## PENNSYLVANIA CODE

## TITLE 25. ENVIRONMENTAL PROTECTION

## DEPARTMENT OF ENVIRONMENTAL PROTECTION

## CHAPTER 90. COAL REFUSE DISPOSAL

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## A. GENERAL PERMIT AND APPLICATION REQUIREMENTS FOR COAL REFUSE DISPOSAL

§ 90.1. Definitions.

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

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COAL REFUSE DISPOSAL - THE STORAGE, PLACEMENT OR DISPOSAL OF COAL REFUSE. THE TERM INCLUDES ENGINEERED FEATURES INTEGRAL TO THE PLACEMENT OF THE COAL REFUSE INCLUDING RELOCATIONS OR DIVERSIONS OF STREAM SEGMENTS CONTAINED WITHIN THE PROPOSED FILL AREA AND THE CONSTRUCTION OF REQUIRED SYSTEMS TO PREVENT ADVERSE IMPACTS TO SURFACE WATER AND GROUNDWATER AND TO PREVENT PRECIPITATION FROM CONTACTING THE COAL REFUSE.

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<u>OPERATOR</u> - A PERSON OPERATING A COAL REFUSE DISPOSAL AREA, OR PART THEREOF.

\* \* \* \* \*

PUBLIC RECREATIONAL IMPOUNDMENT - A CLOSED BASIN, NATURALLY FORMED
OR ARTIFICIALLY BUILT, WHICH IS DAMMED OR EXCAVATED FOR THE RETENTION OF
WATER AND WHICH IS OWNED, RENTED OR LEASED BY THE FEDERAL GOVERNMENT, THE
COMMONWEALTH OR A POLITICAL SUBDIVISION OF THE COMMONWEALTH AND WHICH

IS USED FOR SWIMMING, BOATING, WATER SKIING, HUNTING, FISHING, SKATING OR OTHER SIMILAR ACTIVITIES.

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## § 90.5. SITE SELECTION AND PERMITTING.

- (a) PRIOR TO APPLYING FOR A PERMIT TO CONDUCT COAL REFUSE DISPOSAL ACTIVITIES, THE APPLICANT SHALL COMPLY WITH SUBCHAPTER E (RELATING TO SITE SELECTION).
- (b) AFTER THE DEPARTMENT HAS APPROVED A SITE IN ACCORDANCE WITH

  SUBCHAPTER E, THE APPLICANT MAY APPLY FOR A PERMIT FOR COAL REFUSE DISPOSAL

  ACTIVITIES IN ACCORDANCE WITH CHAPTERS 86 AND 88 (RELATING TO SURFACE AND

  UNDERGROUND COAL MINING: GENERAL; AND ANTHRACITE COAL) AND THIS CHAPTER.

## § 90.12. Geology.

- [a] The application shall include a description of the area and structural geology within the proposed permit and adjacent area, including the lithology of the strata that influence the occurrence, availability, movement and quality of groundwater that may be affected by the coal refuse disposal[,]. [including the following:
- (1)] For lands within the proposed permit and adjacent areas, the applicant shall provide a description of the geology with complementing maps and cross sections and the results of test borings[. and coal samplings. The description shall include the stratum immediately beneath the coal seam to be mined and all overlying strata, or, where an aquifer or existing deep mine below the lowest coal to be mined may be affected, the aquifer or existing deep mine and all overlying strata for mines underlain by existing deep mines and greater than 200 feet below surface drainage throughout the proposed mine, the description need only include the strata down to and including the stratum immediately below the coal seam to be mined]. THE DESCRIPTION

## SHALL INCLUDE THE STRATA DOWN TO AND INCLUDING ANY AQUIFER THAT MAY BE AFFECTED. At a minimum, the description shall include:

