services, including hotels, motels, stores, restaurants and other commercial establishments. Land used for facilities in support of commercial operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, parking, storage or shipping facilities.

(vii) *Recreation*. Land used for developed recreation facilities such as parks, camps and other developed recreational uses.

(viii) *Fish and wildlife habitat*. Land and water used wholly or partially for the production, protection or management of species of fish or wildlife.

(ix) *Developed water resources*. Includes land used for storing water for beneficial uses such as stockponds, irrigation, fire protection, flood control and water supply.

(x) *Unmanaged natural habitat*. Idle land which does not require a specific management plan after the reclamation and revegetation have been accomplished.

*Mine opening blasting*—Blasting conducted for the purpose of constructing a shaft, slope, drift or tunnel mine opening for an underground mine, either operating or under development, from the surface down to the point where the mine opening connects with the coal seam to be or being extracted.

*Moist bulk density*—The weight of soil (oven dry) per unit volume. Volume is measured when the soil is at field moisture capacity—1/3 bar moisture tension. Weight shall be determined after drying the soil at 105° C.

*Mulch*—Vegetation residue or other suitable materials that are placed on the soil surface to aid in soil stabilization and soil moisture conservation, thus providing microclimatic conditions suitable for seed germination and plant growth.

*Noxious plants*—Species that have been included on official State lists of noxious plants.

*Operation and maintenance costs*—All costs incurred by the water supply owner or water supply user associated with utilizing that supply for the purposes served. Examples of these costs include electricity, chemicals, treatment system maintenance, public water fees and equipment replacement costs.

*Outslope*—The face of the soil or embankment sloping downward from the highest elevation to the toe.

*Overburden*—The strata or material overlying a coal deposit or between coal deposits in its natural state and shall mean material before or after its removal by surface mining.

*Perennial stream*—A body of water flowing in a channel or bed composed primarily of substrates associated with flowing waters and is capable, in the absence of pollution or other manmade stream disturbances, of supporting a benthic macroinvertebrate community which is composed of two or more recognizable taxonomic groups of organisms which are large enough to be seen by the unaided eye and can be retained by a United States Standard No. 30 sieve (28 meshes per inch, 0.595 mm openings) and live at least part of their life cycles within or upon available substrates in a body of water or water transport system.

*Permanent diversion*—A diversion which is to remain after surface coal mining activities are completed which has been approved for retention by the Department.

*Permit area*—The land and water within the boundaries of the permit which are designated on the permit application maps, as approved by the Department. This area includes all areas which are or will be affected by the surface coal mining activities during the term of the permit.

*Precipitation event*—A quantity of water resulting from drizzle, rain, snow, sleet or hail in a limited period of time. It may be expressed in terms of recurrence interval. As used in this chapter, “precipitation event” also includes that quantity of water emanating from snow cover as snow melt in a limited period of time.

*Prime farmland*—Those lands which are defined by the Secretary of the Department of Agriculture in 7 CFR 657 (relating to prime and unique farmlands) and which have been historically used for cropland as that phrase is defined in this section.

*Recharge capacity*—The ability of the soils and underlying materials to allow precipitation and runoff to infiltrate and reach the zone of saturation.

*Reclamation*—Those actions taken to restore the area affected by surface mining activities as required by this chapter.

*Recurrence interval*—The interval of time in which a precipitation event is expected to occur once, on the average. For example, the 10-year, 24-hour precipitation event expected to occur on the average once in 10 years.

*SMCRA*—The Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19b).

*Safety factor*—The ratio of the available shear strength to the developed shear stress, or the ratio of the sum of the resisting forces to the sum of the loading or driving forces, as determined by accepted engineering practices.

*Sedimentation pond*—A primary sediment control structure designed, constructed and maintained in accordance with Subchapter E (relating to surface coal mines: minimum environmental protection performance standards) and including but not limited to a barrier, dam or excavated depression which detains water runoff to allow sediment to settle out. A sedimentation pond shall not include secondary sedimentation control structures such as straw dikes, rip-rap, check dams, mulches, dugouts and other measures that reduce overland flow velocity, reduce runoff volume or trap sediment, to the extent that the secondary sedimentation structures drain to a sedimentation pond.

*Slope*—Average inclination of a surface, measured from the horizontal, generally expressed as the ratio of a unit of vertical distance to a given number of units of horizontal distance (for example, 1v:5h). It may also be expressed as a percent or in degrees.

*Soil horizons*—Contrasting layers of soil parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The three major soil horizons are as follows:



(i) *A horizon*. The uppermost mineral layer, often called the surface soil or topsoil. It is the part of the soil in which organic matter is most abundant, and leaching of soluble salts and soil elements is typically the greatest.

(ii) *B horizon*. The layer that typically is immediately beneath the A horizon and often called the subsoil. This middle layer commonly contains more clay, iron or aluminum than the A or C horizons.

(iii) *C horizon*. The deepest layer of soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity and closely resembles the parent material.

*Soil survey*—A field classification and laboratory analysis resulting in a map showing the geographic distribution of different kinds of soils and an accompanying report that describes, classifies and interprets the soils for use. Soil surveys shall meet the standards of the National Cooperative Soil Survey.

*Spoil*—Overburden and reject material that has been removed during surface coal mining operations.

*Spoil pile*—The overburden and reject minerals as piled or deposited in surface mining.

*Stabilize*—To reduce movement of soil, spoil piles or areas of disturbed earth by modifying the geometry of the mass, or by otherwise modifying physical or chemical properties, such as by providing a protective surface coating.

*Steep slope*—A slope of more than 20° or such lesser slope as may be designated by the Department after consideration of soil, climate and other characteristics of the region.

*Stratum (strata)*—A section of geologic formation that consists throughout approximately the same kind of rock material; a stratum may consist of an indefinite number of beds.

*Substrates*—Inorganic sediments which are 0.05 millimeter in diameter or larger, and include sands, granules, pebbles, cobbles and boulders, based on Wentworth's Classification.

*Surface mining activities*—Any activities meeting the definition of "surface mining activities" as it is defined at 30 CFR 701.5, which is adopted in its entirety and incorporated herein by reference.

*Suspended solids*—Expressed as milligrams per liter, means organic or inorganic materials carried or held in suspension in water which are retained by a standard glass fiber filter in the procedure outlined by the regulations of the EPA for waste water and analyses, 40 CFR Part 136 (relating to guidelines establishing test procedures for the analysis of pollutants).

*Temporary diversion*—A diversion of a stream or overland flow which is used during surface coal mining activities and not approved by the Department to remain after reclamation as part of the approved postmining land use.

*Terracing*—Grading where the steepest contour of the highwall may not be greater than 35 degrees from the horizontal, with the table portion of the

restored area a nearly level plain without depressions to hold water and with adequate provision for drainage, unless otherwise approved by the Department.

*Topsoil*—The A soil horizon layer of the three major soil horizons.

*Toxic-forming materials*—Earth materials or waste which, if acted upon by air, water, weathering or microbiological processes, are likely to produce chemical or physical conditions in soils or water that are detrimental to biota or uses of water.

*Water supply*—For the purpose of §§ 87.47 and 87.119a (relating to alternative water supply information; and hydrologic balance: water rights and replacement), an existing, designated, or currently planned source of water, facility, or system for the supply of water for human consumption or for agricultural, commercial, industrial or other uses. Natural soil moisture utilized by vegetation or crops is not a water supply.

*Water supply owner*—Landowner or water supply company.

*Water table*—The upper surface of a zone of saturation, where the body of groundwater is not confined by an overlying impermeable zone.

#### Authority

The provisions of this § 87.1 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19b); The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. §§ 1406.1—1406.21); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); section 11 of the Noncoal Surface Mining Conservation and Reclamation Act (52 P.S. § 3311); sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P.S. §§ 510-17 and 510-20); and section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b).

#### Source

The provisions of this § 87.1 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; corrected August 21, 1992, effective November 3, 1990, 22 Pa.B. 4316; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2215; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355; amended August 21, 2015, effective August 22, 2015, 45 Pa.B. 4904; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508; amended June 25, 2021, effective June 26, 2021, 51 Pa.B. 3449. Immediately preceding text appears at serial pages (400900), (335799) to (335802), (378217) to (378218) and (400901) to (400903).

### § 87.2. Scope.

This chapter specifies certain specific procedures and rules for those who engage in surface mining activities. General rules and procedures for those who engage in surface mining activities are provided for in Chapter 86 (relating to surface and underground coal mining: general).

**Source**

The provisions of this § 87.2 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Subchapter B. [Reserved]**

**Cross References**

This subchapter cited in 25 Pa. Code § 88.505 (relating to approval or denial).



**§ 87.11. [Reserved].****Source**

The provisions of this § 87.11 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial pages (206759) to (206760).

**§ 87.12. [Reserved].****Source**

The provisions of this § 87.12 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (206760).

**§ 87.13. [Reserved].****Source**

The provisions of this § 87.13 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (206760).

**§ 87.14. [Reserved].****Source**

The provisions of this § 87.14 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial pages (206760) to (206762).

**§ 87.15. [Reserved].****Source**

The provisions of this § 87.15 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (206762).

**§ 87.16. [Reserved].****Source**

The provisions of this § 87.16 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial pages (206762) to (206763).

**§ 87.17. [Reserved].****Source**

The provisions of this § 87.17 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial pages (206763) to (206764).

**§ 87.18. [Reserved].****Source**

The provisions of this § 87.18 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (206764).

**§ 87.19. [Reserved].****Source**

The provisions of this § 87.19 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (206764).

**§ 87.20. [Reserved].****Source**

The provisions of this § 87.20 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial pages (206764) and (219211).

**Notes of Decisions**

Merely obtaining an interlocutory order for the remand on noise and dust pollution and a 2-month suspension of the permit does not qualify petitioner for award of fees and costs. *Kwalwasser v. Department of Environmental Resources*, 569 A.2d 422 (Pa. Cmwlth. 1990).

**§ 87.21. [Reserved].****Source**

The provisions of this § 87.21 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; reserved November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041. Immediately preceding text appears at serial page (219211).

**Subchapter C. SURFACE COAL MINES: MINIMUM  
REQUIREMENTS FOR INFORMATION ON  
ENVIRONMENTAL RESOURCES**

## Sec.

- 87.41. Responsibilities.
- 87.42. General environmental resource information.
- 87.43. Description of hydrology and geology: general requirements.
- 87.44. Geology description.
- 87.45. Groundwater information.
- 87.46. Surface water information.
- 87.47. Alternative water supply information.
- 87.48. Climatology information.
- 87.49. Vegetation information.
- 87.50. Fish and wildlife resource information.
- 87.52. Land use information.
- 87.53. Prime farmland investigation.
- 87.54. Maps, cross sections and related information.

**Cross References**

This subchapter cited in 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 87.201 (relating to scope); 25 Pa. Code § 87.204 (relating to application for authorization); 25 Pa. Code § 87.205 (relating to approval or denial); and 25 Pa. Code § 87.206 (relating to operational requirements).

**§ 87.41. Responsibilities.**

Each permit application shall contain a description of the existing, premining resources within the proposed permit and adjacent area that may be impacted or affected by the proposed surface mining activities. The description shall include all the information required in this subchapter.

**Source**

The provisions of this § 87.41 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services).

**§ 87.42. General environmental resource information.**

Each application shall describe and identify:

(1) The location and extent of the proposed surface mining activities for which a permit is being sought and an identification of the size, sequence and timing of those lands adjacent to the proposed permit area for which it is anticipated that individual permits for mining will be sought.

(2) The nature of archaeological, cultural and historic resources listed on or eligible for listing on the National Register of Historic Places and known archaeological sites within the permit and adjacent areas. The description shall be based on available information, including, but not limited to, data of the Historical and Museum Commission and local archaeological, historical and cultural preservation agencies. The Department may require the applicant to identify and evaluate important historic and archaeological resources that may be eligible for listing on the National Register of Historic Places, through one or more of the following:

- (i) The collection of additional information.
- (ii) The conducting of field investigations.
- (iii) Other appropriate analysis.

[Next page is 87-19.]



**Source**

The provisions of this § 87.42 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (158823) to (158824).

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services).

**§ 87.43. Description of hydrology and geology: general requirements.**

(a) Each application shall contain a description, in accordance with this section and §§ 87.44—87.47, of the geology, hydrology and water quality and quantity of lands within the proposed permit area, the adjacent area and the general area. The description shall include information on the characteristics of surface and groundwaters within the general area, and water which will flow into or receive discharges of water from the general area.

(b) Information on hydrology, water quality, and quantity and geology related to hydrology of areas outside the proposed permit area may be obtained from an appropriate Federal or State agency. If this information is not available from those agencies, the applicant may gather and submit this information to the Department as part of the permit application. However, the permit will not be approved until this information is made available in the application.

(c) The use of modeling or other predictive techniques may be included as part of the permit application, but the same surface and groundwater information may be required for each site as when models are not used.

**Source**

The provisions of this § 87.43 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services).

**§ 87.44. Geology description.**

Each application shall contain a description of the geology within the proposed permit and adjacent area down to and including the aquifer system that may be affected below the lowest coal seam to be mined including the following:

- (1) The stratigraphy and results of test borings from the proposed permit area, identifying the location of subsurface water if encountered, lithologic and physical characteristics, and thickness of each stratum and coal seam, and the actual surface elevation of the drill holes.
- (2) The structure within the proposed permit and its relation to the structure of the general area.

- (3) Chemical analyses of the coal and overburden or a request for a waiver. The Department may waive the chemical analysis after making a written determination that it has equivalent information in a satisfactory form.
- (4) Location, identification and status of other mining within or adjacent to the proposed permit area.
- (5) Other analysis or test borings within the proposed permit or adjacent area that the Department deems relevant for evaluation of the impact of the proposed activities on the hydrologic balance.

#### Source

The provisions of this § 87.44 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 87.43 (relating to description of hydrology and geology: general requirements); and 25 Pa. Code § 87.45 (relating to groundwater information).

### § 87.45. Groundwater information.

- (a) The application shall contain a description of the groundwater hydrology for the proposed permit and adjacent area, including, at a minimum:
  - (1) The depths to groundwater over the general area.
  - (2) The hydrologic characteristics of the strata described in § 87.44 (relating to geology description).
  - (3) The uses of the groundwater.
  - (4) The chemical characteristics of groundwaters in the area, including a description of known groundwater quality problems. At a minimum, water quality descriptions shall include total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, alkalinity, acidity and sulfates.
- (b) The application shall contain additional information which describes the storage and discharge characteristics of the groundwater for the permit and the adjacent area and the quality and quantity of groundwater, according to the parameters and in the detail required by the Department.

#### Authority

The provisions of this § 87.45 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.45 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (198932).

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 87.43 (relating to description of hydrology and geology: general requirements); and 25 Pa. Code § 87.69 (relating to protection of hydrologic balance).

**§ 87.46. Surface water information.**

(a) An application shall contain a description of the surface waters, including the name of the watershed which will receive water discharges, the location of surface water bodies, such as streams, lakes, ponds and deep mine discharges and seeps, the location of a water discharge into a surface body of water and descriptions of surface drainage systems sufficient to identify, in detail, the seasonal variations in water quantity and quality within the proposed permit and adjacent areas.

(b) Surface water information shall include the following:

(1) The surface elevations and rate of flow of springs, seeps and deep mine discharges located within and adjacent to the proposed permit area.

(2) Minimum, maximum and average discharge conditions which identify critical low flow and peak discharge rates or streams sufficient to identify seasonal variations.

(3) Water quality data to identify the characteristics of surface waters in, discharging into, or which will receive flows from surface water or groundwater from the proposed permit area, sufficient to identify seasonal variations, showing the following:

- (i) Total dissolved solids in milligrams per liter or specific conductance in micromhos per centimeter corrected to 25°C.
- (ii) Total suspended solids in milligrams per liter.
- (iii) Acidity in milligrams per liter.
- (iv) pH in standard units.
- (v) Total iron in milligrams per liter.
- (vi) Total manganese in milligrams per liter.
- (vii) Alkalinity in milligrams per liter.
- (viii) Sulfates in milligrams per liter.
- (ix) Total aluminum in milligrams per liter.
- (x) Other information as the Department determines relevant.

**Authority**

The provisions of this § 87.46 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.46 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198932) to (198933).

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 87.43 (relating to description of hydrology and geology: general requirements); and 25 Pa. Code § 87.69 (relating to protection of hydrologic balance).

**§ 87.47. Alternative water supply information.**

The application shall identify the extent to which the proposed surface mining activities may result in contamination, diminution or interruption of any water supply within the proposed permit or adjacent area. If contamination, pollution, diminution or interruption may result, then the description shall identify the means to restore or replace the affected water supply in accordance with § 87.119a (relating to hydrologic balance: water rights and replacement), including cost calculations. The Department will notify the owner of any potentially affected supply.

**Authority**

The provisions of this § 87.47 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of the Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.47 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 2021, effective June 26, 2021, 51 Pa.B. 3449. Immediately preceding text appears at serial page (336584).

**Notes of Decisions**

The Environmental Hearing Board properly found that the operator of a surface coal mine was required to permanently provide compensation for the increased maintenance costs of an adjacent property owner's well water supply and establish an individual trust or escrow account for such future costs. *Carlson Mining Co., Inc. v. Department of Environmental Resources*, 639 A.2d 1332 (Pa. Commw. 1994); appeal denied by 649 A.2d 676 (Pa. 1994).

**Cross References**

This section cited in 25 Pa. Code § 87.1 (relating to definitions); 25 Pa. Code § 87.43 (relating to description of hydrology and geology: general requirements); and 25 Pa. Code § 86.81 (relating to program services).

**§ 87.48. Climatology information.**

When requested by the Department, the application shall contain a statement of the climatological factors that are representative of the proposed permit and adja-

cent area. The statement shall contain the information the Department deems relevant to ensure compliance with the requirements of this chapter.

**Source**

The provisions of this § 87.48 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.49. Vegetation information.**

Each application shall contain a description of the extent of cover, in percent ground cover, of the natural vegetation within the proposed permit area. When the postmining land use is wildlife habitat, the description shall include information adequate to establish the stocking standards of § 87.155(b)(2)(iii) (relating to revegetation: standards for successful revegetation). When requested by the Department, the application shall contain a map or aerial photograph that delineates existing vegetation types and a description of the plant communities within the proposed permit and adjacent area.

**Source**

The provisions of this § 87.49 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.50. Fish and wildlife resource information.**

An application shall include fish and wildlife resource information for the proposed permit area and adjacent area.

(1) The scope and level of detail for the information shall be determined by the Department in consultation with State and Federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under § 87.84 (relating to fish and wildlife protection and enhancement plan).

(2) Site-specific resource information necessary to address the respective species or habitats are required when the proposed permit area or adjacent area is likely to include one or more of the following:

(i) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the United States Secretary of the Interior under the Endangered Species Act of 1973, act of December 28, 1973 (Pub. L. No. 93-205) (87 Stat. 884), or species or habitats protected by Pennsylvania law or regulations, including species listed as threatened or endangered by the Game Commission and the Fish Commission.

(ii) Habitats of unusually high value for fish and wildlife, such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes or reproduction and wintering areas.

(iii) Other species or habitats identified through agency consultation as requiring special protection under Pennsylvania or Federal law.

**Source**

The provisions of this § 87.50 adopted June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148620).

**Cross References**

This section cited in 25 Pa. Code § 87.84 (relating to fish and wildlife protection and enhancement plan).

**§ 87.52. Land use information.**

(a) Each application shall contain a statement and map of the uses, conditions, capability and productivity of the land within the proposed permit area, including:

(1) The uses of the land existing at the time of application and, if the land use has changed within 5 years prior to time of application, the prior use of the land; and if the land has been previously mined and not reclaimed, the uses which preceded any mining.

(2) The capability of the land prior to any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and hydrology.

(3) The productivity of cropland, pastureland, land occasionally cut for hay or commercial forestland, expressed as average yield of food, fiber, forage or wood products. The productivity shall be determined by yield data or estimates for similar sites based on current data from the United States Department of Agriculture or the Pennsylvania Department of Agriculture.

(b) Each application shall contain a description of the existing land uses and land use classifications under local law, if any, of the proposed permit and adjacent areas.

**Source**

The provisions of this § 87.52 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.65 (relating to maps and plans).

**§ 87.53. Prime farmland investigation.**

(a) The applicant shall conduct a preapplication investigation of the proposed permit area to determine whether lands within the area may be prime farmland.

(b) Land will not be considered prime farmland if the applicant can demonstrate one of the following:

(1) The land has not been historically used as cropland.

(2) Other factors exist, such as a very rocky surface, or the land is frequently flooded during the growing season, more often than once in 2 years, and the flooding has reduced crop yields.

(3) On the basis of a soil survey of lands within the permit area, there are no soil map units that have been designated prime farmland by the United States Natural Resources Conservation Service.

(c) If the investigation establishes that the lands are not prime farmland, the applicant shall submit with the permit application a request for a negative determination which shows that the land for which the negative determination is sought meets one of the criteria of subsection (b).

(d) If the investigation indicates that lands within the proposed permit area may be prime farmlands, the applicant shall contact the United States Natural Resources Conservation Service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for the lands within the proposed permit area, the applicant shall cause a survey to be made.

(1) When a soil survey, as required in this subsection, contains soil map units which have been designated as prime farmlands, the applicant shall submit a soil survey of the proposed permit area according to the standards of the National Cooperative Soil Survey and in accordance with the procedures in the *United States Department of Agriculture Handbooks 436* (Soil Taxonomy, 1975) and 18 (Soil Survey Manual, 1951) as amended. The soil survey shall include a map unit and representative soil profile description as determined by the United States Natural Resources Conservation Service for each prime farmland within the proposed permit area unless other representative descriptions from the locality, prepared in conjunction with the National Cooperative Soil Survey, are available and their use is approved by the State Conservationist, United States Natural Resources Conservation Service.

(2) When a soil survey, as required in this subsection, contains soil map units which have not been designated as prime farmland after review by the United States Natural Resources Conservation Service, the applicant shall submit a request for negative determination for nondesignated land with the permit soil survey establishing compliance with subsection (b).

#### Authority

The provisions of this § 87.53 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.53 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (239630) to (239631).

**Cross References**

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 87.83 (relating to prime farmlands); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

**§ 87.54. Maps, cross sections and related information.**

(a) A permit application shall contain maps and plans of the proposed permit and adjacent area showing the following:

(1) The boundaries and the name of present owners of record of land, both surface and subsurface, for the proposed permit and adjacent lands; and the boundaries of the land within the proposed permit area which the applicant has the legal right to enter and begin surface mining activities.

(2) The boundaries of the land to be affected.

(3) The boundaries of the areas proposed to be affected over the estimated total life of the proposed operation.

(4) The location, names of the owners and present occupants, and the current use of the buildings on and within 1,000 feet of the perimeter of the proposed permit area.

(5) The location and the names of public roads, railroads, utility lines and other surface and subsurface manmade features within or adjacent to the proposed permit area.

(6) The location and the name of current public and private surface water supplies that have intakes on the receiving stream within 10 miles downstream of the proposed permit area, public water supplies on or within 1/2 mile of the affected area and private water supplies on or within 1,000 feet of the proposed permit area.

(7) The location of monitoring stations and the location and elevation of springs and wells.

(8) The boundaries of land within the proposed permit or adjacent area identified in Chapter 86, Subchapter D (relating to areas unsuitable for mining) as unsuitable, limited or prohibited to mining.

(9) The boundaries of a public park and location of cultural or historical resources listed on or eligible for listing on the National Register of Historic Places and known archaeological sites within the permit and adjacent area.

(10) Each public or private cemetery or Indian burial ground located in or within the permit or adjacent area.

(11) Land within the proposed permit and adjacent area which is within the boundaries of the National Trails System or the Wild and Scenic Rivers Sys-



tem, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C.A. § 1276(a)).

(12) The drainage area above and below the proposed permit area and the location and names of the surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains, and irrigation ditches within the affected and adjacent areas.

(13) The municipality or township and county and, if in a township, the nearest municipality.

(14) The elevation and location of test borings and core samplings.

(15) The nature, depth and thickness of the coal or rider seams and each stratum of overburden to the depth of the stratum immediately below the lowest coal seam to be mined.

(16) All coal crop lines, and the strike and dip of the coal to be mined.

(17) The ownership, if known, location and extent of known workings of active, inactive and abandoned underground mines including mine openings, and the extent of deep mine pools and discharge points to the surface within the proposed permit and adjacent areas.

(18) The location and extent of existing or previously surface-mined areas.

(19) The location and areal extent of existing areas of spoil, waste and non-coal waste disposal, dams, embankments, other water treatment and air pollution control facilities within the proposed permit area.

(20) The location and depth, if available, of gas and oil wells within the proposed permit area.

(21) Sufficient slope measurements to adequately represent the existing land surface configuration of the proposed permit area, measured and recorded according to the following:

(i) Each measurement shall consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed, or, when this is impractical, at locations specified by the Department.

(ii) The measurements shall extend at least 100 feet beyond the limits of mining disturbances, or another distance determined by the Department to be representative of the premining configuration of the land, when the area has been previously mined.

(iii) Slope measurement shall take into account natural variations in slope, to provide accurate representation of the range of natural slopes and reflect geomorphic differences of the area to be disturbed.

(22) The location of each haul road and access road and appropriate cross sections, design drawings and specifications for road widths, gradients, surfacing materials, cuts, fill embankments, culverts, bridges, drainage ditches and drainage structures for each road to be constructed, used or maintained within the proposed permit area, but not including roads within the pit or on unreclaimed spoil areas.

(23) Other information the Department deems relevant.

(b) Maps, plans and cross sections required by this section shall be accurately surveyed and on a scale satisfactory to the Department, not less than 1:25,000 and in a manner satisfactory to the Department. The maps or plans and cross sections shall be prepared and certified by a qualified registered professional engineer, qualified registered land surveyor or qualified registered professional geologist with assistance from experts in related fields.

#### Authority

The provisions of this § 87.54 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.54 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198937) to (198938).

#### Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); and 25 Pa. Code § 86.261 (relating to program services).

### **Subchapter D. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR OPERATION AND RECLAMATION PLAN**

Sec.	
87.61.	Requirements.
87.62.	Operational information.
87.63.	Existing structures.
87.64.	Blasting plan.
87.65.	Maps and plans.
87.66.	Air pollution control plan.
87.68.	Reclamation information.
87.69.	Protection of hydrologic balance.
87.70.	Erosion and sedimentation control plan.
87.71.	Stream diversions, water obstructions and encroachments.
87.72.	Diversions.
87.73.	Dams, ponds, embankments and impoundments.
87.74.	Coal refuse disposal.
87.75.	Postmining land uses.
87.76.	Surface mining near underground mining.
87.77.	Protection of public parks and historic places.
87.78.	Public roads.
87.79.	Disposal of excess spoil.

- 87.80. Haul roads, access roads and other transportation facilities.
- 87.81. Steep slope operations.
- 87.82. Auger mining.
- 87.83. Prime farmlands.
- 87.84. Fish and wildlife protection and enhancement plan.

