

CHAPTER 88. ANTHRACITE COAL

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Authority

The provisions of this Chapter 88 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 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); 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), unless otherwise noted.

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 extracting 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 § 89.5 (relating to definitions); 25 Pa. Code § 90.5 (relating to site selection and permitting); 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 § 211.102 (relating to scope); 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 sites).

Subchapter A. GENERAL PROVISIONS

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Cross References

This subchapter cited in 25 Pa. Code § 86.5 (relating to extraction of coal incidental to noncoal surface mining); 25 Pa. Code § 88.133 (relating to postmining land use); 25 Pa. Code § 88.221 (relating to postmining land use); 25 Pa. Code § 88.334 (relating to postdisposal land use); 25 Pa. Code § 88.501 (relating to scope); 25 Pa. Code § 88.504 (relating to application for authorization); 25 Pa. Code § 88.505 (relating to approval or denial); and 25 Pa. Code § 88.506 (relating to operational requirements).

PRELIMINARY PROVISIONS**§ 88.1. Definitions.**

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

AOC—Approximate original contour.

Abandoned—An operation where no coal has been produced or overburden removed for 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 determining 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 or reconstructed for minimal or infrequent use to transport equipment and personnel to current and future activity sites.

Acid drainage—Water with a pH of less than 6 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 coal 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 outside the permit area, where air, surface or groundwater, fish and wildlife, vegetation or other resources protected by this chapter may be adversely affected by surface coal 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 situ-

ated. The term also includes lands affected by the construction of new roads or the improvement of existing roads to gain access to the site or for hauling from the site.

Anthracite mining activities—Operations handling anthracite coal or anthracite coal-related material, including, but not limited to, surface mining, the surface affected by underground mining, bank recovery and reclamation, coal refuse disposal and coal preparation plant activity, except when an operation is specifically modified or exempted from this definition.

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

Bank removal and reclamation activities—The process of extracting anthracite coal from coal banks which will be disturbed or affected in any manner during the mining.

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 and wildlife and related environmental values, and achieve enhancement of those resources where 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.

Bottom rock—The rock stratum upon which a coal seam rests, which is the underclay or seat-earth which stratigraphically underlies the coal seam except in complex geologic settings such as overturned folds. The term is synonymous with the highwall in most anthracite mining operations.

Coal bank—Silt dams, refuse banks, culm banks, waste banks and similar storage areas into which materials including anthracite coal have been deposited by raw coal dumping, coal cleaning, rejection processes and similar procedures during deep mine and surface mine operations from which existing coal products can be extracted and marketed.

Coal preparation activity—An operation in which coal is subject to chemical or physical processing or cleaning, concentrating or other processing or preparation. The term includes a facility associated with the coal preparation activity and the activity by which the land surface has been or is disturbed as a result of or incidental to coal preparation activity of the operator, including, but not limited to, the following:

- (i) Private ways and roads appurtenant to the area, land excavations and loading facilities.
- (ii) Storage and stockpile facilities.
- (iii) Sheds, shops and other buildings.
- (iv) Water treatment and water storage facilities.
- (v) Settling basins and impoundments.
- (vi) Areas in which are situated facilities, equipment, machines, tools or other materials or property which result from, or are used in, the coal preparation activity.

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—A 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. The term includes underground development waste, coal processing waste and excess spoil; the term does not mean overburden from surface mining operations.

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

Common use roads—These accessways are existing roadways that normally are utilized by two or more operators, agencies or persons, or both, for access, safety, fire protection and other common purposes.

Compaction—The increase of 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 AOC 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; provided, that in the discretion of the Department, diversion structures and impoundments may be constructed on the reclaimed area of the operation if they are part of an approved drainage control plan, meet all applicable requirements of law and do not interfere with the attachment of AOC.

Contour mining—The type of surface mining where the coal is mined along the contour of its outcrop, generally in successive cuts. In anthracite surface mining operations, the term is generally synonymous with modified block-cut mining.

Cropland—Land used for the production of adapted crops for harvest, alone or in rotation with grasses and legumes, including row crops, small grain crops, hay crops, nursery crops, orchard crops and other similar agronomic and horticultural crops. The term does not include land primarily used for pastureland or pastureland occasionally used or cut for hay.

Degree—The inclination from the horizontal.

De minimis cost increase—For purposes of § 88.107 (relating to hydrologic balance; water rights and replacement), a cost increase which meets one of the following criteria:

- (i) Is less than 15% of the annual operating and maintenance costs of the previous water supply that is restored or replaced.
- (ii) Is less than \$60 per year.

Disturbed area—An area where vegetation, soil or overburden is removed or upon which soil, 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.

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—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.

Highwall—The face of exposed overburden and coal in an open cut of a surface coal mine activity or for entry to underground mining activities. There may be more than one highwall in an anthracite surface mine depending on the geologic structure and the configuration of the open cut. The term includes, but is not limited to, the bottom rock of a coal mine with steeply inclined coal seams.

Historically used for cropland—One of the following:

(i) Lands that have been used for cropland for 5 years or more out of the 10 years immediately preceding their acquisition—including purchase, lease or option—for the purpose of conducting or allowing, through resale, lease or option, 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-year-in-10 criterion, in which case, the provisions for prime farmland in this chapter may be applied to include more years of cropland history only to increase the prime farmland acreage to be preserved.

(iii) Lands that have been controlled for purposes other than cropland and that would likely have been used for cropland in any 5 out of the last 10 years if the lands have been acquired 10 or more years ago by a person other than the current owner.

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.

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

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—The surface of the land upon which surface mining is conducted.

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. A change of land use from one of the following categories to another shall be considered as a change to an alternative land use which is subject to approval by the Department. The term is further defined as:

(i) *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 specialty 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.

(ii) *Pastureland or land occasionally cut for hay*. Land used primarily for the long-term production of adopted, domesticated forage plants to be grazed 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 or 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 or 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 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 the following:

(A) Extraction or transformation of materials for fabrication of products. This includes all 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 that operation is also included. Support facilities include, but are not limited to, all 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.* 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.

Modified block-cut mining—The type of surface mining where the mining progresses along the contour or outcrop or strike of the coal seam by extracting successive blocks of overburden and coal. In anthracite surface mining operations, the term is generally synonymous with contour mining. The term may include multiple surface mining pits concurrently operated within the permit area if the total length of all of the pits is less than 1,500 feet, unless a pit length variance is granted by the Department under § 88.115(c)(1) (relating to backfilling and grading: general requirements).

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 the official Pennsylvania list of noxious plants for the Commonwealth.

Open pit mining—The type of surface mining operation involving one or more of the following:

(i) Basin removal operations where the open pit encompasses the entire cross section of a synclinal basin or a significant portion thereof unless the cross section of the synclinal basin is relatively narrow, less than 1,500 feet in width, in which case the operation will be classified as modified block-cut mining upon a demonstration by the operator that the requirements of § 88.115(c)(1) are met.

(ii) Area mining operations.

(iii) Overburden haul back operations.

(iv) Mining operations where multiple seams are being mined concurrently within a single mining phase or multiple mining phases, if the sequence of mining and reclamation operations are controlled by this phase mining plan developed by the coal operator and the timing of backfilling and grading operations is controlled by the backfilling schedule approved by the Department.

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

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

Perennial stream—A body of water flowing in a channel or bed composed 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 millimeter 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 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.

Prime farmland—Lands that are so defined by the United States Secretary of Agriculture in 7 CFR 657.5(a) (relating to identification of important farmlands) and that 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—Actions taken to restore mined land as required by this chapter to a postmining land use approved by the Department.

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 is expected to occur on the average once in 10 years.

Road—A surface right-of-way for purposes of travel by land vehicles used in coal exploration of surface coal mining and reclamation operations. A road consists of the entire area within the right-of-way, including the roadbed shoulders, parking and side area, approaches, structures, ditches, surface and such contiguous appendages as are necessary for the total structure. The term includes access and haul roads constructed, used, reconstructed, improved or maintained for use in coal exploration or surface coal mining activities, including use by coal-hauling vehicles leading to transfer, processing or storage areas.

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 and, including, but not limited to, a barrier, dam or excavated depression which detains water runoff to allow sediment to settle out. The term may not include secondary sedimentation control structures, such as straw dikes, riprap, 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—The best available vegetation-supporting material.

Soil survey—A field classification and laboratory analysis of soils in an area resulting in a map showing the geographic distribution 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 control 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.

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

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

Surface mining activities—The surface mining of anthracite coal as well as the surface where anthracite coal is or is likely to be uncovered, disturbed or affected in any manner during the mining.

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 EPA's regulations for wastewater and analyses (40 CFR 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 shall not be greater than 35° 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.

Toxic-forming materials—Earth materials or wastes 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.

Underground mine pool—An abandoned anthracite underground mine whose workings lie wholly or partially below the normal water table and whose workings have flooded when mining operations ceased.

Water supply—For the purpose of § 88.27 (relating to alternative water supply information) and § 88.107, an existing or currently designated or currently planned source of water or facility or system for the supply of water for human consumption or for agriculture, commercial, industrial or other uses.

Water supply survey—

(i) The collection of reasonably available information for a water supply to establish:

(A) The location, type and use of the water supply.

(B) The chemical and physical characteristics of the water.

(C) The quantity of the water.

(D) 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.

(E) Hydrogeologic data such as the static water level and yield determinations.

(ii) Reasonably available information is information which can be collected without extraordinary efforts or the expenditure of excessive sums of money.

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

Authority

The provisions of this § 88.1 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 § 88.1 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Depart-

ment of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; amended November 18, 1988, 18 Pa.B. 5155, effective August 25, 1989, 19 Pa.B. 3674; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; amended April 9, 1993, effective April 10, 1993, 23 Pa.B. 1711; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; 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. Immediately preceding text appears at serial pages (207005) to (207006), (244131) to (244136) and (247015) to (247016).

Cross References

This section cited in 25 Pa. Code § 88.503 (relating to applicability).

§ 88.2. Scope.

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

Source

The provisions of this § 88.2 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

ANTHRACITE COAL MINING ACTIVITIES: APPLICATION REQUIREMENTS AND PREMINING RESOURCES

§ 88.21. Responsibilities.

A permit application shall contain a description of the existing conditions within the proposed permit and adjacent area that may be affected by the proposed anthracite coal surface mining activities. The description shall include the information required in §§ 88.22—88.31.

Source

The provisions of this § 88.21 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95875).

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).

§ 88.22. General environmental resource information.

Each application shall describe and identify:

- (1) The location and extent of the proposed anthracite coal 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 features 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.

Source

The provisions of this § 88.22 adopted December 19, 1980, 10 Pa.B. 4789, 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 page (158909).

Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.21 (relating to responsibilities).

§ 88.23. Description of hydrology and geology: general requirements.

(a) Each application shall contain a description, in accordance with this section and §§ 88.24 and 88.25 (relating to geology; and groundwater) of the geology, hydrology and water quality and quantity of all lands within the proposed permit area, the adjacent area and the general area. The description shall include information on the characteristics of all surface waters and groundwaters within the general area, and any 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 shall 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 water and groundwater information may be required for each site as when models are not used.

Source

The provisions of this § 88.23 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95876).

Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.21 (relating to responsibilities).

§ 88.24. Geology.

(a) An application shall contain a description of the geology within the proposed permit and adjacent area down to and including the aquifer system or known existing deep mine that may be affected below the lowest coal seam, bank or refuse disposal area to be affected.

(b) Old colliery maps, geological maps, geological reports, breaker or coal preparation analysis reports and other sources as needed shall be used to provide the following description:

(1) The location of the mine pool or subsurface water.

(2) The stratigraphy and thickness of the coal and overburden.

(3) The structure within the proposed permit and its relationship to the structure of the general area.

(4) Chemical analyses of the coal and overburden.

(i) The analyses shall identify coal and overburden that may contain acid-forming or toxic-forming materials to determine their content. The analyses of the coal shall include total sulfur.

(ii) The applicant may request the Department to waive the analyses in whole or in part. The waiver may be granted if the Department makes a written determination that the analyses are not necessary because other equivalent information is available to the Department in a satisfactory form.

(5) The location, identification and status of other mining within or adjacent to the proposed permit area.

(6) Other analysis the Department deems relevant.

(c) Except for bank removal and reclamation activities, test borings or core samplings shall be collected and analyzed within the proposed permit area if required by the Department to provide further evaluation data if adequate data to determine a hydrologic balance impact is not available from other sources.

Authority

The provisions of this § 88.24 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 § 88.24 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; 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 page (199040).

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 § 88.21 (relating to responsibilities); 25 Pa. Code § 88.23 (relating to description of hydrology and geology; general requirements); and 25 Pa. Code § 88.25 (relating to groundwater).

§ 88.25. Groundwater.

(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 or deep mine pool over the general area.
- (2) The hydrologic characteristics of the strata described in § 88.24 (relating to geology).
- (3) The uses of the groundwater.
- (4) The chemical characteristics of typical 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 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 § 88.25 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 § 88.25 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199041).

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 § 88.21 (relating to responsibilities); 25 Pa. Code § 88.23 (relating to description of hydrology and geology: general requirements); 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.26. 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 all surface water bodies, such as streams, lakes, ponds and springs, deep mine discharges and seeps and descriptions of surface drainage systems within the proposed permit and adjacent areas.

(b) Surface water information shall include the following:

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

(2) Water quality and quantity 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 the Department determines to be relevant.

Authority

The provisions of this § 88.26 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 § 88.26 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (199041) to (199042).

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 § 88.21 (relating to responsibilities); 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.27. Alternative water supply information.

The application shall identify the extent to which the proposed anthracite coal surface mining activities may result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent area for domestic, agricultural, industrial or other legitimate use. 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 Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

Source

The provisions of this § 88.27 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.1 (relating to definitions); and 25 Pa. Code § 88.21 (relating to responsibilities).

§ 88.28. Climatology.

When requested by the Department, the application shall contain a statement of the climatological factors that are representative of the proposed permits and adjacent 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 § 88.28 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92540).

Cross References

This section cited in 25 Pa. Code § 88.21 (relating to responsibilities).

§ 88.29. Vegetation information.

An application shall contain a description of the extent of cover, in percent ground cover, of the natural vegetation within the proposed permit area.

Source

The provisions of this § 88.29 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.21 (relating to responsibilities).

§ 88.30. Description of land use.

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

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

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

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

(b) An 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 § 88.30 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13. Immediately preceding text appears at serial page (92541).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 88.21 (relating to responsibilities); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.31. Maps and plans.

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

(1) The boundaries and the names 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 anthracite coal 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 the current use of 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 principals 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 and elevations of monitoring stations, springs and wells.

(8) The boundaries of land within the proposed permit adjacent area identified in Chapter 86, Subchapter C (relating to small operator assistance program) as unsuitable, limited or prohibited to mining.

(9) The boundaries of public parks and locations 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 known 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 System, 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 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 if utilized.

(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) Coal crop lines.

(17) The ownership, if known, location and extent of known workings of active, inactive and abandoned underground mines, including mine openings 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 wells within the proposed permit area.

(21) Sufficient slope measurements or contours 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, where this is impractical, at locations specified by the Department.

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

(iii) Slope measurements 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 proposed spoil areas.

(23) Other information the Department deems relevant.

(b) Maps, plans and cross sections required by this section shall be on a scale satisfactory to the Department, but 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 professional land surveyor or qualified registered professional geologist with assistance from experts in related fields.

Authority

The provisions of this § 88.31 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 § 88.31 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13;

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 (199044) to (199046).

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 § 88.21 (relating to responsibilities); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.32. Prime farmland investigation.

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

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

- (1) The land has not been historically used for cropland.
- (2) The slope of the land is 10% or greater.

(3) There are no soil map units that have been designated prime farmland by the United States Department of Agriculture Soil Conservation Service, on the basis of a soil survey of lands within the permit area.

(c) If the applicant determines after investigation that all or part of the lands in the proposed permit area are not prime farmland, the applicant shall submit with the permit application a request for a negative determination showing that the lands for which the negative determination is sought meet 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 Department of Agriculture Soil 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.

(e) When a soil survey as required in subsection (d) includes soil map units that have been designated as prime farmlands, the applicant shall submit with the permit application a soil survey of the proposed permit area according to the standards of the National Cooperative Soil Survey and 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 Soil Conservation Service for each prime farmland soil 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 Soil Conservation Service.

(f) When a soil survey as required in subsection (d) includes map units that have not been designated as prime farmland after review by the United States Department of Agriculture Soil Conservation Service, the applicant shall submit with the permit application a request for negative determination for nondesignated land establishing compliance with subsection (b).

Source

The provisions of this § 88.32 adopted January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148740) to (148741).

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 86.261 (relating to program services); 25 Pa. Code § 88.61 (relating to prime farmlands); 25 Pa. Code § 88.129 (relating to revegetation: standards for successful revegetation); 25 Pa. Code § 88.217 (relating to vegetation: standards for successful vegetation); 25 Pa. Code § 88.330 (relating to revegetation: standards for successful revegetation); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.33. 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 § 88.62 (relating to fish and wildlife protection and enhancement plan).

(2) Site-specific resource information necessary to address the respective species or habitats is required when the proposed permit area or adjacent area is likely to include one 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 those species or habitats protected by the law or regulations of the Commonwealth, including those 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 raptures, areas offering special shelter or protection, migration routes of reproduction and wintering areas.

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

Source

The provisions of this § 88.33 adopted June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148741) to (148742).

Cross References

This section cited in 25 Pa. Code § 86.81 (relating to program services); 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.62 (relating to fish and wildlife protection and enhancement plan).

OPERATION AND RECLAMATION PLAN

§ 88.41. Operation plan: requirements.

As part of each permit application, the applicant shall provide a description of the anthracite coal surface mining activities showing the manner in which this chapter shall be met. The description shall include, at a minimum, the information required in §§ 88.42—88.46 and 88.48—88.60.

Source

The provisions of this § 88.41 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

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

§ 88.42. Operational plan: general information.

An application for anthracite coal surface mining activities shall include at a minimum:

- (1) A narrative description of the type and method of mining and reclamation procedures and proposed engineering techniques and the major equipment to be used.
- (2) A narrative explaining the construction, modification, use, maintenance and removal of the following facilities, unless retention of the facilities is approved for postmining land use:
 - (i) Dams, embankments and other impoundments.
 - (ii) Overburden, soil or vegetation-supporting material handling and storage areas.
 - (iii) Handling, storage, transportation areas and structures affected by coal removal.
 - (iv) Handling, storage, transportation and disposal areas and structures affected by mine spoil or coal processing waste.
 - (v) Mine facilities.
 - (vi) Water pollution control facilities.

- (vii) Erosion control facilities.
- (viii) Air pollution control methods.

(3) A description of the measures to be employed to ensure that all debris, potential acid-forming and potential toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with this chapter and a description of the contingency plans which have been developed to preclude combustion of these materials.

(4) A description of the measures to be employed to seal drill holes or encountered mine openings.

(5) 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 § 88.42 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (239649) to (239650).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.43. Operation plan: existing structures.

(a) The application shall include a description of each existing structure proposed to be used in connection with or to facilitate the anthracite coal surface mining activities, including the following:

- (1) The location.
- (2) The plans of the structure which describe its existing condition.
- (3) A demonstration of evidence, indicating whether the structure meets the performance standards or the design requirements of Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

(b) The application shall include a compliance plan for each existing structure to be modified or reconstructed for use in connection with or to facilitate the surface mining activities. The compliance plan shall include:

- (1) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of this chapter.
- (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 B, C or D 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 § 88.43 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.44. Operation maps and operation plans.

(a) The application shall include maps and plans of the proposed permit and adjacent area, showing the following:

- (1) The boundaries of lands proposed to be affected over the life of the proposed operation and the sequence of operations and reclamation for 5 years.
- (2) The changes in a facility or feature to be caused by the proposed operation for the facility or feature identified.
- (3) The buildings, utility corridors and facilities which will be used.
- (4) The initial bonded area and each incremental area of land for which a bond will be posted.
- (5) The coal storage, cleaning and loading areas.
- (6) The soil, spoil, coal waste and noncoal waste storage areas.
- (7) The water diversion, collection, conveyance, sedimentation and erosion control, treatment, storage and discharge facilities to be used.
- (8) The sources of waste and each waste disposal facility relating to coal processing or pollution control.
- (9) Each explosive storage and handling facility.
- (10) 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.
- (11) The location of monitoring points.
- (12) Final contours.
- (13) An air pollution collection and control facility, if required.

(b) Maps, plans and cross sections required by this section shall be on a scale satisfactory to the Department, but 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 professional land surveyor or qualified registered professional geologist with assistance from experts in related fields.

Authority

The provisions of this § 88.44 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 § 88.44 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (199050) to (199051).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.45. Blasting.

An application shall contain a blasting plan for the proposed permit area, explaining how the applicant intends to comply with the requirements of Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

Source

The provisions of this § 88.45 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92546) to (92547).

Cross References

This section cited in 25 Pa. Code § 88.41 (relating to operation plan: requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.46. Reclamation plan: requirements.

A permit application shall contain a plan for the reclamation of the land within the proposed permit area, including, at a minimum the following:

- (1) An estimated timetable for the accomplishment of each major step in the reclamation plan.
- (2) An estimate of the cost of reclamation of the proposed operation required to be covered by a bond 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 present and the anticipated final surface configuration of the proposed permit area.
- (4) A plan for removing, conserving and distributing the soil or other vegetation supporting material available from the operation.

(5) A plan for seeding and planting, including, but not limited to, descriptions of the following:

- (i) The schedule of seeding and planting.
- (ii) The species and amounts per acre of seeds or seedlings, or both, to be used.
- (iii) The method to be used in planting and seeding.
- (iv) Mulching techniques, if required by the Department.
- (v) Measures proposed to be used to determine the success of revegetation.
- (vi) A soil testing plan for determining nutrients and soil amendments as required by § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments).
- (vii) A description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials are disposed of.
- (viii) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings other than those deep mine workings remaining after the last cut has been taken and which will be backfilled or otherwise managed in the reclamation plan, and further to plug or manage exploration holes, other boreholes, wells and other openings within the proposed permit area.

Source

The provisions of this § 88.46 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92547) to (92548).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.48. 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, 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) An air quality control monitoring program to provide sufficient data to evaluate the effectiveness of the air pollution control plan, if required by the Department.

Source

The provisions of this § 88.48 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92548).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.49. Protection of hydrologic balance.