- [(i)] (1) Location and quality of subsurface water.
- [(ii)] (2) Depth, lithology and structure [of overburden or underlying strata.] OF NEAR-SURFACE BEDROCK.
- [(iii)] (3) Location, identification and status of mining and coal refuse disposal operations within or adjacent to the proposed permit area.
- [(2) For any portion of a permit area in which the strata will be removed, test borings or core samples shall be collected down to and including the stratum immediately below the lowest coal seam to be mined or stratum to be removed and analyzed to provide the following data:
- (i) Logs of drill holes that show the lithologic characteristics, including physical characteristics and thickness of each stratum, and location and quality of groundwater.
- (ii) Chemical analyses of each stratum with the overburden and the stratum immediately below the coal seam to be mined to identify those strata that contain acid-forming, toxic-forming or alkalinity-producing materials.
- (iii) Chemical analyses for acid-forming and toxic-forming substances of the coal seam, including the total sulfur content.
- (b) An application may request that the requirements for a statement of the results of the test borings or core samplings, as required under subsection (a)(2), may be waived in part or in its entirety by the Department.]

- (4) A DESCRIPTION OF ANY GLACIAL, ALLUVIAL, OR COLLUVIAL

  DEPOSITS OR OTHER UNCONSOLIDATED DEPOSITS THAT ARE PRESENT WITHIN OR

  BENEATH THE PROPOSED PERMIT AREA, INCLUDING THEIR THICKNESS AND LOCATION.
- (5) <u>A DESCRIPTION OF ANY MINE WORKINGS THAT ARE PRESENT</u>
  BENEATH THE PROPOSED PERMIT AREA.
- (6) THE ATTITUDE AND CHARACTERISTICS OF JOINTS, CLEATS, FRACTURE ZONES, AND FAULTS WITHIN THE PERMIT AND ADJACENT AREAS.
- (7) THE LOCATION AND IDENTIFICATION OF ALL COAL SEAM CROPLINES WITHIN THE PERMIT AREA.
- (8) A DESCRIPTION OF THE PHYSICAL CHARACTERISTICS OF SOILS WITHIN THE PERMIT AREA.
- (9) <u>A DESCRIPTION OF AQUIFERS THAT ARE PRESENT BENEATH THE</u> PROPOSED PERMIT AREA.

## § 90.13. Groundwater information.

The application shall contain a description of the premining or baseline groundwater hydrology of the proposed permit and adjacent area, including the following:

(1) The results of a groundwater inventory of existing wells, springs and other valuable groundwater resources, providing information on location, quality, quantity, depth to water and usage of the groundwater for the proposed permit and potentially impacted offsite areas. Information on water availability and occurrence, and alternate water supplies shall be emphasized and water quality information relating to suitability for existing predisposal use shall be provided. 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) Other information on the baseline hydrogeologic properties of the groundwater system shall be included with the application. The Department may require information on indicator parameters such as pumping test, lithologic and piezometer data or <a href="https://doi.org/10.1001/jhte3

## § 90.34. Reclamation: postdisposal land use.

- (a) An application shall contain a description of the proposed land use, following reclamation, of the lands to be affected within the proposed permit area by coal refuse disposal activities, 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:
- (1) How the proposed postdisposal land use is to be achieved, and the necessary support activities which may be needed to achieve the proposed land use.
- (2) [When pastureland is the postdisposal land use, the] <u>THE</u> detailed management plan to be implemented <u>WHEN PASTURELAND IS THE POSTDISPOSAL LAND USE</u>.
- (3) [When a land use different from the predisposal land use is proposed, materials]

  MATERIALS needed for approval of the alternative use under § 90.166 (relating to postdisposal land use).
- (4) The consideration given to making all of the proposed coal refuse disposal activities consistent with surface owner plans and applicable Commonwealth and local land use plans and programs.