#### **Cross References**

This subchapter cited in 25 Pa. Code § 87.201 (relating to scope); 25 Pa. Code § 87.204 (relating to application for authorization); 25 Pa. Code § 87.205 (relating to approval or denial); 25 Pa. Code § 87.206 (relating to operational requirements); and 25 Pa. Code § 90.91 (relating to requirements).

### **§ 87.61. Requirements.**

As part of each permit application, the applicant shall provide a detailed description of the surface mining activities showing the manner in which the provisions of this chapter will be met. The description shall include, at a minimum, the information required in this subchapter.

#### **Source**

The provisions of this § 87.61 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### **Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

### **§ 87.62. Operational information.**

An application shall contain a description of the surface mining activities proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, the following:

- (1) A description of the type and method of coal mining procedures, proposed engineering techniques and the major equipment to be used.
- (2) An explanation of the construction, modification, use, maintenance and removal of the following facilities—unless retention of the facilities is approved for postmining land use under § 87.159 (relating to postmining land use):
  - (i) Dams, embankments and other impoundments.
  - (ii) Overburden and topsoil handling and storage area and structures.
  - (iii) Coal removal, handling, storage, cleaning and transportation area and structures.
  - (iv) Spoil, coal processing waste and noncoal waste removal, handling, storage, transportation and disposal areas and structures.
  - (v) Mine facilities.
  - (vi) Water and air pollution control facilities.
  - (vii) Erosion control facilities.

(3) A description or explanation of the relative sequence of surface mining activities, including the relative timing of various phases and the estimated life of the mine.

(4) A demonstration that the notification requirements of § 86.31(e) (relating to public notices of filing of permit applications) have been satisfied.

#### Source

The provisions of this § 87.62 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (219217) to (219218).

#### Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services).

### § 87.63. Existing structures.

(a) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the surface coal mining and reclamation operation, including the following:

(1) Location.

(2) Plans of the structure which describe its current condition.

(3) Approximate dates on which construction of the existing structures was begun and completed.

(4) A showing, including relevant monitoring data or other evidence, whether the structure meets the performance standards of Subchapter E (relating to surface coal mines: minimum environmental protection performance standards) or design requirements of Subchapter E.

(b) Each application shall contain a compliance plan for existing structures to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation. The compliance plan shall include:

(1) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of Subchapter E.

(2) A construction schedule which shows dates for beginning and completing interim steps and final reconstruction.

(3) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of Subchapter E are met.

(4) A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

#### Source

The provisions of this § 87.63 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.64. Blasting plan.**

(a) An application shall contain a blasting plan for the proposed permit area, explaining how the applicant intends to comply with §§ 87.124—87.129 and including the following:

- (1) Drilling patterns, including size, number, depths and spacing of holes.
- (2) Charge and packing of holes.
- (3) Types of initiation and detonation controls.
- (4) Sequence and timing of firing holes.

(b) The blast plan shall be prepared and signed by a certified blaster licensed to conduct general blasting under Chapter 210 (relating to blasters' license).

**Source**

The provisions of this § 87.64 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148627) to (148628).

**Cross References**

This section cited in 25 Pa. Code § 87.127 (relating to use of explosives: surface blasting requirements); and 25 Pa. Code § 90.43 (relating to blasting plan).

**§ 87.65. Maps and Plans.**

(a) An application shall contain maps and plans of the proposed permit and adjacent area showing the following:

- (1) The boundaries of lands proposed to be affected over the estimated total life of the proposed operation and the sequence of mining and reclamation.
- (2) Changes in a facility or feature to be caused by the proposed operation for the facility or feature identified under § 87.52 (relating to land use information).
- (3) Buildings, utility corridors and facilities which will be used in the operation.
- (4) Areas of land for which a bond will be posted under Chapter 86, Subchapter F (relating to bonding and insurance requirements).
- (5) Coal storage, cleaning and loading areas.
- (6) Topsoil, spoil, coal waste and noncoal waste storage areas.
- (7) Water diversion, collection, conveyance, sedimentation and erosion control, treatment, storage and discharge facilities to be used.
- (8) Air pollution collection and control facilities, if required.
- (9) Sources of waste and waste disposal facilities relating to coal processing or pollution control.

(10) Facilities to be used to protect and enhance fish and wildlife and related environmental values.

(11) Explosive storage and handling facilities.

(12) The location of each sedimentation pond, permanent water impoundment, coal processing waste bank, coal processing waste dam and embankment and fill area for the disposal of excess spoil in accordance with §§ 87.73, 87.74 and 87.79 (relating to dams, ponds, embankments and impoundments; coal refuse disposal; and disposal of excess spoil).

(b) Maps, plans and cross sections required by this section shall be on a scale satisfactory to the Department, but at least 1:25,000 and in a manner satisfactory to the Department. The maps or plans and cross sections shall be prepared and certified by a qualified registered professional engineer, qualified registered professional land surveyor or qualified registered professional geologist with assistance from experts in related fields.

#### Authority

The provisions of this § 87.65 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.65 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198942) to (198943).

#### Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services).

### § 87.66. Air pollution control plan.

The description shall include an air pollution control plan which includes the following:

(1) A plan for fugitive dust control practices, as required under § 87.137 (relating to air resources protection), and if applicable, how the requirements of Chapters 123 and 127 (relating to standards for contaminants; and construction, modification, reactivation and operation of sources) will be met.

(2) If required by the Department, an air quality control monitoring program to provide sufficient data to evaluate the effectiveness of the air pollution control plan.

#### Source

The provisions of this § 87.66 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.68. Reclamation information.**

An application shall contain a plan for the reclamation of the lands within the proposed permit area, including, at a minimum, the following information:

- (1) A timetable for the accomplishment of each major step in the reclamation plan.
- (2) An estimate of the cost of reclamation of the proposed operation to be covered by a bond under Chapter 86, Subchapter F (relating to bonding and insurance requirements) with supporting calculations for the estimates.
- (3) A plan for backfilling, soil stabilization, compacting and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with §§ 87.141, 87.142, 87.144 and 87.145.
- (4) A plan for removal, storage and redistribution of topsoil, subsoil and other material to meet the requirements of §§ 87.96—87.100.
- (5) A plan for revegetation as required in §§ 87.147—87.153, 87.155 and 87.156, including, but not limited to, descriptions of the following:
  - (i) The schedule for revegetation.
  - (ii) The species and amounts per acre of seeds and seedlings to be used.
  - (iii) The method to be used in planting and seeding.
  - (iv) Mulching techniques, if required by the Department.
  - (v) Irrigation, if appropriate, and pest and disease control measures.
  - (vi) Techniques proposed to be used to determine the success of revegetation as required in § 87.156 (relating to revegetation: techniques and frequency of measurement).
  - (vii) A soil testing plan for determining nutrients and soil amendments as required by § 87.100 (relating to topsoil: nutrients and soil amendments).
- (6) A description of measures to be employed to ensure that debris, acid-forming and toxic-forming materials and materials constituting a fire hazard are disposed of in accordance with §§ 87.136 and 87.145 (relating to disposal of noncoal wastes; and backfilling and grading: covering coal and acid-forming and toxic-forming materials), and a description of the contingency plans which have been developed to preclude sustained combustion of the materials.
- (7) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case or manage exploration holes, other bore holes, wells and other openings within the proposed permit area, in accordance with § 87.93 (relating to casing and sealing of drilled holes).

**Source**

The provisions of this § 87.68 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 11, 1992, effective December 12, 1992, 22 Pa.B. 5945. Immediately preceding text appears at serial pages (158837) to (158838).

**Cross References**

This section cited in 25 Pa. Code § 86.149 (relating to determination of bond amount); 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 87.141 (relating to backfilling and grading: general requirements); 25 Pa. Code § 87.147 (relating to revegetation: general requirements); and 25 Pa. Code § 87.149 (relating to revegetation: introduced species).

**§ 87.69. Protection of hydrologic balance.**

(a) Each application shall contain a detailed description, with appropriate maps and cross sections of the measures to be taken during and after the proposed surface mining activities in accordance with Subchapter E (relating to surface coal mines: minimum environmental protection performance standards), to ensure the protection of the quality and quantity of surface and groundwater systems, both within the proposed permit and adjacent areas, from the adverse effects of the proposed surface mining activities, and the rights of present users of surface and groundwater.

(b) Each application shall also contain the following:

(1) A plan for the control, in accordance with Subchapter E, of surface and groundwater drainage into, through and out of the proposed permit and adjacent area.

(2) A plan for the treatment, in accordance with Subchapter E, if necessary, of surface and groundwater drainage from the area to be disturbed by the proposed activities to meet the effluent standards in accordance with § 87.102 (relating to hydrologic balance: effluent standards).

(3) A plan for the restoration of the approximate recharge capacity of the permit and adjacent area in accordance with § 87.115 (relating to hydrologic balance: protection of groundwater recharge capacity).

(4) A plan for the collection, recording and reporting of groundwater and surface water quality and quantity data in accordance with §§ 87.116 and 87.117 (relating to hydrologic balance: groundwater monitoring; and hydrologic balance: surface water monitoring). The plan shall identify monitoring locations and sampling frequency, and logically relate to the determination of probable hydrologic consequences in paragraph (5).

(5) A determination of the probable hydrologic consequences of the proposed surface mining activities, on the proposed permit and adjacent area, with respect to the hydrologic regime and the quantity and quality of water in surface and groundwater systems under all seasonal conditions. The determination



shall address the parameters measured in accordance with §§ 87.45 and 87.46 (relating to groundwater information; and surface water information).

**Authority**

The provisions of this § 87.69 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.69 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198944) to (198945).

**Cross References**

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 87.117 (relating to hydrologic balance: surface water monitoring).

**§ 87.70. Erosion and sedimentation control plan.**

Each application shall contain the necessary information to demonstrate how the proposed sediment control measures for the surface mining and reclamation operation will meet the requirements of Chapter 102 (relating to erosion and sediment control) and the additional sediment control requirements of § 87.106 (relating to hydrologic balance: sediment control measures).

**Source**

The provisions of this § 87.70 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.71. Stream diversions, water obstructions and encroachments.**

Each application shall contain the necessary information to demonstrate how each proposed water obstruction and encroachment will meet the requirements of Chapter 105 (relating to dam safety and waterway management) and § 87.104 (relating to stream channel diversions).

**Source**

The provisions of this § 87.71 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.72. Diversions.**

Each application shall show the manner in which the applicant plans to divert water from entering the operation in accordance with § 87.105 (relating to hydrologic balance: diversions).

**Source**

The provisions of this § 87.72 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.73. Dams, ponds, embankments and impoundments.**

(a) An application shall contain a general plan and a detailed design for each temporary and permanent dam, pond, embankment and impoundment, and coal refuse dam or embankment within the proposed permit area.

(b) The general plan shall contain the following:

(1) A description, map and cross section of the structure and its location.

(2) Preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure.

(3) A survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred.

(4) A certification statement which includes a schedule setting forth the dates that detailed design plans for structures that are not submitted with the initial application. The detailed design of the structure shall be approved by the Department, in writing, before construction of the structure begins.

(c) The detailed design plan for a structure shall:

(1) Be prepared by, or under the direction of, and certified by a qualified registered professional engineer with assistance, as necessary, from experts in related fields such as geology, land surveying and landscape architecture, when a permit under Chapter 105 (relating to dam safety and waterway management) is required or when impoundments meet or exceed MSHA size classification or other criteria of 30 CFR 77.216(a) (relating to water sediment or slurry impoundment and impounding structures; general). When a permit under Chapter 105 is not required or when impoundments do not meet or exceed the MSHA size classification or other criteria of 30 CFR 77.216(a) (relating to water sediment or slurry impoundment and impounding structures; general), the detailed design plan shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer or qualified registered land surveyor.

(2) Include design and construction requirements for each structure, including required geotechnical information.

- (3) Describe the operation and maintenance requirements for each structure.
- (4) Describe the timetable and plans to remove each structure, if appropriate. An impounding structure constructed of coal refuse or used to impound coal refuse may not be retained permanently as part of the approved postmining land use, unless it develops into a fill meeting the construction requirements of § 90.122 (relating to coal refuse disposal).
- (5) Include a stability analysis if the structure is more than 20 feet in height as measured from the upstream toe of the embankment to the crest of the emergency spillway or has a storage volume of more than 20 acre feet.
- (d) The detailed design of sedimentation ponds shall include the information required by § 87.108 (relating to hydrologic balance: sedimentation ponds).
- (e) The detailed design of a coal processing waste dam or embankment shall include the information required by Chapter 90 (relating to coal refuse disposal).

#### Authority

The provisions of this § 87.73 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.73 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198946) to (198947).

#### Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 87.65 (relating to maps and plans).

### § 87.74. Coal refuse disposal.

Each application shall include the necessary information to demonstrate how the proposed disposal of coal refuse will meet the requirements of Chapter 90 (relating to coal refuse disposal).

#### Source

The provisions of this § 87.74 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 87.65 (relating to maps and plans).

**§ 87.75. Postmining land uses.**

(a) Each application shall contain a detailed description of the proposed use, following reclamation of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the use to existing land use policies and plans. The description shall explain:

(1) How the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use.

(2) When pastureland is the postmining use, the detailed management plans to be implemented.

(3) When a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under § 87.159 (relating to postmining land use).

(4) The consideration which has been given to making all of the proposed surface mining activities consistent with surface owner plans and applicable Commonwealth and local land use plans and programs.

(b) If an alternate land use is proposed, the description shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the Commonwealth and local government agencies which would have to initiate, implement, approve or authorize the proposed use of the land following reclamation.

**Source**

The provisions of this § 87.75 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 87.159 (relating to postmining land use).

**§ 87.76. Surface mining near underground mining.**

For surface mining activities within the proposed permit area to be conducted within 500 feet to any point of either an active or abandoned underground mine, the application shall describe the measures to be used to comply with §§ 87.124—87.129 and 87.135.

**Source**

The provisions of this § 87.76 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.77. Protection of public parks and historic places.**

(a) For publicly owned parks or historic places listed on the National Register of Historic Places that may be adversely affected by the proposed operations, each application shall describe the measures to be used to accomplish the following:

(1) Prevent adverse impacts and meet the requirements of Chapter 86, Subchapter D (relating to areas unsuitable for mining).

(2) Minimize adverse impacts, if valid existing rights exist or joint agency approval is to be obtained under Chapter 86, Subchapter D.

(b) The Department may require the applicant to protect historic or archaeological properties listed on or eligible for listing on the National Register of Historic Places through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance. The required measures shall be completed before the properties are affected by surface mining activity.

**Source**

The provisions of this § 87.77 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (239639).

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services); and 25 Pa. Code § 86.261 (relating to program services).

**§ 87.78. Public roads.**

Each application shall include a description and necessary drawings, approved by the Department of Transportation or the municipality having jurisdiction of the road, if the applicant proposes to relocate a public road or conduct surface mining activities within 100 feet of the right-of-way of any public road, except where the mine access joins that right-of-way.

**Source**

The provisions of this § 87.78 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services); and 25 Pa. Code § 86.261 (relating to program services).

**§ 87.79. Disposal of excess spoil.**

(a) Each application shall contain a description, including appropriate maps and cross sections, of the proposed disposal site and design of the spoil disposal structures according to § 87.131 (relating to disposal of excess spoil). The

description shall include the geotechnical investigation, design, construction, operation, maintenance and removal, if appropriate, of the site and structures.

(b) The geotechnical investigation of the proposed disposal site shall include the following:

(1) The character of bedrock and any adverse geologic condition in the disposal area.

(2) A survey identifying all springs, seepage and groundwater flow observed or anticipated during wet periods in the area of the disposal site.

(3) A survey of the potential effects of subsidence of the subsurface strata due to past and future mining operations.

(4) A technical description of the rock materials to be utilized in the construction of those disposal facilities underlain by a rock drainage blanket.

(5) A stability analysis including, but not limited to, strength parameters, pore pressures and long-term seepage conditions. These data shall be accompanied by a description of all engineering design assumptions and calculations and the alternatives considered in selecting the specific design specifications and methods.

(c) If rock-toe buttresses or key-way cuts are required according to § 87.131(k), the description shall include the following:

(1) The number, location and depth of or test pits with respect to the size of the spoil disposal structures and subsurface conditions.

(2) Design parameters utilized to design the rock-toe buttress or key-way cuts.

#### Source

The provisions of this § 87.79 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 87.65 (relating to maps and plans); and 25 Pa. Code § 87.131 (relating to disposal of excess spoil).

### § 87.80. Haul roads, access roads and other transportation facilities.

For each haul road, access road or other transportation facility, the application shall contain a description of the road or facility and appropriate maps, plans, cross-sections and specifications to demonstrate compliance with §§ 87.160 and 87.166 (relating to haul roads and access roads; and haul roads and access roads: restoration); or § 87.172 (relating to other transportation facilities).

#### Source

The provisions of this § 87.80 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.81. Steep slope operations.**

For surface mining activities to be conducted on steep slopes, the application shall contain sufficient information to establish that the operation will be conducted in compliance with the requirements of § 87.174 (relating to steep slope operations). When a variance from regrading the land to approximate original contour is requested, the application shall contain sufficient information to establish that the operation will be conducted in compliance with the requirements of § 87.175 (relating to variance to contouring).

**Source**

The provisions of this § 87.81 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.82. Auger mining.**

For surface mining activities utilizing augering operations, the application shall contain a description of the augering methods to be used and sufficient information to demonstrate compliance with § 87.176 (relating to auger mining).

**Source**

The provisions of this § 87.82 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.261 (relating to program services).

**§ 87.83. Prime farmlands.**

A person who conducts, or intends to conduct, surface coal mining and reclamation operations on prime farmland historically used for cropland shall submit a plan, as part of the permit application, for the mining and restoration of the land. The plan shall contain at a minimum:

- (1) The proposed method and type of equipment to be used for removal, storage and replacement of the soil in accordance with §§ 87.177—87.181.
- (2) The proposed measures to be taken during soil reconstruction to prevent excessive compaction and achieve soil bulk densities which will result in the restored area returned to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management.
- (3) The location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before distribution.

(4) If applicable, documentation, such as agricultural school studies or other scientific data from comparable areas, that supports the use of other suitable material, instead of the B or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as nonmined prime farmlands in the surrounding area under equivalent levels of management.

(5) Plans for seeding or cropping the final graded disturbed land and the conservation practices to be used to adequately control erosion and sedimentation and restoration of an adequate soil moisture regime, during the period from completion of regrading until release of the bond under Chapter 86 Subchapter F (relating to bonding and insurance requirements). Proper adjustments for seasons shall be proposed so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions.

(6) Available agricultural school studies or other scientific data for areas with comparable soils, climate and management—including water management—that demonstrate that the proposed method of reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining.

(7) A soil survey with description of soil mapping units and representative soil profile under § 87.53(d)(1) (relating to prime farmland investigation). The soil profile description shall include, but not be limited to, soil horizon depths, pH and range of soil densities for each prime farmland soil unit within the proposed permit area. The Department may require the applicant to provide information on other physical and chemical soil properties as needed to make a determination that the operator has the technological capability to restore the prime farmland within the permit area to the soil reconstruction standards of §§ 87.178—87.181.

#### Source

The provisions of this § 87.83 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148637) to (148638).

#### Cross References

This section cited in 25 Pa. Code § 87.177 (relating to prime farmland: special requirements); 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

### § 87.84. Fish and wildlife protection and enhancement plan.

(a) An application shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act of 1973, act of



December 28, 1973 (Pub. L. No. 93-205) (87 Stat. 884), during the surface mining activities and how enhancement of these resources will be achieved where practicable. This description shall:

- (1) Be consistent with the requirements of § 87.138 (relating to protection of fish, wildlife and related environmental values).
- (2) Apply, at a minimum, to species and habitats identified under § 87.50 (relating to fish and wildlife resource information).
- (3) Include the following:
  - (i) Protective measures that will be used during the active mining phase of operation. The measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines and the monitoring of surface water quality and quantity.
  - (ii) Enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. The measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover and the replacement of perches and nest boxes. If the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.
- (b) The Department will provide the resource information required under § 87.50 and the protection and enhancement plan required under subsection (a) to the Game Commission and the Fish Commission for their review. Upon request during the comment period, the Department will furnish the same information to the United States Department of the Interior, Fish and Wildlife Service Regional or Field Office. This information will be provided within 10 days of receipt of the request from the Service.

**Source**

The provisions of this § 87.84 adopted June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148639).

**Cross References**

This section cited in 25 Pa. Code § 86.81 (relating to program services); and 25 Pa. Code § 87.50 (relating to fish and wildlife resource information).

**Subchapter E. SURFACE COAL MINES:  
MINIMUM ENVIRONMENTAL PROTECTION  
PERFORMANCE STANDARDS**

Sec.	
87.91.	Requirements.
87.92.	Signs and markers.
87.93.	Casing and sealing of drilled holes.
87.94.	[Reserved].
87.95.	[Reserved].

- 87.96. Topsoil: general requirements.
- 87.97. Topsoil: removal.
- 87.98. Topsoil: storage.
- 87.99. Topsoil: redistribution.
- 87.100. Topsoil: nutrients and soil amendments.
- 87.101. Hydrologic balance: general requirements.
- 87.102. Hydrologic balance: effluent standards.
- 87.103. Precipitation event exemption.
- 87.104. Stream channel diversions.
- 87.105. Hydrologic balance: diversions.
- 87.106. Hydrologic balance: sediment control measures.
- 87.107. Hydrologic balance: treatment facilities.
- 87.108. Hydrologic balance: sedimentation ponds.
- 87.109. Hydrologic balance: discharge structures.
- 87.110. Hydrologic balance: acid-forming and toxic-forming spoil.
- 87.111. Hydrologic balance: impoundments.
- 87.112. Hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance.
- 87.113. Hydrologic balance: coal processing waste dams and embankments.
- 87.114. [Reserved].
- 87.115. Hydrologic balance: protection of groundwater recharge capacity.
- 87.116. Hydrologic balance: groundwater monitoring.
- 87.117. Hydrologic balance: surface water monitoring.
- 87.118. [Reserved].
- 87.119. [Reserved].
- 87.119a. Hydrologic balance: water rights and replacement.
- 87.120. Hydrologic balance: discharge of water into an underground mine.
- 87.121. Hydrologic balance: permanent postmining renovation of sedimentation ponds, diversions, impoundments and treatment facilities.
- 87.122. [Reserved].
- 87.123. Utilization and conservation of coal.
- 87.124. Use of explosives: general requirements.
- 87.125. Use of explosives: preblasting survey.
- 87.126. Use of explosives: public notice of blasting schedule.
- 87.127. Use of explosives: surface blasting requirements.
- 87.129. Use of explosives: records of blasting operations.
- 87.131. Disposal of excess spoil.
- 87.135. Protection of underground mining.
- 87.136. Disposal of noncoal wastes.
- 87.137. Air resources protection.
- 87.138. Protection of fish, wildlife and related environmental values.
- 87.139. Slides and other damages.
- 87.140. Contemporaneous reclamation.
- 87.141. Backfilling and grading: general requirements.
- 87.142. Backfilling and grading: re-affecting previously mined lands.
- 87.143. [Reserved].
- 87.144. Backfilling and grading: final slopes.
- 87.145. Backfilling and grading: covering coal and acid-forming and toxic-forming materials.
- 87.146. Regrading or stabilizing rills and gullies.
- 87.147. Revegetation: general requirements.

- 87.148. Revegetation: timing.
- 87.149. Revegetation: introduced species.
- 87.150. Revegetation: agriculture crops.
- 87.151. Revegetation: species.
- 87.152. Revegetation: seedbed preparation.
- 87.153. Revegetation: mulching.
- 87.154. [Reserved].
- 87.155. Revegetation: standards for successful revegetation.
- 87.156. Revegetation: techniques and frequency of measurement.
- 87.157. Cessation of operations: temporary.
- 87.158. Cessation of operations: permanent.
- 87.159. Postmining land use.
- 87.160. Haul roads and access roads.
- 87.161. [Reserved].
- 87.162. [Reserved].
- 87.163. [Reserved].
- 87.164. [Reserved].
- 87.165. [Reserved].
- 87.166. Haul roads and access roads: restoration.
- 87.167. [Reserved].
- 87.168. [Reserved].
- 87.169. [Reserved].
- 87.170. [Reserved].
- 87.171. [Reserved].
- 87.172. Other transportation facilities.
- 87.173. Support facilities and utility installations.
- 87.174. Steep slope operations.
- 87.175. Variance to contouring.
- 87.176. Auger mining.
- 87.177. Prime farmland: special requirements.
- 87.178. Prime farmland: soil removal.
- 87.179. Prime farmland: soil stockpiling.
- 87.180. Prime farmland: soil replacement.
- 87.181. Prime farmland: revegetation.

#### **Cross References**

This subchapter cited in 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 87.1 (relating to definitions); 25 Pa. Code § 87.63 (relating to existing structures); 25 Pa. Code § 87.69 (relating to protection of hydrologic balance); 25 Pa. Code § 87.201 (relating to scope); 25 Pa. Code § 87.204 (relating to application for authorization); 25 Pa. Code § 87.205 (relating to approval or denial); and 25 Pa. Code § 87.206 (relating to operational requirements).

#### **§ 87.91. Requirements.**

Each person who conducts surface coal mining activities shall comply with the performance standards and design requirements of this subchapter.

#### **Source**

The provisions of this § 87.91 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.92. Signs and markers.**

(a) Each person who conducts surface mining activities shall identify the operation for the duration of the surface mining activities by posting and maintaining a sign which will be clearly visible at the junction of each haul road and public road. The sign shall be constructed of a durable, weather-resistant material and shall be of a minimum size of 2 feet by 3 feet with a light background and contrasting letters and numbers of a minimum height of 1 1/2 inches that can be easily seen and read. The sign shall show the name, business address and telephone number of the person who conducts the surface mining activities and the identification number of the current permit authorizing surface mining activities.

(b) Perimeter, buffer zone and topsoil markers shall:

- (1) Be posted and maintained during the duration of the surface mining activities to which they pertain.
- (2) Be clearly visible, readable and uniform throughout the operation.
- (3) Be made of durable material.
- (4) Conform to local zoning ordinances and codes.

(c) The perimeter of a permit area shall be clearly marked before the beginning of surface mining activities.

(d) Stream buffer zones shall be marked along the boundaries of the areas not to be disturbed as required under § 86.102 (relating to areas where mining is prohibited or limited).

(e) When topsoil or other vegetation-supporting material is segregated and stockpiled as required under § 87.98 (relating to topsoil: storage), the stockpiled material shall be clearly marked.

(f) If blasting is conducted as part of the operation, the person who conducts the surface mining activities shall post and maintain signs and markers as required by § 87.127 (relating to use of explosives: surface blasting requirements).

(g) Groundwater and surface water monitoring locations and sampling points used to obtain background information shall be clearly marked and identified. The identification of monitoring locations and sampling points shall correspond with the identification used in the permit application. Markers used to identify monitoring locations shall be made of durable material. The Department may waive marking requirements in cases where the monitoring location or sampling point is obvious or where marking would be objectionable for aesthetic reasons.

**Authority**

The provisions of this § 87.92 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); the Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.1—1406.21); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.92 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198955) to (198956).