(a) An application shall contain a detailed description, with appropriate maps and cross sections of the measures to be taken during and after the proposed anthracite surface coal mining activities in accordance with the performance standards of this chapter, to ensure the protection of the quality and quantity of surface water systems, both within the proposed permit and adjacent areas, from adverse effects of the proposed activities and the rights of present users of surface water and groundwater.

(b) An application shall also contain:

(1) A plan for the control and treatment, if necessary, of surface water and groundwater drainage into, through and out of the proposed anthracite coal mining site to meet the effluent criteria of Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

(2) A plan for the collection, recording and reporting of groundwater and surface water quality and quantity data in accordance with §§ 88.105 and 88.106 (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 (3).

(3) A determination of the probable hydrologic consequences of the proposed anthracite coal mining activities, on the proposed total affected area and adjacent area, with respect to the hydrologic regime and the quantity and quality of water in surface water systems. The determination shall address the parameters measured in accordance with §§ 88.25 and 88.26 (relating to groundwater; and surface water information).

Authority

The provisions of this § 88.49 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 § 88.49 adopted December 19, 1980, 10 Pa.B. 4789, 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 (199052) to (199053).

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); 25 Pa. Code § 88.41 (relating to operation plan: requirements); 25 Pa. Code § 88.106 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 88.202 (relating to hydrologic balance: surface water monitoring); 25 Pa. Code § 88.306 (relating to hydrologic balance: surface water monitoring); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.50. Erosion and sedimentation control plan.

The reclamation plan shall include the necessary information to demonstrate how the proposed sediment control measures will meet the requirements of Chapter 102 (relating to erosion and sediment control) and the additional erosion control requirements of Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

Source

The provisions of this § 88.50 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.51. Stream diversions, obstructions and encroachments.

An application shall include the necessary information to demonstrate how each proposed water obstruction and encroachment will meet the requirement of Chapter 105 (relating to dam safety and waterway management).

Source

The provisions of this § 88.51 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.52. Diversions.

An application shall show the manner in which the applicant plans to divert water from entering the operation.

Source

The provisions of this § 88.52 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.53. Dams, ponds, embankments and impoundments.

(a) An application shall include a general plan and a 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:

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

(4) A description, map and cross sections of the structure and its location.

(c) The plan for a structure which is subject to the criteria of Chapter 105 (relating to dam safety and waterway management) shall meet the requirements of Chapter 105.

(d) The detailed plan for a structure which is not subject to Chapter 105 shall:

(1) Be prepared by, or under the direction of, and certified by a qualified registered professional engineer.

(2) Include any design and construction requirements for each structure, including any 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.

(e) The plan for sedimentation ponds shall include the design standards and other requirements of this chapter.

(f) The plan for any coal processing waste dam or embankment shall include the design standards and other requirements of this chapter.

Source

The provisions of this § 88.53 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92550) to (92551).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.54. Surface mining near underground mining.

If coal removal, blasting or drilling is proposed to be conducted close to any point of an active or abandoned underground mine the operation plan shall describe the measures to be used to comply with §§ 88.113 and 88.204 (relating to protection of underground mining; and protection of underground mining) and applicable State and Federal laws.

Authority

The provisions of this § 88.54 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 § 88.54 adopted December 19, 1980, 10 Pa.B. 4789, 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 page (199055).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.55. Postmining land uses.

(a) A plan shall contain a description of the proposed use, following reclamation of the land within the proposed permit area. The description shall also 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 a land use different from the predisposal land use is proposed, all materials needed for approval of the alternative use under Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

(3) The consideration which has been given to making all of the proposed activities consistent with surface owner plans and applicable State 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 State 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 § 88.55 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.56. 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 if the required measures are completed before the properties are affected by any anthracite mining activity.

Source

The provisions of this § 88.56 adopted December 19, 1980, 10 Pa.B. 4789, 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 (239658).

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 § 88.41 (relating to operation plan: requirements); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.57. Public roads.

The reclamation plan shall include a description and necessary drawings, approved by the Department of Transportation or the municipality, township or county 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 access of the site joins the right-of-way.

Source

The provisions of this § 88.57 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.58. Disposal of excess spoil.

(a) The reclamation plan shall contain a description, including appropriate maps and cross sections, of the proposed disposal site and design of the spoil disposal structure. The description shall include the geotechnical investigation, design, construction, operation, maintenance and removal, if appropriate, of the site and structures.

(b) When excess spoil will not be used to reclaim nearby abandoned surface mines, 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 stability analysis, including, but not limited to, strength parameters 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.

Source

The provisions of this § 88.58 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.59. Coal refuse disposal.

(a) The reclamation plan shall include the necessary information to demonstrate how the proposed disposal of coal refuse will meet the requirements of Subchapter D (relating to anthracite refuse disposal: minimum environmental protection performance standards).

(b) Coal refuse which is returned to abandoned underground working shall meet those requirements described in Subchapter F (relating to anthracite underground mines).

Source

The provisions of this § 88.59 adopted December 19, 1980, 10 Pa.B. 4789, 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 § 88.41 (relating to operation plan: requirements).

§ 88.60. Haul roads, access roads and other transportation facilities.

For each haul road, conveyor, rail system, 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 Subchapter B, C, D or F.

Source

The provisions of this § 88.60 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92554).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.41 (relating to operation plan: requirements).

§ 88.61. Prime farmlands.

(a) A person who conducts or intends to conduct surface mining activities on prime farmland shall submit a plan, as part of the permit application, demonstrating the following:

(1) The land will be restored, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management.

(2) The standards for successful revegetation of §§ 88.129, 88.217 and 88.330 (relating to revegetation: standards for successful revegetation; revegetation: standards for successful vegetation; and revegetation: standards for successful revegetation) can be achieved.

(b) The plan shall contain at a minimum:

(1) A soil survey with description of soil mapping units and representative soil survey profile under § 88.32(d) (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.

(2) A plan for soil reconstruction, replacement and stabilization to include:

(i) The proposed method and the type of equipment to be used for removal, storage and replacement of the soil.

(ii) The proposed measures to be taken during soil reconstruction to prevent excessive compaction and to achieve soil bulk densities which will

result in the restored area being returned to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management.

(iii) The areas to be used for the separate stockpiling of the soil and plans for soil stabilization before distribution.

(3) Scientific data, such as agricultural school studies, for areas with comparable soils, climate and management that demonstrate that the proposed method of reclamation, including the use of soil mixtures or substitutes will achieve, within a reasonable time, equivalent or higher levels of yield as non-affected prime farmland in the surrounding area under equivalent levels of management.

(4) The productivity prior to mining, including the average yield of food, fiber, forage or wood products obtained under a high level of management.

Authority

The provisions of this § 88.61 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 § 88.61 adopted January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; 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 (199059) to (199060).

Cross References

This section cited in 25 Pa. Code § 86.261 (relating to program services); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.62. 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 anthracite mining activities and how enhancement of these resources will be achieved where practicable. This description shall apply, at a minimum, to species and habitats identified under § 88.33 (relating to fish and wildlife resource information) and include the following:

(1) Protective measures that will be used during the active mining phase of operation. These 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.

(2) Enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. These 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 § 88.33 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 § 88.62 adopted June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148754) to (148755).

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 § 88.33 (relating to fish and wildlife resource information); and 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan).

Subchapter B. SURFACE ANTHRACITE COAL MINES: MINIMUM ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS

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- 88.148. [Reserved].
- 88.149. [Reserved].
- 88.150. Common use roads.

Cross References

This subchapter cited in 25 Pa. Code § 86.5 (relating to extraction of coal incidental to noncoal surface mining); 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 88.27 (relating to alternative water supply information); 25 Pa. Code § 88.43 (relating to operation plan: existing structures); 25 Pa. Code § 88.45 (relating to blasting); 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); 25 Pa. Code § 88.50 (relating to erosion and sedimentation control plan); 25 Pa. Code § 88.55 (relating to postmining land uses); 25 Pa. Code § 88.60 (relating to haul roads, access roads and other transportation facilities); 25 Pa. Code § 88.281 (relating to requirements); 25 Pa. Code § 88.315 (relating to coal refuse disposal: active surface mines); 25 Pa. Code § 88.501 (relating to scope); 25 Pa. Code § 88.504 (relating to application for authorization); 25 Pa. Code § 88.505 (relating to approval or denial); and 25 Pa. Code § 88.506 (relating to operational requirements).

§ 88.81. Requirements.

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

Source

The provisions of this § 88.81 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.82. Signs and markers.

(a) A 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 actively used haul road and public road. The sign shall be constructed of a durable weather resistant material at a minimum size of 2 feet by 3 feet with a light background and contrasting letters and numbers of a minimum height of 1/2 inch 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) 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 § 88.135 (relating to blasting: surface blasting requirements).

(c) 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 § 88.82 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 § 88.82 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199063).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.83. Sealing of drilled holes: general requirements.

(a) An exploration hole, other drill or borehole, well or other exposed opening (except for holes solely drilled and used for blasting), shall be sealed, back-filled or otherwise managed, as approved by the Department, in order to do the following:

- (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 areas.
- (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 § 88.106 (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, unless:

- (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 are implemented.

Authority

The provisions of this § 88.83 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 § 88.83 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (207041) to (207042).

§ 88.84. [Reserved].

Source

The provisions of this § 88.84 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92558).

§ 88.85. [Reserved].

Source

The provisions of this § 88.85 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (99147).

§ 88.86. Vegetation-supporting material: general requirements.

Soil, in an amount sufficient to ensure ample material for vegetation, shall be removed, conserved and redistributed for the final surface layer. If soil is unavailable suitable mine spoil or other materials which will support vegetation shall be conserved and redistributed as the final surface.

Source

The provisions of this § 88.86 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (99147).

Cross References

This section cited in 25 Pa. Code § 88.87 (relating to vegetation-supporting material: available soil removal); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.87. Vegetation-supporting material: available soil removal.

(a) Available soil, as required by § 88.86 (relating to vegetation-supporting material: general requirements), shall be removed from the area to be disturbed prior to any surface mining.

(b) In the event that removal of vegetative matter, soil or other materials may result in erosion which may cause air or water pollution, the size of the area from which soil 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 the soil is less than 12 inches in depth, all soil and sufficient unconsolidated material immediately below the soil shall be removed to provide a 12-inch layer when redistributed as the final surface.

(d) On areas that have been previously affected by mining with no available soil, the spoil material best suited to support vegetation shall be conserved for redistribution as the final surface.

Source

The provisions of this § 88.87 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.88. Vegetation-supporting material: soil storage.

(a) Soil and other vegetation-supporting materials shall be redistributed or stockpiled for redistribution.

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

(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) Seeding or planting an effective cover of nonnoxious quick-growing annual and perennial species.

(2) Other methods demonstrated to and approved by the Department to provide equal protection.

Source

The provisions of this § 88.88 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.89. Vegetation-supporting material: soil redistribution.

(a) Prior to redistribution of soil or other vegetation-supporting material, the regraded land shall be scarified or otherwise treated as required by the Department to eliminate slippage surfaces and to promote root penetration.

(b) Soil and other vegetation-supporting materials shall be redistributed in a manner that meets the following:

- (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 soil and other vegetation-supporting materials.
- (3) Protects the soil and other vegetation-supporting materials from wind and water erosion before and after it is seeded and planted.

Source

The provisions of this § 88.89 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.90. Vegetation-supporting material: 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 revegetation requirements of §§ 88.121—88.130.

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

(c) Agricultural lime or 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 alternate material of equivalent neutralizing effect may be employed.

(d) The use of fly ash and sewage sludge as soil amendments may be approved by the Department if demonstrated to be a suitable soil amendment and meets the requirements of Subpart D, Articles VIII and IX (relating to municipal waste; and residual waste management).

Source

The provisions of this § 88.90 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92561).

Cross References

This section cited in 25 Pa. Code § 88.46 (relating to reclamation plan: requirements); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.91. 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 preventive, remedial or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Where the area has been previously mined, the surface mining activity shall be planned and conducted to maximize the abatement of water pollution and the reclamation of the land.

(b) Changes in water quality and quantity, the depth to 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 § 88.92 (relating to hydrologic balance: effluent standards) may not be violated.

(d) A person who conducts surface mining activities shall conduct the mining and reclamation operation to prevent water pollution and, if necessary, operate and maintain the necessary water treatment facilities until applicable treatment requirements and effluent limitations established under § 88.92 are achieved and maintained. If these practices are not adequate, the person who conducts surface mining activities shall provide the necessary water treatment facilities to obtain the applicable water quality standards.

Source

The provisions of this § 88.91 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (237169).

§ 88.92. Hydrologic balance: effluent standards.

(a) *Groups of effluent criteria.* A person may not allow a discharge of water from an area disturbed by mining activities which exceeds the following groups of effluent criteria. The effluent limitations shall be applied under subsection (b).

<i>Parameter</i>	<i>Group A</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 ¹		greater than 6.0; less than 9.0	
alkalinity greater than acidity ¹			

¹ The parameter is applicable at all times.

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

<i>Parameter</i>	<i>Instantaneous Maximum</i>
	pH
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 effluent limitations set forth as follows:

<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

<i>Type of Discharge</i>	<i>Precipitation Event</i>	<i>Effluent Limitations</i>
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 § 88.93 (relating to hydrologic balance: precipitation event exemption).

(c) *Exceptions to effluent limitations.* Exemptions to effluent limitations are as follows:

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

(i) Where the wastes are discharged to an acid stream, in which cases the pH may be greater than 9.0.

(ii) 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 (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), 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 10.0 mg/1, the manganese limitation does not apply.

(d) *Single facilities used for sediment and erosion control.* 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 polluttional discharges.*

(1) If a postmining polluttional discharge occurs, the discharger shall immediately provide interim treatment to comply with the Group A effluent requirements in subsection (a), including any 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 Chapters 91—93, 95, 97 (reserved) and 102.

Authority

The provisions of this § 88.92 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 § 88.92 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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. Immediately preceding text appears at serial pages (237169) to (237173).

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 § 88.91 (relating to hydrologic balance: general requirements); 25 Pa. Code § 88.93 (relating to hydrologic balance: precipitation event exemption); 25 Pa. Code § 88.96 (relating to hydrologic balance: sediment control measures); 25 Pa. Code § 88.97 (relating to hydrologic balance: treatment facilities); 25 Pa. Code § 88.98 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 88.100 (relating to hydrologic balance: acid-forming and toxic-forming spoil); 25 Pa. Code § 88.101 (relating to hydrologic balance: permanent impoundments); 25 Pa. Code § 88.138 (relating to haul roads and access roads: general); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.507 (relating to treatment of discharges); 25 Pa. Code § 88.510 (relating to effluent limitations); and 25 Pa. Code § 88.511 (relating to baseline determination and compliance monitoring for pre-existing discharges at remaining operations).

§ 88.93. Hydrologic balance: precipitation event exemption.

(a) To establish the alternative effluent limitations of Group B or C in § 88.92(a) (relating to hydrologic balance: effluent standards), a permittee shall demonstrate to the Department's satisfaction that a precipitation event has occurred, under the procedures in this section.

(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 specified in § 88.92, 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 of Group C in § 88.92(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 § 88.92, 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 precipitation event equal to or less than a 10-year, 24-hour precipitation event has occurred, the permittee shall meet the effluent limitations of Group B in § 88.92(a).

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth are listed as follows:

<i>County</i>	<i>Rainfall (inches) 10 Yr.</i>
Bradford	4.2
Carbon	4.8
Columbia	4.6
Dauphin	4.8
Lackawanna	4.7
Lebanon	4.8
Luzerne	4.7
Northumberland	4.6
Schuylkill	4.7

(c) For the permittee to demonstrate that the event listed in subsection (b) has for his 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 under this paragraph, calculate the estimated rainfall event for the site. Appropriate interpolation shall be accomplished by:

(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 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 in subsection (a).

(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) When the discharge from the site exceeds any 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 is not entitled to claim a greater than 10-year, 24-hour precipitation event storm exemption unless the permittee has complied with subsections (c) and (d).

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

Source

The provisions of this § 88.93 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148764) to (148766).

Cross References

This section cited in 25 Pa. Code § 88.92 (relating to hydrologic balance: effluent standards).

§ 88.94. Hydrologic balance: stream diversions.

Diversion of flow from perennial and intermittent streams shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

Source

The provisions of this § 88.94 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.95. 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 soil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the diversion.

(d) Any 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 or toxic-forming rock that will not slake and will be free of coal, clay or shale.

(e) A diversion may not be located in a manner that increases 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 the requirements of this subchapter.

Source

The provisions of this § 88.95 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (99152).

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards); 25 Pa. Code § 88.502 (relating to definitions); and 25 Pa. Code § 88.507 (relating to treatment of discharges).

§ 88.96. Hydrologic balance: sediment control measures.

Appropriate sediment control measures shall be designed, constructed and maintained to:

- (1) Prevent, to the extent possible, contributions of sediment to streamflow or to runoff outside the affected area.
- (2) Meet the treatment and effluent requirements of § 88.92 (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 § 88.96 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (207051).

Cross References

This section cited in 25 Pa. Code § 86.149 (relating to determination of bond amount); 25 Pa. Code § 88.138 (relating to haul roads and access roads: general); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.97. 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 to comply with effluent standards as provided in § 88.92 (relating to hydrologic balance: effluent standards).

Source

The provisions of this § 88.97 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92567).

§ 88.98. Hydrologic balance: sedimentation ponds.

(a) All surface drainage from the disturbed area—including areas which have been graded, seeded and 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 § 88.92 (relating to hydrologic balance: effluent standards).

(b) Sedimentation ponds shall be constructed before disturbing any area which will drain to the pond. The ponds shall be located as near as possible to the area to be disturbed and out of perennial and intermittent streams, unless approved by the Department. They shall be maintained until the disturbed area has been restored and the vegetation requirements have been met.

(c) The following apply to sedimentation ponds:

(1) Sediment ponds shall meet the requirements of Chapter 102 (relating to erosion and sediment control).

(2) Sedimentation ponds shall be structurally sound and, at a minimum, meet the requirements of § 88.102 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance).

Source

The provisions of this § 88.98 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92568).

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.99. Hydrologic balance: discharge structures.

Discharge from dams, ponds, embankments, impoundments and diversions shall be controlled by energy dissipators, riprap channels or other devices, where 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 § 88.99 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92568).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.100. 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:

(1) Identifying, burying and treating, where necessary, spoil which, in the judgment of the Department, may be detrimental to vegetation or 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 § 88.119 (relating to backfilling and grading: covering coal and acid-forming and toxic-forming materials) and other measures as required by the Department.

(3) Burying or otherwise treating all acid-forming or toxic-forming spoil as soon as practical after it is first exposed on the mine site. 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 protected from erosion and contact with surface water. Any discharge shall be collected and treated to conform to § 88.92 (relating to hydrologic balance: effluent standards).

Source

The provisions of this § 88.100 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.101. Hydrologic balance: permanent impoundments.

Permanent impoundments may be 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 § 88.92 (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 will not result in the diminution of the quality or quantity of water used by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic users.
- (5) The design, construction and maintenance of structures shall achieve the minimum requirements of § 88.102 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance).
- (6) The size of the impoundment is adequate for its intended purposes.

Source

The provisions of this § 88.101 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92569) to (92570).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

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

(a) Dams, ponds, embankments and impoundments that meet the criteria of Chapter 105 (relating to dam safety and waterway management) shall be designed, constructed and maintained under Chapter 105.

(b) The design, construction and maintenance of dams, ponds, embankments and impoundments that are not of the class of subsection (a) shall achieve the minimum design criteria contained in United States Soil Conservation Service's Pennsylvania Field Office Technical Guide, Section IV, Standards 350 "Sediment Basin" and 378, "Pond" as amended. In addition to the requirements in "Sediment Basin," a minimum static safety factor of 1.3 is required.

Authority

The provisions of this § 88.102 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); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 88.102 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 page (199076).

Cross References

This section cited in 25 Pa. Code § 88.98 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 88.101 (relating to hydrologic balance: permanent impoundments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.103. Hydrologic balance: coal processing waste dams and embankments.

A dam and embankment constructed of coal processing waste or intended to impound coal processing waste, shall meet the requirement criteria established by Chapter 105 (relating to dam safety and waterway management) and the United States Soil Conservation Service's *Pennsylvania Field Office Technical Guide, Section IV, Standard 378, "Pond"* as applicable.

Source

The provisions of this § 88.103 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148772).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

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

Surface water or groundwater from surface mining activities may not be piped or channeled to underground mine workings.

Source

The provisions of this § 88.104 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92571).

§ 88.105. Hydrologic balance: groundwater monitoring.

(a) Groundwater levels, subsurface flow 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 reclaimed lands and on the quantity and quality of water in groundwater systems in the permit and adjacent areas.

(b) When surface mining activities may affect the groundwater systems which serve as aquifers which 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 sources and chemical analyses of water from aquifers that are adequate to reflect changes in groundwater quality and quantity resulting from those activities. Monitoring shall be adequate to plan for modification of coal refuse disposal activities, if necessary, to prevent to the maximum extent possible, 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 Department may require the operator to conduct additional hydrologic tests, including but not limited to, drilling, infiltration tests, aquifer tests, chemical and mineralogic analyses of overburden and spoil to demonstrate compliance with this section.

(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 § 88.105 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 § 88.105 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (199077) to (199078).

Cross References

This section cited in 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.106. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), surface water shall be monitored to measure and record accurately 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 88.49 (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 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 § 88.106 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 § 88.106 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199078).

Cross References

This section cited in 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); 25 Pa. Code § 88.83 (relating to sealing of drilled holes: general requirements); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.107. Hydrologic balance: water rights and replacement.

(a) *Water supply replacement obligations.* The operator of any mine or a person engaged in government-financed reclamation who affects a water supply by contamination, pollution, diminution or interruption shall restore or replace the affected water supply with an alternate source, adequate in water quality and water quantity for the purpose served by the water supply.

(1) To be adequate, the restored or replacement 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 owner and the user with as much control and accessibility as exercised over the previous water supply. The use of a public water supply as a replacement water supply provides the owner and the user adequate control and accessibility.

(v) Not result in more than a de minimis cost increase to operate and maintain.

(2) If the operating and maintenance costs of the restored or replacement water supply are more than a de minimis cost increase, the operator shall provide for the permanent payment of the increased operating and maintenance costs of the restored or replacement water supply.

(3) The requirement contained in this subsection to restore or replace an affected water supply or an individual requirement of paragraphs (1) and (2) may be waived. The waiver shall be in writing on a form prepared by the Department. Everyone who possesses an ownership interest in the water supply shall sign the waiver. The form shall be recorded at the office of the recorder of deeds in the county in which the water supply is situated and a notarized copy of the form provided to the Department.