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

## § 90.45. Prime farmland.

A person who conducts, or intends to conduct, coal refuse disposal activities on prime farmlands historically used for cropland, <u>IN ACCORDANCE WITH SUBCHAPTER E (RELATING TO SITE SELECTION)</u>, shall submit a plan, as part of the permit application, for the disposal and restoration of the land. The plan shall contain, at a minimum:

- (1) The proposed method and type of equipment to be used for removal, storage, and replacement of the soil in accordance with §§ 90.161–90.165.
- (2) The proposed measures to be taken during soil reconstruction to prevent excessive compaction and achieve soil bulk densities which will result in the restored area returned to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management.
- (3) The location of areas to be used for the separate stockpiling of soil and plans for soil stabilization before redistribution.
- (4) Documentation, if applicable, such as agricultural school studies or other scientific data from comparable areas, that supports the use of other suitable material, instead of the B or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as nondisposal prime farmlands in the surrounding area under equivalent levels of management.

- (5) Plans for seeding or cropping the final graded disturbed land and the conservation practices to be used to adequately control erosion and sedimentation and restoration of an adequate soil moisture regime, during the period from completion of regrading until release of the performance bond or equivalent guarantee under Chapter 86 Subchapter E (relating to coal exploration). Proper adjustments for seasons shall be proposed so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions.
- (6) Available agricultural school studies or other scientific data for areas with comparable soils, climate and management—including water management—that demonstrate that the proposed method of reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining.
- (7) A soil survey with description of soil mapping units and representative soil profile under § 90.22 (relating to prime farmland investigation). The soil profile description shall include, but not be limited to, soil horizon depths, pH and range of soil densities for each prime farmland soil unit within the proposed permit area. The Department may require the applicant to provide information on other physical and chemical soil properties as needed to make a determination that the operator has the technological capability to restore the prime farmland within the permit area to the soil reconstruction standards of §§ 90.161–90.165.

## § 90.49. STREAM BUFFER ZONE VARIANCE.

- (a) <u>STREAM BUFFER ZONE RESTRICTION</u>. COAL REFUSE DISPOSAL

  [OPERATIONS] MAY NOT OCCUR WITHIN 100 FEET (30.48 METERS) OF THE BANK OF A

  STREAM. THE DEPARTMENT MAY GRANT A VARIANCE FOR DISPOSAL OF COAL REFUSE

  UNDER SUBSECTION (c) IF CONSISTENT WITH SUBCHAPTER E.
- (b) <u>COMPLIANCE REQUIRED.</u> SURFACE MINING OPERATIONS SUPPORTING

  COAL REFUSE DISPOSAL [COAL REFUSE DISPOSAL OPERATIONS OTHER THAN COAL

  REFUSE DISPOSAL] SHALL COMPLY WITH § 86.102(12) (RELATING TO AREAS WHERE

  MINING IS PROHIBITED OR LIMITED).

- (c) <u>VARIANCE</u>. THE DEPARTMENT MAY GRANT A VARIANCE FROM THE

  100-FOOT (30.48-METER) STREAM BUFFER ZONE TO DISPOSE OF COAL REFUSE **AND TO RELOCATE OR DIVERT STREAMS** IN THE 100-FOOT (30.48-METER) STREAM BUFFER

  ZONE. THE STREAM BUFFER ZONE IS THE AREA WITHIN 100 FEET (30.48 METERS)

  MEASURED HORIZONTALLY FROM THE BANK OF ANY STREAM.
- (1) STREAM BUFFER ZONE VARIANCES WILL ONLY BE GRANTED IF THE
  OPERATOR DEMONSTRATES TO THE SATISFACTION OF THE DEPARTMENT THAT [THE], AS
  A RESULT OF THE VARIANCE, COAL REFUSE DISPOSAL WILL NOT ADVERSELY AFFECT
  WATER QUALITY AND QUANTITY, OR OTHER ENVIRONMENTAL RESOURCES OF THE
  STREAM AND WILL NOT CAUSE OR CONTRIBUTE TO THE VIOLATION OF APPLICABLE
  STATE OR FEDERAL WATER QUALITY STANDARDS.
- (2) PRIOR TO GRANTING A VARIANCE, THE OPERATOR SHALL BE
  REQUIRED TO GIVE PUBLIC NOTICE OF THE APPLICATION IN TWO NEWSPAPERS OF
  GENERAL CIRCULATION IN THE AREA ONCE A WEEK FOR TWO SUCCESSIVE WEEKS.
- (i) IF A PERSON FILES AN EXCEPTION TO THE PROPOSED