**§ 87.93. Casing and sealing of drilled holes.**

(a) Each exploration hole, other drill or borehole, well or other exposed underground opening (except for holes solely drilled and used for blasting) shall be cased, sealed or otherwise managed as approved by the Department in order to:

- (1) Prevent acid or other toxic drainage from entering groundwaters or surface waters.
- (2) Minimize disturbance to the prevailing hydrologic balance.
- (3) Ensure the safety of people, property, livestock, fish and wildlife and machinery in the permit and adjacent area.
- (4) Prevent groundwater and surface water from entering underground mine workings.

(b) If these openings are uncovered or exposed by surface mining activities within the permit area, they shall be permanently closed unless approved for water monitoring, or otherwise managed in a manner approved by the Department.

(c) Use of a drilled hole, borehole or monitoring well as a water well shall meet the provisions of § 87.117 (relating to hydrologic balance: surface water monitoring).

(d) Gas and oil wells shall be sealed in accordance with the Oil and Gas Act (58 P. S. §§ 601.101—601.605).

(e) A solid barrier of undisturbed earth, 125 feet (38.1 meters) in radius shall be maintained around all oil and gas wells, except in the case of one of the following:

- (1) The well is sealed in accordance with subsection (d).
- (2) The Department approves, in writing, a lesser distance, if:
  - (i) Access to the well is provided at all times.
  - (ii) The integrity of the well is maintained.
  - (iii) The measures included in the permit to minimize damage, destruction or disruption of services under § 87.173(b) (relating to support facilities and utility installations) are implemented.

**Authority**

The provisions of this § 87.93 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.93 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206794) to (206795).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); and 25 Pa. Code § 86.134 (relating to coal exploration performance and design standards).

**§ 87.94. [Reserved].****Source**

The provisions of this § 87.94 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.95. [Reserved].****Source**

The provisions of this § 87.95 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.96. Topsoil: general requirements.**

All topsoil and, if necessary, suitable subsoil shall be separately removed, segregated, conserved and redistributed on areas affected by the surface mining activities.

**Source**

The provisions of this § 87.96 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); and 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration).

**§ 87.97. Topsoil: removal.**

(a) All topsoil shall be removed from the areas to be disturbed in a separate layer prior to drilling, blasting, mining or other surface disturbance. A vegetative cover which would interfere with the removal and use of the topsoil shall be removed prior to topsoil removal.

(b) In the event removal of vegetative matter, topsoil or other materials may result in erosion which may cause air or water pollution, the size of the area from which topsoil is removed at any one time shall be limited and other measures shall be taken that the Department may approve or require to control erosion.

(c) If topsoil is less than 12 inches (30.48 centimeters), a 12-inch (30.48 centimeters) layer which includes the topsoil and the unconsolidated materials immediately below the topsoil shall be removed, segregated, conserved and replaced as the final surface soil layer. If the topsoil and the unconsolidated material measure less than 12 inches (30.48 centimeters), the topsoil and all unconsolidated material shall be removed, segregated, conserved and replaced as the final surface soil layer.

(d) On areas that have been previously affected by mining and which have no available topsoil or subsoil, sufficient material best suited to support vegetation shall be segregated, conserved and redistributed as the final surface layer.

(e) The B horizon and portions of the C horizon, or other underlying layers demonstrated to have qualities for comparable root development, shall be segregated and replaced as subsoil if either of these is necessary to ensure soil productivity consistent with the approved postmining land use.

(f) When approved by the Department in writing, other materials may be substituted for or used as a supplement to topsoil if the operator demonstrates that the resulting soil medium is equal to or more suitable than topsoil for sustaining vegetation and soil productivity. In making this demonstration, the Department may require chemical and physical analyses of the substituted material and topsoil. These analyses may include determinations of pH, net acidity or alkalinity, phosphorus, potassium, texture class, field site trials or greenhouse tests, or other analyses as required by the Department.

#### Source

The provisions of this § 87.97 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206796) and (228241).

#### Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.98 (relating to topsoil: storage); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration); and 25 Pa. Code § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

### § 87.98. Topsoil: storage.

(a) Topsoil and other materials removed under § 87.97 (relating to topsoil: removal) shall be stockpiled only when it is impractical to promptly redistribute such material on regraded areas.

(b) Stockpiled materials shall be selectively placed on a stable area within the permit area and located where the material, unless approved by the Department, will not be moved or otherwise disturbed by the mining activities until required for redistribution on the regraded area.

(c) Stockpiled material shall be protected from wind and water erosion, unnecessary compaction and contaminants which lessen the capability of the materials to support vegetation when redistributed. Protective measures shall be accomplished by one of the following:

- (1) An effective cover of nonnoxious quick-growing annual and perennial plants seeded or planted as soon as weather and planting conditions permit.
- (2) Other methods demonstrated to and approved by the Department to provide equal protection.

#### Source

The provisions of this § 87.98 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.92 (relating to signs and markers); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration); and 25 Pa. Code § 87.179 (relating to prime farmland: soil stockpiling).

### § 87.99. Topsoil: redistribution.

- (a) Prior to redistribution of topsoil or other material, the regraded land shall be scarified or otherwise treated as required by the Department to eliminate slip-page surfaces and to promote root penetration.
- (b) Topsoil and other materials shall be redistributed in a manner that:
  - (1) Achieves an approximate uniform, stable thickness consistent with the approved postmining land uses, contours and surface water drainage system.
  - (2) Prevents excess compaction of the topsoil and other materials.
  - (3) Protects the topsoil and other materials from wind and water erosion before and after it is seeded and planted.

#### Source

The provisions of this § 87.99 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148646) to (148647).

#### Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); and 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration).



**§ 87.100. Topsoil: nutrients and soil amendments.**

(a) Nutrients and soil amendments in the amounts determined by soil tests shall be applied to the surface soil layer so that it supports the approved postmining land use and meets the revegetation requirements of §§ 87.147—87.153, 87.155 and 87.156.

(b) All soil tests shall be performed using standard methods approved by the Department. Results of the soil test shall be submitted to the Department.

(c) Agricultural or granular limestone used for neutralizing soil acidity shall be of sufficient fineness so that a minimum of 95% will pass through a 20 mesh sieve and shall contain sufficient calcium and magnesium to be equivalent to not less than 89% calcium carbonate. An alternative material of equivalent neutralizing effect may be employed.

(d) The use of coal ash, biosolids, and residential septage as soil amendments may be approved by the Department if demonstrated to be a suitable soil amendment and the requirements of Subpart D, Articles VIII and IX (relating to municipal waste; and residual waste management) are met.

**Authority**

The provisions of this § 87.100 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.100 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial page (313545).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); and 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration).

**§ 87.101. Hydrologic balance: general requirements.**

(a) Surface mining activities shall be planned and conducted to minimize disturbances to the prevailing hydrologic balance in the permit and adjacent areas and to prevent material damage to the hydrologic balance outside the permit area. The Department may require additional preventative, remedial or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented.

(b) Changes in water quality and quantity, the depth of groundwater, and the location of surface water drainage channels shall be minimized so that the approved postmining land use of the permit area is not adversely affected.

(c) The treatment requirements and effluent limitations established under § 87.102 (relating to hydrologic balance: effluent standards) may not be violated.

(d) Each person who conducts surface mining activities shall conduct the mining and reclamation operation to prevent water pollution and, when necessary, operate and maintain the necessary water treatment facilities until applicable treatment requirements and effluent limitations established under § 87.102 are achieved and maintained.

(e) Surface mining activities shall be planned and conducted to prevent to the maximum extent practical the accumulation of water in the pit. Pit water shall be collected and pumped to approved water treatment facilities. Pit water may not be discharged from the surface mining operation by gravity drains.

**Source**

The provisions of this § 87.101 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended May 1, 1992, effective May 2, 1992, 22 Pa. B. 2332; corrected June 25, 1993, effective May 2, 1992, 23 Pa.B. 2996; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (237155) to (237156).

**§ 87.102. Hydrologic balance: effluent standards.**

(a) *Discharge of water.* A person may not allow a discharge of water from an area disturbed by coal mining activities, including areas disturbed by mineral preparation, processing or handling facilities which exceeds the following groups of effluent criteria. The effluent limitations shall be applied under subsection (b).

	<i>Group A</i>		
<i>Parameter</i>	<i>30-day Average</i>	<i>Daily Maximum</i>	<i>Instantaneous Maximum</i>
iron (total)	3.0 mg/l	6.0 mg/l	7.0 mg/l
manganese (total)	2.0 mg/l	4.0 mg/l	5.0 mg/l
suspended solids	35 mg/l	70 mg/l	90 mg/l
pH <sup>1</sup>		greater than 6.0; less than 9.0	
alkalinity greater than acidity <sup>1</sup>			

<sup>1</sup> This parameter is applicable at all times

	<i>Group B</i>
<i>Parameter</i>	<i>Instantaneous Maximum</i>
iron (total)	7.0 mg/l
settleable solids	0.5 ml/l
pH	greater than 6.0; less than 9.0
alkalinity greater than acidity	

	<i>Group C</i>
<i>Parameter</i>	<i>Instantaneous Maximum</i>
pH	greater than 6.0; less than 9.0
alkalinity greater than acidity	

(b) *Effluent limitations and precipitation exemptions.* Effluent limitations and precipitation exemptions are as follows:

(1) The discharges specified in this subsection shall comply with the following effluent limitations:

<i>Type of Discharge</i>	<i>Precipitation Event</i>	<i>Effluent Limitations</i>
Pit Water	all	Group A
Surface runoff from active area	dry weather	Group A
	less than or equal to 10yr-24hr	Group B
	greater than 10yr-24hr	Group C
Surface runoff from area where Stage 2 standards achieved	dry weather	Group A
	less than or equal to 10yr-24hr	Group B
	greater than 10yr-24hr	Group C
All other discharges	dry weather	Group A
	less than or equal to 10yr-24hr	Group B
	greater than 10yr-24hr	Group C

(2) To be entitled to the effluent limitations in Group B or Group C, the permittee shall comply with § 87.103 (relating to precipitation event exemption).

(c) *Exceptions to effluent limitations.*

(1) The pH of discharges of water shall be maintained between 6.0 and 9.0, except in the following circumstances:

(i) When the discharger can show the water is discharged to an acid stream, in which case the pH may be greater than 9.0.

(ii) When the discharger affirmatively demonstrates, in writing, to the Department that biological respiration in the wastewater treatment system will cause the discharge to exceed the limits set forth in this section and that exceeding these limits will not result in a violation of applicable water quality standards in Chapter 93 (relating to water quality standards) or of the applicable treatment requirements and effluent limitations to which a discharge is subject under the Clean Water Act (33 U.S.C.A. §§ 1251—1376), in which case the Department may grant a variance in writing from the limitation set forth in this section.

(iii) When the discharger affirmatively demonstrates to the Department that the wastewater treatment process being used by the discharger requires the pH to be raised above 9.0, that the elevated pH will not cause a safety hazard at the outfall, and that the elevated pH will not result in a violation of

applicable water quality standards in Chapter 93 or of the applicable treatment requirements and effluent limitations to which a discharge is subject under the Clean Water Act, the Department may grant a variance from this limitation.

(2) When a discharge without chemical or biological treatment has a pH greater than 6.0 and a total iron concentration of less than 10 mg/l, the manganese limitation does not apply.

(d) *Combined discharges.* If a single facility is used for sediment and erosion control facilities and treatment facilities covered by this section, the concentration of each pollutant in the combined discharge may not exceed the most stringent limitations for that pollutant applicable to a component waste stream of the discharge.

(e) *Postmining pollutional discharges.*

(1) If a postmining pollutional discharge occurs, the discharger shall immediately provide interim treatment to comply with the Group A effluent requirements in subsection (a), including modifications authorized or required under subsection (c), (d) or (f). The discharger shall also take whatever measures are necessary and available to abate the discharge, including modifying the operation and reclamation plan for the mining activity.

(2) If the discharge continues to exist, after implementation of the abatement measures required under paragraph (1), the discharger shall make provisions for sound future treatment of the discharge to achieve the Group A effluent requirements in subsection (a), including modifications authorized or required under subsection (c) or (f). If the untreated discharge can be adequately treated using a passive treatment system, paragraph (3) applies in lieu of the Group A effluent requirements of subsection (a). Discharges which can be adequately treated using a passive treatment system include, but are not limited to:

(i) Discharges with a pH which is always greater than 6.0 and an alkalinity which always exceeds the acidity.

(ii) Discharges with an acidity which is always less than 100 milligrams per liter, an iron content which is always less than 10 milligrams per liter, a manganese content which is always less than 18 milligrams per liter and a flow rate which is always less than 3 gallons per minute.

(iii) Discharges with a net acidity always less than 300 milligrams per liter which is calculated by subtracting the alkalinity of the discharge from its acidity.

(3) A passive treatment system authorized under paragraph (2) shall comply with the following effluent requirements:

(i) The system shall reduce the iron concentration by at least 90% or by that percentage necessary to achieve the Group A effluent requirements in subsection (a), whichever percentage is less.

- (ii) The system shall produce an effluent alkalinity which exceeds effluent acidity.
- (4) In addition to achieving the effluent requirements of paragraphs (2) and (3), the passive treatment system shall be designed and constructed to accomplish the following:
  - (i) Prevent discharge of mine drainage into the groundwater.
  - (ii) Prevent extraneous sources of groundwater and surface water runoff from entering the treatment system.
  - (iii) Hydraulically handle the highest average monthly flow rate which occurs during a 12-month period.
  - (iv) Have inlet and outlet structures which will allow for flow measurement and water sampling.
  - (v) Prevent to the maximum extent practicable physical damage, and associated loss of effectiveness, due to wildlife and vandalism.
  - (vi) Be of a capacity so that it will operate effectively and achieve the required effluent quality for 15 to 25 years before needing to be replaced.
- (5) The passive treatment system shall be designed by, and constructed under the supervision of, a qualified professional knowledgeable in the subject of passive treatment of mine drainage.
- (f) In addition to the requirements of subsections (a)—(e), the discharge of water from areas disturbed by mining activities shall comply with this title, including Chapters 91—93, 95, 96, 97 (reserved) and 102.

#### Authority

The provisions of this § 87.102 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); and section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)).

#### Source

The provisions of this § 87.102 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended November 14, 1997, effective November 15, 1997, 27 Pa.B. 6041; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (313546) to (313548) and (383961) to (383962).

#### Notes of Decisions

##### *Evidence*

A composite map of the mine site and surrounding area created from a photocopy of a map submitted by the company as part of its application for a mine discharge permit could not be used to establish a prima facie case of the company's liability regarding certain discharge areas. To establish liability under section 315(a) of The Clean Streams Law (35 P.S. § 691.315) the Department of Environmental Resources must prove that the discharges emanating from the six discharge areas in question violated the effluent limitations of this regulation and that the company's mining operations

caused the discharges. The Department can prove that the company caused the discharges if it can show that the discharges were either located within the company's permitted area or hydrogeologically connected to the company's mining operations. *Department of Environmental Resources v. Al Hamilton Contracting Co.*, 665 A.2d 849 (Pa. Cmwlth. 1995); appeal denied 686 A.2d 1310 (Pa. 1996).

#### *Intent to Discharge*

It is a valid exercise of police power to require a mine operator to abate discharges flowing from a mine, even if the operator was not at fault or did not generate the pollution. *North Cambria Fuel Co. v. Department of Environmental Resources*, 621 A.2d 1155 (Pa. Cmwlth. 1993).

#### *Liability*

Liability of a former mine owner attached when he allowed discharges into a creek tributary although no mining activities were conducted there. *Ingram v. Department of Environmental Resources*, 595 A.2d 733 (Pa. Cmwlth. 1991); appeal denied 607 A.2d 257 (Pa. 1992); cert. denied 113 S. Ct. 329 (U. S. 1992).

#### **Cross References**

This section cited in 25 Pa. Code § 86.1 (relating to definitions); 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 86.283 (relating to procedures); 25 Pa. Code § 86.294 (relating to uses and limitations); 25 Pa. Code § 87.69 (relating to protection of hydrologic balance); 25 Pa. Code § 87.101 (relating to hydrologic balance: general requirements); 25 Pa. Code § 87.103 (relating to precipitation event exemption); 25 Pa. Code § 87.106 (relating to hydrologic balance: sediment control measures); 25 Pa. Code § 87.107 (relating to hydrologic balance: treatment facilities); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.110 (relating to hydrologic balance: acid-forming and toxic-forming spoil); 25 Pa. Code § 87.111 (relating to hydrologic balance: impoundments); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); 25 Pa. Code § 87.160 (relating to haul roads and access roads); 25 Pa. Code § 87.207 (relating to treatment of discharges); 25 Pa. Code § 87.210 (relating to effluent limitations); 25 Pa. Code § 87.211 (relating to baseline determination and compliance monitoring for pre-existing discharges at remaining operations); and 25 Pa. Code § 89.173 (relating to performance standards).

### **§ 87.103. Precipitation event exemption.**

(a) To establish the alternative effluent limitations of Group B or C in § 87.102(a) (relating to hydrologic balance: effluent standards), a permittee shall demonstrate to the Department's satisfaction that, under this section, a precipitation event has occurred.

(1) The occurrence of a precipitation event greater than a 10-year, 24-hour precipitation event may be demonstrated by meeting the requirements of subsections (b)—(d) for each discharge that exceeds the effluent limits in § 87.102, unless the permit specifies a more stringent water quality based effluent limitation, in which case no exemption will be available under this section. If the permittee demonstrates to the Department's satisfaction that a greater than 10-year, 24-hour precipitation event has occurred, the permittee shall meet the effluent limitation enumerated as Group C in § 87.102(a).

(2) The occurrence of a precipitation event equal to or less than a 10-year, 24-hour precipitation event may be demonstrated by meeting the requirements of subsections (c) and (d) for each discharge that exceeds the effluent limits specified in § 87.102, unless the permit specifies a more stringent water qual-

ity based effluent limitation, in which case no exemption will be available under this section. If the permittee demonstrates to the Department's satisfaction that a precipitation event equal to or less than a 10-year, 24-hour precipitation event has occurred, the permittee shall meet the effluent limitations enumerated as Group B in § 87.102(a).

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth shall be determined by reference to data provided by the National Oceanic and Atmospheric Administration or equivalent resources.

(c) For the permittee to demonstrate that the 10-year, 24-hour precipitation event has for the permittee's mine area been exceeded or that dry weather flow conditions did not exist, the permittee shall do one of the following:

(1) Collect 24-hour rainfall information from all official United States Weather Bureau Stations within a 25-mile distance (radius) of the site; by appropriate interpolation of the data collected, calculate the estimated rainfall event for the site. Appropriate interpolation shall be accomplished by the following:

(i) Construction of an isohyetal map in accordance with the guidelines established by the Department.

(ii) Linear interpolation between the isohyets.

(2) Prepare a verified copy of the chart or readout from a Department approved flow measuring device which continuously records the influent to the permitted treatment facility. The device shall be approved by the Department in writing prior to the rainfall event for which the exemption is sought and shall be secure to prevent tampering and acts of third parties.

(3) Prepare an analysis identifying the runoff area tributary to the treatment facility, and compare the actual runoff as measured and depicted by the flow measuring device with the runoff expected from the 10-year, 24-hour precipitation event specified for the mine area.

(4) Develop alternative documentation or data concerning the precipitation event. The method or system for developing the documentation or data shall be approved in writing prior to the occurrence of the event for which the exemption is being sought, and shall guarantee the integrity of the information collected.

(d) If the discharge from the site exceeds an effluent limit in the permit, the permittee shall notify the Department within 5 days of the occurrence of the event that he is applying for an exemption from that limit and shall within 30 days thereafter provide to the Department:

(1) The data required by subsection (c).

(2) A showing that the facility from which the discharge occurred was designed, maintained and operated during and prior to the event to accommodate or treat a 10-year, 24-hour precipitation event.

(e) The permittee will not be entitled to claim a greater than 10-year, 24-hour precipitation event storm exemption unless the permittee has fully complied with the requirements of subsections (c) and (d).

(f) Nothing in this section shall be construed as authorizing the Department to grant an exemption for a discharge which the Department finds may have caused or contributed to a violation of a general or specific water quality criteria in Chapter 93 (relating to water quality standards).

#### **Authority**

The provisions of this § 87.103 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### **Source**

The provisions of this § 87.103 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (383962) to (383965).



**Cross References**

This section cited in 25 Pa. Code § 87.102 (relating to hydrologic balance: effluent standards).

**§ 87.104. Stream channel diversions.**

(a) Flow from perennial and intermittent streams within the permit area may be diverted if the diversions:

- (1) Will not adversely affect, during and after mining, the water quantity and quality of the stream.
- (2) Comply with other requirements of this chapter and Chapter 105 (relating to dam safety and waterway management).
- (3) Comply with local, State and Federal statutes and regulations.

(b) When streamflow diversion is approved, the stream channel diversion shall be designed, constructed and removed in accordance with the following:

(1) The longitudinal profile of the stream, the channel and the flood plain shall be designed and constructed to remain stable and to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow or to runoff outside the permit area. These contributions may not be in excess of requirements of State or Federal law. Erosion control structures, such as channel lining structures, retention basins and artificial channel roughness structures, shall be approved for permanent diversions only when they are stable and will require infrequent maintenance.

(2) The combination of channel, bank and floodplain configurations shall be adequate to prevent a flooding potential greater than that created by the natural conditions of the existing channel. However, the capacity of the channel itself shall be at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion.

(3) The design and construction of stream channel diversions of perennial and intermittent streams shall be certified by a qualified registered professional engineer as meeting the performance standards of this part.

(c) When no longer needed to achieve the purpose for which they are authorized, all temporary stream channel diversions shall be removed and the affected land regraded and revegetated, in accordance with §§ 87.99, 87.100, 87.141, 87.142, 87.144, 87.145, 87.147—87.153, 87.155 and 87.156. At the time diversions are removed, treatment facilities previously protected by the diversion shall be modified or moved to prevent damage or failure of the facilities. This requirement does not relieve the person who conducts the surface mining activities from maintenance of a water treatment facility otherwise required under this chapter, and the erosion and sedimentation control requirements of § 87.106 (relating to hydrologic balance: sediment control measures).

(d) When permanent diversions are constructed or stream channels are restored after temporary diversion, the operator shall:

- (1) Restore or maintain, and enhance where practicable, natural riparian vegetation on the banks of the stream.

- (2) Restore the horizontal alignment of the stream to a condition compatible with the protected water use of Chapter 93 (relating to water quality standards).
- (3) Restore the stream to a longitudinal profile and cross section, including aquatic habitats, that approximate premining stream channel characteristics.

#### Source

The provisions of this § 87.104 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148654) to (148655).

#### Cross References

This section cited in 25 Pa. Code § 87.71 (relating to stream diversions, water obstructions and encroachments).

### § 87.105. Hydrologic balance: diversions.

- (a) Surface water and shallow groundwater flow from undisturbed areas which will drain into the affected area shall be intercepted and diverted away from the disturbed area by means of diversion.
- (b) Diversions shall be designed, constructed and maintained using current engineering practices to pass safely the peak runoff from a precipitation event with a 2-year recurrence interval for temporary diversions and 10-year recurrence interval for permanent diversion. If necessary to protect public health and safety or prevent pollution, a larger event shall be used.
- (c) All topsoil shall be removed, stored on a stable site, and protected against erosion and compaction until restoration of the diversion.
- (d) Diversion shall be vegetated or otherwise stabilized to prevent erosion or contributions of sediment to stream or runoff outside the affected area. Asphalt, concrete or other similar lining shall only be used when approved by the Department. Riprap shall be nondegradable, nonacid-forming or toxic-forming rock that will not slake and will be free of coal, clay or shale.
- (e) A diversion may not be located so as to increase the potential for landslides or other offsite damage.
- (f) Excess material shall be placed in the backfilling, or at an excess spoil disposal area.
- (g) When no longer needed, the diversion shall be regraded to blend with the natural contours and drainage pattern, and revegetated in accordance with § 87.147 (relating to revegetation: general requirements).

#### Source

The provisions of this § 87.105 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.72 (relating to diversions); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); 25 Pa. Code § 87.147 (relating to vegetation; general requirements); 25 Pa. Code § 87.202 (relating to definitions); and 25 Pa. Code § 87.207 (relating to treatment of discharges).

**§ 87.106. Hydrologic balance: sediment control measures.**

Appropriate sediment control measures shall be designed, constructed and maintained using the best technology currently available to:

- (1) Prevent to the extent possible contributions of sediment to streamflow or to runoff outside the affected area.
- (2) Meet the treatment requirements and effluent limitations of § 87.102 (relating to hydrologic balance: effluent standards).
- (3) Minimize erosion to the extent possible.
- (4) Meet the requirements of Chapter 102 (relating to erosion and sediment control).

**Source**

The provisions of this § 87.106 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (206808).

**Cross References**

This section cited in 25 Pa. Code § 87.70 (relating to erosion and sedimentation control plan); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.160 (relating to haul roads and access roads); and 25 Pa. Code § 89.173 (relating to performance standards).

**§ 87.107. Hydrologic balance: treatment facilities.**

(a) At a minimum, facilities and measures for treating discharges from disturbed areas shall be designed, constructed and maintained to treat the runoff from a 10-year, 24-hour precipitation event and any groundwater contribution.

(b) Facilities and measures for treating any discharges shall be based on good engineering design and shall include automatic neutralization processes. The Department may approve a manual neutralization system if the Department finds that:

- (1) Small and infrequent treatment is needed to meet effluent limitations.
- (2) Timely and consistent treatment is ensured.

(c) The design, construction and maintenance of a treatment facility shall not relieve an operator of his responsibility for complying with effluent standards as provided for in § 87.102 (relating to hydrologic balance: effluent standards).

**Source**

The provisions of this § 87.107 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 89.173 (relating to performance standards).



**§ 87.108. Hydrologic balance: sedimentation ponds.**

(a) All surface drainage from the disturbed area, including areas which have been graded, seeded or planted, shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the permit area. The Department may waive the required use of sedimentation ponds when the person who conducts surface mining activities demonstrates to the satisfaction of the Department that sediment ponds are not necessary to meet the effluent limitation under § 87.102 (relating to hydrologic balance: effluent standards).

(b) Sedimentation ponds shall be constructed in accordance with this section and § 87.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance) in appropriate locations before any disturbance of the area to be drained into the pond. Sedimentation ponds may not be located in a perennial stream and the Department will not authorize the location or placement of a sedimentation pond in an intermittent stream unless the requirements of Chapters 93, 102 and 105 and §§ 86.37 and 86.102(5) are met and the pond is approved as part of the postmining land use in accordance with §§ 87.111 and 87.159 (relating to hydrologic balance: impoundments; and postmining land use), or will be removed during times of the year that will not cause pollution.

(c) Sedimentation ponds shall be maintained until the disturbed area has been stabilized and revegetated and removal of the ponds is approved by the Department. The ponds may not be removed sooner than 2 years after the last augmented seeding, unless the Department finds that the disturbed area has been sufficiently revegetated and stabilized.

(d) At a minimum, sedimentation ponds shall meet the requirements of Chapter 102 (relating to erosion control).