(b) *Presumption of liability for pollution.*

(1) It shall be presumed, as a matter of law, that a surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination, and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of the areas bonded and affected by coal mining operations, areas of overburden removal and storage and support areas except for haul and access roads.

(2) If surface mining activities are conducted on areas which are not permitted or bonded, it shall be presumed, as a matter of law, that the surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the land affected by the surface mining activities.

(c) *Defense to presumption of liability.* There are only five defenses to the presumption of liability provided in subsection (b). For any of the five defenses to apply, a mine operator or mine owner shall affirmatively prove by a preponderance of evidence that one or more of the following conditions exists:

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

(2) The water supply is not within 1,000 linear feet (304.80 meters) of:

(i) The boundaries of areas bonded and affected by coal mining operations, areas of overburden removal and storage and areas used for support but not including haul and access roads.

(ii) The boundaries of areas affected by surface mining activities in areas which are not bonded.

(3) 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.

(4) The pollution or diminution occurred as a result of some cause other than the surface mining activities.

(5) The landowner, water supply user or water supply company refused to allow the surface mine operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(d) *Notification to the Department.* The surface mine operator or mine owner shall notify the Department and provide all information which supports a defense to the presumption of liability when one or more of the five defenses to the presumption of liability provided in subsection (c) are met. If a surface mine operator's or mine owner's defense to the presumption of liability is based on the conditions of subsection (c)(1), the operator or owner shall submit evidence to the Department demonstrating that the landowner or water supply company was notified by certified mail or personal service that the refusal of access to conduct a water supply survey could be used to rebut a presumption of liability.

(e) *Immediate replacement of water supply.* 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 surface mine operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA (52 P. S. § 1396.5b(f)), the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

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

(g) *Operator cost recovery.* A surface mine operator or mine owner who appeals a Department order, provides a successful defense during the appeal to the presumptions of liability and is not otherwise held responsible for the pollution or diminution is entitled to recovery of reasonable costs incurred, including, but not limited to, the costs of temporary water supply, design, construction, restoration or replacement costs, attorney fees and expert witness fees from the Department.

(h) *Other remedies.* Nothing in this section prevents a landowner, water supply user or water supply company who claims pollution or diminution of a water supply from pursuing any other remedy that may be provided for in law or in equity.

(i) *Issuance of new permits.* A Department order issued under this section which is appealed, will not be used to block issuance of new permits or the release of bonds when a stage of reclamation work is completed.

(j) *Departmental authority.* Nothing in this section limits the Department's authority under section 4.2(f)(1) of SMCRA.

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

Source

The provisions of this § 88.107 adopted December 19, 1980, 10 Pa.B. 4789, 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 (207057) to (207058).

Cross References

This section cited in 25 Pa. Code § 88.1 (relating to definitions); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.108. 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 as required by the Department all permanent sedimentation ponds, diversions, impoundments and treatment facilities to meet criteria specified in the detailed design plan for the permanent structures and impoundments.

Source

The provisions of this § 88.108 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92573).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.110. Disposal of excess spoil: general requirements.

(a) Spoil not required to backfill and reclaim within the area where overburden has been removed shall be hauled or conveyed to and placed in designated disposal areas approved by the Department. The spoil shall be placed in a controlled manner to ensure:

- (1) That the land mass designated as the disposal area is suitable for reclamation and revegetation compatible with the natural surroundings.
- (2) Stability of the disposal area.

- (3) That leachate and surface runoff from the disposal area will not degrade surface waters or groundwaters or exceed the established effluent limitations.
- (b) The disposal area shall be designed using recognized professional standards and approved by the Department. The design shall be certified by a registered professional engineer.
- (c) All vegetative and organic materials shall be removed from the disposal area concurrent with the placement of spoil.
- (d) Slope protection shall be provided to minimize surface erosion at the site. All disturbed areas, including diversion ditches that are not riprapped, shall be vegetated upon completion of construction.
- (e) The spoil to be placed in fill shall be hauled or conveyed and placed in a controlled manner and concurrently compacted as necessary to ensure mass stability and prevent mass movement, covered and graded to allow surface and sub-surface drainage to be compatible with the natural surroundings and ensure a long-term static safety factor of 1.5.

(f) The final configuration of the disposal must be suitable for the proposed postmining land uses.

(g) Terraces may be utilized to control erosion and enhance stability if approved by the Department.

(h) 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.

(i) Excess spoil may be returned to underground mine workings, but only in accordance with a disposal program approved by the Department and MSHA.

Source

The provisions of this § 88.110 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92573) to (92574).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.111. Disposal of excess spoil: abandoned strip mines.

(a) The applicant shall demonstrate that the overburden or excess spoil placed in abandoned strip mines can be graded to AOCs or an approved alternate design plan, which will conform to adjacent topography and be free of any polluting hazards.

(b) Spoil will be disposed of in such a manner that the pit, as it is being backfilled, is free of voids and depressions.

(c) Spoil disposed of in water-filled surface mines shall meet the applicable requirements of Subchapter D (relating to anthracite refuse disposal: minimum environmental protection performance standards).

Source

The provisions of this § 88.111 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.112. [Reserved].

Source

The provisions of this § 88.112 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92575).

§ 88.113. Protection of underground mining.

No surface coal mining activities may be conducted in close proximity to any point of an active underground mine, to the extent that the surface mining activities could be declared a nuisance and danger to the health, safety and welfare of persons within an active underground mine. All surface mining activities shall be conducted with and in compliance with the Pennsylvania Anthracite Coal Mine Act (52 P. S. §§ 70-101—70-145).

Cross References

This section cited in 25 Pa. Code § 88.54 (relating to surface mining near underground mining); and 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.114. 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 § 88.114 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.115. Backfilling and grading: general requirements.

- (a) Disturbed areas shall be returned to their approximate original contour except as specifically exempted in § 88.116 (relating to backfilling and grading: re-affecting previously mined lands).
- (b) Backfilled material shall be placed to minimize adverse effects on groundwater, minimize offsite effects, and to support the approved postmining land use.
- (c) Timing of backfilling and grading may not exceed the following:
 - (1) If the method of mining is contour mining or modified block-cut mining, rough backfilling and grading shall follow coal removal by not more than 60 days or no more than 1,500 linear feet may be opened at any time. The Department may grant additional time for rough backfilling and grading if the operator can demonstrate, through a detailed analysis, that additional time is necessary.
 - (2) If the method of mining is open pit mining, rough backfilling and grading shall occur in accordance with the time schedule approved by the

Department, which shall specifically establish in stated increments the period between removal of coal and completion of backfilling and grading.

(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. However, 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 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 § 88.115 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (148776) to (148777).

Cross References

This section cited in 25 Pa. Code § 88.1 (relating to definitions); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.116. Backfilling and grading: reffecting previously mined lands.

Where the surface mining activities are reffecting previously mined lands that have not been restored to approximate original contour, the Department may approve, in writing, terracing or other alternatives to contouring if the operator demonstrates the following:

- (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, including, but not limited to, bottom rock exposed or affected by the operator in surface mining of steeply inclined coal seams, is eliminated.
- (5) In eliminating the highwall including, but not limited to, bottom rock exposed or affected in surface mining by the operator of steeply inclined coal

seams, the area is backfilled and graded to the most moderate slope possible. The final slopes may not exceed either the angle of repose or 35 degrees, whichever is the lesser.

- (6) The final slopes are consistent with the approved postmining land use.

Source

The provisions of this § 88.116 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (148777) to (148778).

Cross References

This section cited in 25 Pa. Code § 88.115 (relating to backfilling and grading: general requirements); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.117. Backfilling and grading: alternatives to contouring or terracing.

The Department may grant a variance to contouring or terracing where the land is proposed to be made suitable after mining and reclamation for planned or designated industrial, commercial, agricultural, residential, recreational or public use provided the other applicable requirements of this chapter are met.

Source

The provisions of this § 88.117 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92577).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.118. Backfilling and grading: final slopes.

- (a) The final graded slopes shall approximate premining slopes, or slopes approved by the Department based on consideration of soil, rock formation, 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) Cut and fill terraces may be allowed on approval by the Department to conserve soil moisture, ensure stability and control erosion on final graded slopes, 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 the appropriate provisions.
- (f) All final grading, preparation of overburden before replacement of soil or suitable vegetation support material shall be conducted in a manner which minimizes erosion and provides a surface for replacement of soil which will minimize slippage.

Source

The provisions of this § 88.118 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (207062) to (207063).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.119. Backfilling and grading: covering coal and acid-forming and toxic-forming materials.

- (a) 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.
 - (2) If necessary, these materials shall be treated to neutralize toxicity, in order to prevent water pollution and combustion and minimize adverse effects on plant growth and land uses.
 - (3) Where 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 amounts of cover using nontoxic material, or special compaction and isolation from groundwater contact.
 - (4) Acid-forming or toxic-forming material may not be buried or stored in proximity to a drainage course so as to cause or pose a threat of water pollution.
- (b) Backfilled materials shall be selectively hauled or conveyed, and compacted, wherever necessary to prevent leaching of acid-forming and toxic-forming materials into surface waters or groundwaters and wherever necessary to insure stability to the backfilled materials. The method and design specifications of compacting material shall be approved by the Department before acid-forming or toxic-forming materials are covered.

Source

The provisions of this § 88.119 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92579).

Cross References

This section cited in 25 Pa. Code § 88.100 (relating to hydrologic balance: acid-forming and toxic-forming spoil); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.120. Regrading or stabilizing rills and gullies.

When rills and gullies deeper than 9 inches form in areas that have been back-filled, graded and vegetated, the rills and gullies shall be refilled, graded or otherwise stabilized and the area reseeded or replanted.

Source

The provisions of this § 88.120 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.121. Revegetation: general requirements.

(a) Vegetation shall be established on all 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. 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.

(c) Revegetation shall provide a quick, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Revegetation shall be completed in accordance with the reclamation plan of the permit application as approved by the Department.

(e) Revegetation shall be consistent with the approved postmining land use and specified in the permit application.

Source

The provisions of this § 88.121 adopted December 19, 1980, 10 Pa.B. 4789, 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 (207064) to (207065).

Cross References

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.122. Revegetation: timing.

(a) Revegetation of disturbed areas shall be performed no later than the first normal period for favorable planting conditions after soil replacement and final grading of the soil surface for seeding and planting.

(b) Revegetation of disturbed areas shall be coordinated with the soil replacement so that a minimum amount of time exists between the time soil is replaced and revegetation is completed.

(c) The periods for favorable planting of permanent herbaceous species are as follows:

(1) The spring planting season shall begin as early as soil conditions permit and shall terminate no later than May 30.

(2) The late summer planting season shall begin August 10 and shall terminate no later than September 15.

(d) The period for favorable planting of permanent woody species shall begin as early as soil conditions permit and shall terminate no later than May 20.

(e) When necessary to control erosion, revegetation shall be required immediately following backfilling and final grading regardless of periods for favorable planting. Revegetation of a temporary cover of small grains, grasses or legumes shall be required until a permanent cover is established. Revegetation under these circumstances shall be accomplished without regard to specified periods for favorable planting.

Source

The provisions of this § 88.122 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92581).

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.144 (relating to haul roads and access roads: restoration); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.123. 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.
- (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 § 88.123 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.124. Revegetation: grass, legume and small species and seed standards.

- (a) Legume seed shall be inoculated or treated with the specific inoculant for that seed and the seed shall be seeded within 24 hours after treatment.
- (b) Legume seed of birdsfoot trefoil and crownvetch shall contain at least 25% hard seed. All other legume species shall contain the highest possible percentage of hard seed.
- (c) The species and rate of application of each species used in a seed mixture shall be indicated in the revegetation plan of the permit application.

(d) A schedule for revegetation of species shall be indicated with the information requested in the revegetation plan, and the schedule shall indicate the seed mixture and the time or season of the year when the seed mixture will be used.

Source

The provisions of this § 88.124 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.125. Revegetation: tree and shrub species and seedling standards.

(a) A single tree or shrub species may not comprise more than 50% of the total number of seedlings planted.

(b) When the approved postmining land use is wildlife habitat, unless alternate plans are approved or required by the Department, a minimum of 75% of the land affected shall be planted with a mixture of woody plant species. Woody plants shall include deciduous and coniferous tree species and shrub species which provide a diverse plant community.

Source

The provisions of this § 88.125 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92582) and (95889).

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.129 (relating to revegetation: standards for successful revegetation); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.126. Revegetation: seedbed preparation.

(a) The soil surface shall be prepared by disking or harrowing, unless soil conditions or steep slopes prohibit this practice.

(b) When disking or harrowing is not possible, 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.

Source

The provisions of this § 88.126 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.127. Revegetation: mulching.

(a) Mulch shall be applied to all regraded affected land, except permitted by the Department may waive the requirements 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.

(b) Mulches shall be mechanically or chemically anchored to the soil surface.

Source

The provisions of this § 88.127 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95889) to (95890).

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.128. Revegetation: periods of responsibility.

The permittee shall assume responsibility for successful revegetation for a minimum of 5 full consecutive years after initial planting and the standard for success has been met for 2 consecutive years.

Source

The provisions of this § 88.128 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.129. Revegetation: standards for successful revegetation.

(a) The standards for successful revegetation shall be determined by ground cover, unless the approved postmining land use is cropland, in which case the standards shall be based upon crop productivity or yield. The standards for successful revegetation of pastureland shall be determined by ground cover.

(b) The approved standard shall be a minimum of 70% ground cover of permanent plant species with not more than 1.0% of the area having less than 30% ground cover of permanent plant species. When woody species are planted in mixture with herbaceous species, the above standards shall be met and 400 woody plants per acre shall be established except:

(1) On slopes greater than 20 degrees, the minimum number of woody plants shall be 600 per acre.

(2) When the approved postmining land use is commercial forest land, the minimum number of woody plants shall be 450 living commercial trees per acre.

(3) When the approved postmining land use is wildlife habitat, the requirements of § 88.125(b) (relating to revegetation: tree and shrub species and seedling standards) shall apply and the areas approved for planting of woody species shall have a minimum of 400 woody plants per acre.

(c) For purposes of measuring the stocking standards for woody species, the following apply:

(1) Root crown or root sprouts over 1 foot in height shall count as one toward meeting the stocking requirements. Where multiple stems occur, only the tallest stem shall be counted.

(2) A tree or shrub shall count as one toward meeting the stocking requirements if the tree or shrub has been in place at least two growing seasons and is alive and healthy with at least 1/3 of its length in live crown.

(d) 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 on site, expressed as a percentage of the total area of measurement.

(e) When the approved postmining land use is cropland, the approved standard 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 Soil Conservation Service. 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 extended period of responsibility 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.

(f) 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 Soil 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 United States 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) Adjustments 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 subsection (b). 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 erodibility, 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.

(g) 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 § 88.32 (relating to prime farmland investigation).

Source

The provisions of this § 88.129 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13. Immediately preceding text appears at serial pages (92584) to (92585).

Cross References

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 88.61 (relating to prime farmlands); 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.130. Revegetation: techniques and frequency of measurement.

(a) The techniques proposed to be used by the surface mine permittee shall be specified on the revegetation plan.

(b) The permittee shall conduct periodic measurements of vegetation to identify conditions during the applicable periods of responsibilities specified. The permittee shall report the findings of these measurements to the Department.

Source

The provisions of this § 88.130 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95892) to (95893).

Cross References

This section cited in 25 Pa. Code § 88.90 (relating to vegetation-supporting material: nutrients and soil amendments); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.131. Cessation of operations: temporary.

(a) Operations that are temporarily ceased but are to be resumed under the permit, shall be effectively secured. Temporary abandonment, including such factors as equipment removal from the site for reasons of security or maintenance, does not relieve the operator of the obligations to comply with any provision of the permit. Temporary cessation of an operation may not exceed 90 days unless approved by the Department.

(b) As soon as it is known that the operation will temporarily cease for more than 30 days, the operator shall submit a notice of intention to temporarily cease the operation. The notice shall include a statement of the exact number of acres which will have been affected in the permit area, the extent and kind of reclamation of those areas, and identification of the backfilling, regrading, revegetation, monitoring and water treatment activities that will continue during the temporary cessation.

Source

The provisions of this § 88.131 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.132. Cessation of operation: 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 § 88.132 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

§ 88.133. Postmining land use.

(a) All 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 mining, or to higher or better uses achievable under criteria and procedures of this section and prior to the release of land from the permit area in accordance with Chapter 86, Subchapter F (relating to bonding and insurance requirements).

(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 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 mining or to a higher or better use that can be achieved and is compatible with surrounding areas.

(c) Alternative land uses will be approved by the Department after consultation with the landowner or the land management agency having jurisdiction over the lands and after determining the following criteria have been 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) Provision of any necessary public facilities is ensured as evidenced by 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 Subchapter A (relating to general provisions). The letters shall be submitted to the Department before surface mining activities begin.

(ii) 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 shall result in successful reclamation.

(4) The proposed use will neither pose an actual or potential 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 § 88.133 adopted December 19, 1980, 10 Pa.B. 4789, 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 (207072) to (207074).

Cross References

This section cited in 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 § 88.144 (relating to haul roads and access roads: restoration); 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.134. Blasting: general requirements.

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

(b) Blasts that use more than 5 pounds of explosive or blasting agents shall be conducted according to the schedule required by the operation plan of this subchapter.

(c) All 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) All blasting operations shall be conducted in compliance with Chapters 209 and 211 (relating to coal mines; and storage, handling and use of explosives).

(e) Each person who conducts blasting operations, in connection with surface mining activities, within 500 feet of any active underground mine shall do so in a manner that protects the health and safety of persons working underground, and that prevents any adverse impact upon an active, inactive or abandoned underground mine.

Source

The provisions of this § 88.134 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13. Immediately preceding text appears at serial pages (92588) to (92589).

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.135. Blasting: surface blasting requirements.

(a) Blasting shall be conducted between sunrise and sunset, 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 mine workers. 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 (h) 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 within a range of 1/2 mile from the point of the blast, sounded before and after each blast. Each person within the permit 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 the persons of the meaning of the signals. Each person who conducts blasting incident to surface mining activities shall:

(1) Give sufficient warning when a blast is about to be fired, so that a person approaching within 500 feet of the blast area may be warned of the danger and be given ample time to retreat a safe distance from the blast area.

(2) Erect signs at least 500 feet from the blast areas reading: "BLAST AREA—SHUT OFF ALL TWO-WAY RADIOS" when electric blasting operations are located near highways or other public ways. The letters of these signs shall be not less than four inches in height on a contrasting background.

(3) Place at all 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) In all blasting operations, a scaled distance of 50 or numerically greater may be used to determine the maximum charge weight per delay interval of 8 milliseconds or greater without the use of seismic instrumentation.

(f) Blasting operations must meet the following requirements:

(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 effects of a blast. Alternative measures are measures such as:

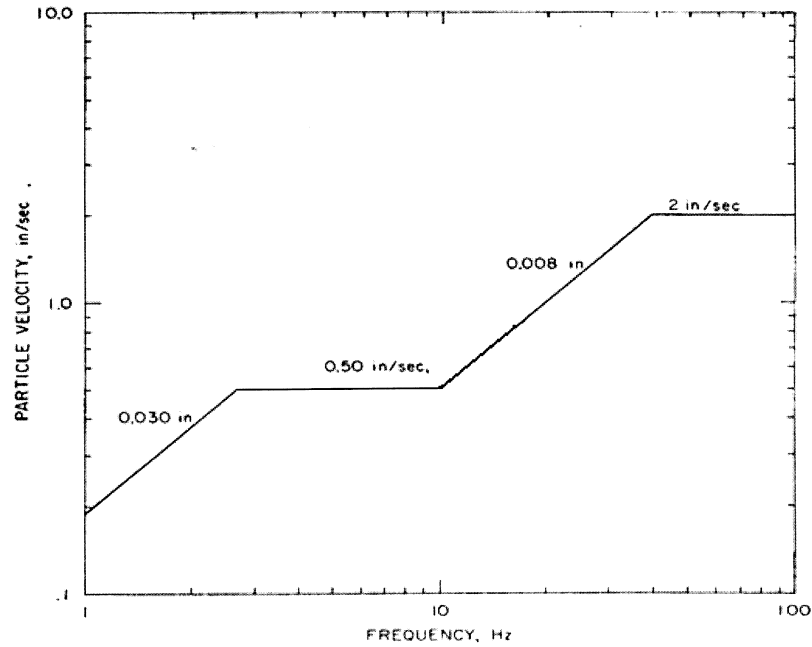
(i) Slowing or stopping traffic in coordination with appropriate State or local authorities, including local police.

(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 for the protection of the pipeline. The operator shall notify the owner of the line of his intention to blast, giving a description of the precautionary measures that will be taken under § 211.62 (relating to blasting in the vicinity of utility lines).
- (3) No blasting may be done within the confines of an area of 300 feet of a public building or occupied dwelling unless prior written consent of the property owner has been obtained.
- (4) Flyrock, including blasted material traveling along the ground, may not be cast from the blasting vicinity more than 1/2 the distance to the nearest dwelling or other occupied structure and in no case beyond the line of property owned or leased by the permittee, or beyond the area of regulated access required under subsection (d).
- (5) Notwithstanding other regulations, no blasting, whether of overburden or of coal, may be done or performed in a manner and under such circumstances or conditions that eject debris into the air, as 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 in a manner to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, or availability of groundwaters or surface waters and shall be prohibited in all cases where the effect of the blasting is liable to change the course or channel of any stream.
- (h) In all blasting operations, the blasts shall be designed and conducted in a manner that achieves either a scaled distance of 90 or meets the maximum allowable peak particle velocity as indicated by Figure 1 at the location of any dwelling, public building, school, church or commercial or institutional building. Peak particle velocities shall be recorded in three mutually perpendicular directions—longitudinal, transverse and vertical. 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 blasts or other factors. The air-blast level may not exceed 133 dBL.

FIGURE 1.



(i) The maximum peak particle velocity and airblast limitations of this section do not apply at the following locations:

- (1) At structures owned by the person conducting the mining activity, and not leased to another party.
- (2) At structures owned by the person conducting the mining activity, and leased to another party, if a written waiver by the lessee is submitted to the Department prior to the blasting.

(j) Where seismographs are not used to monitor peak velocity, the maximum weight of explosives to be detonated within any 8 millisecond period may be determined by formula $W = (D/50)^2$ where W = the maximum weight of explosives, in pounds, that can be detonated in any 8 millisecond period, or greater and D = the distance, in feet, from the blast to the nearest dwelling, school, church or commercial institutional building.