  VARIANCE WITHIN 20 DAYS OF THE LAST PUBLICATION OF THE NOTICE, THE

  DEPARTMENT WILL CONDUCT A PUBLIC HEARING WITH RESPECT TO THE APPLICATION

  WITHIN 30 DAYS OF RECEIPT OF THE EXCEPTION.
- (ii) THE DEPARTMENT WILL ALSO CONSIDER INFORMATION OR

  COMMENTS SUBMITTED BY THE PENNSYLVANIA FISH AND BOAT COMMISSION PRIOR TO

  TAKING ACTION ON A VARIANCE REQUEST.
- (3) THE VARIANCE WILL BE ISSUED AS A WRITTEN ORDER SPECIFYING
  THE METHODS AND TECHNIQUES THAT SHALL BE EMPLOYED TO PREVENT OR MITIGATE
  ADVERSE IMPACTS. MITIGATION CAN INCLUDE, BUT IS NOT LIMITED TO,

## COMPENSATORY RESTORATION AND ENHANCEMENTS OF NEARBY STREAMS OR STREAM SEGMENTS.

# § 90.50. DESIGN CRITERIA: GROUNDWATER AND SURFACE WATER PROTECTION SYSTEM.

- (a) THE APPLICATION SHALL INCLUDE A DESCRIPTION OF THE SYSTEM THAT
  WILL BE INSTALLED TO PREVENT ADVERSE IMPACTS TO GROUNDWATER AND SURFACE
  WATER. THE DESCRIPTION SHALL INCLUDE MAPS, PLANS, AND OTHER INFORMATION
  NECESSARY TO EVALUATE THE DESIGN OF THE SYSTEM.
- (b) THE APPLICATION SHALL INCLUDE A DESCRIPTION OF THE SYSTEM THAT
  WILL BE INSTALLED TO PREVENT PRECIPITATION FROM COMING INTO CONTACT WITH
  THE COAL REFUSE. THE DESCRIPTION SHALL INCLUDE MAPS, PLANS, AND OTHER
  INFORMATION NECESSARY TO EVALUATE THE DESIGN OF THE SYSTEM. THE COAL
  REFUSE DISPOSAL OPERATION SHALL BE DESIGNED IN PHASES TO MINIMIZE THE
  AMOUNT OF TIME THE ENTIRE COAL REFUSE AREA IS EXPOSED TO PRECIPITATION PRIOR
  TO THE INSTALLATION OF THE SYSTEM TO PREVENT PRECIPITATION FROM CONTACTING
  THE COAL REFUSE. THE APPLICATION SHALL DESCRIBE THE DESIGN OF THE SYSTEM FOR
  PREVENTING PRECIPITATION FROM CONTACTING COAL REFUSE AND HOW THE SYSTEM
  WILL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:
- (1) DURING ROUTINE COAL REFUSE DISPOSAL AS PHASES OF THE COAL REFUSE DISPOSAL AREA REACH CAPACITY.
- (2) <u>DURING PERIODS OF TEMPORARY CESSATION AS DIRECTED UNDER</u> § 90.167(d) (RELATING TO CESSATION OF OPERATIONS: TEMPORARY).
  - (3) WHEN THE OPERATION PERMANENTLY CEASES.