(e) The pond shall include a nonclogging dewatering device approved by the Department that will permit the draining of the water from inflow. The dewatering device may not be located at a lower elevation than the maximum elevation of the sedimentation storage volume.

(f) The ponds shall be designed, constructed and maintained to prevent short circuiting to the extent possible.

(g) The design, construction and maintenance of a sediment pond in accordance with this section does not relieve the person who conducts surface mining activities of the person's responsibility for complying with the applicable treatment requirements and effluent limitations established under § 87.102.

(h) At a minimum, the pond shall be capable of treating the runoff resulting from a 10-year, 24-hour precipitation event.

(i) When the sedimentation pond is to be removed, the affected land shall be regraded and revegetated in accordance with §§ 87.147—87.153, 87.155 and 87.156.

**Authority**

The provisions of this § 87.108 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.108 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198969) to (198970).

**Cross References**

This section cited in 25 Pa. Code § 87.73 (relating to dams, ponds, embankments and impoundments).

**§ 87.109. Hydrologic balance: discharge structures.**

Discharge from dams, ponds, embankments, impoundments and diversions shall be controlled by energy dissipators, riprap channels and other devices when necessary to reduce erosion, to prevent deepening or enlargement of stream channels and to minimize disturbance of the hydrologic balance. Discharge structures shall be designed according to standard engineering design procedures.

**Source**

The provisions of this § 87.109 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.110. Hydrologic balance: acid-forming and toxic-forming spoil.**

(a) Drainage from acid-forming and toxic-forming spoil into groundwater and surface water shall be avoided by the following:

- (1) Identifying, burying and treating, when necessary, spoil that may adversely affect water quality if not treated or buried.
- (2) Preventing water from coming into contact with acid-forming and toxic-forming spoil in accordance with § 87.145 (relating to backfilling and grading: covering coal and acid-forming and toxic-forming materials) and other measures as required by the Department.

(b) Temporary storage of the spoil may be approved by the Department upon a finding that storage will not result in any risk of water pollution or other environmental damage. Storage shall be limited to the period until burial or treatment first becomes feasible. Acid-forming or toxic-forming spoil to be stored shall be placed on impermeable material and protected from erosion and contact with surface water. Any discharge shall be collected and treated to conform to § 87.102 (relating to hydrologic balance: effluent standards).

**Source**

The provisions of this § 87.110 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.134 (relating to coal exploration performance and design standards).

**§ 87.111. Hydrologic balance: impoundments.**

Permanent impoundments are prohibited unless authorized by the Department upon the basis of the following demonstration:

- (1) The quality of the impounded water shall be suitable on a permanent basis for its intended use, and discharge of water from the impoundment will not degrade the quality of receiving waters to less than the water quality standards established under § 87.102 (relating to hydrologic balance: effluent standards).
- (2) The level of water shall be sufficiently stable to support the intended use.
- (3) Adequate safety and access to the impounded water shall be provided for proposed water users.
- (4) Water impoundments shall not result in diminution of the quality or quantity of water used by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses.
- (5) The size of the impoundment is adequate for its intended purposes.
- (6) The impoundment will be suitable for the approved postmining land use.

**Source**

The provisions of this § 87.111 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds).

**§ 87.112. Hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance.**

(a) Dams, ponds, embankments and impoundments that meet the following criteria shall be designed, constructed and maintained in accordance with Chapter 105 (relating to dam safety and waterway management):

- (1) Dams located on a natural or artificial water course when one of the following applies:
  - (i) The contributory drainage area exceeds 100 acres.
  - (ii) The greatest depth of water at a maximum storage elevation exceeds 15 feet.

(iii) The impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(2) Dams used for the storage of water not located on a watercourse and which have no contributory drainage, when the greatest depth of water at a maximum storage elevation exceeds 15 feet and the impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(b) The design, construction and maintenance of dams, ponds, embankments and impoundments shall achieve the minimum design criteria contained in the United States Natural Resources Conservation Service's Pennsylvania Field Office Technical Guide, Section IV, Standards 350, "Sediment Basin," and 378, "Pond," as amended, or United States Natural Resources Conservation Service's Technical Release No. 60, Earth Dams and Reservoirs, whichever is applicable. The standards contained therein are incorporated by reference. In addition to the requirements in "Sediment Basin," a minimum static safety factor of 1.3 is required. These structures shall also meet the following requirements:

(1) Each impoundment that requires a permit under Chapter 105 or when impoundments meet or exceed the MSHA size classification or other criteria of 30 CFR 77.216(a) (relating to water sediment or slurry impoundment and impounding structures; general) shall be designed and certified to the Department by a qualified registered professional engineer with assistance, as necessary, from experts in related fields such as geology, land surveying and landscape architecture. Each impoundment that does not require a permit under Chapter 105 or when impoundments do not meet or exceed the MSHA size classification or other criteria of 30 CFR 77.216(a) shall be designed and certified to the Department by a qualified registered professional engineer or qualified registered professional land surveyor. Each impoundment shall be certified that the impoundment has been constructed and is being maintained as designed in accordance with the approved plan and applicable performance standards.

(2) The entire embankment, including the surrounding areas disturbed by construction, shall be stabilized with respect to erosion by a vegetative cover or other means immediately after the embankment is completed. The active upstream face of the embankment where water will be impounded shall be riprapped or otherwise stabilized. Areas in which the vegetation is not successful, or where rills and gullies develop, shall be repaired and revegetated.

(3) Plans for enlargement, reduction in size, reconstruction or other modification that may affect the stability or operation of dams or impoundments shall be submitted to the Department and shall comply with this section. Except when a modification is required to eliminate an emergency condition constituting a hazard to public health, safety or the environment, the Department will approve the plans before modification begins.

(c) If the embankment is more than 20 feet in height as measured from the upstream toe of embankment to the crest of the emergency spillway or has a stor-



age volume of 20 acre-feet or more, is located where failure could cause loss of life or serious property damage or otherwise poses a hazard to miners or the public, it must:

(1) Be stable under all probable conditions of operation and be designed and constructed to achieve a static safety factor of 1.5 or other higher static safety factor required by the Department and a seismic safety factor of at least 1.2.

(2) Have an appropriate combination of principal and emergency spillways to discharge safely the runoff from a 100-year, 24-hour precipitation event or a larger event specified and required by the Department.

(3) Have a foundation investigation, as well as any necessary laboratory testing of foundation material to determine the design requirements for foundation stability.

(d) Each impoundment that requires a permit under Chapter 105 or when impoundments meet or exceed the MSHA size classification or other criteria of 30 CFR 77.216(a) shall be inspected during construction, and certified after construction and annually thereafter by a qualified registered professional engineer until removal of the structure or release of the performance bond. An impoundment that does not require a permit under Chapter 105 or when impoundments do not meet or exceed the MSHA size classification or other criteria of 30 CFR 77.216(a) shall be inspected during construction, and certified after construction and annually thereafter, by a qualified registered professional engineer or qualified registered professional land surveyor until removal of the structure or release of the performance bond. The professional engineer or professional land surveyor making the inspections and certifications shall be experienced in the construction of impoundments. Certification reports shall include monitoring and instrumentation results and a statement regarding the condition of impoundment.

(e) Each impoundment shall be examined by a qualified person designated by the operator at intervals not exceeding 7 days, for structural weakness, erosion and other hazardous conditions. Impoundments with an embankment less than 20 feet in height as measured from the upstream toe of the embankment to the crest of the emergency spillway or which have a storage volume of less than 20 acre-feet shall be inspected once every 3 months unless otherwise required by the Department. If an examination or inspection discloses that a potential hazard exists, the person who examined the impoundment shall promptly inform the Department of the finding and provide a remedial action plan to protect the public. If adequate procedures cannot be formulated or implemented, the Department shall be notified immediately. The Department will then notify the appropriate agencies that other emergency procedures are required to protect the public. The permittee shall make and retain records of the inspection, including records of actions taken to correct deficiencies found in the inspection. Copies of the records shall be provided to the Department on request.

(f) Impoundments subject to 30 CFR 77.216-1 and 77.216-2 (relating to water, sediment or slurry impoundments and impounding structures; identification; and water, sediment, or slurry impoundments and impounding structures; minimum plan requirements; changes or modifications; certification) shall have duplicate plans submitted to the District Manager of MSHA and to the Department. The Department may consider MSHA's review for impoundments. However, the Department will review impoundments under the requirements of subsection (a).

#### Authority

The provisions of this § 87.112 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); and section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)).

#### Source

The provisions of this § 87.112 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended June 17, 2011, effective June 18, 2011, 41 Pa.B. 3084; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (357519) to (357522).

#### Cross References

This section cited in 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.113 (relating to hydrologic balance: coal processing waste dams and embankments).

### **§ 87.113. Hydrologic balance: coal processing waste dams and embankments.**

In addition to the requirements of § 87.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance), each dam and embankment constructed of coal processing waste or intended to impound coal processing waste shall meet the requirements of § 90.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance).

#### Source

The provisions of this § 87.113 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

### **§ 87.114. [Reserved].**

#### Source

The provisions of this § 87.114 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.115. Hydrologic balance: protection of groundwater recharge capacity.**

(a) Surface mining activities, except for coal processing waste and underground development waste disposal areas and fills, shall be conducted to restore the recharge capacity of the area of the operation to approximate premining conditions.

(b) The recharge capacity shall be restored to a condition which:

- (1) Supports the approved postmining land use.
- (2) Minimizes disturbances to the prevailing hydrologic balance in the permit and adjacent areas.
- (3) Provides a rate of recharge that approximates the premining recharge rate.

**Source**

The provisions of this § 87.115 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.69 (relating to protection of hydrologic balance); and 25 Pa. Code § 87.116 (relating to hydrologic balance: groundwater monitoring).

**§ 87.116. Hydrologic balance: groundwater monitoring.**

(a) Groundwater levels, infiltration rates, subsurface flow and storage characteristics and the quality of groundwater shall be monitored in a manner approved by the Department to determine the effects of surface mining activities on the recharge capacity of reclaimed lands and on the quantity and quality of groundwater in the permit and adjacent areas.

(b) When surface mining activities may affect the groundwater systems which serve as aquifers which significantly ensure the hydrologic balance of water use on or off the permit area, groundwater levels and groundwater quality shall be monitored. Monitoring shall include measurements from a sufficient number of wells and chemical analyses of water from aquifers which adequately reflect changes in groundwater quantity and quality resulting from those activities. Monitoring shall be adequate to plan for modification of surface mining activities, if necessary, to minimize disturbance of the prevailing hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, acidity, alkalinity, total iron, total manganese, sulfates and water levels shall be monitored and reported to the Department at least every 3 months for each monitoring location.

(c) The person who conducts surface mining activities shall conduct additional hydrologic tests as specified and approved by the Department, including but not limited to, drilling, infiltration tests, aquifer tests, chemical and mineralogical analyses of overburden and spoil and shall submit the results to the Department.

ment to demonstrate compliance with this section and § 87.115 (relating to hydrologic balance: protection of groundwater recharge capacity).

(d) The Department may require the operator to conduct monitoring and reporting more frequently than every 3 months, and to monitor additional parameters beyond the minimum specified in this section.

#### Authority

The provisions of this § 87.116 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.116 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198975).

#### Cross References

This section cited in 25 Pa. Code § 87.69 (relating to protection of hydrologic balance).

### § 87.117. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92a (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), surface water shall be monitored to accurately measure and record the water quantity and quality of the discharges from the permit area and the effect of the discharge on the receiving waters. Surface water shall be monitored for parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in § 87.69 (relating to protection of hydrologic balance). At a minimum, total dissolved solids or specific conductance corrected to 25°C, total suspended solids, pH, acidity, alkalinity, total iron, total manganese, sulfates and flow shall be monitored and reported to the Department at least every 3 months for each monitoring location.

(b) The Department may require the operator to conduct monitoring and reporting more frequently than every 3 months, and to monitor additional parameters beyond the minimum specified in this section.

#### Authority

The provisions of this § 87.117 amended under the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); and section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)).

**Source**

The provisions of this § 87.117 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (271920) and (244089).

**Cross References**

This section cited in 25 Pa. Code § 87.69 (relating to protection of hydrologic balance); and 25 Pa. Code § 87.93 (relating to casing and sealing of drilled holes).

**§ 87.118. [Reserved].****Source**

The provisions of this § 87.118 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148665).

**§ 87.119. [Reserved].****Authority**

The provisions for this § 87.119 deleted under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.119 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2215; amended June 17, 2011, effective June 18, 2011, 41 Pa.B. 3084; deleted June 25, 2021, effective June 26, 2021, 51 Pa.B. 3449. Immediately preceding text appears at serial pages (400921) to (400922) and (357523) to (357524).

**Notes of Decisions***Costs*

The Environmental Hearing Board properly found that the operator of a surface coal mine was required to permanently provide compensation for the increased maintenance costs of an adjacent property owner's well water supply and establish an individual trust or escrow account for such future costs. *Carlson Mining Co., v. Department of Environmental Resources*, 639 A.2d 1332 (Pa. Cmwlth. 1994); appeal denied by 649 A.2d 676 (Pa. 1994).

**§ 87.119a. Hydrologic balance: water rights and replacement.**

(a) *Water supply surveys.* The operator or mine owner shall conduct a survey of the quantity and quality of all water supplies within the permit area and those in adjacent areas that may be affected by mining activities, except when the water supply owner denies the operator or mine owner access for the survey.

(1) The survey must include the following information to the extent that it can be collected without excessive inconvenience to the water supply owner or water supply user:

- (i) The location and type of water supply.
- (ii) The existing and reasonably foreseeable uses of the water supply.

(iii) The chemical and physical characteristics of the water, including, at a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, acidity, alkalinity and sulfates. Additional parameters, including hardness and total coliform, may be required by the Department based on the local aquifer conditions and the characteristics of the water supply and uses. An operator or mine owner who obtains water samples in a premining or postmining survey shall utilize a certified laboratory to analyze the samples. For water supplies with existing treatment, the treatment system must be documented, and a chemical analysis of the untreated water shall be obtained if a sample that bypasses the treatment can feasibly be collected.

(iv) Historic and recent quantity measurements and other hydrogeologic data such as the static water level and yield determination.

(v) The physical description of the water supply, including the depth and diameter of the well, length of casing and description of the treatment and distribution systems.

(vi) Sufficient sampling and other measurements to document the seasonal variation in hydrologic conditions of the water supply.

(2) The operator or mine owner shall submit the results of all qualitative analyses and quantity measurements gathered as part of a water supply survey to the Department and supply a copy to the water supply owner and water supply user prior to the issuance of a mining permit.

(3) A water supply survey shall be conducted prior to the time a water supply is susceptible to mining-related effects and shall be made part of the application for surface mining permit submitted to the Department. An update to the original survey may be required after permit issuance under the requirements of § 86.53 (relating to reporting of new information).

(4) If the operator or mine owner is prohibited from making a premining or postmining survey because the water supply owner will not allow access to the site, the operator or mine owner shall submit evidence to the Department of the following:

(i) The operator or mine owner notified the water supply owner by certified mail or personal service of the water supply owner's rights and the effect on the water supply owner of the water supply owner's denial to the operator or mine owner of access to the site under section 4.2 of SMCRA (52 P.S. § 1396.4b).

(ii) The operator or mine owner attempted to conduct a survey.

(iii) The water supply owner failed to authorize access to the operator or mine owner to conduct a survey prior to commencing mining activity.

(b) *Water supply replacement obligations.*

(1) The operator or mine owner of any mine who affects a water supply to any demonstrable extent by contamination, pollution, diminution or interruption shall promptly restore or replace the affected water supply with a permanent alternate supply adequate in water quantity and water quality for the purposes served by, and the reasonably foreseeable uses of, the water supply. The operator or mine owner shall provide to the Department, in writing, the descrip-

tion of the location of a restored or replaced water supply and the name and address of the water supply owner under the requirements of § 86.53.

(2) For any water supply that will, with a reasonable degree of certainty established by supporting evidence, be affected by contamination, pollution, diminution or interruption by the proposed mining, the operator or mine owner shall provide a replacement supply prior to commencing the activity.

(c) *Temporary water supplies.* If the affected water supply owner or water supply user whose supply is in the area of presumption as defined in subsection (j)(1) is without a readily available alternate source of water, the operator or mine owner shall provide a temporary water supply within 24 hours of being contacted by the water supply owner, water supply user or the Department, whichever occurs first. The temporary water supply provided under this subsection shall meet the quality requirements of subsection (f)(2) and provide sufficient quantity to meet the water supply owner or water supply user's premining needs. The requirement for a temporary water supply may be subject to a preliminary determination by the Department.

(d) *Immediate replacement of water supply by the Department.*

(1) If the Department finds that immediate replacement of an affected water supply used for potable or domestic purposes is required to protect public health or safety and the operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA, the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

(2) The Department will recover the costs of restoration or replacement, the costs of temporary water supply and costs incurred for design and construction of facilities from the responsible operator or mine owner. Costs recovered will be deposited in the Surface Mining Conservation and Reclamation Fund.

(e) *Reimbursement.* If a water supply is restored or replaced by the water supply owner or water supply user prior to establishing that mining activity is responsible for the pollution or diminution, the responsible operator or mine owner shall reimburse the water supply owner or water supply user the cost of replacing or restoring the supply including payment of operation and maintenance costs as described in subsection (g). If the operator or mine owner disputes the cost as presented by the water supply owner or water supply user, the operator or mine owner may present to the Department comparable estimates meeting the requirements of subsection (b)(1) from three water supply installers in the area. The Department will determine fair cost of reimbursement based upon these estimates and any other applicable information. Without affecting a water supply owner's or water supply user's other rights consistent with subsection (1), an affected water supply owner or water supply user may make a reimbursement claim to the Department against an operator or mine owner only until final release of the reclamation bond for the site.

(f) *Adequacy of permanently restored or replaced water supply.* A permanently restored or replaced water supply shall include any well, spring, municipal water supply system or other supply approved by the Department which meets the following criteria for adequacy:

- (1) *Reliability, maintenance and control.* As documented in the premining water supply survey, a restored or replaced water supply, at a minimum, shall:
- (i) Be as reliable as the previous water supply.
  - (ii) Be as permanent as the previous water supply.
  - (iii) Not require excessive maintenance.
  - (iv) Provide the water supply owner and the water supply user with as much control and accessibility as exercised over the previous water supply.
  - (v) Not result in increased cost of operation and maintenance for the water supply owner or water supply user, unless the operator or mine owner has provided for payment of the increased cost as described under subsection (g).
- (2) *Quality.* A restored or replaced water supply will be deemed adequate in quality if it meets the following:
- (i) For a domestic supply, the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17) standards, or a quality comparable to the premining water supply if that water supply did not meet these standards. The Department may require that the quality of the restored or replaced water supply be equivalent to the premining supply in particular circumstances where the water supply owner or water supply user has demonstrated that this standard is necessary for the purposes served by the current supply.
  - (ii) For other than a domestic supply, the premining quality established by the water supply survey data or an adequate quality of water needed for the purposes served by and the reasonably foreseeable uses of the supply.
- (3) *Quantity.* For purposes of this paragraph the term “reasonably foreseeable uses” includes the reasonable expansion of use where the quantity of the water supply available prior to mining was adequate to supply the foreseeable uses. A restored or replaced water supply will be deemed adequate in quantity if it meets one of the following:
- (i) It delivers the amount of water necessary to satisfy the purposes served by the supply as documented in the water supply survey including the demands of any reasonably foreseeable uses. The Department will not accept the use of water storage systems in conjunction with the replaced or restored supply to meet quantity requirements, unless the operator or mine owner can demonstrate the existence of no reasonable alternative.
  - (ii) It is established through a connection to a public water supply system that is capable of delivering the amount of water necessary to satisfy the water supply owner’s or water supply user’s needs and the demands of any reasonably foreseeable uses.
- (4) *Water source serviceability.* Replacement of a water supply shall include the installation of all piping, pumping equipment and treatment equipment necessary to put the replaced water source into service.
- (g) *Increased operation and maintenance costs.* If the operation and maintenance costs of the restored or replaced water supply are more than those of the previous supply, the operator or mine owner shall provide for the permanent payment of the increased operation and maintenance costs of the restored or replaced water supply in accordance with the following procedure:



(1) *Determining costs.* The Department will determine the amount of the annual increase in operation and maintenance costs of the restored or replaced water supply based on current actual uses of the water supply.

(i) In consultation with the water supply owner or water supply user, the operator or mine owner shall use a minimum of 6 months of data, including high and low use periods, to ascertain the cost of operating and maintaining the replacement water supply. The data collection period should not exceed 1 year from the date the replacement water supply is functional unless the Department determines a reason to extend the period. During this collection period, the operator or mine owner pays the operation and maintenance costs.

(ii) Within 30 days after the end of the data collection period, the operator or mine owner shall submit to the Department, and to the water supply owner by certified mail, the operator's or mine owner's calculation of the annual increased operation and maintenance costs and a plan for payment of these costs. The water supply owner may respond to the proposed calculation of costs within 30 days from receipt of the certified mail.

(iii) The Department will review the operator's or mine owner's information, the water supply owner's information and any other information the Department deems relevant and will determine the amount of annual increase in operation and maintenance costs.

(iv) In determining the amount of annual increase in operation and maintenance costs, the Department will take into account contingencies and the precision of the cost estimates.

(2) *Provisions for payment.* Within 60 days of the Department's determination of the annual increased cost, the operator shall post a surety or collateral bond in an amount calculated in accordance with paragraph (3). This bond is subject to the following provisions:

(i) The bond shall be submitted on a form prepared by the Department, separate from the designated reclamation bond.

(ii) The bond amount will be reviewed and adjusted as necessary and in accordance with § 86.152 (relating to bond adjustments) at an interval no less than every 5 years in conjunction with the permit renewal.

(iii) A replacement bond must be posted by any successor operator of the associated permit.

(iv) If a water supply operation and maintenance costs bond is forfeited, money received from the forfeiture of the bond can be used only for the water supply for which the Department forfeited the bond unless this supply has since been abandoned. The money will be paid by the Department to the current water supply owner as a settlement of the water supply owner's claim for increased operation and maintenance costs for the water supply for which the bond was forfeited. If a permittee has posted a bond for multiple water supplies, the moneys will be paid to the water supply owners on a prorated basis, based on the respective operation and maintenance costs.

(3) *Bond calculation.* Calculation of the amount of bond necessary to assure payment of operation and maintenance costs will be accomplished through the following procedure:

(i) The annual increased operation and maintenance costs are determined as in paragraph (1).

(ii) This cost is then projected through 1 year beyond the term of the associated permit accounting for inflation through this time period. The following formula is used to calculate the projected costs.

$$OM_x = OM * (1 + E)^x$$

Where:

$OM_x$  is the projected cost for operation and maintenance,

$OM$  is the annual increased operation and maintenance costs,

$E$  is inflation rate based on the average Consumer Price Index as a decimal,

$x$  is years to renewal plus one.

(iii) The projected cost is then used to calculate bond value that is necessary to assure payment of operation and maintenance costs. This bond value can be established by using the projected cost determined in subparagraph (ii) in the following formula:

$$Bond = OM_x / \left( \frac{i - E}{1 + E} \right)$$

Where:

$Bond$  is the present value of the funds needed to cover increased operation and maintenance costs in perpetuity,

$i$  is the historic, long-term rate of return on investments based on Treasury Bills as a decimal,

$OM_x$  and  $E$  are defined as in subparagraph (ii).

(iv) The Department will annually recalculate values for the variables  $i$  and  $E$  used in the previous formulas and publish these values in the *Pennsylvania Bulletin*.

(4) *Release of obligation.* A voluntary agreement between the water supply owner and the operator or mine owner may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner that documents the settlement of increased operation and maintenance costs to the satisfaction of all parties. This agreement shall be on forms provided by the Department and recorded with the deed to the property, with an original signed, recorded document submitted to the Department upon completion. Upon receipt of the fully executed and recorded release, the Department will consider the operator's or mine owner's obligation to pay increased operation and maintenance costs for the water supply to be satisfied and any bonds posted for this supply can be released.

(h) *Special Provisions for operation and maintenance costs.*

(1) Should ownership of the affected water supply change, the operator or mine owner must continue to pay the increased operation and maintenance costs unless a release outlined in subsection (g)(4) is executed.

(2) An operator who incurs the obligation to pay for increased operation and maintenance costs for multiple water supplies may post one bond that cov-

ers the increased operation and maintenance costs for multiple water supplies. The procedures for calculating this bond amount shall be consistent with a single supply bond value as described in subsection (g)(3) but the bond amount must be sufficient to provide for the payment for each water supply in the event that the operator defaults on the legal obligation of permanent payment.

(i) *Waivers.*

(1) The requirement to restore or replace an affected water supply may be waived by the Department if the Department determines that the affected water supply is to be abandoned whereby a replacement is no longer needed based on the approved post-mining land use.

(2) If a water supply is to be abandoned as in paragraph (1), a notarized written statement signed by all persons who possess an ownership interest in the water supply shall be submitted to the Department establishing that the individuals knowingly and willingly agree to abandon the water supply. This document shall be recorded with the deed to the property at the office of the recorder of deeds.

(j) *Presumption of liability.*

(1) It shall be presumed, as a matter of law, that a surface mine operator or owner is responsible without proof of fault, negligence or causation for all pollution and diminution, except for bacteriological contamination, of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of any areas affected by surface mining activities whether or not permitted, including all reclaimed areas that underwent these activities. Areas utilized solely for haul and access roads shall not be included in the presumption area.

(2) Other than if the operator, mine owner or the Department determines that the water supply is not within the 1,000-foot area as described in paragraph (1), the presumption is voided if the operator or mine owner can affirmatively prove by a preponderance of the evidence one or more of the following:

(i) The water supply owner refused to allow the operator or mine owner access to conduct a water supply survey prior to commencing surface mining activities.

(ii) The water supply owner or water supply user refused to allow the operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(iii) The pollution or diminution existed prior to the surface mining activities as evidenced by a water supply survey conducted prior to commencing surface mining activities and as documented in the approved surface mine permit application submitted to the Department prior to permit issuance.

(iv) The pollution or diminution is not a result of the surface mining activities.

(3) If the operator or mine owner intends to demonstrate the presumption of liability is not applicable, they shall notify the Department and provide information in support of the demonstration. If asserting that access was denied, evidence must be provided showing that the water supply owner was notified by certified mail or personal service that the refusal of access to con-

duct a water supply survey or assessment may be used to rebut the presumption of liability. The Department will consider information provided under this paragraph in determining if mining activity caused the pollution or diminution and make a determination within 90 days of the operator's or mine owner's submissions.

(k) *Operator cost recovery.* An operator or mine owner who prevails in an appeal of a Department order to replace a water supply may pursue recovery of costs in accordance with 27 Pa.C.S. § 7708 (relating to costs for mining proceedings).

(l) *Other remedies.* Nothing in this section prevents a water supply owner or water supply user who claims pollution or diminution of a water supply from pursuing any other remedy that may be provided for in law or in equity. This section also does not prevent an operator or mine owner from pursuing any remedy in law or in equity should the operator incur costs for restoring or replacing a water supply that experienced pollution or diminution caused by third parties.