(k) Where a seismograph is used to monitor the peak particle velocity a seismograph record shall be obtained for each blast.

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

Authority

The provisions of this § 88.135 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 Conservaton 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 § 88.135 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (281206) and (244185) to (244186).

Cross References

This section cited in 25 Pa. Code § 88.82 (relating to signs and markers); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.136. Blasting: near underground mines.

(a) When a surface mine is operating within 500 feet of an active deep mine, the surface mine operators shall notify the surface mine inspector in advance of his intention to blast. The surface mine inspector shall, in turn, notify the deep mine inspector and together they shall instruct both the surface mine operator and the deep mine operator as to procedure.

(b) Prior to blasting, the surface mine operator shall give sufficient advance notice to the deep mine operator, superintendent or mine foreman of his intention to blast.

(c) The deep mine operator, superintendent or mine foreman shall remove all workmen from the mine. The surface mine operator shall ascertain that all workmen have been removed from the mine before preparations for blasting may begin.

(d) When there is a known or suspected connection between the deep mine and the surface mine, the operator, superintendent or mine foreman of the deep mine shall, after the blast, make or cause to be made sufficient tests to insure the absence of carbon monoxide or other harmful gases before allowing workmen to reenter the mine.

(e) The deep mine operator, superintendent or mine foreman shall make or cause to be made sufficient examinations of the deep mine to determine whether any other danger exists before allowing workmen to reenter the mine, just as other preshift examinations are made.

Source

The provisions of this § 88.136 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13. Immediately preceding text appears at serial pages (92592) to (92593).

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.137. 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, school, church or commercial or institutional building if it is one of the following:
 - (i) Not located in the permit area.
 - (ii) Not owned nor leased by the person who conducts the surface mining activities.
- (5) Weather conditions, including temperatures, wind direction and approximate velocity.
- (6) The type of material blasted.
- (7) The number of holes, burdens and spacing.
- (8) The diameter and depth of holes.
- (9) The types of explosives used.
- (10) The scaled distance.
- (11) The total weight of explosives used.
- (12) The maximum weight of explosives detonated per delay interval.
- (13) The maximum number of holes detonated per delay interval.
- (14) The initiation system.
- (15) The type and length of stemming.
- (16) The mats or other protections used.
- (17) The type of delay detonator and delay periods used.
- (18) The arrangement of the delay pattern.
- (19) The seismograph records, when required, including the calibration signal of the gain setting and the following:
 - (i) A seismograph reading, including exact location of seismograph and its distance from the blast.
 - (ii) The name of the person taking the seismograph reading.
 - (iii) The name of the person and firm analyzing the seismographic record.

Authority

The provisions of this § 88.137 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 § 88.137 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (288893) to (288894).

Cross References

This section cited in 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.138. Haul roads and access roads: general.

(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. Upon completion of the associated surface mining activities, the area disturbed by the road shall be restored in accordance with § 88.144 (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 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). Any 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, structurally stable and which will pass safely the peak flow from a 10-year precipitation event or larger event if required by the Department. The drainage system shall include sloped or crowned road surfaces, cross drains or culverts, stabilized ditches, erosion resistant surfacing, sediment traps and other appropriate sediment control measures as required by § 88.96 (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, all topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the haul road.

(f) Any disturbed area adjacent to the road shall be vegetated or otherwise stabilized to prevent erosion.

(g) Acid-forming 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 road refuse disposal or reprocessing area and the effluent meets the requirements of § 88.92 (relating to hydrologic balance: effluent standards).

Authority

The provisions of this § 88.138 amended under section 4.2(a) 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 § 88.138 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (244188) to (244189).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.139. [Reserved].

Source

The provisions of this § 88.139 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92595).

§ 88.140. [Reserved].

Source

The provisions of this § 88.140 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92595).

§ 88.141. [Reserved].

Source

The provisions of this § 88.141 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92596).

§ 88.142. [Reserved].

Source

The provisions of this § 88.142 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92596).

§ 88.143. [Reserved].**Source**

The provisions of this § 88.143 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92596).

§ 88.144. 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 § 88.133 (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) All bridges and culverts shall be removed.
- (4) Cross drains, dikes and water bars shall be constructed to minimize erosion.
- (5) All disturbed areas shall be revegetated in accordance with § 88.122 (relating to revegetation: timing).
- (6) All excess material and debris shall be disposed of in a manner approved by the Department.

Source

The provisions of this § 88.144 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (207080) to (207081).

Cross References

This section cited in 25 Pa. Code § 88.138 (relating to haul roads and access roads: general); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.145. [Reserved].**Source**

The provisions of this § 88.145 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95903).

§ 88.146. [Reserved].**Source**

The provisions of this § 88.146 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95903).

§ 88.147. [Reserved].**Source**

The provisions of this § 88.147 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95904).

§ 88.148. [Reserved].**Source**

The provisions of this § 88.148 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95904).

§ 88.149. [Reserved].**Source**

The provisions of this § 88.149 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95904).

§ 88.150. Common use roads.

(a) Operators using common use roads to service their permit areas shall be responsible for maintaining the roads in a stable and safe condition throughout the life of the permit.

(b) Common use roads may not require bonding or restoration by the operator, however, the bond on the permit area shall not be released until the haul road is left in a condition equal to the condition of the road before operations began.

Source

The provisions of this § 88.150 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95904) and (92599).

Cross References

This section cited in 25 Pa. Code § 88.381 (relating to general requirements).

**Subchapter C. ANTHRACITE BANK REMOVAL AND
RECLAMATION: MINIMUM ENVIRONMENTAL PROTECTION
PERFORMANCE STANDARDS**

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- 88.243. Common use roads.

Cross References

This subchapter cited in 25 Pa. Code § 86.5 (relating to extraction of coal incidental to noncoal surface mining); 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 88.27 (relating to alternative water supply information); 25 Pa. Code § 88.43 (relating to operation plan: existing structures); 25 Pa. Code § 88.45 (relating to blasting); 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); 25 Pa. Code § 88.50 (relating to erosion and sedimentation control plan); 25 Pa. Code § 88.55 (relating to postmining land uses); 25 Pa. Code § 88.60 (relating to haul roads, access roads and other transportation facilities); 25 Pa. Code § 88.281 (relating to requirements); 25 Pa. Code § 88.482 (relating to definitions); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); 25 Pa. Code § 88.501 (relating to scope); 25 Pa. Code § 88.504 (relating to application for authorization); 25 Pa. Code § 88.505 (relating to approval or denial); and 25 Pa. Code § 88.506 (relating to operational requirements).

§ 88.181. Requirements.

A person who conducts bank removal and reclamation surface mining activities shall comply with the performance standards and design requirements of this subchapter.

Source

The provisions of this § 88.181 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.182. Signs and markers.

(a) A person who conducts bank removal activities shall identify the operation for the duration of the bank removal activities by posting and maintaining a sign which will be clearly visible at the junction of each activity used haul road and public road. The sign shall be constructed of the durable weather resistant material at 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 bank removal and reclamation activities and the identification number of the current permit authorizing bank removal and reclamation activities.

(b) 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 § 88.182 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 § 88.182 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial pages (199104) to (199105).

§ 88.183. Vegetation-supporting material: soil.

The best nontoxic and vegetation-supporting material, whenever available from the operation, shall be removed, conserved and redistributed for the final surface.

Source

The provisions of this § 88.183 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.184. Soil testing.

Prior to seeding and planting soil tests shall be made on the final surface using standard methods approved by the Department. Results of soil tests shall be reported to the Department.

Source

The provisions of this § 88.184 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (99154).

§ 88.185. 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 vegetation requirements of §§ 88.209—88.218.

(b) Agricultural lime or 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 alternate material of equivalent neutralizing effect may be employed.

(c) The use of fly ash and sewage sludge as soil amendments may be approved by the Department if demonstrated to be a suitable soil amendment and meet the requirements of Subpart D, Articles VIII and IX (relating to municipal waste; and residual waste management).

Source

The provisions of this § 88.185 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.186. Hydrologic balance: general requirements.

(a) Bank removal and reclamation activities shall be planned and conducted to maximize the abatement of water pollution and reclamation of the land.

(b) Changes in water quantity and in 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) Every effort shall be made to develop operations in a manner that will eliminate discharge to surface waters from the disturbed portion of the permit area before vegetation is accomplished.

(d) In no case may the treatment requirements and effluent limitations established under § 88.187 (relating to hydrologic balance: effluent standards) be violated.

(e) Each person who conducts surface mining activities shall conduct the mining and reclamation operation to prevent water pollution and, if necessary, operate and maintain the necessary water treatment facilities until applicable treatment requirements and effluent limitations established under § 88.187 are achieved and maintained.

Source

The provisions of this § 88.186 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (99154) to (99155).

§ 88.187. Hydrologic balance: effluent standards.

(a) *Groups of effluent criteria.* A person may not allow a discharge of water from an area disturbed by mining activities which exceeds the following groups of effluent criteria. The effluent limitations shall be applied under subsection (b).

<i>Parameter</i>	<i>Group A</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 ¹		greater than 6.0; less than 9.0	
alkalinity greater than acidity ¹			

¹ The parameter is applicable at all times.

<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>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.* The effluent limitations and precipitation exemptions are as follows:

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

<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 § 88.188 (relating to hydrologic balance: precipitation event exemption).

(c) *Exceptions to effluent limitations.* Exceptions to effluent limitations are as follows:

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

(i) Where the wastes are discharged to an acid stream, in which cases the pH may be greater than 9.0.

(ii) Where the discharger affirmatively demonstrates to the Department that the wastewater treatment process being used by the discharger requires the pH 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 (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) the Department may grant a variance from the 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 10.0 mg/l, the manganese limitation does not apply.

(d) *Single facilities used for sediment and erosion control.* 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 any 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 Chapters 91—93, 95, 97 (reserved) and 102.

Authority

The provisions of this § 88.187 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 § 88.187 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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. Immediately preceding text appears at serial pages (237176) to (237179).

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 § 88.186 (relating to hydrologic balance: general requirements); 25 Pa. Code § 88.188 (relating to hydrologic balance: precipitation event exemption); 25 Pa. Code § 88.191 (relating to hydrologic balance: sediment control measures); 25 Pa. Code § 88.192 (relating to hydrologic balance: treatment facilities); 25 Pa. Code § 88.196 (relating to hydrologic balance: permanent impoundments); 25 Pa. Code § 88.231 (relating to haul roads and access roads: general); 25 Pa. Code § 88.507 (relating to treatment of discharges); 25 Pa. Code § 88.510 (relating to effluent limitations); and 25 Pa. Code § 88.511 (relating to baseline determination and compliance monitoring for pre-existing discharges at remining operations).

§ 88.188. Hydrologic balance: precipitation event exemption.

(a) To establish the alternative effluent limitations of Group B or C in § 88.187(a) (relating to hydrologic balance: effluent standards), a permittee shall demonstrate to the Department's satisfaction that a precipitation event has occurred, under the procedures in this section.

(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 specified in § 88.187, 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 § 88.187(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 § 88.187, 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 precipitation event equal to or less than a 10-year, 24-hour precipitation event has occurred, the permittee shall meet the effluent limitations of Group B in § 88.187(a).

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth are listed as follows:

<i>County</i>	<i>Rainfall (inches) 10 Yr.</i>
Bradford	4.2
Carbon	4.8
Columbia	4.6
Dauphin	4.8
Lackawanna	4.7
Lebanon	4.8
Luzerne	4.7
Northumberland	4.6
Schuylkill	4.7

(c) For the permittee to demonstrate that the event listed in subsection (b) has for his 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 official United States Weather Bureau Stations within a 25-mile distance (radius) of the site.

(2) Calculate the estimated rainfall event for the site, by appropriate interpolation of the data collected under paragraph (1). Appropriate interpolation shall be accomplished by:

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

(ii) Linear interpolation between the isohyets.

(3) 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 event for which the exemption is sought and shall be secure to prevent tampering and acts of third parties.

(4) 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 in subsection (b).

(5) 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) When the discharge from the site exceeds any 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 the following 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 is not entitled to claim a greater than 10-year, 24-hour precipitation event storm exemption unless the permittee has complied with subsections (c) and (d).

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

Source

The provisions of this § 88.188 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148806) to (148808).

Cross References

This section cited in 25 Pa. Code § 88.187 (relating to hydrologic balance: effluent standards).

§ 88.189. Hydrologic balance: stream diversions.

Diversion of flow from perennial and intermittent streams shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

Source

The provisions of this § 88.189 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.190. 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 peaks 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 soil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the diversion.

(d) Any 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 or nontoxic-forming rock that will not slake and will be free of coal, clay or shale.

(e) No diversion may 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 requirements of this subchapter.

Source

The provisions of this § 88.190 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92606) to (99157).

Cross References

This section cited in 25 Pa. Code § 88.502 (relating to definitions); and 25 Pa. Code § 88.507 (relating to treatment of discharges).

§ 88.191. Hydrologic balance: sediment control measures.

Appropriate sediment control measures shall be designed, constructed and maintained to:

- (1) Prevent, to the extent possible, contributions of sediment to streamflow or to runoff outside the permit.
- (2) Meet treatment and effluent limitations of § 88.187 (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 § 88.191 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (237182) to (237183).

Cross References

This section cited in 25 Pa. Code § 88.231 (relating to haul roads and access roads: general).

§ 88.192. 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 § 88.187 (relating to hydrologic balance: effluent standards).

Source

The provisions of this § 88.192 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (99157) to (99158).

Cross References

This section cited in 25 Pa. Code § 88.291 (relating to hydrologic balance: general requirements).

§ 88.193. Hydrologic balance: collection ponds within disturbed areas.

(a) Containment within the disturbed area or closed systems by utilization of collection ponds or collection areas located to facilitate the operations shall generally be the desired method of sediment control.

(b) The ponds or collection areas shall be capable of treating the runoff. Runoff shall be calculated using the Soil Conservation Service methods.

(c) Ponds or collection areas shall be cleaned to provide the required capacity.

(d) Existing ponds or collection areas may not be eliminated before replacements are installed.

Source

The provisions of this § 88.193 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (99158).

§ 88.194. 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 sediment ponds, unless the applicant can show that all runoff can be contained within the disturbed area.

(b) If sedimentation ponds are utilized, they shall be constructed before any disturbance of any area to be drained into the pond. The ponds shall be located as near as possible to the area to be disturbed and out of perennial and intermittent streams, unless approved by the Department. They shall be maintained until the disturbed area has been restored and the vegetation requirements have been met. The ponds shall meet the requirements of Chapter 102 (relating to erosion and sediment control).

(c) When possible, the discharge from a sedimentation basin shall be to a natural waterway and located to avoid additional contact with acid-forming and toxic-forming material.

(d) Sedimentation ponds shall be structurally sound and at a minimum meet the requirements of § 88.197 (relating to hydrologic balance: ponds, embankments and impoundments—design, construction and maintenance).

Source

The provisions of this § 88.194 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92609).

§ 88.195. Hydrologic balance: discharge structures.

Discharge from ponds, embankments, impoundments and diversions shall be controlled, by energy dissipators, riprap channels or other devices, where 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 § 88.195 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92609).

§ 88.196. Hydrologic balance: permanent impoundments.

Permanent impoundments may be authorized by the Department, upon the basis of the following demonstrations:

- (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 shall not degrade the quality of receiving waters to less than the water quality standards established under § 88.187 (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 impounded will not result in the diminution of the quality or quantity of water used by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses.
- (5) The design, construction and maintenance of structures shall achieve the minimum requirements are required by § 88.197 (relating to hydrologic balance: ponds, embankments and impoundments—design, construction and maintenance).
- (6) The size of the impoundment shall be adequate for its intended purposes.

Source

The provisions of this § 88.196 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.197. Hydrologic balance: ponds, embankments and impoundments—design, construction and maintenance.

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

(b) The design, construction and maintenance of dams, ponds, embankments and impoundments that are not of the class of subsection (a) shall achieve the minimum design criteria contained in United States Soil Conservation Service's Pennsylvania Field Office Technical Guide, Section IV, Standards 350 "Sediment Basin" and Standard 378, "Pond," as amended. In addition to the requirements in "Sediment Basin," a minimum static safety factor of 1.3 is required.

Authority

The provisions of this § 88.197 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).

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Source

The provisions of this § 88.197 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 page (199114).

Cross References

This section cited in 25 Pa. Code § 88.194 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 88.196 (relating to hydrologic balance: permanent impoundments).

§ 88.198. Hydrologic balance: coal processing waste dams and embankments.

A dam and embankment constructed of coal processing waste or intended to impound coal processing waste, shall meet the criteria established by Chapter 105 (relating to dam safety and waterway management) and the United States Soil

Conservation Service's *Pennsylvania Field Office Technical Guide, Section IV, and Standard 378 "Pond,"* as applicable.

Source

The provisions of this § 88.198 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial page (148813).

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

At the completion of bank removal and reclamation activities, the person who conducts the bank removal and reclamation 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.

Source

The provisions of this § 88.199 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

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

Surface water or groundwater from bank removal activities may not be piped or channeled to underground mine workings.

Source

The provisions of this § 88.200 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92611).

§ 88.201. Hydrologic balance: groundwater monitoring.

(a) Groundwater levels, subsurface flow and the quality of groundwater shall be monitored in a manner approved by the Department to determine the effects of bank removal and reclamation activities on the reclaimed lands and on the quantity and quality of water in groundwater systems in the permit and adjacent areas.

(b) When bank removal and reclamation activities may affect the groundwater systems which serve as aquifers which 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 sources and chemical analyses of water from aquifers that are adequate to reflect changes in groundwater quality and quantity resulting from those activities. Monitoring shall be adequate to plan for modification of coal refuse disposal

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 Department may require the operator to conduct additional hydrologic tests, including but not limited to, drilling, infiltration tests, aquifer tests, chemical and mineralogic analyses of overburden and spoil to demonstrate compliance with this section.

(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 § 88.201 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 § 88.201 adopted December 19, 1980, 10 Pa.B. 4789, 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 (199115).

§ 88.202. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), surface water shall be monitored to measure and record accurately 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 § 88.49 (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 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 § 88.202 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 § 88.202 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199116).

§ 88.203. Disposal of excess spoil: bank reject material.

(a) The applicant shall demonstrate that the bank reject material can be placed and graded to AOCs or an approved alternate design plan, which will conform to adjacent topography and be free of any polluting hazards.

(b) Bank reject material shall be disposed of in such a manner that the area, as it is being backfilled, is free of voids and depressions within the dictates of sound engineering.

Source

The provisions of this § 88.203 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.204. Protection of underground mining.

Bank removal and reclamation activities may not be conducted in close proximity to any point of an active underground mine, to the extent that the bank removal activities could be declared a nuisance or a danger to the health, safety and welfare of persons within an active underground mine. All bank removal and reclamation activities shall be conducted in compliance with the Pennsylvania Anthracite Coal Mine Act (52 P. S. §§ 70-101—70-145).

Source

The provisions of this § 88.204 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.54 (relating to surface mining near underground mining).

§ 88.205. Air resources protection.

Air pollution control measures shall be planned and employed as an integral part of the site preparation, and bank removal and reclamation operation shall meet the following requirements:

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(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 § 88.205 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.206. Grading: general requirements.

(a) Unless the reclamation plan provides for grading to AOCs it shall contain a full explanation of the conditions which do not permit contouring and it shall provide for terracing or grading to the extent that the steepest contour may not be greater than 35 degrees from the horizontal, with the table portion of the restored area a flat terrace without depressions to hold water and with adequate provision for drainage, unless otherwise approved by the Department.

(b) Grading material shall be placed to minimize adverse affects on groundwater, minimize offsite effects and to support the approved postmining land use.

Source

The provisions of this § 88.206 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.207. Grading: alternatives to contouring or terracing.

The Department may approve alternatives to contouring or terracing when the land is proposed to be made suitable, after bank removal and reclamation, for planned or designated industrial, commercial, agricultural, residential, recreational or public use, provided the other applicable requirements of this chapter are met.

Source

The provisions of this § 88.207 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.208. Grading: final slopes.

All final grading shall be done to minimize subsequent erosion and instability. If grading, preparation or placement along the contour is hazardous to equipment operators, the grading, preparation or placement in a direction other than generally parallel to the contour may be used. In all cases, grading, preparation or placement shall be conducted in a manner to minimize slippage.

Source

The provisions of this § 88.208 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.209. Vegetation: general requirements.

(a) Vegetation shall be established on all land affected by bank removal and reclamation activities.

(b) Seeding and planting 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 vegetation process when desirable and necessary to achieve the approved postmining land use plan. 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.

(c) Seeding and planting shall provide a quick, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Seeding and planting shall be completed in accordance with the reclamation plan of the permit application as approved by the Department.

(e) Vegetation shall be consistent with and support the approved postmining land use as specified in the permit application.

Source

The provisions of this § 88.209 adopted December 19, 1980, 10 Pa.B. 4789, 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 page (207099).

Cross References

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 88.185 (relating to nutrients and soil amendments); and 25 Pa. Code § 88.237 (relating to haul roads and access roads: restoration).

§ 88.210. Vegetation: timing.

(a) Seeding and planting of disturbed areas shall be performed no later than the first normal period for favorable planting conditions after soil or suitable material replacement and final grading of the soil surface.

(b) Seeding and planting of disturbed areas shall be coordinated with soil replacement so that a minimum amount of time exists between the time that soil or suitable material is replaced and seeding and planting are accomplished.

(c) The periods for favorable planting of permanent herbaceous species are as follows:

(1) The spring planting season shall begin as early as soil conditions permit and shall terminate no later than May 30.

- (2) The late summer planting season shall begin August 10 and shall terminate no later than September 15.
- (d) The period for favorable planting of permanent woody species shall begin as early as soil conditions permit and shall terminate no later than May 20.
- (e) When necessary to control erosion, revegetation shall be required immediately following backfilling and final grading regardless of periods for favorable planting. Vegetation of a temporary cover of small grains, grasses or legumes shall be required until a permanent cover is established. Vegetation under these circumstances shall be accomplished without regard to specified periods for favorable planting.

Source

The provisions of this § 88.210 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92614) to (92615).

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.211. Vegetation: introduced species.

The use of introduced species in the vegetation 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; the species shall be compatible with the plant and animal species of the region; and 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 § 88.211 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.212. Vegetation: grass, legume and small species and seed standards.

- (a) Legume seed shall be inoculated or treated with the specific inoculant for that seed and the seed shall be seeded within 24 hours after treatment.
- (b) Legume seed of birdsfoot trefoil shall contain at least 25% hard seed. All other legume species shall contain the highest possible percentage of hard seed.
- (c) The species and rate of application of each species used in a seed mixture shall be indicated in the planting plan.
- (d) A schedule for revegetation species shall be indicated with the information requested in the planting plan and the schedule shall indicate the seed mixture and the time or season of the year when the seed mixture will be used.

(e) A pH test for acidity and a nutrient test shall be made to determine the lime and fertilizer required to produce and sustain a good cover.

(f) Other tests may be required by the Department to determine if elements are present which are toxic to plants.

(g) All soil sample tests shall be made using standard methods approved by the Department. A copy of the test shall be submitted to the Department.

Source

The provisions of this § 88.212 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92615) to (92616).

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.213. Vegetation: tree and shrub species and seedling standards.

(a) A single tree or shrub species may not comprise more than 50% of the total number of seedlings planted.

(b) When the approved postmining land use is wildlife habitat, unless alternate plans are approved or required by the Department, a minimum of 75% of the land affected shall be planted with a mixture of woody plant species. Woody plants shall include deciduous and coniferous tree species and shrub species which provide a diverse plant community.

Source

The provisions of this § 88.213 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92616).

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments); and 25 Pa. Code § 88.217 (relating to vegetation: standards for successful vegetation).

§ 88.214. Vegetation: seedbed preparation.

(a) The soil surface shall be prepared by disking or harrowing unless soil conditions or steep slopes prohibit such a practice.

(b) When disking or harrowing is not possible, 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.

Source

The provisions of this § 88.214 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.215. Vegetation: mulching.

(a) Mulch shall be applied to regraded 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 vegetation success.

(b) 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 § 88.215 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95616) and (95905).

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.216. Vegetation: periods of responsibility.

The permittee shall assume responsibility for successful vegetation for 5 consecutive years after initial planting and the standard for success has been met for 2 consecutive years.

Source

The provisions of this § 88.216 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.217. Vegetation: standards for successful vegetation.

(a) The standards for successful vegetation shall be determined by ground cover, unless the approved postmining land use is cropland, in which case the standards shall be based upon crop productivity or yield. The standards for successful vegetation of pastureland shall be determined by ground cover.

(b) The approved standard shall be a minimum of 70% ground cover of permanent plant species with not more than 1.0% of the area having less than 30% ground cover of permanent plant species. When woody species are planted in mixture with permanent plant species, the standards in this subsection shall be met, and 400 woody plants per acre shall be established except:

(1) On slopes greater than 20 degrees, the minimum number of woody plants shall be 600 per acre.

(2) When the approved postmining land use is commercial forest land, the minimum number of woody plants shall be 450 living commercial trees per acre.

(3) When the approved postmining land use is wildlife habitat, the requirements of § 88.213(b) (relating to vegetation: tree and shrub species and seedling standards) apply and the areas approved for woody plant species shall have a minimum of 400 woody plants per acre.

(c) For purposes of measuring the stocking standards for woody species, the following apply:

(1) Root crown or root sprouts over 1 foot in height shall count as one toward meeting the stocking requirements. Where multiple stems occur, only the tallest stem shall be counted.

(2) A tree or shrub shall count as one toward meeting the stocking requirements if the tree or shrub has been in place at least two growing seasons and is alive and healthy with at least one-third of its length in live crown.

(d) 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 on site, expressed as a percentage of the total area of measurement.

(e) When the approved postmining land use is cropland, the approved standard 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 Soil Conservation Service. 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 extended period of responsibility 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.

(f) 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 Soil 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 United States Secretary of the Department 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) The average annual crop production shall be determined based upon a minimum of 3 years of data. Crop production shall be measured for the 3 years immediately prior to release of bonding under 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 subsection (b). 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.

(g) 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 § 88.32 (relating to prime farmland investigation).

Source

The provisions of this § 88.217 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13. Immediately preceding text appears at serial pages (92617) to (92618).

Cross References

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 88.61 (relating to prime farmlands); and 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.218. Vegetation: techniques and frequency of measurement.

(a) The techniques proposed to be used by the surface mine permittee shall be approved by the Department and shall be specified in the planting plan.

(b) The permittee shall conduct periodic measurements of vegetation to identify conditions during the applicable periods of responsibilities. The permittee shall report the findings of these measurements to the Department.

Source

The provisions of this § 88.218 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.185 (relating to nutrients and soil amendments).

§ 88.219. Cessation of operations: temporary.

(a) Operations that are temporarily ceased but are to be resumed under the permit, shall be effectively secured. Temporary abandonment, including factors such as equipment removal from the site for reasons of security or maintenance, does not relieve the operator of the obligations to comply with any provision of the permit. Temporary cessation of an operation may not exceed 90 days unless approved by the Department.

(b) As soon as it is known that the operation will temporarily cease for more than 30 days, the operator shall submit a notice of intention to temporarily cease the operation. The notice shall include a statement of the exact number of acres which will have been affected in the permit area; the extent and kind of reclamation of those areas; and identification of the backfilling, regrading, revegetation, monitoring and water treatment activities that will continue during the temporary cessation.

Source

The provisions of this § 88.219 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.220. 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 § 88.220 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.221. Postmining land use.

(a) All 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 or better uses achievable under criteria and procedures of this section, and prior to the release of land from permit area in accordance with Chapter 86, Subchapter F (relating to bonding and insurance requirements).

(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 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 condition prior to mining or to a higher or better use that can be achieved and is compatible with surrounding areas.

(c) Alternative land uses shall be approved by the Department after consultation with the landowner or the land management agency having jurisdiction over the lands and after determining 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 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) Provision of any necessary public facilities is ensured as evidenced by 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 Subchapter A (relating to general provisions). The letters shall be submitted to the Department before surface mining activities begin.

(ii) 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.

(4) The proposed use will neither pose an actual or potential 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 § 88.221 adopted December 19, 1980, 10 Pa.B. 4789, 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 (207105) to (207107).

Cross References

This section cited in 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 § 88.237 (relating to haul roads and access roads: restoration); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.231. Haul roads and access roads: general.

(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. Upon completion of the associated surface mining activities, the area disturbed by the road shall be restored in accordance with § 88.237 (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 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). Any crossing of a perennial or intermittent stream shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall comply with 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, structurally stable and which will pass safely the peak flow from a 10-year precipitation event or larger event if required by the Department. The drainage system shall include sloped or crowned road surfaces, cross drains or culverts, stabilized ditches, erosion resistant surfacing, sediment traps and other appropriate sediment control measures as required by § 88.191 (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, all topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the haul road.

(f) Any disturbed area adjacent to the road shall be vegetated or otherwise stabilized to prevent erosion.

(g) Acid-forming 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 § 88.187 (relating to hydrologic balance: effluent standards).

Authority

The provisions of this § 88.231 amended under section 4.2(a) 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 § 88.231 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (244209) to (244210).

§ 88.232. [Reserved].

Source

The provisions of this § 88.232 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92622).

§ 88.233. [Reserved].

Source

The provisions of this § 88.233 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92623).

§ 88.234. [Reserved].

Source

The provisions of this § 88.234 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92623).

§ 88.235. [Reserved].

Source

The provisions of this § 88.235 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92623).

§ 88.236. [Reserved].**Source**

The provisions of this § 88.236 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92623).

§ 88.237. 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 § 88.221 (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) All bridges and culverts shall be removed.
- (4) Cross drains, dikes and water bars shall be constructed to minimize erosion.
- (5) All disturbed areas shall be revegetated in accordance with § 88.209 (relating to vegetation: general requirements).
- (6) All excess material and debris shall be disposed of in a manner approved by the Department.

Source

The provisions of this § 88.237 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (207109) to (207110).

Cross References

This section cited in 25 Pa. Code § 88.231 (relating to haul roads and access roads: general).

§ 88.238. [Reserved].**Source**

The provisions of this § 88.238 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92624).

§ 88.239. [Reserved].**Source**

The provisions of this § 88.239 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92624).

§ 88.240. [Reserved].**Source**

The provisions of this § 88.240 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92624).

§ 88.241. [Reserved].**Source**

The provisions of this § 88.241 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92624).

§ 88.242. [Reserved].**Source**

The provisions of this § 88.242 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92625).

§ 88.243. Common use roads.

(a) Operators using common use roads to service their permit areas shall be responsible for maintaining the roads in a stable and safe condition throughout the life of the permit.

(b) Common use roads may not require bonding or restoration by the operator, however, the bond on the permit area shall not be released until the haul road is left in a condition equal to the condition of the road before operations began.

Source

The provisions of this § 88.243 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92625).

**Subchapter D. ANTHRACITE REFUSE DISPOSAL:
MINIMUM ENVIRONMENTAL PROTECTION
PERFORMANCE STANDARDS**

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- 88.341. Haul roads and access roads: restoration.
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- 88.343. [Reserved].
- 88.344. [Reserved].
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- 88.346. [Reserved].
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Cross References

This subchapter cited in 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 88.27 (relating to alternative water supply information); 25 Pa. Code § 88.43 (relating to operation plan: existing structures); 25 Pa. Code § 88.45 (relating to blasting); 25 Pa. Code § 88.49 (relating to protection of hydrologic balance); 25 Pa. Code § 88.50 (relating to erosion and sedimentation control plan); 25 Pa. Code § 88.55 (relating to postmining land uses); 25 Pa. Code § 88.59 (relating to coal refuse disposal); 25 Pa. Code § 88.60 (relating to haul roads, access roads and other transportation facilities); 25 Pa. Code § 88.111 (relating to disposal of excess spoil: abandoned strip mines); 25 Pa. Code § 88.381 (relating to general requirements); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan); 25 Pa. Code § 88.503 (relating to applicability); 25 Pa. Code § 88.504 (relating to application for authorization); and 25 Pa. Code § 88.506 (relating to operational requirements).

§ 88.281. Requirements.

A person who conducts coal refuse disposal activities shall comply with the performance standards and design requirements of this subchapter, §§ 90.5, 90.49, 90.50 and Chapter 90, Subchapters E—G.

(1) Disposal of coal refuse in an active surface mine shall comply with the performance standards in Subchapter B (relating to surface anthracite coal mines: minimum environmental protection performance standards) and § 88.315 (relating to coal refuse disposal: active surface mines).

(2) Disposal of coal refuse in an active bank removal operation shall comply with the performance standards of Subchapter C (relating to anthracite bank removal and reclamation: minimum environmental protection performance standards).

(3) Disposal of coal refuse in an abandoned or active underground coal mine shall comply with the performance standards in Subchapter F (relating to anthracite underground mines).

Source

The provisions of this § 88.281 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 13, 2001, effective July 14, 2001, 31 Pa.B. 3735. Immediately preceding text appears at serial pages (207112) and (244213).

§ 88.282. Signs and markers.

(a) A 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 actively used haul road and public road. The sign shall be constructed of a durable weather resistant material at 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 inch 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) If blasting is conducted as part of the operation, the person who conducts the refuse disposal activities shall post and maintain the following signs and markers:

(1) When electric blasting operations are located near highways or other public ways, signs shall be erected at least 500 feet from the blast areas reading: "BLAST AREA-SHUT OFF ALL TWO-WAY RADIOS." The letters of these signs may be not less than 4 inches in height on a contrasting background.

(2) The premises on which explosives are kept or stored must be conspicuously defined and marked by signs containing the words "EXPLOSIVES-KEEP OFF". These signs may not be placed on magazines, but shall be located so that a bullet passing through the sign will not strike a magazine.

(c) 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 § 88.282 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 § 88.282 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199132).

§ 88.283. Sealing of drilled holes: general requirements.

(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 sealed, backfilled or otherwise managed, as approved by the Department 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 areas.
- (4) Prevent groundwaters and surface water from entering underground mine workings.

(b) If these openings are uncovered or exposed by coal refuse disposal 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 § 88.305 (relating to hydrologic balance: groundwater 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, unless one of the following exists:

- (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 are implemented.

(f) All exploration holes, other drill or boreholes, wells (other than gas or oil wells) and other exposed underground openings which have been identified in the approved permit application for use to return waste to an underground mine as part of an operation approved under this chapter, or to be used to monitor groundwater conditions shall be protected by temporary seals, barricades, fences or other protective devices approved by the Department. These devices shall be periodically inspected and maintained in good operating condition during the coal refuse disposal activities.

Authority

The provisions of this § 88.283 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 § 88.283 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (207114) to (207115).

§ 88.284. Sealing of drilled holes and exploratory openings: temporary.

Drilled holes and boreholes to be used to return coal refuse to abandoned underground workings, and wells to be used to monitor groundwater conditions, shall be temporarily sealed before use and protected during use by barricades or fences, or other protective devices approved by the Department. The devices shall be periodically inspected and maintained in good operating condition by the person who conducts the surface mining activities.

Authority

The provisions of this § 88.284 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 § 88.284 adopted December 19, 1980, 10 Pa.B. 4789, 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 (199133) to (199134).

§ 88.285. [Reserved].**Source**

The provisions of this § 88.285 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92629).

§ 88.286. Vegetation-supporting material: general requirements.

Soil, in an amount sufficient to ensure ample material for vegetation, shall be removed, conserved and redistributed for the final surface layer. If soil is unavailable, suitable mine spoil or other materials which will support vegetation shall be conserved and redistributed as the final surface.

Source

The provisions of this § 88.286 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92630).

Cross References

This section cited in 25 Pa. Code § 88.287 (relating to vegetation-supporting material: available soil removal).

§ 88.287. Vegetation-supporting material: available soil removal.

(a) Available soil, as required by § 88.286 (relating to vegetation-supporting material: general requirements), shall be removed from the area to be disturbed prior to any refuse disposal.

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

(c) If the soil is less than 12 inches in depth, sufficient soil and unconsolidated material immediately below the soil shall be removed to provide a 12-inch layer when redistributed as the final surface.

(d) On areas that have been previously affected by mining or refuse disposal activities with no available soil, the spoil material best suited to support vegetation shall be conserved for redistribution as the final surface.

Source

The provisions of this § 88.287 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.288. Vegetation-supporting material: soil storage.

(a) Soil and other vegetation-supporting materials shall be redistributed or stockpiled for redistribution.

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

(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) Seeding or planting an effective cover of nonnoxious, quick-growing annual or perennial species, or both.

(2) Other methods demonstrated to, and approved by, the Department to provide equal protection.

Source

The provisions of this § 88.288 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.289. Vegetation-supporting material: soil redistribution.

(a) Prior to redistribution of soil or other suitable material, the regraded land shall be scarified or otherwise treated as required by the Department to eliminate slippage surfaces and to promote root penetration.

(b) Soil and other suitable 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 soil and other suitable materials.

(3) Protects the soil and other suitable materials from wind and water erosion before and after it is seeded and planted.

Source

The provisions of this § 88.289 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial).

§ 88.290. Vegetation-supporting material: 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 revegetation requirements of §§ 88.322—88.331.

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

(c) Agricultural lime or 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 80% calcium carbonate. An alternate material of equivalent neutralizing effect may be employed.

(d) The use of fly ash and sewage sludge as soil amendments may be approved by the Department if demonstrated to be a suitable soil amendment and meets the requirements of Subpart D, Articles VIII and IX (relating to municipal waste; and residual waste management).

Source

The provisions of this § 88.290 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92631) to (92632).

§ 88.291. Hydrologic balance: general requirements.

(a) Coal refuse disposal 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 preventive, remedial or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented.

(b) Prevent pollution of water and prevent, to the maximum extent possible, changes to water quality and quantity, the depth to groundwater and in the location of surface water drainage channels so that the approved post disposal land use of the permit areas is not adversely affected.

(c) The treatment requirements and effluent limitations established under § 88.192 (relating to hydrologic balance: treatment facilities) may not be violated.

(d) Each person who conducts surface mining and reclamation activities shall conduct the mining and reclamation operation to prevent water pollution and, if necessary, operate and maintain the necessary water treatment facilities until applicable treatment requirements and effluent limitations established under § 88.192 are achieved and maintained. If these practices are not adequate, the person who conducts bank removal and reclamation activities shall provide the necessary water treatment facilities to obtain the applicable water quality standards.

Source

The provisions of this § 88.291 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (237188).

§ 88.292. Hydrologic balance: effluent standards.

(a) *Groups of effluent criteria.* A person may not allow a discharge of water from an area disturbed by mining activities which exceeds the following groups of effluent criteria. The effluent limitations shall be applied under subsection (b).

<i>Parameter</i>	<i>Group A</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 ¹		greater than 6.0; less than 9.0	
alkalinity greater than acidity ¹			

¹ This parameter is applicable at all times.

Group B

<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	

Group C

<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 include the following:

(1) The discharges specified in this subsection shall comply with the effluent limitations in this section.

<i>Type of Discharge</i>	<i>Precipitation Effluent</i>	<i>Effluent Limitations</i>
Drainage from coal refuse disposal piles	dry weather and less than or equal to 1yr-24hr	Group A
	greater than 1yr-24hr to less than or equal to 10yr-24hr	Group B
	greater than 10yr-24 hr	Group C
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-24 hr	Group B
	greater than 10yr-24hr	Group C
All other discharges	dry weather	Group A
	less than or equal to 10yr-24 hr	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 § 88.293 (relating to hydrologic balance: precipitation event exemption).

(c) *Exceptions to effluent limitations.* Exceptions to effluent limitations include the following:

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

(i) Where the wastes are discharges to an acid stream, in which cases the pH may be greater than 9.0.

(ii) 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 (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) 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 10.0 mg/l, the manganese limitation does not apply.

(d) *Single facilities used for sediment and erosion control.* 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, 97 (reserved) and 102.

Authority

The provisions of this § 88.292 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 § 88.292 adopted December 19, 1980, 10 Pa.B. 4789, 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. Immediately preceding text appears at serial pages (237188) to (237191).

Cross References

This section cited in 25 Pa. Code § 86.1 (relating to definitions); 25 Pa. Code § 86.283 (relating to procedures); 25 Pa. Code § 86.294 (relating to uses and limitations); 25 Pa. Code § 88.293 (relating to hydrologic balance: precipitation event exemption); 25 Pa. Code § 88.296 (relating to hydrologic balance: sediment control measures); 25 Pa. Code § 88.297 (relating to hydrologic balance: treatment facilities); 25 Pa. Code § 88.298 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 88.301 (relating to hydrologic balance: permanent impoundments); 25 Pa. Code § 88.335 (relating to haul roads and access roads: general); 25 Pa. Code § 88.507 (relating to treatment of discharges); 25 Pa. Code § 88.510 (relating to effluent limitations); and 25 Pa. Code § 88.511 (relating to baseline determination and compliance monitoring for pre-existing discharges at remining operations).

§ 88.293. Hydrologic balance: precipitation event exemption.

(a) To establish the alternative effluent limitations of Group B or C in § 88.292(a) (relating to hydrologic balance: effluent standards), a permittee shall demonstrate to the Department's satisfaction that a precipitation event has occurred under this section.

(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 specified in § 88.292, 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 of Group C in § 88.292(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 § 88.292, 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 precipitation event equal to or less than a 10-year, 24-hour precipitation event has occurred, the permittee shall meet the effluent limitations of Group B in § 88.292(a).

(b) The 1-year and 10-year; 24-hour precipitation events for specific areas in this Commonwealth are listed as follows:

<i>County</i>	<i>Rainfall (inches)</i>	
	<i>1-Year</i>	<i>10 Year</i>
Bradford	2.3	4.2
Carbon	2.5	4.8
Columbia	2.4	4.6
Dauphin	2.5	4.8
Lackawanna	2.4	4.7
Lebanon	2.5	4.8
Luzerne	2.4	4.7

<i>County</i>	<i>Rainfall (inches)</i>	
	<i>1-Year</i>	<i>10 Year</i>
Northumberland	2.4	4.6
Schuylkill	2.5	4.7

(c) For the permittee to demonstrate that the event listed in subsection (b) has for his mine area been exceeded, or that dry weather flow conditions did not exist, the permittee shall comply with one of the following:

(1) Collect 24-hour rainfall information from official United States Weather Bureau Stations within a 25-mile distance—radius—of the site.

(2) Calculate the estimated rainfall event for the site, by appropriate interpolation of the data collected under paragraph (1). Appropriate interpolation shall be accomplished by the following:

(i) Preparing 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 secured to prevent tampering and acts of third parties.

(ii) Preparing 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 1-year or 10-year, 24-hour rainfall event specified for the mine area in subsection (b).

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

(4) 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 1-year or 10-year, 24-hour rainfall event specified for the mine area in subsection (b).

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

(d) When the discharge from the site exceeds any 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 the following 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 rainfall.
- (e) The permittee is not entitled to claim a greater than 1-year or 10-year, 24-hour precipitation event storm exemption unless the permittee has complied with subsections (c) and (d).
- (f) Nothing in this section authorizes the Department to grant an exemption for a discharge which the Department finds may have caused or contributed to a violation of general or specific water quality criteria in Chapter 93 (relating to water quality standards).

Source

The provisions of this § 88.293 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148839) to (148841).

Cross References

This section cited in 25 Pa. Code § 88.292 (relating to hydrologic balance: effluent standards).

§ 88.294. Hydrologic balance: stream diversions.

Diversions of flow from perennial and intermittent streams shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

Source

The provisions of this § 88.294 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.295. Hydrologic balance: diversions and conveyances.

- (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 peaks 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 soil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the diversion.
- (d) Any 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 or toxic-forming rock that will not slake and will be free of coal, clay or shale.

(e) A diversion may not be located in a manner that increases 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 the requirements of this subchapter.

(h) Diversions may not be constructed or operated to divert water into underground mines without the approval of the Department. Such discharges must meet the requirements of this chapter.

(i) Diversions shall not be constructed or operated to divert water into underground mines without the approval of the Department.

Source

The provisions of this § 88.295 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92635) to (92636).

Cross References

This section cited in 25 Pa. Code § 88.502 (relating to definitions); and 25 Pa. Code § 88.507 (relating to treatment of discharges).

§ 88.296. Hydrologic balance: sediment control measures.

Appropriate sediment control measures shall be designed, constructed and maintained to:

- (1) Prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the affected area.
- (2) Meet the treatment and effluent requirements of § 88.292 (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 § 88.296 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (237195).

Cross References

This section cited in 25 Pa. Code § 88.335 (relating to haul roads and access roads: general).

§ 88.297. 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) Flow is infrequent and presents small and infrequent treatment requirements to meet the applicable 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 the applicable treatment requirements and effluent limitations of § 88.292 (relating to hydrologic balance: effluent standards).

Source

The provisions of this § 88.297 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92637).