(m) *Issuance of new permits.* A Department order issued under this section which is appealed will not be used to block issuance of new permits.

(n) *Department authority.* Nothing in this section limits the Department's authority under section 4.2(f)(l) of SMCRA.

(o) *Exception.* A surface mining operation conducted under a surface mining permit issued by the Department before February 16, 1993, is not subject to subsections (a) and (c)—(m) but is subject to subsections (b) and (n).

#### Authority

The provisions of this § 87.119a added under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.119a adopted June 25, 2021, effective June 26, 2021, 51 Pa.B. 3449.

#### Cross References

This section cited in 25 Pa. Code § 87.1 (relating to definitions); 25 Pa. Code § 87.47 (relating to alternative water supply information); 25 Pa. Code § 89.173 (relating to performance standards); and 25 Pa. Code § 90.116a (relating to hydrologic balance: water rights and replacement).

### § 87.120. Hydrologic balance: discharge of water into an underground mine.

Surface water and groundwater from surface mining activities may not be diverted or otherwise discharged into underground mine workings except in accordance with Chapter 89 (relating to underground mining of coal and coal preparation facilities).

87-72.4

**Source**

The provisions of this § 87.120 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.121. Hydrologic balance: permanent postmining renovation of sedimentation ponds, diversions, impoundments and treatment facilities.**

At the completion of surface mining activities, the person who conducts the surface mining activities shall renovate all permanent sedimentation ponds, diversions, impoundments and treatment facilities to meet criteria specified in the detailed design plan for the permanent structures and impoundments, unless the permittee demonstrates that the facility or structure meets the requirements of this subchapter.

**Source**

The provisions of this § 87.121 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.122. [Reserved].****Source**

The provisions of this § 87.122 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.123. Utilization and conservation of coal.**

Surface mining activities shall be conducted so as to maximize the utilization and conservation of the coal being recovered so that re-affecting the land in the future through surface mining can be minimized.



**Source**

The provisions of this § 87.123 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.124. Use of explosives: general requirements.**

(a) A person who conducts surface mining activities shall comply with this chapter and applicable State and Federal laws in the use of explosives.

(b) Blasts that use more than 5 pounds of explosive or blasting agents shall be conducted according to the schedule required under § 87.126 (relating to use of explosives: public notice of blasting schedule).

(c) Blasting operations shall be conducted by or under the supervision of a competent blaster licensed and operating in compliance with Chapter 210 (relating to blasters' licenses).

(d) Blasting operations shall be conducted in compliance with Chapter 211 (relating to storage, handling and use of explosives).

(e) A person responsible for blasting operations at a blasting site shall be familiar with the blasting plan and site-specific performance standards.

**Authority**

The provisions of this § 87.124 amended under section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b); section 11 of the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. § 3311); and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-17 and 510-20).

**Source**

The provisions of this § 87.124 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial page (281201).

**Cross References**

This section cited in 25 Pa. Code § 87.64 (relating to blasting plan); 25 Pa. Code § 87.76 (relating to surface mining near underground mining); 25 Pa. Code § 90.43 (relating to blasting plan); 25 Pa. Code § 90.92 (relating to signs and markers); and 25 Pa. Code § 90.148 (relating to blasting).

**§ 87.125. Use of explosives: preblasting survey.**

(a) At least 30 days before initiation of blasting, the operator shall notify, in writing, residents or owners of dwellings or other structures located within 1/2 mile of the permit area where blasting will occur of the right to a preblasting survey, the right to receive a copy of the preblasting survey and how to request a preblasting survey. On the request to the Department or operator by a resident or owner of a dwelling or structure that is located within 1/2 mile of any part of the permit area where blasting will occur, the persons who conduct the surface mining activities shall promptly conduct a preblasting survey of the dwelling or structure. If a dwelling or structure is renovated or added to subsequent to a preblasting survey, then, upon request by the resident or owner to the Department or

operator, a survey of the additions and renovations shall be performed by the operator under this section. The operator shall provide the Department with a copy of the request.

(b) The survey shall determine the condition of the dwelling or structure and document any preblasting damage and other physical factors that could reasonably be affected by the blasting. Assessments of structures such as pipes, cables, transmission lines, and wells and other water systems shall be limited to surface condition and readily available data. Preblasting conditions of wells and other water systems used for human, animal or agricultural purposes shall be ascertained to the extent possible regarding the quantity and quality of the water.

(c) A written report of the survey shall be prepared and signed by the person who conducted the survey. The report may include recommendations of any special conditions or proposed adjustments to the blasting procedure which should be incorporated into the blasting plan to prevent damage. Copies of the report shall be promptly provided to the person requesting the survey and to the Department. If the person requesting the survey disagrees with the results of the survey, the person may notify, in writing, both the permittee and the Department of the specific areas of disagreement.

(d) A preblasting survey requested more than 10 days before planned initiation of blasting shall be completed by the operator before the initiation of blasting.

#### Authority

The provisions of this § 87.125 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.125 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198978) to (198979).

#### Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 87.64 (relating to blasting plan); 25 Pa. Code § 87.76 (relating to surface mining near underground mining); 25 Pa. Code § 87.127 (relating to use of explosives: surface blasting requirements); 25 Pa. Code § 90.43 (relating to blasting plan); 25 Pa. Code § 90.92 (relating to signs and markers); and 25 Pa. Code § 90.148 (relating to blasting).

### § 87.126. Use of explosives: public notice of blasting schedule.

(a) *Blasting schedule publication.*

(1) Each person who conducts surface mining activities shall publish a blasting schedule in a newspaper of general circulation in the locality of the proposed



site, at least 10 days, but not more than 30 days, before beginning a blasting program in which blasts that use more than 5 pounds of explosives or blasting agents are detonated.

(2) Copies of the schedule shall be distributed by mail to local governments and public utilities and by mail or delivered to each resident within 1/2 mile of the blasting area. Copies sent to residents shall be accompanied by information advising the owner or resident how to request a preblasting survey.

(3) The person who conducts the surface mining activities shall republish and redistribute the schedule by mail at least every 12 months.

(b) *Blasting schedule contents.*

(1) A blasting schedule may not be so general as to cover the entire permit area or all working hours, but must identify as accurately as possible the location of the blasting sites and the time periods when blasting will occur.

(2) The blasting schedule must contain at a minimum the following:

(i) Identification of the specific areas in which blasting will take place. Each specific blasting area described must be reasonably compact and not larger than 300 acres (121.4 hectares).

(ii) Dates and time periods when explosives are to be detonated.

(iii) Methods to be used to control access to the blasting area.

(iv) Types of audible warnings and all-clear signals to be used before and after blasting.

(v) A description of possible emergency situations that might prevent blasting at times announced in the blasting schedule, such as rain, lightning, other atmospheric conditions or operator or public safety which may require unscheduled detonation.

(c) *Public notice of changes to blasting schedules.*

(1) The person who conducts the surface mining activities shall prepare a revised blasting schedule before blasting in areas or at times not in a previous schedule.

(2) The blasting schedule shall be revised, published and distributed in accordance with this section. Advice on requesting a preblast survey need not be provided to those parties advised in the original distribution under subsection (a)(2).

**Authority**

The provisions of this § 87.126 amended under section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b); section 11 of the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. § 3311); and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-17 and 510-20).

**Source**

The provisions of this § 87.126 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (281202) and (244095).

**Cross References**

This section cited in 25 Pa. Code § 87.64 (relating to blasting plan); 25 Pa. Code § 87.76 (relating to surface mining near underground mining); 25 Pa. Code § 87.127 (relating to use of explosives: surface blasting requirements); 25 Pa. Code § 90.43 (relating to blasting plan); 25 Pa. Code § 90.92 (relating to signs and markers); 25 Pa. Code § 87.124 (relating to use of explosives: general requirements); and 25 Pa. Code § 90.148 (relating to blasting).

**§ 87.127. Use of explosives: surface blasting requirements.**

(a) Blasting shall be conducted between sunrise and sunset, at times announced in the blasting schedule, except that mine opening blasting conducted after the second blast, for that mine opening, may be conducted at any time of day or night as necessary to maintain stability of the mine opening to protect the health and safety of mineworkers. For mine opening blasting conducted after the second blast, for that mine opening, the Department may approve ground vibration and airblast limits at a dwelling, public building, school, church or commercial or institutional structure, that are less stringent than those specified in subsection (e) or (m) if consented to, in writing, by the structure owner and lessee, if leased to another party.

(b) The Department may specify more restrictive time periods, airblast or ground vibration limits, based on public requests or other relevant information, according to the need to adequately protect the public from the adverse affects of ground vibration, airblast or safety hazards.

(c) Warning and all-clear signals shall be different in pattern, audible with a range of 1/2 mile from the point of the blast, sounded before and after each blast. Persons who work within the 1/2 mile of the blasting area shall be notified of the meaning of the signals through appropriate instructions. These instructions shall be periodically delivered or otherwise communicated in a manner which can be reasonably expected to inform these persons of the meaning of the signals. A person who conducts blasting incident to surface mining activities shall:

(1) When a blast is about to be fired, give sufficient warning that persons approaching the blast area may be warned of the danger and be given ample time to retreat a safe distance from the blast area.

(2) When electric blasting operations are located near highways or other public ways, erect signs at least 500 feet from the blast area reading: **BLAST AREA-SHUT OFF ALL TWO-WAY RADIOS**. The letters of these signs shall be at least 4 inches in height on a contrasting background.

(3) Place at the entrances to the permit area from public roads or highways conspicuous signs which state "Warning. Explosives in Use" which clearly

explain the blast warning and all clear signals that are in use and which explain the marking of blasting areas and charged holes within the permit area.

(d) Access to an area possibly subject to flyrock from blasting shall be controlled to protect the public and livestock. Access to the area shall be controlled to prevent the presence of livestock or unauthorized personnel during blasting and until an authorized representative of the person who conducts the surface mining activities has reasonably determined:

(1) That no unusual circumstances, such as imminent slides or undetonated charges, exist.

(2) That access to and travel in or through the area can be safely resumed.

(e) Airblast shall be controlled so that it does not exceed the level specified in this subsection at a dwelling, public building, school, church or commercial or institutional structure, unless the structure is located on the permit area when the structure owner and lessee, if leased to another party, have each signed a waiver relieving the operator from meeting the airblast limitations of this subsection.

(1) The maximum allowable airblast level is 133 dBL.

(2) If necessary to prevent damage, the Department will specify lower maximum allowable airblast levels than those of this subsection for use in the vicinity of a specific blasting operation. The measuring systems used shall have a flat response of at least 200 Hz at the upper end. The Type 1 sound level meter shall use the slow response C- weighted network and shall meet American National Standards Institute (ANSI) S1.4-1971 specifications. The ANSI S1.4-1971 is incorporated by reference.

(3) The operator shall conduct periodic monitoring to ensure compliance with the airblast standards. The Department may require an airblast measurement of blasts, and may specify the location of the measurements.

(f) Requirements for blasting are as follows:

(1) Public highways and entrances to the operation shall be barricaded and guarded by the operator if the highways and entrances to the operations are located within 800 feet of a point where a blast is about to be fired. The operator may use an alternative measure to this requirement if the operator demonstrates, to the Department's satisfaction, that the alternative measure is at least as effective at protecting persons and property from the adverse affects of a blast. Alternative measures are measures such as:

(i) Slowing or stopping traffic in coordination with appropriate State or local authorities, including local police.

(ii) Using mats to suppress fly rock.

(iii) Designing the blast to prevent damage or injury to persons and property located on the public highways or at the operation's entrances by using design elements such as:

(A) Orienting the blast so that the direction of relief is away from public highways or operation entrances.

(B) Adjusting blast design parameters including:

- (I) The diameter of holes.
- (II) The number of rows.
- (III) The number of holes.
- (IV) The amount and type of explosive.
- (V) The burden and spacing.
- (VI) The amount and type of stemming.
- (VII) The powder factor.

(2) When a blast is about to be fired within 200 feet of a pipeline, the operator shall exercise necessary caution as needed for the protection of the pipeline. The operator shall notify the owner of the line of the operator's intention to blast, giving a description of the precautionary measures that will be taken.

(3) When blasting is to be done within 1,000 feet of schools or public buildings, it shall be done only during the time approved by the Department. Prior to the blasts, the operator or foreman in charge of the blasting operation shall, within 24 hours prior to the blast, notify persons within this area that a blast is to be detonated. Approval of the method of notification shall be obtained from the Department prior to commencing blasting.

(4) Blasting may not be done within the confines of an area of 300 feet of an occupied dwelling unless prior written consent of the property owner has been obtained.

(5) Flyrock, including blasted material traveling along the ground, may not be cast from the blasting vicinity more than one-half the distance to the nearest dwelling or other occupied structure and in no case beyond the permit boundary, or beyond the area or regulated access required under subsection (d).

(6) Notwithstanding other provisions in this part, no blasting, whether of overburden or of coal, may be done or performed in a manner and under circumstances or conditions to eject debris into the air, to constitute a hazard or danger or do harm or damage to persons or property in the area of the blasting.

(g) Blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on an underground-mine, or availability of groundwaters or surface waters; and shall be prohibited in cases when the effect of the blasting is liable to change the course or channel of a stream.

(h) In blasting operations, except as otherwise authorized in this section, the maximum peak particle velocity may not exceed the values approved in the blast plan required by § 87.64 (relating to blasting plan) at the location of a dwelling, public building, school, church, commercial or institutional building or other structure. Peak particle velocities shall be recorded in three mutually perpendicular directions. The maximum peak particle velocity shall be the largest of any of three measurements. The Department may reduce the maximum peak particle velocity allowed, if it determines that a lower standard is required because of

density of population or land use, age or type of structure, geology or hydrology of the area, frequency of the vibration or other factors.

(i) The maximum peak particle velocity limitation of subsection (h) does not apply at structures located on the permit area when the owner and lessee, if leased to another party, of the structure have each signed a waiver releasing the vibration limit. The waiver shall be clear, knowing and specific. This waiver shall be submitted to the Department prior to the firing of a blast which exceeds the current vibration limit, as stated in this section or the blast plan.

(j) When seismographs are not used to monitor peak particle velocity, the maximum weight of explosives to be detonated within an 8 millisecond period may be determined by the formula  $W = (D/D_s)^2$  where W equals the maximum weight of explosives, in pounds, that can be detonated in any 8 millisecond period or greater, D equals the distance, in feet, from the blast to the nearest dwelling, school, church, commercial or institutional building and  $D_s$  equals the scaled distance factor. The development of a modified scaled-distance factor may be authorized by the Department on receipt of a written request by the operator, supported by seismographic records of blasting at the minesite. The modified scaled-distance factor shall be determined so that the particle velocity of the predicted ground vibration will not exceed the prescribed maximum allowable peak particle velocity of subsection (n) at a 95% confidence level.

(k) When a seismograph is used to monitor the peak particle velocity, a seismograph record shall be obtained for each blast and within 30 calendar days become part of the blast record required in § 87.129 (relating to use of explosives: record of blasting operations). The seismograph record shall be analyzed by an independent party qualified in the analysis of seismic data.

(l) The Department may require a seismograph record of blasts and may specify the location at which the measurements are taken.

(m) The maximum ground vibration may not exceed the following limits at the location of a dwelling, public building, school, church or community or institutional building:

<i>Distance (D), from the blasting site, in feet</i>	<i>Maximum allow- able peak particle velocity (Vmax) for ground vibration, in inches/second<sup>1</sup></i>	<i>Scaled-distance factor to be applied without seismic monitoring (Ds)<sup>2</sup></i>
0 to 300	1.25	50
301 to 5,000	1.00	55
5,001 and beyond	.75	65

<sup>1</sup>Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in three mutually perpendicular directions. The maximum allowable peak particle velocity shall apply to each of the three measurements.

<sup>2</sup>Applicable to the scaled-distance equation of subsection (j).

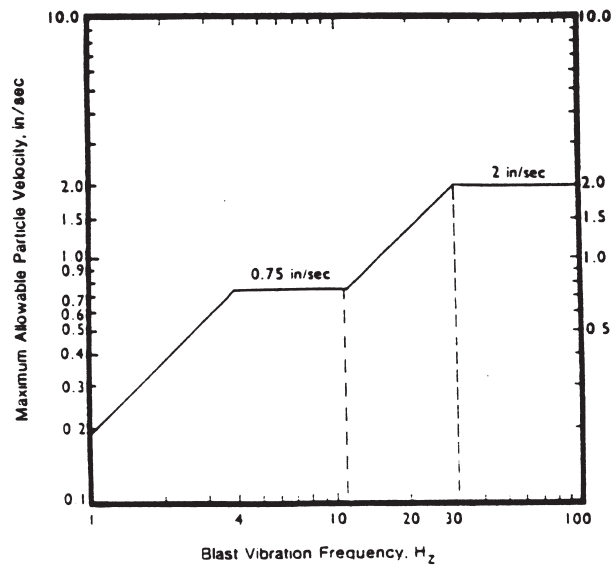
(n) The Department will not permit blasting to be conducted until:

(1) Blasting plans, under § 87.64 (relating to blasting plan), are approved by the Department and the approved blasting plan is returned to the operator.

(2) Notification of completion of requested preblasting surveys, under § 87.125 (relating to use of explosives: preblasting survey), is received by the Department.

(3) Copy of the proof of publication of each blasting schedule, under § 87.126 (relating to use of explosives; public notice of blasting schedule), is received by the Department.

(o) An operator may use Figure 1, the blast level chart, to determine the maximum allowable ground vibration. If Figure 1 is used, the operator shall provide a seismograph record including both the particle velocity time-history (wave form) and the particle velocity and vibration frequency levels for each blast.



**Figure 1**

(1) The vibration frequency shall be displayed and analyzed over the frequency range of 1 Hz through 100 Hz.

(2) The permittee shall obtain Department approval of the analytical method used to determine the predominant frequency before applying this alternative criterion.

**Authority**

The provisions of this § 87.127 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b); section 11 of the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. § 3311); and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-17 and 510-20).

**Source**

The provisions of this § 87.127 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (244095) to (244100) and (206827).

**Notes of Decisions**

The appellant's challenge to restrictions which the EQB promulgated under Federal law was a challenge to a State regulation and, therefore, the EQB had jurisdiction. *Croner, Inc. v. Department of Environmental Resources*, 589 A.2d 1183, 1187 (Pa. Commw. 1991).

**Cross References**

This section cited in 25 Pa. Code § 87.64 (relating to blasting plan); 25 Pa. Code § 87.76 (relating to surface mining near underground mining); 25 Pa. Code § 87.92 (relating to signs and markers); 25 Pa. Code § 90.43 (relating to blasting plan); 25 Pa. Code § 90.92 (relating to signs and markers); and 25 Pa. Code § 90.148 (relating to blasting).

**§ 87.129. Use of explosives: records of blasting operations.**

A record of each blast shall be retained for at least 3 years and shall be available for inspection by the Department and the public on request. Seismographic reports, if applicable, must be made a part of that record. The record must contain the following data:

- (1) The name of the operator conducting the blast.
- (2) The location, date and time of blast.
- (3) The name, signature and license number of blaster-in-charge.
- (4) The identification of and the direction and distance, in feet, to the nearest dwelling, public building, school, church, commercial or institutional building or other structure.
- (5) Weather conditions, including temperatures, wind direction and approximate velocity.
- (6) The type of material blasted.
- (7) The number of holes, burden and spacing.
- (8) The diameter and depth of holes.
- (9) The types of explosives used.
- (10) The total weight of explosives used.
- (11) The maximum weight of explosives detonated per delay interval.
- (12) The maximum number of holes detonated per delay interval.

87-80.1

- (13) The initiation system.
- (14) The type and length of stemming.
- (15) The mats or other protections used.
- (16) The type of delay detonator and delay periods used.
- (17) A sketch of the blast pattern, including number of holes, burden, spacing, decks and delay pattern.
- (18) The number of persons in the blasting crew.
- (19) Seismographic and airblast records, when required, including the type of instrument, sensitivity and calibration signal of the gain setting or certification of annual calibration and the following:
  - (i) The seismographic or airblast level, or both, reading, including the exact location of seismograph and its distance from the blast.
  - (ii) The name of the person taking the seismograph reading.
  - (iii) The name of person and firm analyzing the seismographic record.
- (20) The reasons and conditions for each unscheduled blast.

#### Authority

The provisions of this § 87.129 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b); section 11 of the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. § 3311); and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. § 510-17 and 510-20).

#### Source

The provisions of this § 87.129 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (198984) to (198985).

#### Notes of Decisions

A coal mining operator charged with a violation of the air blast calibration requirements could challenge the violation and the amount of the fine in one appeal proceeding even though the fine was issued after the expiration of the appeal period for challenging the compliance order and the company did not timely appeal the compliance order. *Kent Coal Mining Co. v. Department of Environmental Resources*, 550 A.2d 279 (Pa. Cmwlth. 1988).

#### Cross References

This section cited in 25 Pa. Code § 87.64 (relating to blasting plan); 25 Pa. Code § 87.76 (relating to surface mining near underground mining); 25 Pa. Code § 87.127 (relating to use of explosives surface blasting requirements); 25 Pa. Code § 90.43 (relating to blasting plan); 25 Pa. Code § 90.92 (relating to signs and markers); and 25 Pa. Code § 90.148 (relating to blasting).

#### 87-80.2



**§ 87.131. Disposal of excess spoil.**

(a) Spoil not required to achieve the approximate original contour shall be transported and placed in designated disposal areas approved by the Department within the permit area. The disposal area shall be designed, constructed and maintained to ensure:

(1) That leachate and surface runoff from the fill will not degrade surface or groundwater or exceed the effluent limitations of § 87.102 (relating to hydrologic balance: effluent standards).

(2) The prevention of combustion.

(3) The stability of the fill.

(4) That the land mass designated as the disposal area is suitable for reclamation and revegetation compatible with the natural surroundings.

(b) The fill shall be designed using recognized professional standards, certified by a registered professional engineer, and approved by the Department.

(c) The excess spoil disposal fill shall be designed to attain a long-term static factor of safety of 1.5 and a seismic factor of safety of 1.1 based upon data



obtained from subsurface exploration, geotechnical testing, foundation design, fill design and accepted engineering analyses.

(d) Vegetative and organic materials shall be removed from the disposal area and the topsoil shall be removed, segregated and stored or replaced as provided in §§ 87.96—87.100. If approved by the Department, organic material may be used as mulch or may be included in the topsoil to control erosion, promote growth of vegetation or increase the moisture retention of the soil.

(e) The excess spoil disposal area should be located in areas where ground-water discharge and surface water flows are minimal.

(f) The disposal areas shall be located on the most moderately sloping and naturally stable areas available as approved by the Department. If the placement provides additional stability and prevents mass movement, fill materials suitable for disposal shall be placed upon or above a natural terrace, bench or berm.

(g) The spoil shall be hauled or conveyed and placed in a controlled manner and concurrently compacted as approved by the Department in lifts no greater than 4 feet, or less if required by the Department as the design to:

- (1) Achieve the densities designed to ensure mass stability.
- (2) Prevent mass movement.
- (3) Avoid contamination of the rock underdrain.
- (4) Prevent formation of voids.

(h) The final configuration of the fill shall be suitable for postmining land uses approved in accordance with § 87.159 (relating to postmining land use), except that no depressions or impoundments may be allowed on the completed fill. The fill may not exceed the approximate elevation of the ridgeline.

(i) The top surface of the completed fill shall be graded so that the final slope after settlement will be no steeper than 1v:20h-5.0% toward properly designed drainage channels in natural ground clay along the periphery of the fill. Surface runoff from the top surface of the fill may not be allowed to flow over the out-slope of the fill.

(j) Terraces may be utilized to control erosion and enhance stability or for roads if approved by the Department and consistent with the approved postmining land use.

(k) When the slope in the disposal area exceeds 1v:2.8h-36% or a lesser slope designated by the Department based on local conditions, keyway cuts (excavations to stable bedrock) or rock toe buttresses shall be constructed to stabilize the fill. When the toe of the spoil rests on a downslope, stability analyses shall be performed in accordance with § 87.79 (relating to disposal of excess spoil) to determine the size of rock toe buttresses and key way cuts.

(l) Surface water runoff from the areas adjacent to and above the fill may not be allowed to flow onto the fill and shall be diverted into stabilized channels which are designed to pass safely the peak runoff from a 100-year precipitation event. Diversion design shall comply with the requirements of § 87.105 (relating to hydrologic balance: diversions).

(m) Surface water runoff from the fill shall be diverted off the fill to properly designed channels which will pass safely the peak runoff from a 100-year precipitation event. Diversion design shall comply with the requirements of § 87.105.

(n) The fill shall be inspected for stability by a qualified registered professional engineer or other qualified professional specialist experienced in the construction of earth and rockfill embankments and working under the direction of a qualified registered professional engineer. These inspections shall occur at least quarterly throughout construction and during the following critical construction periods: removal of organic material and topsoil, placement of underdrainage systems, installation of surface drainage systems, placement and compaction of fill materials and revegetation. The qualified registered professional engineer shall provide to the Department a certified report within 2 weeks after each inspection that the fill has been constructed and maintained in accordance with the approved design, in accordance with the approved plan, and in accordance with all applicable performance standards and this chapter. The report shall include appearances of instability, structural weakness and other hazardous conditions. A copy of the report shall be retained at the minesite.

(o) Coal processing waste may be disposed of in the disposal area if the requirements of Chapter 90 (relating to coal refuse disposal) are met.

(p) If the disposal area contains springs, natural or manmade water courses, or wet-weather seeps, an underdrain system consisting of durable rock shall be constructed from the wet areas in a manner that prevents infiltration of the water into the spoil material. The underdrain system shall be protected by an adequate filter and ensure continued free drainage.

(q) An underdrain/subdrainage system for the fill shall be designed in accordance with the following:

(1) It shall include an underdrain system which will ensure free drainage of anticipated seepage from precipitation and from spring or wet-weather seeps and meet the following:

(i) Anticipated discharges from springs and seeps due to precipitation shall be based on records or field investigation, or both, to determine seasonal variation. The design of the underdrain system shall be based on maximum anticipated discharges.

(ii) Granular material used for the drainage system shall be nondegradable, nonacid- or toxic-forming rock free of clay, and consist of durable particles such as natural sands and gravels, sandstone, limestone or other durable rock which will not slake in water.

(2) An underdrain system shall be designed to be installed along with the natural drainage system; extend from toe to head of fill; and contain lateral drains to each area of potential drainage or seepage.

(3) A filter system to ensure the proper functioning of the rock underdrain system shall be designed and constructed using standard geotechnical engineering methods.

(r) The certified report required under subsection (n) shall include, as part of reporting on the underdrain/subdrainage system and filter system, color photographs taken during and after construction, but before the underdrains are covered with excess spoil. If the underdrain is constructed in phases, each phase shall be certified separately. Photographs shall be taken in adequate size and number with enough terrain or other physical features of the site shown to provide a relative scale to the photographs and to specifically and clearly identify the site.