§ 88.298. Hydrologic balance: sedimentation ponds.

(a) All surface drainage from the disturbed area shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the permit area.

(b) If sedimentation ponds are utilized, they are to be constructed in locations which will ensure their effectiveness. The ponds shall be located as near as possible to the area to be disturbed and out of perennial and intermittent streams. Ponds may be located in intermittent streams provided the requirements of Chapter 105 (relating to dam safety and waterway management) are met. They shall be maintained until the disturbed area has been restored and the vegetation requirements have been met.

(c) The Department may waive the required use of sedimentation ponds when the person who conducts coal refuse disposal activities demonstrates to the satisfaction of the Department that sediment ponds are not necessary to meet the effluent limitations under § 88.292 (relating to hydrologic balance: effluent standards).

(d) The following apply to sedimentation ponds:

(1) Where possible, the discharge from a sedimentation pond shall be to a natural waterway and located to avoid additional contact with acid and toxic forming material.

(2) Sedimentation ponds shall be structurally sound and at a minimum meet the requirements of § 88.302 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance).

(3) Sediment ponds shall meet the requirements of Chapter 102 (relating to erosion and sediment control).

Source

The provisions of this § 88.298 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (92637) to (92638).

§ 88.299. Hydrologic balance: discharge structures.

Discharge from dams, ponds, embankments, impoundments and diversions shall be controlled by energy dissipators, riprap channels or other devices, if 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 § 88.299 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92638).

§ 88.301. Hydrologic balance: permanent impoundments.

Permanent impoundments may be 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 shall not degrade the quality of receiving waters to less than the water quality standards established under § 88.292 (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 will not result in the diminution of the quality or quantity of water used by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses.
- (5) The design, construction and maintenance of structures shall achieve the minimum requirements of § 88.302 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance).
- (6) The size of the impoundment is adequate for its intended purposes.
- (7) The impoundment will be suitable for the approved postmining use.

Source

The provisions of this § 88.301 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92639).

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

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

(b) The design, construction and maintenance of dams, ponds, embankments and impoundments that are not of the class of subsection (a) shall achieve the minimum design criteria contained in United States Soil Conservation Service's Pennsylvania Field Office Technical Guide, Section IV, Standards 350 "Sediment Basin" and 378, "Pond," as amended. In addition to the requirements in "Sediment Basin," a minimum static safety factor of 1.3 is required.

Authority

The provisions of this § 88.302 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 § 88.302 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (199144) to (199145).

Cross References

This section cited in 25 Pa. Code § 88.298 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 88.301 (relating to hydrologic balance: permanent impoundments).

§ 88.303. Hydrologic balance: coal processing waste dams and embankments.

A dam and embankment constructed of coal processing waste or intended to impound coal processing waste, shall meet the requirement criteria established under Chapter 105 (relating to dam safety and waterway management) and the United States Soil Conservation Service's *Pennsylvania Field Office Technical Guide, Section IV, Standard 378, "Pond"*, as applicable.

Source

The provisions of this § 88.303 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148845) to (148846).

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

Surface water or groundwater refuse disposal activities shall not be piped or channeled to underground mine workings.

Source

The provisions of this § 88.304 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92640).

Cross References

This section cited in 25 Pa. Code § 88.316 (relating to coal refuse disposal: abandoned unreclaimed surface mines).

§ 88.305. Hydrologic balance: groundwater monitoring.

(a) Groundwater levels, subsurface flow and the quality of groundwater shall be monitored in a manner approved by the Department to determine the effects of coal refuse disposal activities on the reclaimed lands and on the quantity and quality of groundwater in the permit and adjacent areas.

(b) When coal refuse disposal activities may affect the groundwater systems which serve as aquifers which 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 sources and chemical analyses of water from aquifers that are adequate to reflect changes in groundwater quality and quantity resulting from those activities. Monitoring shall be adequate to plan for modification of coal refuse disposal activities, if necessary, to prevent, to the extent possible, 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 Department may require the operator to conduct additional hydrologic tests, including, but not limited to, drilling, infiltration tests, aquifer tests, chemical and mineralogic analyses of overburden and spoil to demonstrate compliance with this section.

(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 § 88.305 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 § 88.305 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199146).

Cross References

This section cited in 25 Pa. Code § 88.283 (relating to sealing of drilled holes: general requirements).

§ 88.306. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92 (relating to National Pollutant Discharge Elimi-

nation System permitting, monitoring and compliance), surface water shall be monitored to measure and record accurately 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 § 88.49 (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 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 § 88.306 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 § 88.306 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821. Immediately preceding text appears at serial page (199146).

§ 88.307. Hydrologic balance: water rights and replacement.

The operator of any mine which affects a water supply by contamination, pollution, diminution or interruption shall restore or replace the affected water supply with an alternate source, adequate in water quality and water quantity, for the purpose served by the supply. For the purpose of this section, the term water supply includes any existing or currently designated or currently planned source of water or facility or system for the supply of water for human consumption or for agricultural, commercial, industrial or other uses.

Source

The provisions of this § 88.307 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.308. Hydrologic balance: permanent postdisposal renovation of sedimentation ponds, diversions, impoundments and treatment facilities.

At the completion of coal refuse disposal activities, the person who conducts the refuse disposal activities shall renovate as required by the Department, all

permanent sedimentation ponds, diversions, impoundments and treatment facilities to meet criteria specified in the detailed design plan for the permanent structures and impoundments.

Source

The provisions of this § 88.308 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92641).

§ 88.310. Coal refuse disposal: general requirements.

(a) Coal refuse shall be hauled or conveyed to and placed in designated disposal areas authorized for that purpose. The refuse shall be placed in a controlled manner to ensure the following:

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

(2) Stability of the disposal area.

(3) Leachate and surface runoff from the disposal area will not degrade surface waters or groundwaters or exceed the established effluent limitations.

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

(c) Trees, grasses, shrubs and other organic materials shall be removed for a distance of 50 feet from the current disposal area concurrent with the placement of refuse.

(d) Slope protection shall be provided to minimize surface erosion at the site. The disturbed areas, including diversion ditches that are not riprapped, shall be vegetated upon completion of construction.

(e) The coal refuse to be placed in the fill shall be hauled or conveyed and placed in horizontal lifts in a controlled manner, concurrently compacted as necessary to ensure mass stability and prevent mass movement, covered and graded to allow surface and subsurface drainage to be compatible with the natural surroundings, and ensure a long-term static safety factor of 1.5 and seismic safety factor of 1.2.

(f) The final configuration of the disposal shall be suitable for the approved postmining land uses.

(g) Terraces may be utilized to control erosion and enhance stability if approved by the Department.

(h) 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 designed and constructed using standard geotechnical engineering methods.

(i) Coal refuse may be returned to underground mine workings, but only in accordance with a disposal program approved by the Department and the Mine Safety and Health Administration.

(j) The system to prevent adverse impacts to the surface water and groundwater shall be constructed in accordance with design schematics, test results,

descriptions, plans, maps, profiles or cross-sections approved in the permit and shall function to prevent adverse impacts to surface water and groundwater.

(k) The system to prevent precipitation from coming in contact with the coal refuse shall be constructed in accordance with design schematics, test results, descriptions, plans, maps, profiles and cross-sections approved in the permit and shall function to prevent precipitation from contacting the coal refuse.

(1) The system shall be installed as phases of the disposal area reach capacity, as specified in the permit, when the operation temporarily ceases for a period in excess of 90 days (unless the Department approves a longer period, not to exceed 1 year) or when the operation permanently ceases.

(2) The system shall be designed to allow for revegetation of the site in accordance with the standard of success under § 88.330 (relating to revegetation: standards for successful revegetation) and for prevention of erosion.

Source

The provisions of this § 88.310 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended July 13, 2001, effective July 14, 2001, 31 Pa.B. 3735. Immediately preceding text appears at serial pages (271934) and (207131).

§ 88.311. Coal refuse disposal: durable rockfills.

The Department may approve alternate methods for disposal of hard rock spoil, including fill placement by dumping in a single lift, provided the services of a registered professional engineer experienced in the design and construction of earth and rockfill embankments are utilized. For this section, hard rock spoil shall be defined as rockfill consisting of at least 80% by volume of sandstone, limestone, or other rocks that do not slake in water. Spoil shall be transported and placed in a specified and controlled manner which will ensure stability of the disposal area. The method of spoil placement shall be designed to ensure mass stability and prevent mass movement.

Source

The provisions of this § 88.311 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.312. Coal refuse disposal: site inspection.

(a) The coal refuse disposal area shall be inspected for stability by a registered engineer or other qualified specialist experienced in the construction of earth and rock fill embankments at least quarterly throughout construction and during the following critical construction periods: removal of all organic material and topsoil; placement of underdrainage systems; installation of surface drainage systems; placement and compaction of fill materials; and revegetation. The registered engineer or other qualified professional specialist shall provide to the Department a certified report within 2 weeks after each inspection that the fill has been constructed as specified in the design approved by the Department. A copy of the report shall be retained at the coal refuse disposal site.

(b) If any inspection discloses that potential hazard exists, the Department shall be informed promptly of the findings and the actions to abate the potential hazard.

(c) If any inspection discloses that an eminent danger exists, the Department shall be informed promptly of the findings and of the emergency procedures formulated for public protection and remedial action. The permittee shall immediately notify the appropriate emergency agencies and residences immediately downstream of the affected area.

Source

The provisions of this § 88.312 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92643).

§ 88.313. Coal refuse disposal: construction requirements.

(a) Coal refuse banks shall have a minimum static factor of safety of 1.5 and a seismic factor of safety of 1.2.

(b) Following grading of the facility, the site shall be covered with a final layer of nontoxic, noncombustible material and soil suitable for revegetation as soon as practicable after placing the final layer of material being disposed, and revegetated.

Source

The provisions of this § 88.313 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.314. Coal refuse disposal: burning.

(a) The person conducting the disposal activities shall take immediate action to extinguish fires or hot spots in accordance with a plan approved by the regulatory authority and the Mine Safety and Health Administration. The plan shall contain, at a minimum, provisions to ensure that only persons authorized by the operator, and who have an understanding of the procedure to be used, shall be involved in the extinguishing operations.

(b) Coal refuse may not be deposited on or near any portion of a coal refuse disposal area known to be burning.

Source

The provisions of this § 88.314 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.315. Coal refuse disposal: active surface mines.

(a) Persons disposing of coal refuse in active surface mines shall meet the requirements of Subchapter B (relating to surface anthracite coal mines: minimum environmental protection performance standards).

(b) The refuse shall be disposed at a minimum of 5 feet above the base of the bottom rock and a minimum of 5 feet from the highwall.

(c) The Department may limit the volume or amount of coal refuse disposal in an active surface mine based on achieving the AOC and insuring pollution will not occur.

(d) The coal refuse will not be deposited against any exposed coal seams. All exposed coal seams will be covered by nonacid, nontoxic and noncombustible spoil to a thickness adequate to prevent combustion of the coal seam.

Source

The provisions of this § 88.315 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92644).

Cross References

This section cited in 25 Pa. Code § 88.281 (relating to requirements).

§ 88.316. Coal refuse disposal: abandoned unreclaimed surface mines.

(a) The applicant shall demonstrate that the overburden and coal refuse can be graded to AOC or approved alternative designed plan, and will not create a pollution problem.

(b) Coal refuse which is to be submerged in abandoned water-filled surface mines shall meet the requirements of § 88.304 (relating to hydrologic balance: discharge of water into an underground mine). There may not be a discharge from such mines.

(c) The refuse shall be disposed at a minimum of 10 feet above the base of the pit floor unless the disposal design plan specifies submerging the coal refuse in water-filled surface mines.

(d) The coal refuse may not be deposited against any exposed coal seams. All exposed coal seams will be covered by nonacid, nontoxic and noncombustible spoil to a thickness adequate to prevent combustion of the coal seam.

Source

The provisions of this § 88.316 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92645).

§ 88.317. Air resources protection.

(a) Air pollution control measures shall be planned and employed as an integral part of the coal refuse disposal activities and shall meet the following requirements: 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).

(b) The fugitive dust control measures shall include as necessary, but not limited to, fugitive dust control measures shall demonstrate compliance with Chapters 121, 123, 127 and 129.

Source

The provisions of this § 88.317 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.318. Coal refuse dams: general requirements.

(a) Dams and embankments, constructed of coal refuse and intended to impound coal refuse, whether they were completed before adoption of the regulatory program or are intended to be completed thereafter, shall comply with these regulations.

(b) Waste used in the construction of dams and embankments shall be demonstrated to the regulatory authority that the stability of such a structure conforms with the requirements of this subchapter. It shall also be demonstrated that the use of waste material will not have a detrimental effect on downstream water quality or the environment due to acid or other polluttional seepage through the dam or embankment. All demonstrations shall be submitted to and approved by the Department.

Source

The provisions of this § 88.318 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.319. [Reserved].**Source**

The provisions of this § 88.319 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92646).

§ 88.320. [Reserved].**Source**

The provisions of this § 88.320 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92646).

§ 88.321. 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 in a manner that fires are prevented and the area remains stable and suitable for reclamation and revegetation. Noncoal waste materials including, but not limited to, wood, cloth, waste paper, oil, grease and garbage may not be deposited in a coal refuse disposal pile or impounding structure.

Authority

The provisions of this § 88.321 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 § 88.321 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended December 15, 1995, effective December 16, 1995, 25 Pa.B. 5821; amended June 17, 2011, effective June 18, 2011, 41 Pa.B. 3084. Immediately preceding text appears at serial pages (207134) to (207135).

§ 88.322. Revegetation: general requirements.

(a) Vegetation shall be established on all land affected by refuse disposal activities.

(b) When considering vegetation requirements, the Department 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 postdisposal land use plan.

(c) Revegetation shall provide a quick, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Revegetation shall be completed in accordance with the reclamation plan of the permit application as approved by the Department.

(e) Revegetation shall be consistent with the predisposal vegetation and support the approved postdisposal land use as specified in the permit application.

Source

The provisions of this § 88.322 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments); and 25 Pa. Code § 88.341 (relating to haul roads and access roads: restoration).

§ 88.323. Revegetation: timing.

(a) Revegetation of disturbed areas shall be conducted no later than the first normal period for favorable planting conditions after soil replacement and final grading of the soil surface for seeding and planting.

(b) Revegetation of disturbed areas shall be coordinated with soil replacement so that a minimum amount of time exists between the time soil is replaced and revegetation is completed.

(c) The periods for favorable planting of permanent herbaceous species are as follows:

(1) The spring planting season shall begin as early as soil conditions permit and shall terminate no later than May 30.

- (2) The late summer planting season shall begin August 10 and shall terminate no later than September 15.
- (d) The period for favorable planting of permanent woody species shall begin as early as soil conditions permit and shall terminate no later than May 20.
- (e) When necessary to control erosion, revegetation shall be required immediately following backfilling and final grading regardless of periods for favorable planting. Revegetation of a temporary cover of small grains, grasses or legumes shall be required until a permanent cover is established. Revegetation under these circumstances shall be accomplished without regard to specified periods for favorable planting.

Source

The provisions of this § 88.323 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95909) to (95910).

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.324. 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.
- (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 § 88.324 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.325. Revegetation: grass, legume and small species and seed standards.

- (a) Legume seed shall be inoculated or treated with the specific inoculant for that seed and the seed shall be seeded within 24 hours after treatment.

(b) Legume seed of birdsfoot trefoil and crownvetch shall contain at least 25% hard seed. All other legume species shall contain the highest possible percentage of hard seed.

(c) The species and rate of application of each species used in a seed mixture shall be indicated in the revegetation plan.

(d) A schedule for revegetation of species shall be indicated with the information requested in the revegetation plan, and the schedule shall indicate the seed mixture and the time or season of the year when the seed mixture will be used.

Source

The provisions of this § 88.325 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.326. Revegetation: tree and shrub species and seedling standards.

(a) A single tree or shrub species may not comprise more than 50% of the total number of seedlings planted.

(b) When the approved postdisposal land use is wildlife habitat, unless alternate plans are approved or required by the Department, a minimum of 75% of the land affected shall be planted with a mixture of woody plant species. Woody plants shall include deciduous and coniferous tree species and shrub species which provide a diverse plant community.

Source

The provisions of this § 88.326 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95911).

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments); and 25 Pa. Code § 88.330 (relating to revegetation: standards for successful revegetation).

§ 88.327. Revegetation: seedbed preparation.

(a) The soil surface shall be prepared by disking or harrowing unless soil conditions or steep slopes prohibit such a practice.

(b) When disking or harrowing is not possible, the soil surface shall be scarified by any mechanical method which will loosen the surface material. Scarification shall not be required if seeding is done immediately following final grading when the soil is still loose.

Source

The provisions of this § 88.327 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.328. Revegetation: mulching.

(a) Mulch shall be applied to all affected land with exceptions permitted by the Department under the following conditions:

- (1) When seeding can be accomplished using a conventional agricultural farm drill.
 - (2) When the approved postdisposal land use is for agricultural row crops.
 - (3) When annual grasses or small grains can be seeded immediately following final grading resulting in a quick vegetable cover which will provide adequate soil erosion control.
 - (4) When the permittee can demonstrate that alternative procedures will achieve the standards for revegetation success.
- (b) Mulches shall be mechanically or chemically anchored to the soil surface.

Source

The provisions of this § 88.328 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95911) to (95912).

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.329. Revegetation: periods of responsibility.

The permittee shall assume responsibility for successful revegetation for a minimum of 5 full consecutive years after initial planting and the standard for success has been met for 2 consecutive years.

Source

The provisions of this § 88.329 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.330. Revegetation: standards for successful revegetation.

(a) The standards for successful vegetation shall be determined by ground cover, unless the approved postmining land use is cropland, in which case the

standards shall be based upon crop productivity or yield. The standards for successful revegetation of pastureland shall be determined by ground cover.

(b) The approved standard shall be a minimum of 70% ground cover of permanent plant species with not more than 1.0% of the area having less than 30% ground cover of permanent plant species. When woody species are planted in mixture with herbaceous species, the standards in this section shall be met, and 400 woody plants per acre shall be established except:

(1) On slopes greater than 20 degrees, the minimum number of woody plants shall be 600 per acre.

(2) When the approved postmining land use is commercial forest land, the minimum number of woody plants shall be 450 living commercial trees per acre.

(3) When the approved postdisposal land use is wildlife habitat, the requirements of § 88.326(b) (relating to revegetation: tree and shrub species and seedling standards) shall apply and the areas approved for planting woody species shall have a minimum of 400 woody plants per acre.

(c) For purposes of measuring the stocking standards for woody species, the following shall apply:

(1) Root crown or root sprouts over one foot in height shall count as one toward meeting the stocking requirements. Where multiple stems occur, only the tallest stem shall be counted.

(2) A tree or shrub shall count as one toward meeting the stocking requirements if the tree or shrub has been in place at least two growing seasons and is alive and healthy with at least one-third of its length in live crown.

(d) 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 on site, expressed as a percentage of the total area of measurement.

(e) When the approved postmining land use is cropland, the approved standard 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, Soil Conservation Service. 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 extended period of responsibility 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.

(f) 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 Soil 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 United States 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 of data. Crop production shall be measured for 3 years immediately prior to release of bonding under Chapter 86 Subchapter F (relating to bonding and insurance requirements).

(ii) Adjustments 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 subsection (b). 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.

(g) 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 § 88.32 (relating to prime farmland investigation).

Source

The provisions of this § 88.330 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95912) to (95914).

Cross References

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 88.61 (relating to prime farmlands); 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments); and 25 Pa. Code § 88.310 (relating to coal refuse disposal: general requirements).

§ 88.331. Revegetation: techniques and frequency of measurement.

(a) The techniques proposed to be used by the refuse disposal permittee shall be approved by the Department and shall be specified in the revegetation plan.

(b) The permittee shall conduct periodic measurements of vegetation to identify conditions during the applicable periods of responsibilities specified. The permittee shall report the findings of these measurements to the Department.

Source

The provisions of this § 88.331 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 88.281 (relating to requirements); and 25 Pa. Code § 88.290 (relating to vegetation-supporting material: nutrients and soil amendments).

§ 88.332. Cessation of operations: temporary.

(a) As soon as it is known that the operation will temporarily cease for more than 30 days, the operator shall submit a notice of intention, in writing, to temporarily cease the operation. The notice shall include a statement of the exact number of acres which will have been affected in the permit area, the extent and kind of reclamation of those areas, and identification of the backfilling, regrading, revegetation, monitoring and water treatment activities that will continue during the temporary cessation. The system for preventing precipitation from contacting the coal refuse shall be installed when the temporary cessation exceeds 90 days. The Department may approve a longer period, not to exceed 1 year, under subsection (b).

(b) Temporary cessation of an operation may not exceed 90 days unless the Department approves a longer period for reasons of seasonal shutdown or labor strike.

(c) Temporary cessation does not relieve the operator of the obligation to comply with any provisions of the permit.

Source

The provisions of this § 88.332 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended July 13, 2001, effective July 14, 2001, 31 Pa.B. 3735. Immediately preceding text appears at serial page (244227).

§ 88.333. 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 § 88.333 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.334. Postdisposal land use.

(a) All 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 refuse disposal, or to higher or better uses achievable under criteria and procedures of this section and prior to the release of land from the permit area in accordance with Chapter 86, Subchapter F (relating to bonding and insurance requirements).

(b) The predisposal use of land to which the postdisposal land use is compared shall be determined by the following:

(1) The postdisposal 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 postdisposal land use for land that has been previously mined and not reclaimed shall be judged on the basis of the condition prior to mining or to a higher or better use that can be achieved and is compatible with surrounding areas.

(c) Alternative land uses shall 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 postdisposal 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 refuse disposal 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 coal refuse disposal activities.

(2) The owner of the surface shall request 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) Provision of any necessary public facilities is ensured as evidenced by letters of commitment from parties other than the person who conducts refuse disposal activities, as appropriate, to provide the public facilities in a manner compatible with the plans submitted under Subchapter A (relating to general provisions). The letters shall be submitted to the Department before coal refuse disposal activities begin.

(ii) 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.

(4) The proposed use shall neither pose an actual or potential threat to public health or safety or of water diminution or interruption, contamination or pollution.

(5) The use may 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 coal refuse disposal activities begin.

Source

The provisions of this § 88.334 adopted December 19, 1980, 10 Pa.B. 4789, 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 (207141) to (207143).

Cross References

This section cited in 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 § 88.341 (relating to haul roads and access roads: restoration); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.335. Haul roads and access roads: general.