(s) The foundation and abutments of the fill shall be stable under all conditions of construction and operation. Sufficient foundation investigation and laboratory testing of foundation materials shall be performed to determine the design requirements for stability of the foundation. Analyses of foundation conditions shall include the effect of underground mine workings, if any, upon the stability of the structure.

(t) Excess spoil may be returned to underground mine workings, but only in accordance with a disposal program approved by the Department and MSHA in accordance with Chapter 89 (relating to underground mining of coal and coal preparation facilities).

#### Authority

The provisions of this § 87.131 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.131 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 11, 1992, effective December 12, 1992, 22 Pa.B. 5945; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198985) to (198988).

#### Cross References

This section cited in 25 Pa. Code § 87.79 (relating to disposal of excess spoil); 25 Pa. Code § 87.141 (relating to backfilling and grading: general requirements); 25 Pa. Code § 87.174 (relating to steep slope operations); and 25 Pa. Code § 87.175 (relating to variance to contouring).

### § 87.135. Protection of underground mining.

(a) Surface coal mining activities, except support activities, may not be conducted closer than 500 feet to any point of either an active or abandoned underground mine, except to the extent that:

- (1) The nature, timing and sequence of the operations that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Department and the Mine Safety and Health Administration.
  - (2) In the case of operations that propose to mine closer than 500 feet of an abandoned underground mine, the nature, timing and sequence of the operations are approved by the Department.
  - (3) The activities result in improved resource recovery, abatement of water pollution or elimination of hazards to the health and safety of the public.
- (b) Surface mining activities shall be designed to protect disturbed surface areas, including spoil disposal areas, so as not to endanger surface or underground mining activities.

#### Authority

The provisions of this § 87.135 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 87.135 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (198988) to (198989).

#### Cross References

This section cited in 25 Pa. Code § 87.76 (relating to surface mining near underground mining); and 25 Pa. Code § 87.176 (relating to auger mining).

### § 87.136. Disposal of noncoal wastes.

Noncoal wastes, including, but not limited to, grease, lubricants, paints, flammable liquids, garbage and other hazardous wastes shall be disposed of or stored temporarily in accordance with the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003) and the regulations promulgated thereunder. Storage shall be such that fires are prevented and that the area remains stable and suitable for reclamation and revegetation.

#### Authority

The provisions of this § 87.136 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.136 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (198989).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information).

**§ 87.137. Air resources protection.**

Air pollution control measures shall be planned and employed as an integral part of the surface mining activities and shall meet the following requirements:

- (1) If processing facilities are to be used at the mining site, the facilities shall meet the requirements of Chapters 123 and 127 (relating to standards for contaminants; and construction, modification, reactivation and operation of sources).
- (2) Fugitive dust control measures shall demonstrate compliance with Chapters 121, 123, 127 and 129.

**Source**

The provisions of this § 87.137 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.66 (relating to air pollution control plan).

**§ 87.138. Protection of fish, wildlife and related environmental values.**

(a) A person conducting surface mining activities shall, *to the extent possible* using the best technology currently available:

- (1) Minimize disturbances and adverse impacts of the activities on fish, wildlife and related environmental values, and achieve enhancement of the resources when practicable.
- (2) Locate and operate haul and access roads to avoid or minimize impacts to fish and wildlife species or other species protected by State or Federal law.
- (3) Avoid disturbance to, enhance where practicable, or restore, habitats of unusually high value for fish and wildlife.
- (4) Restore, enhance when practicable, or maintain natural riparian vegetation on the banks of streams, lakes and other wetland areas.
- (5) Not use restricted pesticides on the areas during surface mining and reclamation activities, unless approved by the Department of Agriculture.
- (6) Do the following, if fish and wildlife habitat is the postmining land use, in addition to the requirements of §§ 87.147—87.153, 87.155 and 87.156:
  - (i) Select plant species to be used on reclaimed areas, based on the following criteria:
    - (A) Their proven nutritional value for fish and wildlife.
    - (B) Their uses as cover for fish and wildlife.

(C) Their ability to support and enhance fish and wildlife habitat after release of bonds.

(ii) Distribute plant grouping to maximize benefit to fish and wildlife. Plants should be grouped and distributed in a manner which optimizes edge effect, cover and other benefits for fish and wildlife.

(7) Intersperse the fields with trees, hedges or fence rows throughout the harvested area to break up large blocks of monoculture and to diversify habitat types for birds and other animals, when cropland is to be the alternative post-mining land use and when appropriate for wildlife and crop management practices. Wetlands shall be preserved or created rather than drained or otherwise permanently abolished.

(8) Intersperse reclaimed lands with greenbelts utilizing species of grass, shrubs and trees useful as food and cover for birds and small animals, unless the green belts are inconsistent with the approved postmining land use, when the primary land use is to be residential, public service or industrial land use.

(9) Design fences, overland conveyors and other potential barriers to permit passage for large mammals, except if the Department determines that the requirements are unnecessary.

(10) Fence, cover or use other appropriate methods to exclude wildlife from ponds which contain hazardous concentrations of toxic-forming materials.

(b) A person who conducts surface mining activities shall promptly report to the Department the presence in the permit area of threatened or endangered species under State or Federal laws of which that person becomes aware and which was not previously reported to the Department by that person. Upon notification, the Department will consult with the Game Commission or the Fish and Boat Commission and appropriate Federal fish and wildlife agencies and, after consultation, will identify whether, and under what conditions, the operator may proceed.

(c) Surface mining activity may not be conducted in a manner which would result in the unlawful taking of a bald or golden eagle, its nest or its eggs. The operator shall promptly report to the Department a golden or bald eagle nest within the permit area of which the operator becomes aware. Upon notification, the Department will consult with the United States Fish and Wildlife Service and the Game Commission and, after consultation, will identify whether, and under what conditions, the operator may proceed.

(d) Surface mining activity may not be conducted which is likely to jeopardize the continued existence of endangered or threatened species listed by the Secretary of the Interior, the Game Commission or the Fish and Boat Commission or which is likely to result in the destruction or adverse modification of designated critical habitats of these species in violation of the Endangered Species Act of 1973 (16 U.S.C.A. §§ 1531—1544).



**Authority**

The provisions of this § 87.138 amended under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19a); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.138 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206833) to (206835).

**Cross References**

This section cited in 25 Pa. Code § 87.84 (relating to fish and wildlife protection and enhancement plan).

**§ 87.139. Slides and other damages.**

(a) An undisturbed natural barrier shall be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the Department as is needed to assure stability. The barrier shall be retained in place to prevent slides and erosion.

(b) At any time a slide occurs which may have a potential adverse affect on public property, health, safety or the environment, the operator shall notify the Department by the fastest available means and shall implement all necessary remedial measures in the manner acceptable to the Department.

**Source**

The provisions of this § 87.139 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.140. Contemporaneous reclamation.**

Reclamation efforts including, but not limited to, backfilling, grading, topsoil replacement and revegetation of all land that is disturbed by surface mining activities shall occur in accordance with §§ 87.141, 87.142, 87.144—87.148.

**Source**

The provisions of this § 87.140 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.141. Backfilling and grading: general requirements.**

(a) Disturbed areas shall be returned to their approximate original contour except as specifically exempted in § 87.142 or § 87.175 (relating to backfilling and grading: re-affecting previously mined lands; and variance to contouring).

Spoil shall be transported, backfilled, compacted—when advisable to insure stability or to prevent leaching—and graded to eliminate spoil piles and depressions. Excess spoil material shall be disposed under § 87.131 (relating to disposal of excess spoil).

(b) Backfilled material shall be placed to minimize off-site effects and to support the approved postmining land use.

(c) Timing of backfilling and grading shall be concurrent with mining and comply with the following:

(1) Backfilling and grading shall follow coal removal by not more than 60 days unless the approved operation and reclamation plan contains an alternative schedule based on the applicant's ability to demonstrate through a detailed written analysis under § 87.68(3) (relating to reclamation information) that additional time is necessary.

(2) Backfilling and grading may not be more than 300 horizontal feet from the face of the highwall and no more than 1500 horizontal feet of pit may be open at one time. The Department may, in writing, approve distances in excess of these requirements as part of the approved operation and reclamation plan if the operator demonstrates, through a detailed written analysis under § 87.68(3), that additional distance is needed for reason of multiple seam mining, the size or amount of equipment being used, topography or method of mining.

(d) Backfilling equipment needed to complete the restoration may not be removed from the operation until backfilling and leveling has been completed and approved in writing by the Department. Upon written request by the operator to the Department specifying the need to remove backfilling equipment for protection of backfilling equipment from weather conditions, for required maintenance or for protection from vandalism during strikes, the Department may approve, in writing, the temporary removal if inspection of the site demonstrates that the operation is in compliance with the rules of the EQB and the statutes of the Commonwealth relating to environmental protection and that the request for temporary removal is justified for the reasons specified by the operator. Temporarily removed backfilling equipment shall be returned to the site promptly upon the Department's direction. Backfilling equipment shall be operable, in use and capable of meeting the requirements of the reclamation plan throughout the life of the mining operation.

#### Source

The provisions of this § 87.141 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148682) to (148683).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.174 (relating to steep slope operations); 25 Pa. Code § 87.175 (relating to variance to contouring); 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement); and 25 Pa. Code § 89.84 (relating to backfilling and grading).

**§ 87.142. Backfilling and grading: reffecting previously mined lands.**

When the surface mining activities are affecting lands that had previously been mined to prior current practices and standards, the Department may approve, in writing, terracing as an alternative to contouring of the areas if the operator demonstrates that:

- (1) The area proposed to be affected cannot be reclaimed to approximate original contour.
- (2) Reffecting the area is likely to produce an environmental benefit.
- (3) Overburden and spoil is retained on the solid portion of existing or new benches.
- (4) The highwall is eliminated.
- (5) The area is backfilled and graded to the most moderate slope possible in eliminating the highwall. The final slopes shall achieve a minimum static safety factor of 1.3.
- (6) The final slopes are consistent with the approved postmining land use.

**Source**

The provisions of this § 87.142 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148683) to (148684).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.141 (relating to backfilling and grading: general requirements); 25 Pa. Code § 87.174 (relating to steep slope operations); 25 Pa. Code § 87.175 (relating to variance to contouring); 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement); and 25 Pa. Code § 89.84 (relating to backfilling and grading).

**§ 87.143. [Reserved].****Source**

The provisions of this § 87.143 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; reserved June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148684).

**§ 87.144. Backfilling and grading: final slopes.**

(a) The final graded slopes shall approximate premining slopes, or any lesser slopes approved by the Department based on consideration of soil, climate or other characteristics of the surrounding area.

(b) Postmining final graded slopes need not be uniform, but shall approximate the general nature of the premining topography.

(c) On approval by the Department in order to conserve soil moisture, ensure stability and control erosion on final graded slopes, cut and fill terraces may be allowed if the terraces are compatible with the approved postmining land use and are substitutes for construction of lower grades on the reclaimed lands.

(d) Small depressions may be constructed, if they:

(1) Are approved by the Department to minimize erosion, conserve soil moisture or promote vegetation.

(2) Do not restrict normal access.

(3) Are not inappropriate substitutes for lower grades on the reclaimed lands.

(e) All surface mining activities on slopes above 20°, or on lesser slopes that the Department defines as steep slopes, shall meet §§ 87.158 and 87.159 (relating to cessation of operations: permanent; and postmining land use).

(f) All final grading, preparation of overburden before replacement of topsoil and placement of topsoil shall be conducted in a manner which minimizes erosion and provides a surface for replacement of topsoil which will minimize slippage.

**Source**

The provisions of this § 87.144 adopted December 19, 1990, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206838) to (206839).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.174 (relating to steep slope operations); 25 Pa. Code § 87.175 (relating to variance to contouring); 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement); and 25 Pa. Code § 89.84 (relating to backfilling and grading).

**§ 87.145. Backfilling and grading: covering coal and acid-forming and toxic-forming materials.**

Unless otherwise approved by the Department, exposed coal seams, acid-forming material, toxic-forming materials and combustible materials, other than coal refuse shall be handled in the following manner:

(1) The material shall be buried above the groundwater table and shall be placed at a minimum of 5 feet above the coal seam and alternated with layers

of clean spoil. Each layer of the material may not exceed 24 inches and each layer of nontoxic spoil may not exceed 30 inches. The top layer of nontoxic spoil shall be a minimum thickness of 4 feet.

(2) If necessary, these materials shall be treated to prevent water pollution and combustion and minimize adverse effects on plant growth and land uses.

(3) When necessary to protect against upward migration of salts, exposure by erosion, formation of acid or toxic seeps, to provide an adequate depth for plant growth, or otherwise to meet local conditions, the Department will specify thicker amounts of cover using nontoxic material or special compaction and isolation from groundwater contact.

#### Source

The provisions of this § 87.145 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

#### Cross References

This section cited in 25 Pa. Code § 86.134 (relating to coal exploration performance and design standards); 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.110 (relating to hydrologic balance: acid-forming and toxic-forming spoil); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.174 (relating to steep slope operations); 25 Pa. Code § 87.175 (relating to variance to contouring); 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement); and 25 Pa. Code § 89.84 (relating to backfilling and grading).

### § 87.146. Regrading or stabilizing rills and gullies.

(a) Exposed surface areas shall be protected and stabilized to effectively control erosion and air pollution attendant to erosion.

(b) Rills and gullies, which form in areas that have been regraded and topsoiled and which do one of the following shall be filled, regraded or otherwise stabilized:

(1) Disrupt the approved postmining land use or the reestablishment of the vegetative cover.

(2) Cause or contribute to a violation of water quality standards for receiving streams.

(c) For the areas listed in subsection (b), the topsoil shall be replaced and the areas shall be reseeded or replanted.

#### Source

The provisions of this § 87.146 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (206840).

#### Cross References

This section cited in 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); and 25 Pa. Code § 87.174 (relating to steep slope operations).

**§ 87.147. Revegetation: general requirements.**

(a) Vegetation shall be established on land affected by surface mining activities.

(b) Revegetation shall provide for a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area, except that introduced species may be used in the revegetation process when desirable and necessary to achieve the approved postmining land use plan. Vegetative cover shall be considered of the same seasonal variety when it consists of a mixture of species of equal or superior utility for the approved postmining land use, when compared with the utility of naturally occurring vegetation during each season of the year.

(1) For areas previously disturbed by surface mining activities that were not reclaimed to the standards of SMCRA and this chapter, and are proposed to be reaffected or redisturbed, the Department may approve a vegetative cover which, at a minimum, may not be less than the vegetative cover existing before redisturbance and shall be adequate to control erosion and achieve the approved postmining land use.

(2) For areas designated as prime farmland, §§ 87.177—87.181 apply.

(c) Revegetation shall provide a quick-germinating, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Revegetation shall be completed in compliance with the plans submitted under § 87.68 (relating to reclamation information) as approved by the Department in the permit and carried out in a manner that encourages a prompt vegetative cover and recovery of productivity levels compatible with the approved postmining land use.

**Source**

The provisions of this § 87.147 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2215. Immediately preceding text appears at serial pages (206840) to (206841).

**Cross References**

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.105 (relating to hydrologic balance: diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.150 (relating to revegetation: agriculture crops); and 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration).

**§ 87.148. Revegetation: timing.**

(a) A disturbed area shall be seeded and planted when weather and planting conditions permit, but the seeding and planting of a disturbed area shall be per-

formed prior to the end of the first full normal period for favorable planting after backfilling and grading. The normal periods for favorable planting are:

- (1) Early spring until May 30, and August 10 until September 15 for permanent herbaceous species.
- (2) Early spring until May 20 for woody species.

(b) When necessary to control erosion effectively, the disturbed area shall be seeded and planted as contemporaneously as practicable with the completion of backfilling and grading with a temporary cover of small grain, grasses or legumes until a permanent cover is established.

(c) The periods listed in subsection (a) may be extended by the Department when abnormal weather conditions or excessive soil moisture conditions exist which prohibit seeding and planting prior to the end of the first full normal period for favorable planting after backfilling and grading or when weather conditions allow for favorable planting outside the normal periods.

#### Source

The provisions of this § 87.148 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148688) to (148689).

#### Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

### § 87.149. Revegetation: introduced species.

The use of introduced species in the revegetation process may be approved by the Department under the following conditions:

- (1) The species have been proven acceptable through field trials to be capable of providing permanent vegetation and are desirable and necessary to achieve the approved postmining land use.
- (2) The species are necessary to achieve a quick, temporary and stabilizing cover that aids in controlling erosion, and measures to establish permanent vegetation are included in the approved plan submitted in § 87.68 (relating to reclamation information).
- (3) The species are compatible with the plant and animal species of the region.
- (4) The species meet the requirements of applicable State and Federal seed or introduced species statutes and are not poisonous or noxious.

**Source**

The provisions of this § 87.149 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

**§ 87.150. Revegetation: agriculture crops.**

When the approved postmining land use is cropland, the planting of agriculture crops normally grown in the general locality of the permit area will satisfy the revegetation requirements of § 87.147 (relating to revegetation: general requirements). If planting of the crop will be delayed, a temporary cover of annual or perennial grasses or small grains shall be established.

**Source**

The provisions of this § 87.150 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

**§ 87.151. Revegetation: species.**

(a) Species, rates and techniques of seeding and planting shall be adequate to achieve the standards for successful revegetation of § 87.155 (relating to revegetation: standards for successful revegetation).

(b) Legume seed shall be inoculated or treated with the specific inoculant for that seed, and the seed shall be seeded within 24 hours after inoculation or treatment.

(c) A single tree or shrub species may not comprise more than 50% of the total number of seedlings planted.

(d) When the approved postmining land use is fish and wildlife habitat, unless alternative plans are approved or required by the Department, a minimum of 75% of the land affected shall be planted with a mixture of woody species which provides a diverse plant community. The remaining affected area shall be planted to an approved herbaceous cover. The configuration and species composition of the cover types shall be established in accordance with guidelines established by the Fish and Boat Commission and the Game Commission.



**Source**

The provisions of this § 87.151 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (176072) and (170013).

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); and 25 Pa. Code § 87.155 (relating to revegetation: standards for successful revegetation).

**§ 87.152. Revegetation: seedbed preparation.**

(a) The soil surface shall be prepared by disking or harrowing. If soil conditions or steep slopes prohibit these practices, the soil surface shall be scarified by any mechanical method which will loosen the surface material. Scarification will not be required if seeding is done immediately following final grading when the soil is still loose.

(b) Disking or harrowing shall be accomplished following or along the contours of all slopes.

(c) Topsoil shall be disked or harrowed to a depth of at least three inches prior to seeding.

**Source**

The provisions of this § 87.152 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

**§ 87.153. Revegetation: mulching.**

(a) Mulch shall be applied to all regraded and topsoiled areas at rates adequate to control erosion, promote germination of seeds and increase the moisture retention of the soil, except the Department may waive the requirement for mulch under the following conditions:

(1) When seeding can be accomplished using a conventional agricultural farm drill.

(2) When the approved postmining land use is for agricultural row crops.

(3) When annual grasses or small grains will be seeded immediately following final grading, resulting in a quick vegetative cover which will provide adequate soil erosion control.

- (4) When the permittee can demonstrate that alternative procedures will achieve the standards for revegetation success of § 87.155 (relating to revegetation: standards for successful revegetation).
- (b) When required by the Department, mulches shall be mechanically or chemically anchored to the soil surface.
- (c) Chemical soil stabilizers may be used alone or in combination with appropriate mulches.

**Source**

The provisions of this § 87.153 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.174 (relating to steep slope operations); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

**§ 87.154. [Reserved].**

**Source**

The provisions of this § 87.154 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.155. Revegetation: standards for successful revegetation.**

- (a) When the approved postmining land use is cropland, or as provided in subsection (c):
- (1) The standards for successful revegetation shall be based upon crop productivity or yield.
  - (2) The approved standards shall be the average yields per acre for the crop and soil type as specified in the Soil Surveys of the United States Department of Agriculture Natural Resources Conservation Service.
  - (3) The productivity or yield of the mined area shall be equal to or greater than the approved standard for the last two consecutive growing seasons of the 5-year responsibility period established in § 86.151 (relating to period of liability). Productivity or yield shall be considered equal if production or yield is at least 90% of the approved standard.
- (b) When the approved postmining land use is other than cropland:
- (1) The standards for successful revegetation shall be determined by ground cover.
  - (2) The approved standard shall be the percent ground cover of the vegetation which exists on the proposed area to be affected by surface mining activities. The Department will not approve less than a minimum of 70% ground cover of permanent plant species with not more than 1% of the area having less than 30% ground cover with no single or contiguous area having less than 30% ground cover exceeding 3,000 square feet. When woody species are planted in mixture with herbaceous species, the standards in this paragraph shall be met and a minimum of 400 woody plants per acre shall be established except:

(i) On slopes greater than 20 degrees, the minimum number of woody plants shall be 600 per acre.

(ii) When the approved postmining land use is commercial forest land, the minimum number of woody plants shall be 450 trees per acre with at least 75% commercial tree species.

(iii) When the approved postmining land use is wildlife habitat, the requirements of § 87.151(d) (relating to revegetation: species) shall apply and the areas approved for the planting of woody species shall have a stocking equal to or greater than 90% of the stocking of woody plants of the same life form on the proposed area to be affected by surface mining activities. The Department will not approve stocking of less than 400 woody plants per acre.

(3) The percent ground cover of the mined area shall meet the standards of paragraph (2) for a minimum of the last 2 consecutive years of the 5-year period of responsibility.

(4) For purposes of this section, “herbaceous species” means grasses, legumes, and nonleguminous forbs; “woody plants” means woody shrubs, trees and vines; and “ground cover” means the area of ground covered by the combined aerial parts of vegetation and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement.

(5) Trees and shrubs counted in determining revegetation success shall be healthy and have been in place for at least two growing seasons.

(c) When the approved postmining land use is pastureland, the crop productivity standards of subsection (a) and the ground cover standards of subsection (b) shall be met.

#### Authority

The provisions of this § 87.155 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.155 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (244112) to (244113).

#### Cross References

This section cited in 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 87.49 (relating to vegetation information); 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.151 (relating to revegetation: species); 25 Pa. Code § 87.153 (relating to revegetation: mulching); 25 Pa. Code § 87.181 (relating to prime farmland: revegetation); and 25 Pa. Code § 89.134 (relating to revegetation).

**§ 87.156. Revegetation: techniques and frequency of measurement.**

The person who conducts surface mining activities shall conduct periodic measurements of vegetation to identify conditions during the applicable periods of responsibility specified in § 86.151 (relating to period of liability). The permittee shall report the findings of these measurements to the Department.

**Source**

The provisions of this § 87.156 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

**§ 87.157. Cessation of operations: temporary.**

(a) Before temporary cessation status of operations for a period of 30 days or more, an operator shall submit to the Department a notice of intention to temporarily cease operations. The notice shall include a statement of the exact number of acres affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation status.

(b) Temporary cessation status of operations does not relieve the operator of the obligations to comply with the acts as defined in § 86.1 (relating to definitions), Chapters 86—90, or the approved permit, including the obligation to submit an application for permit renewal at least 180 days before the expiration of the existing permit. The Department may enforce these obligations during the temporary cessation status of operations.

(c) Temporary cessation status will end with the resumption of coal extraction. Any subsequent notices of temporary cessation status must include updated information outlined in subsection (a).

(d) Temporary cessation status will terminate where the Department finds a failure to comply with the acts as defined in § 86.1, Chapters 86—90, or the approved permit. Termination of temporary cessation status due to failure to comply with the acts as defined in § 86.1, Chapters 86—90, or the approved permit will place the mining operation in permanent cessation status, subject to the provisions of § 87.158 (relating to cessation of operations: permanent).

**Authority**

The provisions of this § 87.157 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.157 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial page (244114).

**§ 87.158. Cessation of operations: permanent.**

Operations that are permanently ceased shall be backfilled or closed or otherwise permanently reclaimed in accordance with this chapter and the permit. All underground openings, equipment, structures or other facilities not required for monitoring, unless approved by the Department as suitable for the postmining land use, shall be removed and the affected land reclaimed.

**Source**

The provisions of this § 87.158 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.144 (relating to backfilling and grading: final slopes); and 25 Pa. Code § 87.157 (relating to cessation of operations: temporary).

**§ 87.159. Postmining land use.**

(a) Prior to the release of land from permit area in accordance with Chapter 86, Subchapter F (relating to bonding and insurance requirements), affected areas shall be restored in a timely manner to conditions that are capable of supporting the uses which they were capable of supporting before any mining, or to higher and better uses achievable under criteria and procedures of this section.

(b) The premining use of land to which the postmining land use is compared shall be determined by the following:

(1) The postmining land use for land that has not been previously mined and has been properly managed shall be judged on the basis of those uses which the land previously supported.

(2) The postmining land use for land that has been previously mined and not reclaimed shall be judged on the basis of the condition prior to any mining or to a higher or better use that can be achieved and is compatible with surrounding areas.

(c) Alternative land uses may be approved by the Department after consultation with the landowner or the land management agency having jurisdiction over the lands and after determining that the following criteria are met:

(1) The proposed postmining land use is compatible with adjacent land use and applicable land use policies, plans, and programs and Federal, State and local law. A written statement of the views of the authorities with statutory responsibilities for land use policies and plans is submitted to the Department before surface mining activities begin. Any required approval, including any necessary zoning or other changes required for land use by local, State or Federal land management agencies, is obtained and remains valid throughout the surface mining activities.

(2) The owner of the surface requests in a notarized written statement that the alternative land use be approved.

(3) The proposed postmining land use is reasonably likely to be achieved which may be demonstrated by one or more of the following or other similar criteria:

(i) Specific plans are prepared and submitted to the Department which show the feasibility of the postmining land use as related to projected land use trends and markets. The plan shall include a schedule showing how the proposed use will be developed and achieved within a reasonable time after mining and how the development will be sustained. The Department may require appropriate demonstrations to show that the planned procedures are feasible, reasonable and integrated with mining and reclamation, and that the plans will result in successful reclamation.

(ii) Provision for necessary public facilities is ensured with letters of commitment from parties other than the person who conducts surface mining activities, as appropriate to provide the public facilities in a manner compatible with the plans submitted under § 87.75 (relating to postmining land uses). The letters shall be submitted to the Department before surface mining activities begin.

(iii) The applicant presents specific plans for the proposed postmining land use and appropriate assurances that the use will be practicable with respect to private financial capability for completion of the proposed use.

(4) The proposed use will neither pose an actual threat to public health or safety or of water diminution, interruption, contamination or pollution.

(5) The use will not involve unreasonable delays in reclamation or implementation.

(6) Necessary approval of measures to prevent or mitigate adverse effects on fish, wildlife and related environmental values and threatened or endangered plants is obtained from the Department, and appropriate State and Federal fish and wildlife management agencies have been provided a 30-day period in which to review the plan before surface mining activities begin.

#### Source

The provisions of this § 87.159 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206847) to (206849).

#### Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 86.174 (relating to standards for release of bonds); 25 Pa. Code § 87.62 (relating to operational information); 25 Pa. Code § 87.75 (relating to postmining land uses); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.131 (relating to disposal of excess spoil); 25 Pa. Code § 87.144 (relating to backfilling and grading: final slopes); 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration); 25 Pa. Code § 87.175 (relating to variance to contouring); and 25 Pa. Code § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

### § 87.160. Haul roads and access roads.

(a) Haul roads and access roads shall be designed, constructed and maintained to control or prevent erosion and contributions of sediment to streams or runoff outside the affected area; air and water pollution; damage to fish and wildlife or their habitat; flooding; and damage to public or private property. To ensure environmental protection appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads shall incorporate appropriate limits for grade,

width, surface materials, surface drainage control, culvert placement and culvert size, in accordance with current, prudent engineering practices and necessary design criteria established by the Department. Upon completion of the associated surface mining activities, the area disturbed by the road shall be restored in accordance with § 87.166 (relating to haul roads and access roads: restoration) unless retention of the road is approved as part of the postmining land use.

(b) The haul or access road may not be located in or within 100 feet (30.48 meters) of a perennial or intermittent stream except in accordance with § 86.102 (relating to areas where mining is prohibited or limited). A crossing of a perennial or intermittent stream shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachment or water obstruction shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) Each road shall have a drainage system that is compatible with the natural drainage system, is structurally stable, and which will pass safely the peak flow from a 10-year, 24-hour precipitation event or larger event if required by the Department. The drainage system shall include a sloped or crowned road surface, cross drains or culverts, stabilized ditches, erosion-resistant surfacing, sediment traps and other appropriate sediment control measures as required by § 87.106 (relating to hydrologic balance: sediment control measures).

(d) Roads shall be constructed on stable areas that avoid wet or unstable soils.

(e) Prior to the construction of the road, topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the haul road.

(f) Disturbed areas adjacent to the road shall be vegetated or otherwise stabilized to prevent erosion.

(g) Haul roads shall be surfaced with material sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road. Acid or toxic-forming material may not be used for surfacing or construction of a road except where the road is within the confines of a coal refuse disposal or reprocessing area and the effluent meets the requirements of § 87.102 (relating to hydrologic balance: effluent standards).

(h) A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired or reclaimed as soon as practicable after the damage has occurred.

(i) Haul roads and roads approved as part of the postmining land use shall be certified by a qualified registered professional engineer or qualified registered land surveyor that the roads have been constructed or reconstructed as designed in accordance with the approved plan.

#### Authority

The provisions of this § 87.160 amended under section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b(a)); section 3.2 of the Coal Refuse Disposal Control Act (52 P. S. § 30.53b); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

**Source**

The provisions of this § 87.160 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended May 31, 2002, effective June 1, 2002, 32 Pa.B. 2686. Immediately preceding text appears at serial pages (244116) to (244118).

**Cross References**

This section cited in 25 Pa. Code § 86.134 (relating to coal exploration performance and design standards); 25 Pa. Code § 87.80 (relating to haul roads, access roads and other transportation facilities); and 25 Pa. Code § 87.174 (relating to steep slope operations).

**§ 87.161. [Reserved].****Source**

The provisions of this § 87.161 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.162. [Reserved].****Source**

The provisions of this § 87.162 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.163. [Reserved].****Source**

The provisions of this § 87.163 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.164. [Reserved].****Source**

The provisions of this § 87.164 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.165. [Reserved].****Source**

The provisions of this § 87.165 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.166. Haul roads and access roads: restoration.**

Unless the Department approves retention of a road as suitable for the approved postmining land use in accordance with § 87.159 (relating to postmining land use), as soon as practicable after the road is no longer needed for the associated surface mining activities:

- (1) The road shall be physically closed to vehicular traffic.
- (2) The road and adjacent slopes shall be regraded to blend with the natural contours and drainage pattern.



- (3) Bridges and culverts shall be removed.
- (4) Roadbeds shall be ripped or scarified.
- (5) Fill slopes shall be rounded or reduced and shaped to conform the site to adjacent terrain and to meet natural drainage restoration standards.
- (6) Cut slopes shall be shaped to blend with the natural contour.
- (7) Cross drains, dikes and water bars shall be constructed to minimize erosion.
- (8) Terraces shall be constructed as necessary to prevent excessive erosion and to provide long-term stability in cut and fill slopes.
- (9) Road surfacing materials shall be removed if the materials are incompatible with the postmining land use and establishment of vegetation.
- (10) Disturbed areas shall be covered with topsoil in accordance with §§ 87.96—87.100 and revegetated in accordance with § 87.147 (relating to revegetation: general requirements).
- (11) Excess material and debris shall be disposed of in a manner approved by the Department.

**Source**

The provisions of this § 87.166 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206851) to (206852).

**Cross References**

This section cited in 25 Pa. Code § 86.134 (relating to coal exploration performance and design standards); 25 Pa. Code § 87.80 (relating to haul roads, access roads and other transportation facilities); 25 Pa. Code § 87.160 (relating to haul roads and access roads); and 25 Pa. Code § 87.174 (relating to steep slope operations).

**§ 87.167. [Reserved].**

**Source**

The provisions of this § 87.167 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.168. [Reserved].**

**Source**

The provisions of this § 87.168 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.169. [Reserved].**

**Source**

The provisions of this § 87.169 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.170. [Reserved].****Source**

The provisions of this § 87.170 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.171. [Reserved].****Source**

The provisions of this § 87.171 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**§ 87.172. Other transportation facilities.**

Railroad loops, spurs, sidings, surface conveyor systems, chutes, aerial tramways or other transportation facilities shall be designed, constructed or reconstructed, and maintained, and the area restored to:

- (1) Prevent, to the maximum extent possible using the best technology currently available:
  - (i) Damage to fish, wildlife and related environmental values.
  - (ii) Erosion and additional contributions of suspended solids to stream flow or runoff outside the permit area. Any such contributions may not be in excess of limitations of State or Federal law.
- (2) Control and minimize diminution of water quantity and prevent pollution.
- (3) Prevent air pollution.
- (4) Prevent damage to public or private property.

**Source**

The provisions of this § 87.172 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 87.80 (relating to haul roads, access roads and other transportation facilities); and 25 Pa. Code § 87.174 (relating to steep slope operations).

**§ 87.173. Support facilities and utility installations.**

(a) Support facilities required for, or used incidentally to, the operation of the mine, including, but not limited to, mine buildings, coal loading facilities at or near the mine-site, coal storage facilities, equipment storage facilities, fan buildings, hoist buildings, preparation plants, sheds, shops and other buildings shall be located, maintained and used in a manner that does the following:

- (1) Prevents or controls erosion and siltation, water pollution and damage to public or private property.
- (2) To the extent possible using the best technology currently available minimizes:

- (i) Damage to fish, wildlife and related environmental values.
  - (ii) Additional contributions of suspended solids to streamflow or runoff outside the permit area. These contributions may not be in excess of limitations of State or Federal law.
- (b) All surface mining activities shall be conducted in a manner which minimizes damage, destruction or disruption of services provided by oil, gas and water wells; oil, gas and coal-slurry pipelines; railroads; electric and telephone lines; and water and sewage lines which pass over, under or through the permit area, unless otherwise approved by the owner of those facilities and the Department.

**Source**

The provisions of this § 87.173 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206853).

**§ 87.174. Steep slope operations.**

- (a) Each person who conducts or intends to conduct surface mining and reclamation operations on steep slopes shall comply with this subchapter and this section, except to the extent a variance is approved under § 87.175 (relating to variance to contouring).
- (b) Debris, from clearing and grubbing of haul road construction, abandoned or disabled equipment, spoil material, waste mineral matter or other waste material may not be placed on the downslope below the bench or mining cut, except for material used to construct road embankment in accordance with §§ 87.160, 87.166 and 87.172 (relating to haul roads and access roads; haul roads and access roads: restoration; and other transportation facilities).
- (c) The disturbed area shall be returned to approximate original contours by completely covering the highwall with compacted spoil and grading the area in accordance with §§ 87.141, 87.142 and 87.144—87.146. The person who conducts the surface mining and reclamation operation shall demonstrate to the Department, using standard geotechnical analysis, that the minimum static factor of safety for the stability of all portions of the reclaimed land is at least 1.3.
- (d) Land above the highwall may not be disturbed unless the Department finds that the disturbance facilitates compliance with this subchapter.
- (e) Material in excess of that required by the grading and backfilling provisions of subsection (b) shall be disposed of in accordance with the requirements of § 87.131 (relating to disposal of excess spoil).
- (f) Woody materials may not be buried in the backfilled area unless the applicant demonstrates that the proposed method for disposal of the woody materials will not deteriorate the stability of the backfilled area as required by subsection (b). Wood may be chipped and used as mulch if the requirements of § 87.153 (relating to revegetation: mulching) are met.

**Source**

The provisions of this § 87.174 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206854) to (206855).

**Cross References**

This section cited in 25 Pa. Code § 87.81 (relating to steep slope operations).

**§ 87.175. Variance to contouring.**

(a) The Department may approve a variance from regrading the land to approximate original contour provided the applicant demonstrates and the Department finds in writing that:

(1) The owner of the surface requests, in writing, that a variance be granted to render the land, after reclamation, suitable for an industrial, commercial, residential or public use, including recreational facilities.

(2) The watershed of the area is improved.

(3) The highwall is completely backfilled with spoil material, in a manner which results in static factor of safety of at least 1.3—using standard geotechnical analyses—after mining and reclamation.

(4) The proposed use, after consultation with the appropriate land use planning agencies, if any, constitutes an equal or better economic or public use.

(5) The proposed use is designed and certified by a qualified registered professional engineer in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site.

(6) Only the amount of spoil will be placed off the mine bench as is necessary to achieve the planned postmining land use, insure stability of the spoil retained on the bench and meet all other requirements of this chapter. All spoil not retained on the bench shall be placed in accordance with §§ 87.131, 87.141, 87.142, 87.144 and 87.145.

(7) The requirements of § 87.159 (relating to postmining land use) for alternate postmining land use are met.

(8) Land above the highwall is disturbed only to the extent that is necessary to do one of the following:

(i) Blend the solid highwall and the backfilled material.

(ii) Control surface runoff.

(iii) Provide access to the area above the highwall.

(iv) Meet the requirements of this chapter.

(b) The watershed shall only be deemed improved if:

(1) There will be a reduction in the amount of total suspended solids or other pollutants discharged to ground or surface waters from the permit area as compared to the discharges prior to mining, so as to improve public or private uses or the ecology of such waters; or there will be reduced flood hazards

within the watershed containing the permit area by reduction of the peak flow discharges from precipitation events or thaws.

(2) The total volume of flows from the proposed permit area, during every season of the year, will not vary in a way that adversely affects the ecology of any water or any existing or planned surface water or groundwater.

(c) If a variance is granted under this section, the permit shall be specifically conditioned as containing a variance from approximate original contour.

(d) Any permit incorporating a variance issued under this section shall be reviewed not more than 3 years from the date of issuance of the permit unless the permittee affirmatively demonstrates that the proposed development is proceeding in accordance with the terms of the variance.

#### Source

The provisions of this § 87.175 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended February 17, 1984, 14 Pa.B. 524, effective August 4, 1984, 14 Pa.B. 2860. Immediately preceding text appears at serial pages (72171) to (72173).

#### Cross References

This section cited in 25 Pa. Code § 86.51 (relating to reviews of active permits); 25 Pa. Code § 87.81 (relating to steep slope operations); 25 Pa. Code § 87.141 (relating to backfilling and grading: general requirements); and 25 Pa. Code § 87.174 (relating to steep slope operations).

### § 87.176. Auger mining.

(a) Auger mining associated with surface mining activities shall be conducted to maximize recoverability of mineral reserves remaining after the mining activities are completed. A person who conducts auger mining operations shall leave areas of undisturbed coal to provide access for removal of those reserves by future underground mining activities, unless the person who conducts surface mining activities demonstrates to the satisfaction of the Department that the coal reserves have been depleted or are limited in thickness or extent to the point that it will not be practicable to recover the remaining coal reserves.

(b) An auger hole may not be made closer than 500 feet (152.40 meters) in horizontal distance to abandoned or active underground mine workings, except as approved in accordance with § 87.135 (relating to protection of underground mining).

(c) To prevent pollution of surface water and groundwater and to reduce fire hazards, an auger hole shall be plugged to prevent the discharge of water from the hole and access of air to the coal. An auger hole shall be plugged within 30 days after completion by backfilling and compacting noncombustible and impervious material into the hole to a depth sufficient to form a watertight seal. Plugging shall be done within 72 hours after completion if the holes are discharging water containing acid or toxic forming material.

(d) The Department will prohibit auger mining unless the person conducting the surface mining activities demonstrates, the following

(1) Adverse water quality impacts can be prevented or corrected.

(2) Fill stability can be achieved.

(3) The auger mining is necessary to maximize the utilization, recoverability or conservation of the solid fuel resources.

(4) Subsidence resulting from auger mining will not disturb or damage powerlines, pipelines, buildings or other facilities.

**Source**

The provisions of this § 87.176 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (206856) to (206857).

**Cross References**

This section cited in 25 Pa. Code § 87.82 (relating to auger mining).

**§ 87.177. Prime farmland: special requirements.**

(a) When the surface mining activities are being conducted on prime farmland historically used for cropland, a permit for the mining and reclamation operation may be granted by the Department if it first finds, in writing, and after consultation with the Natural Resources Conservation Service, that the applicant has demonstrated that:

(1) The approved postmining land use of these prime farmlands will be cropland.

(2) The applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in surrounding areas under equivalent levels of management.

(3) The proposed operations will be conducted in compliance with the requirements of this section and §§ 87.178—87.181.

(b) If a permit is granted under this section, the permit shall be specifically conditioned as containing the plan submitted under § 87.83 (relating to prime farmlands), including any revisions to that plan suggested by the Natural Resources Conservation Service.

(c) Areas where mining was authorized by permits issued under SMCRA prior to August 4, 1977, are exempt from the prime farmland requirements.

**Authority**

The provisions of this § 87.177 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.177 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial page (244124).

**Cross References**

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 87.83 (relating to prime farmlands); and 25 Pa. Code § 87.147 (relating to revegetation: general requirements).

**§ 87.178. Prime farmland: soil removal.**

(a) Soil materials to be used in the reconstruction of the prime farmland soil shall be removed before drilling, blasting or mining, in accordance with this section and in a manner that prevents mixing or contaminating these materials with undesirable material. Soil materials shall be removed in a manner that controls erosion and does not result in air and water pollution.

(b) The entire A horizon shall be separately removed from other soil and overburden materials.

(c) The B horizon, a combination of the B horizon and underlying C horizon, or other suitable soil material which will create a reconstructed soil of equal or greater productive capacity than that which existed before mining shall be separately removed from other topsoil and overburden materials.

(d) The underlying C horizons, other strata, or a combination of horizons or other strata to be used instead of the B horizon shall be separately removed from other topsoil and overburden materials. When replaced, these combinations shall be equal to, or more favorable for plant growth than, the B horizon.

(e) The minimum depth of soil and soil material to be removed for use in reconstruction of prime farmland soils shall be sufficient to meet the soil replacement requirements of § 87.180(a) (relating to prime farmland: soil replacement).

**Source**

The provisions of this § 87.178 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 87.83 (relating to prime farmlands); 25 Pa. Code § 87.147 (relating to revegetation: general requirements); 25 Pa. Code § 87.177 (relating to prime farmland: special requirements); 25 Pa. Code § 87.179 (relating to prime farmland: soil stockpiling); and 25 Pa. Code § 87.180 (relating to prime farmland: soil replacement).

**§ 87.179. Prime farmland: soil stockpiling.**

If not utilized immediately, the A horizon specified in § 87.178(b) (relating to prime farmland: soil removal), and the B horizon or other suitable soil materials specified in § 89.178(c) and (d) shall be stored separately from each other and from spoil. These stockpiles shall be placed within the permit area where they are not disturbed or exposed to excessive water or wind erosion before the stockpiled





horizons can be redistributed. Stockpiles in place for more than 30 days shall meet the requirements of § 87.98 (relating to topsoil: storage).

**Source**

The provisions of this § 87.179 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 87.83 (relating to prime farmlands); 25 Pa. Code § 87.147 (relating to revegetation: general requirements); and 25 Pa. Code § 87.177 (relating to prime farmland: special requirements).

**§ 87.180. Prime farmland: soil replacement.**

(a) The minimum depth of soil and soil material to be reconstructed for prime farmland shall be 48 inches, or a depth equal to the depth of a subsurface horizon in the natural soil that inhibits root penetration, whichever is shallower. The Department shall specify a depth greater than 48 inches whenever necessary to restore productive capacity due to uniquely favorable soil horizons at greater depths. Soil horizons shall be considered as inhibiting root penetration if their densities, chemical properties or water supplying capacities restrict or prevent penetration by roots of plants common to the vicinity of the permit area and have little or no beneficial effect on soil productive capacity.

(b) Soil material shall be replaced only on land which has been first returned to final grade and scarified according to §§ 87.141, 87.142, 87.144 and 87.145, unless site-specific evidence is provided to and approved by the Department showing that scarification will not enhance the capability of the reconstructed soil to achieve equivalent or higher levels of yield.

(c) The soil horizons or other suitable soil material shall be replaced in a manner that avoids excessive compaction and creates a reconstructed soil of equal or greater productive capacity than that which existed before mining.

(d) The B horizon or other suitable material specified in § 87.178(c) and (d) (relating to prime farmland: soil removal) shall be replaced to the thickness needed to meet the requirements of subsection (a).

(e) The A horizon specified in § 87.178(b) shall be replaced as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original soil, as determined in § 87.83 (relating to prime farmlands), and be replaced in a manner that protects the surface layer from wind and water erosion before it is seeded or planted.

(f) Nutrients and soil amendments shall be applied as needed to quickly establish vegetative growth.

**Source**

The provisions of this § 87.180 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

**Cross References**

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 87.83 (relating to prime farmlands); 25 Pa. Code § 87.147 (relating to revegetation: general requirements); 25 Pa. Code § 87.177 (relating to prime farmland: special requirements); and 25 Pa. Code § 87.178 (relating to prime farmland: soil removal).

**§ 87.181. Prime farmland: revegetation.**

(a) A vegetative cover capable of stabilizing the soil surface with respect to erosion shall be established following soil replacement. Vegetation shall be in compliance with the plan approved by the Department under § 87.83 (relating to prime farmlands) and carried out in a manner that encourages prompt vegetative cover and recovery of productive capacity. The timing and mulching provisions of §§ 87.148 and 87.153 (relating to revegetation: timing; and revegetation: mulching) shall be met.

(b) Within a time period specified in the permit but not to exceed 10 years after completion of backfilling and rough grading, any portion of the permit area which is prime farmland shall be restored to a condition capable of equivalent or higher levels of yields as nonmined prime farmland in surrounding areas under equivalent levels of management. When used for crops, crops may be grown in rotation with hay or pasture crops as defined for cropland. The Department may approve a crop use of perennial plants for hay when this is a common, long-term use of prime farmland soils in the surrounding area. The level of management shall be equivalent to that on which the target yields are based.

(c) Standards for determining success of restoration on prime farmlands soils shall be based upon the soil surveys and soil interpretations and the latest yield data available from the United States Department of Agriculture Natural Resources Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be based on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the Secretary of Agriculture before approval of the permit application. The crop productivity or yield of the mined area shall be compared to the predetermined target level. As a minimum, the following standards shall be met:

(i) Average annual crop production shall be determined based upon a minimum of 3 years data. Crop production shall be measured for the 3 years immediately prior to release of bonding according to Chapter 86 Subchapter F (relating to bonding and insurance requirements).

(ii) Adjustment for weather-induced variability in the annual crop production may be permitted by the Department.

(iii) Restoration of prime farmland shall be considered a success when the adjusted 3 year average annual crop production is equivalent to, or higher than, the predetermined target level of crop production.

(2) If crops are not grown, standards for determining success of restoration shall be based on a soil survey, in addition to meeting the standards of § 87.155(b) (relating to revegetation: standards for successful revegetation). The permittee shall demonstrate to the Department that the prime farmland soil has been restored to a capability of equivalent or higher levels of yield as nonmined prime farmland of the same soil type in the surrounding area. The demonstration shall include erodability, moisture-holding capacity, permeability,

depth, texture, pH and other analysis deemed relevant by the Department for determining quality of the restored soils as prime farmland.

(d) In all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as nonmined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed under § 87.53 (relating to prime farmland investigation).

#### Authority

The provisions of this § 87.181 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of The Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.181 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended March 13, 2020, effective March 14, 2020, 50 Pa.B. 1508. Immediately preceding text appears at serial pages (206860) and (383969).

#### Cross References

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 87.83 (relating to prime farmlands); 25 Pa. Code § 87.147 (relating to revegetation: general requirements); and 25 Pa. Code § 87.177 (relating to prime farmland: special requirements).

### Subchapter F. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR REMINING AREAS WITH POLLUTIONAL DISCHARGES

Sec.	
87.201.	Scope.
87.202.	Definitions.
87.203.	Applicability.
87.204.	Application for authorization.
87.205.	Approval or denial.
87.206.	Operational requirements.
87.207.	Treatment of discharges.
87.208.	Request for bond release.
87.209.	Criteria and schedule for release of bonds on pollution abatement areas.
87.210.	Effluent limitations.
87.211.	Baseline determination and compliance monitoring for pre-existing discharges at remining operations.
87.212.	Procedure for calculating and applying a single-observation (monthly) trigger.
87.213.	Procedure for calculating and applying an annual trigger.

#### Cross References

This subchapter cited in 25 Pa. Code § 86.130 (relating to areas designated as unsuitable for mining); 25 Pa. Code § 86.162c (relating to Bioenergy Crop Bonding); 25 Pa. Code § 95.10 (relating to treatment requirements for new and expanding mass loadings of Total Dissolved Solids (TDS)); and 25 Pa. Code § 290.305 (relating to abatement plan).

**§ 87.201. Scope.**

(a) This subchapter specifies procedures and rules applicable to those who seek authorization to conduct surface coal mining activities on certain areas which have been previously affected by mining activities and where mining has resulted in continuing water pollution, and describes the terms and conditions under which the Department may release bonds to operators who have received the authorization. Receipt of the authorization entitles an operator to later request bond release for areas which continue to discharge polluttional material.

(b) Chapter 86 (relating to surface and underground coal mining: general) and Subchapters A and C—E apply to authorizations to mine areas with pre-existing polluttional discharges except as specifically modified by this subchapter.

**Source**

The provisions of this § 87.201 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673.

**§ 87.202. Definitions.**

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

*Actual improvement*—The reduction of the baseline pollution load resulting from the implementation of the approved pollution abatement plan; except that a reduction of the baseline pollution load achieved by water treatment may not be considered as actual improvement.

*Baseline pollution load*—The characterization of the pollution material being discharged from or on the pollution abatement area, described in terms of mass discharge for each parameter, including seasonal variations and variations in response to precipitation events. The Department will establish in each authorization the specific parameters, including, at a minimum, iron and acid loadings, it deems relevant for the baseline pollution load.

*Best professional judgment*—The highest quality technical opinion forming the basis for the terms and conditions of the treatment level required after consideration of all reasonably available and pertinent data. The treatment levels shall be established by the Department under sections 301 and 402 of the Federal Clean Water Act (33 U.S.C.A. §§ 1311 and 1342).

*Best technology*—Measures and practices which will abate or ameliorate, to the maximum extent possible, polluttional discharges from or on the pollution abatement area. These measures include engineering, geochemical or other applicable practices.

*Coal remining operation*—A coal mining operation at a site on which coal mining was previously conducted and where the site has been abandoned or the performance bond has been forfeited.

*Encountered discharge*—

(i) A pre-existing discharge intercepted in the course of active surface mining activities, including, but not limited to, overburden removal, coal

extraction and backfilling, or that occurs in the pit, any mining-related conveyance, sedimentation pond or treatment pond.

(ii) The term does not include diversions of surface water and shallow groundwater flow from areas undisturbed by the implementation of the pollution abatement plan which would otherwise drain into the affected area so long as they are designed, operated and maintained in accordance with § 87.105(b)—(g) (relating to hydrologic balance: diversions).

*Pollution abatement area*—The part of the permit area which is causing or contributing to the baseline pollution load, which shall include adjacent and nearby areas that must be affected to bring about significant improvement of the baseline pollution load, and which may include the immediate location of the discharges.

*Pollution abatement plan*—Best management practices (BMP), including, but not limited to, the addition of alkaline material, special handling plans for managing toxic and acid forming material, regrading, revegetation and daylighting, that when implemented will result in reduction of the baseline pollution load.

*Pre-existing discharge*—

(i) Any discharge resulting from mining activities that have been abandoned prior to the time of a remining permit application.

(ii) The term includes a pre-existing discharge that is relocated as a result of the implementation BMPs in the pollution abatement plan.

*Steep slope*—

(i) Any slope, including abandoned mine land features, above 20 degrees or a lesser slope as may be defined by the Department after consideration of soil, climate and other characteristics of a region.

(ii) The term does not apply to situations in which an operator is mining on flat or gently rolling terrain, on which an occasional steep slope is encountered and through which the mining operation is to proceed, leaving a plain or predominantly flat area.

#### Authority

The provisions of this § 87.202 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.202 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial pages (378222) and (237165).

#### Cross References

This section cited in 25 Pa. Code § 86.252 (relating to definitions).

**§ 87.203. Applicability.**

(a) Authorization may not be granted under this subchapter unless the authorization is part of:

(1) A permit issued after March 8, 1986, but only if the authorization request is made during one of the following periods:

(i) At the time of the submittal of the permit application for the surface coal mining activities, including the proposed pollution abatement area.

(ii) Prior to a Department decision to issue or deny that permit.

(2) A permit revision under § 86.52 (relating to permit revisions), but only if the operator affirmatively demonstrates to the satisfaction of the Department that:

(i) The operator has discovered pollutorial discharges within the permit area that came into existence after its permit application was approved.

(ii) The operator has not caused or contributed to the pollutorial discharges.

(iii) The proposed pollution abatement area is not hydrologically connected to an area where surface mining activities have been conducted under the permit.

(iv) The operator has not affected the proposed pollution abatement area by surface mining activities.

(v) The Department has not granted a bonding authorization and mining approval for the area under § 86.37(b) (relating to criteria for permit approval or denial).

(b) Notwithstanding subsection (a), no authorization may be granted under this subchapter for repermitting under §§ 86.12 and 86.14 (relating to continued operation under interim permits; and permit application filing deadlines), permit renewals under § 86.55 (relating to permit renewals: general requirements) or permit transfers under § 86.56 (relating to transfer of permit).

(c) This subchapter applies to pre-existing discharges that are located within or are hydrologically connected to pollution abatement areas of a coal remining operation.

(d) When a coal remining operation seeks reissuance of an existing remining permit with best professional judgment limitations and the Department determines that it is not feasible for a remining operator to re-establish baseline pollutant levels in accordance with the statistical procedures in this subchapter, pre-existing discharge limitations at the existing remining operation remain subject to baseline pollutant levels established during the original permit application.

**Authority**

The provisions of this § 87.203 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.203 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial page (237165).

**§ 87.204. Application for authorization.**

(a) An operator who requests authorization under this subchapter shall comply with the permit application requirements of Chapter 86 (relating to surface and underground coal mining: general) and Subchapters A and C—E, except as specifically modified by this subchapter. The operator shall also:

(1) Delineate on a map the proposed pollution abatement area, including the location of the pre-existing discharges.