(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. Upon completion of the associated surface mining activities, the area disturbed by the road shall be restored in accordance with § 88.341 (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 road may not be located in or within 100 feet of a perennial or intermittent stream except in accordance with § 86.102 (relating to areas where mining is prohibited or limited). Any 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 requirement 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, structurally stable and which will pass safely the peak flow from a 10-year precipitation event or larger event if required by the Department. The drainage system shall include sloped or crowned road surface, cross drains or culverts, stabilized ditches, erosion resistant surfacing, sediment traps and other appropriate control measures as required by § 88.296 (relating to hydrologic balance: sediment control measures).

(d) Roads shall be constructed on stable areas that avoid wet or unsuitable soils.

(e) Prior to the construction of the road, all topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the haul road.

(f) Any disturbed area adjacent to the road shall be vegetated or otherwise stabilized to prevent erosion.

(g) 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 § 88.292 (relating to hydrologic balance: effluent standards).

Authority

The provisions of this § 88.335 amended under section 4.2(a) 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 § 88.335 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; 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 (244229) to (244230).

§ 88.336. [Reserved].

Source

The provisions of this § 88.336 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92655).

§ 88.337. [Reserved].

Source

The provisions of this § 88.337 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92655).

§ 88.338. [Reserved].

Source

The provisions of this § 88.338 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92655).

§ 88.339. [Reserved].

Source

The provisions of this § 88.339 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92656).

§ 88.340. [Reserved].**Source**

The provisions of this § 88.340 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (92656).

§ 88.341. 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 § 88.334 (relating to postdisposal 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) All bridges and culverts shall be removed.
- (4) Cross drains, dikes and water bars shall be constructed to minimize erosion.
- (5) All disturbed areas shall be revegetated in accordance with § 88.322 (relating to revegetation: general requirements).
- (6) All excess material and debris shall be disposed of in a manner approved by the Department.

Source

The provisions of this § 88.341 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial page (207145).

Cross References

This section cited in 25 Pa. Code § 88.335 (relating to haul roads and access roads: general).

§ 88.342. [Reserved].**Source**

The provisions of this § 88.342 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95917).

§ 88.343. [Reserved].**Source**

The provisions of this § 88.343 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95917).

§ 88.344. [Reserved].**Source**

The provisions of this § 88.344 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95917).

§ 88.345. [Reserved].**Source**

The provisions of this § 88.345 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95917).

§ 88.346. [Reserved].**Source**

The provisions of this § 88.346 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial page (95917).

§ 88.347. Common use roads.

(a) Operators using common use roads to service their permit areas are responsible for maintaining the roads in a stable and safe condition throughout the life of the permit.

(b) Common use roads may not require bonding or restoration by the operator, however, the bond on the permit area may not be released until the haul road is left in a condition equal to the condition of the road before operations began.

Source

The provisions of this § 88.347 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872. Immediately preceding text appears at serial pages (95917) to (95918).

Subchapter E. COAL PREPARATION ACTIVITIES

Sec.
88.381. General requirements.

Cross References

This subchapter cited in 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures).

§ 88.381. General requirements.

(a) A person who conducts or intends to conduct coal preparation activities, not within the permit area of a specific mine, shall obtain a permit from the Department under §§ 86.11—86.18 (relating to general requirements for permits and permit applications). The person shall meet certain performance standards and application requirements as specified in this subchapter.

(b) The following performance standards shall be met:

(1) Signs and markers for a facility where coal preparation activities are conducted shall comply with § 88.82 (relating to signs and markers).

(2) Roads, transport and associated structures shall be constructed, maintained and reclaimed in accordance with §§ 88.138 and 88.150 (relating to haul roads and access roads: general; and common use roads).

(3) A stream or channel realignment shall comply with § 88.94 (relating to hydrologic balance: stream diversions).

(4) If required by the Department, a disturbed area related to coal preparation activities shall have sediment control structures in compliance with § 88.96 (relating to hydrologic balance: sediment control measures), and discharges from these areas shall meet the requirements of § 88.92 (relating to hydrologic balance: effluent standards) and other applicable State or Federal law.

(5) Permanent impoundments associated with coal processing plants shall meet the requirements of § 88.101 (relating to hydrologic balance: permanent impoundments). Dams constructed on or impounding coal processing waste shall comply with §§ 88.102 and 88.103 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance; and hydrologic balance: coal processing waste dams and embankments).

(6) Discharge structures for diversions and sediment control structures shall comply with § 88.99 (relating to hydrologic balance: discharge structures).

(7) Disposal of coal preparation waste, solid waste and excavated materials shall comply with Subchapter D (relating to anthracite refuse disposal: minimum environmental protection performance standards).

(8) Air pollution control measures associated with fugitive dust emissions shall comply with § 88.114 (relating to air resources protection).

(9) Reclamation shall include proper soil handling procedures, revegetation and abandonment, in accordance with §§ 88.86—88.90, 88.105—88.108 and 88.110—88.130.

(10) Coal preparation activities shall comply with other applicable performance standards of this chapter.

(11) Adverse effects upon or resulting from nearby underground coal mining activities shall be minimized by appropriate measures, including, but not limited to, compliance with §§ 88.113 and 88.133 (relating to protection of underground mining; and postmining land use).

(12) Reclamation shall include proper topsoil handling procedures, revegetation and abandonment, in accordance with §§ 88.115—88.133.

(13) Water rights shall be protected in accordance with § 88.107 (relating to hydrologic balance: water rights and replacement).

(c) The following application requirements shall be met:

(1) The application format shall be as specified in § 86.15 (relating to permit application—general requirements) and accompanied by the fee specified in § 86.17 (relating to permit and reclamation fees).

(2) Applications shall be filed according to the schedules established in § 86.14 (relating to permit application filing deadlines).

(3) Interests shall be identified according to § 86.62 (relating to identification of interests).

(4) If the coal preparation activity is independent of a mining operation, the compliance information in § 86.63 (relating to compliance information) shall be presented.

(5) General permit application information shall be required according to §§ 86.11—86.18.

(6) Maps and plans, as applicable, shall be prepared according to § 88.31 (relating to maps and plans).

(7) Groundwater and surface water information and monitoring plans shall be presented in accordance with §§ 88.25, 88.26, 88.49, 88.105 and 88.106.

(8) Land use and prime farmland information shall be presented in accordance with §§ 88.30, 88.32 and, if applicable, § 88.61 (relating to description of land use; prime farmland investigation; and prime farmlands).

(9) Protection of public parks and historic places in accordance with § 88.56 (relating to protection of public parks and historic places).

(10) Other environmental resource information that may be requested in accordance with this chapter.

Authority

The provisions of this § 88.381 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 § 88.381 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania*

Bulletin, 15 Pa.B. 13; amended November 18, 1988, 18 Pa.B. 5155, effective August 25, 1989, 19 Pa.B. 3674; amended April 9, 1993, effective April 10, 1993, 23 Pa.B. 1711; 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 (199164) to (199166).

Cross References

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); and 25 Pa. Code § 86.159 (relating to self-bonding).

Subchapter F. ANTHRACITE UNDERGROUND MINES

- Sec.
 88.481. Scope.
 88.482. Definitions.
 88.491. Minimum requirements for information on environmental resources.
 88.492. Minimum requirements for reclamation and operation plan.
 88.493. Minimum environmental protection performance standards.
 88.494. Performance standards—in situ processing of anthracite coal.

Cross References

This subchapter cited in 25 Pa. Code § 86.38 (relating to criteria for approval or denial: existing structures); 25 Pa. Code § 88.59 (relating to coal refuse disposal); 25 Pa. Code § 88.60 (relating to haul roads, access roads and other transportation facilities); and 25 Pa. Code § 88.281 (relating to requirements).

§ 88.481. Scope.

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

Source

The provisions of this § 88.481 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382.

§ 88.482. Definitions.

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

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 impacted by mining and reclamation operations.

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

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 and wildlife and related environmental values, and achieve enhancement of those resources where 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.

Coal—Anthracite coal.

Coal seam—Anthracite coal vein.

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

Disburbed area—An area where vegetation, topsoil or overburden is removed or upon which topsoil, spoil, coal processing waste, underground development waste or noncoal waste is placed by coal mining operations.

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

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.

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.

Historically used for cropland—One or more of the following:

(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 such 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. The term encompasses the dynamic relationships among precipitation, runoff, evaporation and changes in groundwater and surface water storage.

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

Interim permit—A permit issued by the Department prior to the effective date of these regulations and in accordance with the requirements of Chapter 13 (relating to compliance with the Surface Mining Control and Reclamation Act of 1977).

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.

Mine—All underground areas contained within a continuous barrier of undisturbed coal and all openings to the surface from those areas.

Operator—A person or municipality engaged in underground mining activities as a principal, as distinguished from an agent or independent contractor. When more than one person is engaged in coal mining activities in a single operation, they shall be deemed jointly and severally responsible for compliance with the provisions of the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.19b), The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the Coal Refuse Disposal Control Act (52 P. S. §§ 30.51—30.66).

Overburden—The strata or material overlying a coal deposit or in between coal deposits in its natural state, and such 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 millimeter 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 underground mining activities are completed and which has been approved for retention by the Department.

Permit area—The mine and areas where underground mining activities occur.

Precipitation event—A quantity of water resulting from drizzle, rain, snow, sleet or hail in a limited period of time. The term may be expressed in terms of recurrence interval. The term 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 Agriculture in 7 CFR Part 657 (relating to prime and unique farmlands) (*Federal Register*, Vol. 43, No. 21) and which have historically been used for cropland as that phrase is defined in this section.

Property to be mined—The surface and mineral estates on and underneath lands which are within the permit area.

Reclamation—Actions taken to restore the area affected by underground mining activities as required by this chapter.

Sedimentation pond—A primary sediment control structure designed, constructed and maintained in accordance with Subchapter C (relating to anthracite bank removal and reclamation; 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. The term does not include secondary sedimentation control structures, such as straw dikes, riprap, 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.

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.

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

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

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.

Toxic-forming materials—Earth materials or wastes 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.

Toxic mine drainage—Water that is discharged from active or abandoned mines or other areas affected by coal exploration or underground mining activities, which contains a substance that through chemical action or physical effects is likely to kill, injure or impair biota commonly present in the area that might be exposed to it, or may be harmful to the public health and welfare.

Underground development waste—Waste rock mixtures of coal, shale, claystone, siltstone, sandstone, limestone or related materials that are excavated, moved and disposed of as part of the construction activities in preparing the mine for coal production.

Underground mining activities—The term includes the following:

(i) Surface operations incident to underground extraction of coal or in situ processing, such as construction, use, maintenance and reclamation of roads, aboveground repair areas, storage areas, processing areas, shipping areas, areas upon which are sited support facilities, including hoist and ventilating ducts, areas used for the disposal and storage of waste, and areas on which materials incident to underground mining operations are placed.

(ii) Underground operations, such as underground construction, operation and reclamation of shafts, adits, underground support facilities, in situ processing and underground mining, hauling, storage and blasting.

(iii) Operation of the mine, including preparatory work in connection with the opening or reopening of a mine, backfilling, sealing and other closing procedures, and any other work done on land or water in connection with the mine.

Water table—A mine pool or 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 § 88.482 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 § 88.482 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316; corrected August 16, 1991, effective July 27, 1991, 21 Pa.B. 3697; corrected December 6, 1991, effective July 27, 1991, 21 Pa.B. 5643; amended August 21, 2015, effective August 22, 2015, 45 Pa.B. 4904. Immediately preceding text appears at serial pages (207149) to (207153).

§ 88.491. Minimum requirements for information on environmental resources.

- (a) *General.* General requirements shall include the following:
- (1) Each permit application shall include a description of:
 - (i) The existing premining environmental resources within the proposed permit and adjacent area that may be affected or impacted by the proposed underground mining activities.
 - (ii) 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 proposed permit area. The description shall be based on available information, including, but not limited to, data of State and local archaeological, historic 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:
 - (A) The collection of additional information.
 - (B) The conducting of field investigations.
 - (C) Other appropriate analysis.
 - (iii) 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 conform to the following:
 - (A) Information on hydrology, water quality and quantity, and geology related to hydrology of areas outside the proposed permit area and within the general area will be provided by the Department to the extent that this data is available from an appropriate Federal or State agency.
 - (B) If the information in clause (A) is not available from those agencies, the applicant shall gather and submit this information to the Department as part of the permit application.
 - (C) The permit will not be approved by the Department until this information is made available in the application.
 - (iv) The size, sequence and timing of the subareas of the mine for which it is anticipated that individual permits for mining will be requested over the estimated total life of the proposed underground mining activities.
 - (2) The information required in this section may be developed using modeling techniques, but the Department may require verification of models.
- (b) *Geology.* The information shall include a general statement of the geology within the proposed permit and adjacent area to the depth of the lowest existing or proposed mine workings.
- (1) For areas to be affected by surface operations or facilities, the geology of the strata to be disturbed shall be described, including, at a minimum, the lithologic characteristics and physical and chemical properties of each stratum.

- (2) For lands within the proposed permit and adjacent area which are underlain by the coal seam to be extracted and for the coal seam itself, the description shall include the following:
- (i) The location of groundwater, if encountered, or the mine pool.
 - (ii) The classification and geologic structure of the overburden.
 - (iii) The pyritic content and potential alkalinity of the strata immediately above and below the coal seam to be mined.
 - (iv) Total and pyritic sulfur content of the coal seam.
- (3) An applicant may request that the requirements of paragraph (1) be waived by the Department. The waiver may be granted only if the Department makes a written determination that the statement required is unnecessary because other equivalent information is accessible to it in a satisfactory form.
- (c) *Groundwater information.* Groundwater information shall include the following:
- (1) The application shall contain a description of the groundwater hydrology for the proposed permit and adjacent area including, at a minimum, the following:
 - (i) The depths of water tables over the general area.
 - (ii) The hydrologic characteristics.
 - (iii) The uses of the groundwater.
 - (iv) The chemical characteristics of typical 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.
 - (2) The application shall contain additional information which describes the storage and discharge characteristics of the area and the quality and quantity of groundwater, according to the parameters and in the detail required by the Department.
- (d) *Surface water information.* Surface water information shall comply with the following:
- (1) Surface water information shall be described, including the name of the watershed which will receive water discharges, the location of all surface water bodies such as streams, lakes, ponds and springs, the locations of water discharge into a surface body of water and descriptions of surface drainage systems sufficient to identify the seasonal variations in water quantity and quality within the proposed permit and adjacent areas.
 - (2) Surface water information shall include the following:
 - (i) Minimum, maximum and average discharge conditions which identify critical low flows and peak discharge rates of streams sufficient to identify seasonal variations.
 - (ii) Water quality data to identify the characteristics of surface waters in, discharging into, or which will receive flows of surface water or ground-

water from the disturbed area within the proposed permit area, sufficient to identify seasonal variations showing the following:

- (A) Total dissolved solids in milligrams per liter or specific conductance in micromhos per centimeter corrected to 25°C.
- (B) Total suspended solids in milligrams per liter.
- (C) Acidity in milligrams per liter.
- (D) Alkalinity in milligrams per liter.
- (E) pH in standard units.
- (F) Total and dissolved iron in milligrams per liter.
- (G) Total manganese in milligrams per liter.
- (H) Sulfates in milligrams per liter.
- (I) Total aluminum in milligrams per liter.
- (J) Other information the Department determines to be relevant.

(e) *Alternative water supply information.* The application shall identify the extent to which the proposed underground mining activities may result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent area for domestic, agricultural, industrial or other legitimate use. If contamination, diminution or interruption may result, the description shall identify the alternative sources of water supply that could be developed to replace the existing sources.

(f) *Climatological information.* Climatological information shall comply with the following:

(1) When requested by the Department, the application shall contain a statement of the climatological factors that are representative of the proposed permit area, including the following:

- (i) The average seasonal precipitation.
- (ii) The average direction and velocity of prevailing winds.
- (iii) Seasonal temperature ranges.

(2) The Department may request additional data deemed necessary to ensure compliance with the requirements of this chapter.

(g) *Vegetation information.* Vegetation information shall include the following:

(1) If required by the Department, a map that delineates existing vegetative types and a description of the plant communities within the area affected by surface operations and facilities and within a proposed reference area. This description shall include information adequate to predict the potential for reestablishing vegetation.

(2) When a map or aerial photograph is required, sufficient adjacent areas to allow evaluation of vegetation as important habitat for fish and wildlife.

(h) *Land use information.* Land use information shall comply with the following:

(1) The application shall contain a statement of the condition, capability and productivity of lands greater than 5 acres which will be affected by surface operations and facilities within the proposed permit area, including the following:

(i) A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within 5 years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described.

(ii) A narrative of land capability and productivity which analyzes the land use description under subsection (a) in conjunction with other environmental resources information required under this subchapter. The narrative shall provide analyses of the following:

(A) The capability of the land before mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the area proposed to be affected by surface operations or facilities.

(B) The productivity of the area proposed to be affected by surface operations and facilities before mining, expressed as average yield of food, fiber, forage or wood products from the land obtained under high levels of management. 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 Department of Agriculture.

(2) The application shall state whether the proposed permit area or adjacent areas have been previously mined and, if so, provide the following information, if available:

- (i) The type of mining method used.
- (ii) The coal seams or other mineral strata mined.
- (iii) The extent of coal or other minerals removed.
- (iv) The approximate dates of past mining.
- (v) The uses of the land preceding mining.

(3) The 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.

(i) *Maps and cross sections.* The permit application shall include maps, cross sections or plans showing the following:

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

(2) The boundaries of areas proposed to be affected over the estimated total life of the underground mining activities, with a description of size, sequence and timing of the mining of subareas.

- (3) The location of surface and subsurface manmade features within, passing through, or passing over the proposed permit area, including, but not limited to, electric transmission lines and pipelines.
- (4) The location and boundaries of proposed reference areas for determining the success of revegetation.
- (5) The locations of public water supply intakes within a 10-mile distance downstream of each discharge, and the locations of water discharge into a surface body of water within the permit and adjacent area.
- (6) Each public road located in or within 100 feet of the proposed permit area.
- (7) The boundaries of public parks and locations of any 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 areas.
- (8) Each public or private cemetery or Indian burial ground located in or within 100 feet of the proposed permit area.
- (9) Land within the proposed permit area and adjacent area which is within the boundaries of units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C.A. § 1276(a)).
- (10) Surface and coal elevations and the locations of test borings and core samplings.
- (11) The locations of existing and proposed monitoring stations used to gather data on water quality and quantity, fish and wildlife, subsidence and air quality, if required, in preparation of the application.
- (12) A cross section of the strata described in this section.
- (13) Coal crop lines and the attitude of the coal in the permit and adjacent areas.
- (14) The location and extent of known workings of active, inactive or abandoned underground mines, including identification of the coal seams and mine openings to the surface within the proposed permit and adjacent areas.
- (15) The portrayal of major aquifers on cross sections.
- (16) The location of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains and irrigation ditches within the proposed permit and adjacent areas.
- (17) The location and extent of existing or previously surface-mined areas within the proposed area, including the coal seam mined.
- (18) The location and dimensions of storage and disposal areas for spoil, underground development waste, coal processing waste—banks, dams and embankments—noncoal waste and topsoil.
- (19) The location and depth, if available, of gas and oil wells within the proposed permit area and water wells in the permit area and adjacent areas.

(20) Sufficient slope measurements to adequately represent the existing land surface configuration of the area affected by surface operations and facilities. Slope measurements 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.

(21) Landslides within areas to be affected by surface operations and facilities.

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

(23) Other relevant information required by the Department.

(j) *Role of professionals in preparing permit applications.* Maps, plans and cross sections included in a permit application and required by this section shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer, qualified registered professional land surveyor or qualified registered professional geologist with assistance, as necessary, from experts in related fields such as landscape architecture, and shall be updated as required by the Department.

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

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

(i) The land has not been historically used for cropland.

(ii) The slope of the land is 10% or greater.

(iii) There are no soil map units that have been designated prime farmland by the United States Department of Agriculture Soil Conservation Service, on the basis of a soil survey of lands within the permit area.

(iv) The area of prime farmland is minimal in size—less than 5 acres—and has been or will be in use for an extended period of time—more than 10 years.

(2) If the applicant determines after investigation that all or part of the lands in the proposed permit area are not prime farmland, the applicant shall submit with the permit application a request for a negative determination showing that the lands meet one of the criteria of paragraph (1).

(3) If the investigation indicates that lands within the proposed permit area may be prime farmlands, the applicant shall contact the United States Department of Agriculture Soil 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 area, the applicant shall cause a survey to be made.

(4) When a soil survey as required in paragraph (3) includes soil map units that have been designated as prime farmlands, the applicant shall submit with

the permit application a soil survey of the proposed permit area according to the standards of the National Cooperative Soil Survey and in accordance with the procedures set forth 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 Soil Conservation Service for each prime farmland soil 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 Soil Conservation Service.

(5) When a soil survey as required in paragraph (3) includes soil map units that have not been designated as prime farmland after review by the United States Department of Agriculture Soil Conservation Service, the applicant shall submit with the permit application a request for negative determination for nondesignated land establishing compliance with paragraph (1).

Authority

The provisions of this § 88.491 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 § 88.491 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; 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 (199171) to (199177).

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation); and 25 Pa. Code § 88.493 (relating to minimum environmental protection performance standards).

§ 88.492. Minimum requirements for reclamation and operation plan.

(a) *General requirements.* An application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, the following:

(1) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used during mining operations.

(2) A narrative explaining the construction, modification, use, maintenance and removal of the following facilities and structure unless retention of the facility or structures is necessary for postmining land use as specified in § 89.88 (relating to postmining land use):

- (i) Dams, embankments and other impoundments.
- (ii) Overburden and topsoil handling and storage areas.
- (iii) Coal removal, handling, storage, cleaning and transportation areas.
- (iv) Spoil, coal processing waste, mine development waste and noncoal waste removal, handling, storage, transportation and disposal areas and structures.
- (v) Mine facilities.
- (vi) Water pollution control facilities.

(3) A description of the measures to be used to maximize the use and conservation of the coal resources as required in § 89.61 (relating to coal recovery).

(4) A description of the 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 this title and a description of the contingency plans which have been developed to preclude sustained combustion of the materials.

(5) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, to plug, case, line or manage exploration holes, other boreholes, wells and other openings within the proposed permit area.

(6) A description of steps to be taken to comply with the requirements of applicable pollution control laws and regulations and safety standards.