(2) Provide a description of the hydrologic balance for the proposed pollution abatement area that includes:

(i) Results of a detailed water quality and quantity monitoring program, including seasonal variations, variations in response to precipitation events and modeled baseline pollution loads using this monitoring program.

(ii) Monitoring for flow, pH, alkalinity, acidity, total iron, total manganese, total aluminum, sulfates, total suspended solids and other water quality parameters the Department deems relevant.

(3) Provide a pollution abatement plan which must:

(i) Describe the pollution abatement area.

(ii) Be designed to reduce the pollution load from pre-existing discharges and identify the selected best management practices (BMP) to be used.

(iii) Describe the design specifications, construction specifications, maintenance schedules, criteria for monitoring and inspection, and expected performance of the BMPs.

(iv) Represent best technology and include:

(A) Plans, cross-sections and schematic drawings describing the pollution abatement plan proposed to be implemented.

(B) A description and explanation of the range of abatement level that probably can be achieved, costs and each step in the proposed pollution abatement plan.

(C) A description of the standard of success for revegetation necessary to insure success of the pollution abatement plan.

(v) Provide a description of and information on the pre-existing discharges hydrogeologically connected to the remaining area.

(4) Determine the baseline pollution load.

(5) Provide the background data that are the bases for the baseline pollution load. The baseline pollution load shall be reported in pounds per day.

(b) The operator seeking this authorization may continue the water quality and quantity monitoring program required by subsection (a)(2) after making the

authorization request. The operator may submit the results of this continuing monitoring program to the Department on a monthly basis until a decision on the authorization request is made.

#### Authority

The provisions of this § 87.204 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.204 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial page (237166).

### § 87.205. Approval or denial.

(a) Authorization may not be granted under this subchapter unless the operator seeking the authorization affirmatively demonstrates to the satisfaction of the Department on the basis of information set forth in the application that:

(1) Neither the operator, nor an officer, principal shareholder, agent, partner, associate, parent corporation, contractor or subcontractor, or a related party as defined in § 86.63(a)(1) (relating to compliance information) has either of the following:

(i) Legal responsibility or liability as an operator for treating the water pollution discharges from or on the proposed pollution abatement area.

(ii) Statutory responsibility or liability for reclaiming the proposed pollution abatement area.

(2) The proposed pollution abatement plan will result in significant reduction of the baseline pollution load and represents best technology.

(3) The land within the proposed pollution abatement area can be reclaimed.

(4) The surface mining operation on the proposed pollution abatement area will not cause additional ground- water degradation.

(5) The standard of success for revegetation will be achieved. The standard of success for revegetation shall be at a minimum:

(i) A ground cover of living plants not less than can be supported by the best available topsoil or other suitable material in the reaffected area.

(ii) A ground cover no less than that existing before disturbance of the area by mining activities.

(iii) Adequate vegetation to control erosion. Vegetation may be no less than that necessary to insure the success of the pollution abatement plan.

(6) The surface mining operation on permitted areas other than the proposed pollution abatement area will not cause surface water pollution or groundwater degradation.



(7) Requirements of § 86.37(a) (relating to criteria for permit approval or denial) that are not inconsistent with this section have been met.

(b) An authorization may be denied under this subchapter if granting the authorization will, or is likely to, affect a legal responsibility or liability under The Clean Streams Law (35 P.S. §§ 691.1—691.1001), the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1—1396.19b), Chapter 86 (relating to surface and underground coal mining: general) or Subchapters A and C—E, for the proposed pollution abatement area or other areas or discharges in the vicinity of the proposed pollution abatement area.

(c) Authorization may not be granted under this subchapter unless there are one or more pre-existing discharges from or on the pollution abatement area.

(d) The authorization allowed under this subchapter is only for the pollution abatement area and does not apply to other areas of the permit.

#### Authority

The provisions of this § 87.205 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.205 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended August 21, 2015, effective August 22, 2015, 45 Pa.B. 4904; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial pages (237166) and (378223).

#### Cross References

This section cited in 25 Pa. Code § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

### § 87.206. Operational requirements.

An operator who receives an authorization under this subchapter shall comply with the requirements of Chapter 86 (relating to surface and underground coal mining: general) and Subchapters A and C—E except as specifically modified by this subchapter. The operator shall also:

(1) Implement the approved water quality and quantity monitoring program for the pollution abatement area until the requirements of § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas) are met. The monitoring program must conform to the following:

(i) Sampling shall be conducted on a monthly basis for the pre-existing discharges and should adequately represent the seasonal range in loading rates as well as the median loading rate from each pre-existing discharge or combination of discharges.

(ii) Results shall be submitted on a quarterly basis.

(iii) Data must include the flow measurements and loading calculations.

- (2) Implement the approved pollution abatement plan.
- (3) Notify the Department when more frequent sampling is required.
  - (i) Weekly sampling of the pre-existing discharges shall begin if any two consecutive monthly samples of pollution load at any of the monitoring points or hydrologic units exceed one or more of the triggers established by the baseline data.
  - (ii) Weekly sampling requirements shall continue until two consecutive weekly sample analyses indicate that all parameters which triggered weekly sampling have dropped below the trigger established by the baseline data.

#### Authority

The provisions of this § 87.206 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.206 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial page (378224).

#### Cross References

This section cited in 25 Pa. Code § 87.207 (relating to treatment of discharges); and 25 Pa. Code § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

### § 87.207. Treatment of discharges.

(a) Except for pre-existing discharges which are not encountered during mining or the implementation of the pollution abatement plan, the operator shall comply with § 87.102 (relating to hydrologic balance: effluent standards).

(b) Except as provided in § 87.210(d) (relating to effluent limitations), the operator shall treat the pre-existing discharges which are not encountered during mining or implementation of the pollution abatement plan to comply with the effluent limitations established by best professional judgment. The effluent limitations established by best professional judgment may not be less than the baseline pollution load. If the baseline pollution load, when expressed as a concentration for a specific parameter, satisfies the effluent limitations at § 87.102 for that parameter, the operator shall treat the pre-existing discharge for that parameter to comply with either effluent limitations established by best professional judgment or the effluent limitations at § 87.102.

(c) For purposes of subsections (a) and (b), the term encountered may not be construed to mean diversions of surface water and shallow groundwater flow from areas undisturbed by the implementation of the pollution abatement plan which would otherwise drain into the affected area, so long as the diversions are designed, operated and maintained under § 87.105(b)—(g) (relating to hydrologic balance: diversions).

(d) An operator required to treat pre-existing discharges will be allowed to discontinue treating the discharges under subsection (b) when the operator affirmatively demonstrates to the Department's satisfaction that:

(1) The pre-existing discharges are meeting the effluent limitations established by subsection (b) as shown by groundwater and surface water monitoring conducted by the operator or the Department.

(2) Surface coal mining activities under the permit—including the pollution abatement area—are being or were conducted under the requirements of the permit and the authorization, and Chapter 86 (relating to surface and underground coal mining: general) and this chapter except as specifically modified by this subchapter.

(3) The operator has implemented each step of the pollution abatement plan as approved in the authorization.

(4) The operator did not cause or allow additional groundwater degradation by re-affecting the pollution abatement area.

(e) If after discontinuance of treatment of discharges under subsection (d) the discharges fail to meet the effluent limitations established by subsection (b), the operator shall reinstitute treatment of the discharges under subsection (b). An operator who reinstates treatment under this subsection will be allowed to discontinue treatment if the requirements of subsection (d) are met.

(f) Discontinuance of treatment under subsection (d) may not be deemed or construed to be or to authorize a release of bond under § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

(g) If four consecutive weekly determinations of pollution load, as required under § 87.206(3)(i) (relating to operational requirements), exceed one or more triggers, the permittee shall notify the Department and begin treatment within 30 days of the fourth sample in accordance with the treatment limits established in the permit.

(h) If the Department determines, through analysis of any data submitted pursuant to the monitoring requirements or any data collected by the Department, that there has been pollution loading degradation at any of the monitoring points or hydrologic units, the Department will notify the permittee accordingly. The permittee shall begin treatment within 30 days in accordance with the treatment limits established in the permit.

(i) Any pre-existing pollutional discharge which is an encountered discharge shall be treated to the effluent limitations in the permit until the discharge is no longer encountered.

(j) For the purposes of determining applicable effluent limitations, a discharge will continue to be deemed to be an encountered discharge until the surface mining area which has been disturbed and which contributes to the discharge has been backfilled and regraded, and revegetation work has started.

**Authority**

The provisions of this § 87.207 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.207 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; amended June 15, 1990, effective upon publication of notice in the *Pennsylvania Bulletin* that the amendments have been approved by the OSM, 20 Pa.B. 3383, see 21 Pa.B. 3316 (July 27, 1991) for OSM approval deferment; amended December 11, 1992, effective December 12, 1992, 22 Pa.B. 5945; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial pages (378224) and (244127).

**Cross References**

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); and 25 Pa. Code § 87.209 (relating to criteria and schedule for release of bonds on pollution abatement areas).

**§ 87.208. Request for bond release.**

Sections 86.172(c) and 87.209 (relating to criteria for release of bond; and criteria and schedule for release of bonds on pollution abatement areas) applies to the release of bonds for pollutional abatement areas authorized by this subchapter. Section 86.172(a), (b) and (d) shall be inapplicable to the release of bonds.

**Source**

The provisions of this § 87.208 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673.

**§ 87.209. Criteria and schedule for release of bonds on pollution abatement areas.**

(a) The Department will release up to 60% of the amount of bond for the authorized pollution abatement area if the applicant demonstrates and the Department finds that:

- (1) The surface coal mining activities were conducted on the permit area, including the pollution abatement area, under the requirements of the permit and the authorization, Chapter 86 (relating to surface and underground coal mining: general) and this chapter except as specifically modified by this subchapter.
- (2) The operator has satisfactorily completed backfilling, regrading and drainage control under the approved reclamation plan.
- (3) The operator has properly implemented each step of the pollution abatement plan approved and authorized under this subchapter.
- (4) The operator has not caused degradation of the baseline pollution load at any time during the 6 months prior to the submittal of the request for bond release under this subsection and until the bond release is approved as shown

by all ground and surface water monitoring conducted by the permittee under § 87.206(1) (relating to operational requirements) or conducted by the Department.

(5) The operator has not caused or contributed to surface water pollution or groundwater degradation by re-affecting or mining the pollution abatement area.

(b) The Department will release an additional amount of bond for the authorized pollution abatement area but retain an amount sufficient to cover the cost to the Department of re-establishing vegetation if completed by a third party if the operator demonstrates and the Department finds that:

(1) The operator has replaced the topsoil or material conserved under § 87.97(d) (relating to topsoil: removal), completed final grading, planting and established revegetation under the approved reclamation plan and achieved the standards of success for revegetation in § 87.205(a)(5) (relating to approval or denial).

(2) The operator has not caused or contributed to surface water pollution or groundwater degradation by re-affecting or mining the pollution abatement area.

(3) The operator has complied with one of the following:

(i) Achieved the actual improvement of the baseline pollution load described in the approved pollution abatement plan as shown by ground and surface water monitoring conducted by the permittee for the time provided in the pollution abatement plan after completion of backfilling, final grading, drainage control, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 87.205(a)(5).

(ii) Achieved the following:

(A) At a minimum has not caused degradation of the baseline pollution load as shown by ground and surface water monitoring conducted by the operator or the Department for one of the following:

(I) For the 12 months prior to the date of application for bond release and until the bond release is approved under subsection (b), if backfilling, final grading, drainage control, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 87.205(a)(5) have been completed.

(II) If treatment has been initiated at any time after initial bond release under subsection (a) and § 87.207(e) (relating to treatment of discharges), for 12 months from the discontinuance of treatment under § 87.207(d), if backfilling, final grading, drainage control, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 87.205(a)(5) have been completed.

(B) Conducted the measures provided in the approved pollution abatement plan and additional measures specified by the Department in writing

at the time of initial bond release under subsection (a) for the area requested for bond release.

(C) Caused aesthetic or other environmental improvements or the elimination of public health and safety problems by remining and re-affecting the pollution abatement area.

(D) Stabilized the pollution abatement area.

(c) The Department will release the remaining portion of the amount of bond on the authorized pollution abatement area if the applicant demonstrates and the Department finds that:

(1) The operator has successfully completed the approved pollution abatement and reclamation plans, and the pollution abatement area is capable of supporting the postmining land use approved under § 87.159 (relating to postmining land use).

(2) The operator has complied with the permit and the authorization, Chapter 86 and this chapter, except as specifically modified by this subchapter.

(3) The operator has not caused degradation of the baseline pollution load from the time of bond release under subsection (b) or, if treatment has been initiated after bond release under subsection (b) in accordance with § 87.207(e) for 5 years from the discontinuance of treatment under § 87.207(d).

(4) The applicable liability period has expired under § 86.151 (relating to period of liability).

#### Authority

The provisions of this § 87.209 amended under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.209 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; corrected August 21, 1992, effective October 26, 1985, 22 Pa.B. 4317; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial pages (244128) to (244130).

#### Cross References

This section cited in 25 Pa. Code § 87.206 (relating to operational requirements); 25 Pa. Code § 87.207 (relating to treatment of discharges); and 25 Pa. Code § 87.208 (relating to request for bond release).

### § 87.210. Effluent limitations.

(a) *Approval and incorporation into permit.* The pollution abatement plan for the pollution abatement area must be approved by the Department and incorporated into the permit as an effluent limitation.

(b) *Implementation of best management practices.* The best management practices (BMP) in the pollution abatement plan shall be implemented as specified in the plan.

(c) *Pre-existing discharges.*

(1) Except as provided in subsection (d), the following effluent limits apply to pre-existing discharges:

<i>Parameter</i>	<i>Effluent Limit</i>
Total Iron	May not exceed baseline loadings (as determined by this subchapter).
Total Manganese	May not exceed baseline loadings (as determined by this subchapter).
Acidity, Net	May not exceed baseline loadings (as determined by this subchapter).
Suspended Solids	During remining and reclamation, may not exceed baseline loadings (as determined by this subchapter). Prior to bond release, the pre-existing discharge must meet the applicable standards for suspended solids or settleable solids in § 87.102 (relating to hydrologic balance: effluent standards).

(2) A pre-existing discharge is exempt from meeting standards in § 87.102 for suspended solids and settleable solids when the Department determines that the standards are infeasible or impractical based on the site-specific conditions of soil, climate, topography, steep slopes or other baseline conditions provided that the operator demonstrates that significant reductions of suspended solids and settleable solids will be achieved through the incorporation of sediment control BMPs into the pollution abatement plan as required under subsection (a).

(d) *In-stream requirements.*

(1) If the Department determines that it is infeasible to collect samples for establishing the baseline pollutant levels under paragraph (4) and that remining will result in significant improvement that would not otherwise occur, the permit applicant shall establish an in-stream baseline concentration at a suitable point downstream from the remining operation, unless the Department waives the sampling requirement under paragraph (5) and the numeric effluent limitations in subsection (c)(1) do not apply.

(2) The in-stream baseline period must include, at a minimum, twice monthly monitoring for a minimum of a 1-year period and must adequately represent the seasonal range and median pollutant concentrations.

(3) Upon issuance of a surface mining permit, the operator shall continue, at a minimum, monthly monitoring of pollutant concentrations at the in-stream

monitoring point referenced in paragraph (1), and make a determination as to whether or not there has been degradation of in-stream water quality.

(i) This determination shall be made on a quarterly basis and for each year defined as each consecutive 12-month period.

(ii) The operator is not required to treat individual pre-existing sources of pollution except as may be needed to maintain the in-stream baseline concentration.

(iii) Unless the operator can demonstrate to the satisfaction of the Department that the degradation was the result of factors that are not related to the remining, the operator shall treat one or more pre-existing pollutional discharges or undertake other pollution abatement measures to restore or improve the in-stream pollutant concentration to its baseline conditions.

(4) Pre-existing discharges for which it is infeasible to collect samples for determination of baseline pollutant levels include, but are not limited to:

(i) Discharges that exist as a diffuse groundwater flow that cannot be assessed by the collection of samples.

(ii) A base flow to a receiving stream that cannot be monitored separate from the receiving stream.

(iii) A discharge on a steep or hazardous slope that is inaccessible for sample collection.

(iv) A number of pre-existing discharges so extensive that monitoring of individual discharges is infeasible.

(5) When in-stream monitoring is not indicative of the impact of remining, the in-stream monitoring requirement may be waived by the Department. In-stream monitoring is not indicative of the impact of remining in circumstances including, but not limited to, the following:

(i) Remining sites in drainage areas exceeding 10 square miles.

(ii) Remining sites in watersheds where there are other influences on the in-stream water quality that make it impossible to establish the cause of water quality changes.

(iii) Remining sites where the  $Q_{7-10}$  stream flow is zero.

(e) *Limits.* Pollutants for which there are not effluent limitations established in § 87.102 may be eligible for limits established under this subchapter.

(f) *Applicability of standards.* Section 87.102 applies to a pre-existing discharge that is:

(1) Intercepted by surface mining activities.

(2) Commingled with waste streams from operational areas for the purposes of water treatment.

(g) *Cessation of applicability of standards.* Section 87.102 does not apply to a pre-existing discharge described in subsection (f) when the pre-existing discharge is no longer intercepted by surface mining activities or is no longer commingled with waste streams from operational areas for the purposes of water treatment.



(h) *Bond release.* The effluent limitations in this subchapter apply to pre-existing discharges until bond release under the procedures in Chapter 86 (relating to surface and underground coal mining: general).

#### Authority

The provisions of this § 87.210 issued under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.210 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

#### Cross References

This section cited in 25 Pa. Code § 87.207 (relating to treatment of discharges).

### **§ 87.211. Baseline determination and compliance monitoring for pre-existing discharges at remining operations.**

(a) The procedures in this section shall be used for determining site-specific baseline pollutant loadings, and for determining whether discharge loadings during coal remining operations have exceeded the baseline loading. A monthly (single-observation) procedure and an annual procedure shall be applied.

(b) At least one sample result per month shall be obtained for 12 months to characterize pollutant loadings for:

(1) Baseline determination.

(2) Each annual monitoring period. It is required that at least one sample be obtained per month for 12 months.

(c) Calculations described in this subchapter shall be applied to pollutant loadings.

(d) Each loading value shall be calculated as the product of a flow measurement and pollutant concentration taken on the same date at the same discharge sampling point using standard units of flow and concentration.

(e) If the baseline concentration in a baseline sample is below the daily maximum effluent limits established in § 87.102 (relating to hydrologic balance: effluent standards), the baseline sample concentration may be replaced with daily maximum effluent limit for the purposes of some of the statistical calculations in this subchapter.

(f) The substituted values should be used for all methods in this subchapter except for:

(1) The calculation of the interquartile range (R) in Method 1 for the annual trigger (Step 3).

(2) Method 2 for the single observation trigger (Step 3).

(g) The interquartile range (R) is calculated as the difference between the quartiles  $M_{-1}$  and  $M_1$ ; the values for quartiles  $M_{-1}$  and  $M_1$  should be calculated using actual loadings (based on measured concentrations) when they are used to calculate the interquartile range (R).

#### Authority

The provisions of this § 87.211 issued under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.211 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

### § 87.212. Procedure for calculating and applying a single-observation (monthly) trigger.

(a) This section contains two alternative methods for calculating a single-observation trigger. One method must be proposed by the applicant to be approved and applied by the Department for a remining permit.

(b) Method 1 for calculating a single observation trigger (L) is accomplished by completing the following steps:

(1) Count the number of baseline observations taken for the pollutant of interest. Label this number  $n$ . To sufficiently characterize pollutant loadings during baseline determination and during each annual monitoring period, it is required that at least one sample result be obtained per month for 12 months.

(2) Order all baseline loading observations from lowest to highest. Let the lowest number (minimum) be  $x_{(1)}$ , the next lowest be  $x_{(2)}$ , and so forth until the highest number (maximum) is  $x_{(n)}$ .

(3) If fewer than 17 baseline observations were obtained, the single observation trigger (L) will equal the maximum of the baseline observations ( $x_{(n)}$ ).

(4) If at least 17 baseline observations were obtained, calculate the median (M) of all baseline observations. If  $n$  is odd, then M equals  $x_{(n/2+1/2)}$ . If  $n$  is even, then M equals  $0.5 * (x_{(n/2)} + x_{(n/2+1)})$ .

(5) Next, calculate  $M_1$  as the median of the subset of observations that range from the calculated M to the maximum  $x_{(n)}$ ; that is, calculate the median of all  $x$  larger than or equal to M.

(6) Next, calculate  $M_2$  as the median of the subset of observations that range from the calculated  $M_1$  to  $x_{(n)}$ ; that is, calculate the median of all  $x$  larger than or equal to  $M_1$ .

(7) Next, calculate  $M_3$  as the median of the subset of observations that range from the calculated  $M_2$  to  $x_{(n)}$ ; that is, calculate the median of all  $x$  larger than or equal to  $M_2$ .

- (8) Finally, calculate the single observation trigger (L) as the median of the subset of observations that range from the calculated  $M_3$  to  $x_{(n)}$ .
- (9) When subsetting the data for each of the steps in paragraphs (5)—(8), the subset should include all observations greater than or equal to the median calculated in the previous step. If the median calculated in the previous step is not an actual observation, it is not included in the new subset of observations. The new median value will then be calculated using the median procedure, based on whether the number of points in the subset is odd or even.
- (c) The method for applying the single observation trigger (L) to determine when the baseline level has been exceeded is as follows:
- (1) If two successive monthly monitoring observations both exceed L, immediately begin weekly monitoring for 4 weeks (four weekly samples).
  - (2) If three or fewer of the weekly observations exceed L, resume monthly monitoring.
  - (3) If all four weekly observations exceed L, the baseline pollution loading has been exceeded.
- (d) Method 2 for calculating a single observation trigger (L) is accomplished by completing the following steps:
- (1) Follow Method 1 in subsection (b) to obtain  $M_1$  (the third quartile, that is, the 75th percentile).
  - (2) Calculate  $M_{-1}$  as the median of the baseline data which are less than or equal to the sample median M.
  - (3) Calculate the interquartile range,  $R = (M_1 - M_{-1})$ .
  - (4) Calculate the single observation trigger L as  $L = M_1 + 3 * R$ .
  - (5) If two successive monthly monitoring observations both exceed L, immediately begin weekly monitoring for 4 weeks (four weekly samples).
  - (6) If three or fewer of the weekly observations exceed L, resume monthly monitoring.
  - (7) If all four weekly observations exceed L, the baseline pollution loading has been exceeded.

#### Authority

The provisions of this § 87.212 issued under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### Source

The provisions of this § 87.212 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

**Cross References**

This section cited in 25 Pa. Code § 87.213 (relating to procedure for calculating and applying an annual trigger).

**§ 87.213. Procedure for calculating and applying an annual trigger.**

(a) This section contains two alternative methods for calculating the annual trigger. One method shall be proposed by the applicant to be approved and applied by the Department for a reminging permit.

(b) Method 1 for calculating and applying an annual trigger (T) is accomplished by completing the following steps:

(1) Calculate M and  $M_1$  of the baseline loading data as described under Method 1 for the single observation trigger in § 87.212(b) (relating to procedure for calculating and applying a single-observation (monthly) trigger).

(2) Calculate  $M_{-1}$  as the median of the baseline data which are less than or equal to the sample median M.

(3) Calculate the interquartile range,  $R = (M_1 - M_{-1})$ .

(4) The annual trigger for baseline (Tb) is calculated as

$$Tb = M + (1.815 * R) / \text{SQRT}(n)$$

where n is the number of baseline loading observations.

(5) To compare baseline loading data to observations from the annual monitoring period, repeat the steps in paragraphs (1)—(3) for the set of monitoring observations. Label the results of the calculations  $M'$  and  $R'$ . Let m be the number of monitoring observations.

(6) The subtle trigger (Tm) of the monitoring data is calculated as

$$Tm = M' - (1.815 * R') / \text{SQRT}(m)$$

(7) If  $Tm > Tb$ , the median loading of the monitoring observations has exceeded the baseline loading.

(c) Method 2 for calculating and applying an annual trigger (T) is accomplished by completing the following steps:

(1) Let n be the number of baseline loading observations taken, and let m be the number of monitoring loading observations taken. To sufficiently characterize pollutant loadings during baseline determination and during each annual monitoring period, it is required that at least one sample result be obtained per month for a period of 12 months.

(2) Order the combined baseline and monitoring observations from smallest to largest.

(3) Assign a rank to each observation based on the assigned order: the smallest observation will have rank 1, the next smallest will have rank 2 and so forth, up to the highest observation, which will have rank  $n + m$ . If two or more observations are tied (have the same value), then the average rank for those observations should be used.

(4) Sum all the assigned ranks of the n baseline observations, and let this sum be  $S_n$ .

- (5) Obtain the critical value (C) from Table 1.
- (6) Compare C to  $S_n$ . If  $S_n$  is less than C, then the monitoring loadings have exceeded the baseline loadings.
- (7) Critical values for the Wilcoxon-Mann-Whitney test are as follows:
- (i) When n and m are less than 21, use Table 1. To find the appropriate critical value, match column with correct n (number of baseline observations) to row with correct m (number of monitoring observations).

*Table 1—Critical Values (C) of the Wilcoxon-Mann-Whitney Test (for a one-sided test at the 0.001 significance level)*

m n	10	11	12	13	14	15	16	17	18	19	20
10	66	79	93	109	125	142	160	179	199	220	243
11	68	82	96	112	128	145	164	183	204	225	248
12	70	84	99	115	131	149	168	188	209	231	253
13	73	87	102	118	135	153	172	192	214	236	259
14	75	89	104	121	138	157	176	197	218	241	265
15	77	91	107	124	142	161	180	201	223	246	270
16	79	94	110	127	145	164	185	206	228	251	276
17	81	96	113	130	149	168	189	211	233	257	281
18	83	99	116	134	152	172	193	215	238	262	287
19	85	101	119	137	156	176	197	220	243	268	293
20	88	104	121	140	160	180	202	224	248	273	299

- (ii) When n or m is greater than 20 and there are few ties, calculate an approximate critical value using the following formula and round the result to the next larger integer. Let  $N = n + m$ .

$$\text{Critical Value} = 0.5 * n * (N + 1) - 3.0902 * \text{SQRT}(n * m * (N + 1) / 12)$$

- (iii) When n or m is greater than 20 and there are many ties, calculate an approximate critical value using the following formula and round the result to the next larger integer. Let S be the sum of the squares of the ranks or average ranks of all N observations. Let  $N = n + m$ .

$$\text{Critical Value} = 0.5 * n * (N + 1) - 3.0902 * \text{SQRT}(V)$$

In the preceding formula, calculate V using:

$$V = (n * m * S) / (N * (N - 1)) - (n * m * (N + 1)^2) / (4 * (N - 1))$$

**Authority**

The provisions of this § 87.213 issued under section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.4(a) and 1396.4b); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

**Source**

The provisions of this § 87.213 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

[Next page is 88-1.]