(b) *Existing structures.*

(1) An application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the mining operation. Existing structures do not include support facilities and utility installations as identified in § 89.67 (relating to support facilities). The description shall include the following:

- (i) Location.
- (ii) Current condition.
- (iii) A showing, including relevant monitoring data or other evidence, indicating whether the structure meets the performance standards of this chapter.

(2) An application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the underground mining and reclamation operation. The compliance plan shall include the following:

- (i) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of this chapter.

- (ii) A construction schedule.
 - (iii) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of this chapter are met.
 - (iv) 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.
- (c) *Reclamation plan requirements.*
- (1) An application shall contain a plan for reclamation of lands which have been or will be disturbed in support of the underground mining activities. The plan shall show how the applicant will comply with the environmental performance standards of this title, and shall include, at a minimum, the information required in this subsection.
 - (2) A plan shall contain the following information:
 - (i) A timetable for the completion of each major step in the reclamation plan.
 - (ii) An estimate of the cost of the reclamation of the proposed operations required to be covered by a performance bond under this title, with supporting calculations for the estimates.
 - (iii) 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 disturbed area in accordance with the performance standards of this chapter.
 - (iv) A plan for removal, storage and redistribution of topsoil, subsoil and other material to meet the performance standards of this chapter.
 - (v) A plan for revegetation as required in §§ 88.121—88.130.
 - (3) A plan shall contain a description of the proposed use, following reclamation, of the lands to be affected within the proposed permit area by surface operations or facilities, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land use policies and plans. This description shall explain the following:
 - (i) The necessary support activities which may be needed to achieve the proposed land use.
 - (ii) Materials needed for approval of the alternative use under § 89.88 where a land use different from the premining land use is proposed.
 - (iii) The consideration given to making the proposed underground mining activities consistent with surface owner plans and applicable State and local land use plans and programs.
 - (4) The description shall be accompanied by a copy of the comments concerning the proposed use from the legal or equitable owner of record of the surface areas to be affected by surface operations or facilities within the proposed permit area, and from the State and local government agencies which

would have to initiate, implement, approve or authorize the proposed use of the land following reclamation.

(d) *Protection of hydrologic balance.*

(1) An application shall contain a plan describing, with appropriate maps and cross sections, the measures to be taken during and after the proposed underground mining activities, in accordance with the performance standards of this chapter, to ensure the protection of:

(i) The quality of surface water and groundwater, both within the proposed permit area and adjacent areas, from adverse effects of the proposed underground mining activities.

(ii) The rights of present users to surface water and groundwater.

(iii) The quantity of surface water and groundwater, both within the proposed permit and adjacent area, from adverse effects of the proposed underground mining activities.

(iv) Water quality by locating openings for mines in accordance with § 89.54 (relating to preventing discharges from underground mines).

(2) The description shall include the following:

(i) A plan for the control of surface and groundwater drainage into, through and out of the permit area.

(ii) A plan for the treatment, if required, of surface and groundwater drainage from the permit area, and proposed quantitative limits on pollutants, as required under § 9.64 (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.

(iii) A plan for collecting, recording and reporting surface water and groundwater quality and quantity data in accordance with §§ 88.105 and 88.106 (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 (3).

(3) The description shall include a determination of the probable hydrologic consequences of the proposed underground mining activities on the proposed permit area and adjacent area, with respect to the hydrologic regime and the quantity and quality of water in surface water and groundwater systems under all seasonal conditions. The determination shall address the parameters measured in accordance with § 88.491 (relating to minimum requirements for information on environmental resources).

(4) A plan shall contain a detailed description, with appropriate drawings, of permanent entry seals and coal barriers designed to ensure stability under anticipated hydraulic heads developed while promoting mine inundation after mine closure for the proposed permit area.

- (5) A plan shall contain a description of possible alterations in the mine development plan or method of mining in response to adverse impacts on the hydrologic balance as indicated by the groundwater monitoring system.
- (e) *Ponds, impoundments, banks, dams and embankments.* Ponds, impoundments, banks, dams and embankments shall comply with the following:
- (1) An application shall include a plan for each proposed sedimentation pond, water impoundment and coal processing waste bank, dam or embankment within the proposed permit area. A plan shall:
 - (i) Be prepared by, or under the direction of, a qualified person in accordance with the requirements of this title.
 - (ii) Contain a description, map and cross section of the structure and its location.
 - (iii) Contain a preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure.
 - (iv) Contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations.
 - (v) Contain a certification statement which includes a schedule setting forth the dates when detailed design plans for structures that are not submitted within the general plan will be submitted to the Department. The Department will have approved, in writing, the detailed design plan for a structure before construction of the structure begins.
 - (vi) Include geotechnical investigation, design and construction requirements for the structure.
 - (vii) Describe the operation and maintenance requirements for each structure.
 - (viii) Describe the timetable and plans to remove each structure, if appropriate.
 - (2) Sedimentation ponds, whether temporary or permanent, shall be designed in compliance with the performance standards of this chapter. A sedimentation pond or earthen structure which will remain on the proposed permit area as a permanent water impoundment shall also be designed to comply with the performance standards of this chapter.
 - (3) Permanent and temporary impoundments shall be designed to comply with §§ 88.101—88.103 (relating to hydrologic balance: permanent impoundments; hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance; and hydrologic balance: coal processing waste dams and embankments).
 - (4) Coal processing waste banks shall be designed to comply with Subchapters C and D (relating to anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards).

(5) Coal processing waste dams and embankments shall be designed to comply with § 88.103. A plan shall comply with the requirements of the Mine Safety and Health Administration, 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) and shall contain the results of a geotechnical investigation of the proposed dam or embankment foundation area to determine the structural competence of the foundation which will support the proposed dam or embankment structure and the impounded material. The geotechnical investigation shall be planned and supervised by an engineer or engineering geologist, according to the following:

(i) The number, location and depth of borings and test pits shall be determined using current prudent engineering practice for the size of the dam or embankment, quantity of material to be impounded and subsurface conditions.

(ii) The character of the overburden and bedrock, the proposed abutment sites and adverse geotechnical conditions which may affect the particular dam, embankment or reservoir site shall be considered.

(iii) Springs, seepage and groundwater flow observed or anticipated during wet periods in the area of the proposed dam or embankment shall be identified on each plan.

(iv) Consideration shall be given to the possibility of mudflows, rock debris falls or other landslides into the dam, embankment or impounded material.

(f) *Protection of public parks and historic places.*

(1) 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:

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

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

(2) 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 anthracite underground activity.

(g) *Relocation or use of public roads.* An application shall describe, with appropriate maps and cross sections, the measures to be used to ensure that the interests of the public and landowners affected are protected if the applicant seeks to have the Department approve the following:

- (1) Conducting the proposed surface operations or locating facilities within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way.
- (2) Relocating a public road.
- (h) *Underground development wastes.* A plan shall contain descriptions, including appropriate maps and cross sections of the proposed disposal methods and sites, for placing underground development waste and excess spoil generated at surface areas affected by surface operations and facilities. A plan shall describe the geotechnical investigation, design, construction, operation, maintenance and removal, if appropriate, of the structures.
 - (i) *Air pollution control plan.* The description shall include an air pollution control plan which includes the following:
 - (1) A plan demonstrating compliance with fugitive dust control practices, as required under § 89.64, and if applicable, how the requirements of Chapters 123 and 127 will be met.
 - (2) Air quality control monitoring to provide sufficient data to evaluate the effectiveness of the air pollution control plan, if required by the Department.
 - (j) *Maps and plans.* An application shall contain maps, plans and cross sections of the proposed permit and adjacent areas as follows:
 - (1) The maps, plans and cross sections shall show the underground mining activities to be conducted and changes in the facility or feature to be caused by the proposed operations.
 - (2) The following shall be shown for the proposed permit area:
 - (i) Buildings, utility corridors and facilities to be used.
 - (ii) Coal storage, cleaning and loading areas.
 - (iii) Water diversion, collection, conveyance, storage and discharge facilities to be used.
 - (iv) The sources of waste and each waste disposal facility relating to coal processing or pollution control.
 - (v) Facilities to be used to protect and enhance fish and wildlife-related environmental values.
 - (vi) Surface facilities for explosive storage and handling.
 - (vii) The location of each sedimentation pond, water impoundment, water treatment and air pollution control facility.
 - (viii) The location of each facility that will remain on the proposed permit area as a permanent feature after the completion of underground mining activities.
 - (3) Maps, plans and cross sections required under paragraph (2)(iii) and (vii) shall be prepared by, under the direction of, 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.

(k) *Transportation facilities.* Transportation facilities shall comply with the following:

(1) An application shall contain a description of each road, conveyor and rails system to be constructed, used or maintained within the proposed permit area. The description shall include a map, appropriate cross section and the following:

(i) The specifications for each road width, road gradient, road surface, road cut, fill, embankment, culvert, bridge, drainage ditch and drainage structure.

(ii) A report of appropriate geotechnical analysis, when approval of the Department is required for alternative specifications or for steep-cut slopes.

(iii) A description of each measure to be taken to obtain approval of the Department for alteration or relocation of a natural drainageway.

(iv) A description of measures, other than use of a rock headwall, to be taken to protect the inlet end of a ditch relief culvert.

(2) The person who conducts the underground mining activities shall maintain, as required, public roads used in coal exploration or underground mining activities.

(l) *Return of coal processing and underground development waste to abandoned underground workings.* Return of coal processing and underground development waste to abandoned underground workings shall comply with the following:

(1) A plan shall describe the design, operation and maintenance of a proposed coal processing and underground development waste disposal facility, including flow diagrams and other necessary drawings and maps, for the approval of the Department and the Mine Safety and Health Administration.

(2) A plan shall describe the source and quality of waste to be stowed, area to be backfilled, percent of the mine void to be filled, method of constructing underground retaining walls, influence of the backfilling operation on active underground mine operations, surface area to be supported by the backfill and the anticipated occurrence of surface effects following backfilling.

(3) The applicant shall describe the source of the hydraulic transport medium, method of dewatering the placed backfill, retainment of water underground, treatment of water if released to surface streams and the effect on the hydrologic regime.

(4) The plan shall describe the stratum underlying the mined coal and gradient from the backfilled area.

(5) The requirements of paragraphs (1)—(4) also apply to pneumatic backfilling operations, except when the operations are exempted by the Department from requirements specifying hydrologic monitoring.

(m) *Prime farmlands.* A person who conducts or intends to conduct underground mining activities on prime farmlands shall submit a plan, as part of the permit application, demonstrating that the land will be restored, within a reason-

able time, to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management, and that the standards for successful revegetation in § 88.493 (relating to minimum environmental protection performance standards) can be achieved.

(n) *Fish and wildlife protection and enhancement plan.* An application shall include the fish and wildlife information in § 88.62 (relating to fish and wildlife protection and enhancement plan).

Authority

The provisions of this § 88.492 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 § 88.492 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; 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 May 8, 1998, effective May 9, 1998, 28 Pa.B. 2227. Immediately preceding text appears at serial pages (207160) to (207168).

Cross References

This section cited in 25 Pa. Code § 86.149 (relating to determination of bond amount); 25 Pa. Code § 86.151 (relating to period of liability); and 25 Pa. Code § 86.172 (relating to criteria for release of bond).

§ 88.493. Minimum environmental protection performance standards.

A person who conducts underground mining activities shall comply with the performance standards and design requirements of this section. The following performance standards shall be met:

- (1) Signs and markers shall comply with § 89.51 (relating to signs and markers).
- (2) Closing of underground mine openings shall comply with § 89.83 (relating to closing of underground mine openings).
- (3) Erosion and sedimentation control shall comply with §§ 89.11 and 89.21 (relating to general requirements; and erosion and sedimentation control).
- (4) Removal, storage and use of topsoil and vegetation support material shall comply with §§ 88.86—88.90.
- (5) Underground mining activities shall be conducted to minimize adverse effects in the hydrologic balance in accordance with §§ 88.94, 88.95, 88.98—88.103, 88.105, 88.106, 89.52—89.54, 89.57 and 89.60.

(6) Underground mining activities shall comply with the general performance standards specified in §§ 88.115—88.130, 88.136—88.138, 88.144, 89.61, 89.63, 89.64, 89.66—89.69, 89.81 and 89.88.

(7) Use of explosives includes:

(i) A person who conducts surface blasting activities incident to underground mining activities, including, but not limited to, mine opening blasting shall conduct the activities in compliance with §§ 88.45 and 88.134—88.137.

(ii) A person who conducts underground blasting activities shall comply with this chapter and applicable State and Federal laws and regulations in the use of explosives.

(8) Standards for determining success of restoration on prime farmland soils shall be based upon the soil surveys and soil interpretations and the latest yield data available from the United States Department of Agriculture Soil Conservation Service. Soil productivity for prime farmland 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 § 88.491(k) (relating to minimum requirements for information on environmental resources).

(i) 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 United States 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:

(A) Average annual crop production shall be determined based upon a minimum of 3 years of 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).

(B) Adjustments for weather-induced variability in the annual crop production may be permitted by the Department.

(C) 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.

(ii) 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 § 88.129(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 erodibility, 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.

Authority

The provisions of this § 88.493 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 § 88.493 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended March 30, 1984, 14 Pa.B. 1143, effective August 10, 1985, 15 Pa.B. 2872; amended January 4, 1985, effective immediately upon the approval by the Secretary of the United States Department of the Interior and publication thereof in the *Pennsylvania Bulletin*, 15 Pa.B. 13; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075; amended August 8, 2008, effective August 9, 2008, 38 Pa.B. 4355. Immediately preceding text appears at serial pages (244242) and (207169) to (207170).

Cross References

This section cited in 25 Pa. Code § 86.37 (relating to criteria for permit approval or denial); 25 Pa. Code § 86.159 (relating to self-bonding); and 25 Pa. Code § 88.492 (relating to minimum requirements for reclamation and operation plan).

§ 88.494. Performance standards—in situ processing of anthracite coal.

- (a) In situ processing means those activities on the surface or underground which involve in-place processing and removal of the coal or coal by-products.
- (b) The Department will not issue a permit to initiate or conduct underground burning of anthracite coal.
- (c) In situ processing of anthracite coal is limited to:
 - (1) The collection of methane and natural gas by means of boreholes and wells and the drilling, stimulation and construction of boreholes and wells used for that purpose. These activities shall meet the requirements of the Oil and Gas Act (58 P. S. §§ 601.101—601.605).
 - (2) Demonstration or innovative operations permitted by the Department. The activities shall meet the requirements of this chapter, Chapter 86 (relating to surface and underground coal mining: general) and additional standards for environmental protection and safety as requested by the Department.
 - (3) In situ operations that might be approved and permitted by the Department.
- (d) Activities approved by the Department shall comply with applicable hydrologic balance and water pollution control standards of this chapter.

Source

The provisions of this § 88.494 adopted December 19, 1980, 10 Pa.B. 4789, 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 page (148888).

**Subchapter G. ANTHRACITE SURFACE MINING ACTIVITIES
AND ANTHRACITE BANK REMOVAL AND RECLAMATION
ACTIVITIES: MINIMUM REQUIREMENTS FOR
REMINING AREAS WITH POLLUTIONAL DISCHARGES**

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Cross References

This subchapter cited in 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).

§ 88.501. Scope.

(a) This subchapter specifies procedures and rules applicable to those who seek authorization to conduct surface mining and anthracite bank removal and reclamation 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 persons who have received the authorization. Receipt of the authorization entitles an operator to later request bond release for areas which continue to discharge pollutional material.

(b) Chapter 86 (relating to surface and underground coal mining: general) and Subchapters A—C apply to authorizations to mine areas with preexisting pollutional discharges except as specifically modified by this subchapter.

Source

The provisions of this § 88.501 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673.

§ 88.502. 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 pollutional 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 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 pollutional 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 § 88.95(b)—(g), § 88.190(b)—(g) or § 88.295(b)—(g) (relating to hydrologic balance: diversions; hydrologic balance: diversions; and hydrologic balance: diversions and conveyances), as applicable.

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 § 88.502 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 § 88.502 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 (378229) to (378230).

Cross References

This section cited in 25 Pa. Code § 86.252 (relating to definitions).

§ 88.503. Applicability.

(a) This subchapter is applicable only to surface mining activities and bank removal and reclamation activities as defined in § 88.1 (relating to definitions) and coal refuse disposal activities subject to Subchapter D (relating to anthracite refuse disposal: minimum environmental protection performance standards).

(b) No authorization may 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 surface mining activities or bank removal and reclamation activities, including the proposed pollution abatement area.

(ii) Prior to a Department decision to issue or deny the 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 polluttional 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 polluttional 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).

(c) 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).

(d) This subchapter applies to pre-existing discharges that are located within or are hydrologically connected to pollution abatement areas of a coal remining operation.

(e) 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 § 88.503 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 § 88.503 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 (378230) and (237197).

§ 88.504. 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 Subchapter A (relating to general provisions) and either Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards), whichever is applicable, except as specifically modified by this subchapter. The operator shall also comply with all of the following:

- (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 must 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 the 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 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 hydrologically 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 § 88.504 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 § 88.504 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 (237197) to (237198).

§ 88.505. 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) Legal 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 groundwater 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 not be 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) All 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 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), Chapter 87, Subchapter B (Reserved) or Subchapters A—C (relating to general provisions; surface anthracite coal mines: minimum environmental protection performance standards; and anthracite bank removal and reclamation: minimum environmental protection performance standards) 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 § 88.505 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 § 88.505 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 (237198) and (378231).

Cross References

This section cited in 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.506. 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 Subchapter A (relating to general provisions) and either Subchapter B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards), whichever is applicable, 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 § 88.509 (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 § 88.506 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 § 88.506 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 (378231) to (378232).

Cross References

This section cited in 25 Pa. Code § 88.507 (relating to treatment of discharges); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.507. 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 §§ 88.92, 88.187 and 88.292 (relating to hydrologic balance: effluent standards).

(b) Except as provided in § 88.510(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 §§ 88.92, 88.187 and 88.292 for that parameter, the operator shall treat the pre-existing discharge for that parameter to comply with effluent limitations established by best professional judgment or the effluent limitations at §§ 88.92, 88.187 and 88.292.

(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 §§ 88.95(b), 88.190(b) and 88.295(b) (relating to hydrologic balance: diversions; hydrologic balance: diversions; and hydrologic balance: diversions and conveyances).

(d) An operator required to treat pre-existing discharges will be allowed to discontinue treating the discharges under this section 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 in accordance with 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.
- (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 in accordance with 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 § 88.509 (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 § 88.506(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 § 88.507 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 § 88.507 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; corrected August 16, 1991, effective upon publication of notice in the *Pennsylvania Bulletin* that the amendments have been approved by the OSM, 21 Pa.B. 3697. See 21 Pa.B. 3316 (July 27, 1991) for OSM approval deferment; amended March 20, 1992, effective August 17, 1991, 22 Pa.B. 1260; amended October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780. Immediately preceding text appears at serial pages (378232) and (244243).

Cross References

This section cited in 25 Pa. Code § 86.159 (relating to self-bonding); and 25 Pa. Code § 88.509 (relating to criteria and schedule for release of bonds on pollution abatement areas).

§ 88.508. Request for bond release.

Sections 86.172(c) and 88.509 (relating to criteria for release of bond; and criteria and schedule for release of bonds on pollution abatement areas) apply to the release of bonds for pollution abatement areas authorized by this subchapter. Section 86.172(a), (b) and (d) are inapplicable to the release of bonds.

Source

The provisions of this § 88.508 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673.

§ 88.509. 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 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 in accordance with 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 § 88.506(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 retaining 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 §§ 88.87, 88.183 and 88.287 (relating to vegetation-supporting material: available soil removal; vegetation-supporting material: soil; and vegetation supporting material: available soil removal), completed final grading, planting and established revegetation in accordance with the approved reclamation plan and achieved the standard of success for revegetation in § 88.505(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 all ground and surface water monitoring conducted by the permittee for the period of 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 § 88.505(a)(5).
- (ii) Achieved all of the following:
- (A) At a minimum has not caused degradation of the baseline pollution load as shown by all ground and surface water monitoring conducted by the operator or the Department:
- (I) For 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 § 88.505(a)(5) have been completed.
- (II) If treatment has been initiated at any time after initial bond release under subsection (a) and in accordance with § 88.507(e) (relating to treatment of discharges), for 12 months from the discontinuance of treatment under § 88.507(d), if backfilling, final grading, drainage control, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 88.505(a)(5) have been completed.
- (B) Conducted all 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 elimination of public health and safety problems by reining 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 all the approved pollution abatement and reclamation plans and the pollution abatement area is capable of supporting the postmining land use approved under §§ 88.133, 88.221 and 88.334 (relating to postmining land use; postmining land use; and postdisposal 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 § 88.507(e) for 5 years from the discontinuance of treatment under § 88.507(d).
- (4) The applicable liability period has expired under § 86.151 (relating to period of liability).

Authority

The provisions of this § 88.509 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 § 88.509 adopted June 28, 1985, 15 Pa.B. 2377, effective March 8, 1986, 16 Pa.B. 673; 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 (244243) to (244245).

Cross References

This section cited in 25 Pa. Code § 88.506 (relating to operational requirements); 25 Pa. Code § 88.507 (relating to treatment of discharges); and 25 Pa. Code § 88.508 (relating to request for bond release).

§ 88.510. 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 § 88.92, § 88.187 or § 88.292 (relating to hydrologic balance: effluent standards).

(2) A pre-existing discharge is exempt from meeting standards in § 88.92, § 88.187 or § 88.292 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 § 88.92, § 88.187 or § 88.292 may be eligible for limits established under this subchapter.

(f) *Applicability of standards.* Section 88.92, § 88.187 or § 88.292 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 88.92, § 88.187 or § 88.292 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 § 88.510 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 § 88.510 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

Cross References

This section cited in 25 Pa. Code § 88.507 (relating to treatment of discharges).

§ 88.511. 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 § 88.92, § 88.187 or § 88.292 (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 § 88.511 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 § 88.511 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

§ 88.512. 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 reming 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 § 88.512 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 § 88.512 adopted October 21, 2016, effective October 22, 2016, 46 Pa.B. 6780.

Cross References

This section cited in 25 Pa. Code § 88.513 (relating to procedure for calculating and applying an annual trigger).

§ 88.513. 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 remining 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 § 88.512(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 (T_b) is calculated as

$$T_b = M + (1.815 * R) / \text{SQRT}(n)$$

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 (T_m) of the monitoring data is calculated as

$$T_m = M' - (1.815 * R') / \text{SQRT}(m)$$

(7) If $T_m > T_b$, 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)

n \ m	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 $N = n + m$.
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 § 88.513 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

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