SUSCEPTIBILITY TO MINE SUBSIDENCE AND THE POTENTIAL IMPACTS OF MINE
SUBSIDENCE ON THE SYSTEMS DESCRIBED IN SUBSECTIONS (a) AND (b). THE
DESCRIPTION SHALL INCLUDE THE] MEASURES TO BE TAKEN TO ENSURE THE LONGTERM FUNCTIONALITY OF THE SYSTEMS DESCRIBED IN SUBSECTIONS (a) AND (b) [WITH PARTICULAR ATTENTION TO SUBSIDENCE-INDUCED IMPACTS OR OTHER PHYSICAL
OR CHEMICAL PROCESSES THAT COULD ADVERSELY AFFECT THE OPERATION OF
THE SYSTEMS]. THE DESCRIPTION SHALL ADDRESS THE SITE'S SUSCEPTIBILITY TO
MINE SUBSIDENCE AND THE POTENTIAL IMPACTS OF MINE SUBSIDENCE ON THE
SYSTEMS DESCRIBED IN SUBSECTIONS (a) AND (b). THE DESCRIPTION SHALL ALSO
ADDRESS THE POTENTIAL FOR DETERIORATION OF COMPONENTS OF THE SYSTEMS
DESCRIBED IN SUBSECTIONS (a) AND (b) DUE TO OTHER PHYSICAL OR CHEMICAL
PROCESSES INCLUDING BUT NOT LIMITED TO ATTACK FROM SULFATE-LADEN OR
ACIDIC GROUNDWATER AND/OR LEACHATE.

## § 90.101. 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) Coal refuse disposal activities shall be planned and conducted to prevent pollution of [the water] GROUNDWATER AND SURFACE WATER and prevent, to the maximum extent possible, changes to the water quantity, depth to groundwater and location of surface water drainage channels so that the approved postdisposal land use of the permit is not adversely affected.
- (c) In no case shall the treatment requirements and effluent limitations established under § 90.102 (relating to hydrologic balance: water quality standards, effluent limitations and best management practices) be violated.

- (d) Operations shall be conducted to prevent water pollution and, when necessary, treatment methods shall be used.
- (e) A person who conducts coal refuse disposal activities shall conduct the disposal and reclamation operation to prevent water pollution and, when necessary, operate and maintain the necessary water treatment facilities until applicable treatment requirements and effluent limitations established under § 90.102 are achieved and maintained.

## § 90.116a. HYDROLOGIC BALANCE: WATER RIGHTS AND REPLACEMENT.

AN OPERATOR [A PERSON] WHO CONDUCTS COAL REFUSE DISPOSAL

[ACTIVITIES] AND ADVERSELY AFFECTS A WATER SUPPLY BY CONTAMINATION,

POLLUTION, DIMINUTION, OR INTERRUPTION SHALL COMPLY WITH § 87.119 (RELATING TO WATER RIGHTS AND REPLACEMENT).

## § 90.122. Coal refuse disposal.

- (a) Coal refuse shall be transported and placed in designated disposal areas approved by the Department for this purpose. These areas shall be within the permit area. The coal refuse disposal area shall be designed, constructed and maintained to ensure:
- (1) The leachate and surface runoff from the permit area will not degrade surface water or groundwater or exceed the effluent limitations of § 90.102 (relating to hydrologic balance: water quality standards, effluent limitations and best management practices).
  - (2) Prevention of combustion.
  - (3) Prevention of public health hazards.

- (4) Stability of the fill.
- (5) That the land mass designated as the coal refuse disposal area is suitable for reclamation and revegetation compatible with the natural surroundings.
- (b) The fill shall be designed using recognized professional standards, certified by a qualified registered professional engineer, and approved by the Department.
- (c) The foundation and abutment of the fill shall be stable under all conditions of construction and operation. Sufficient foundation investigations and laboratory testing of foundation materials and coal refuse shall be performed to determine the design requirements for stability of the facility. Analyses of foundation conditions shall include the effect of underground mine workings, if any, upon the stability of the structure.
- (d) The coal refuse disposal fill shall be designed to attain a minimum long-term static factor of safety of 1.5 and a minimum seismic factor of safety of 1.2, based upon data obtained from subsurface exploration, geotechnical testing, foundation design, fill design and accepted engineering analyses.
- [(e) The coal refuse disposal area shall be located on the most moderately sloping and naturally stable areas available as approved by the Department. Fill materials suitable for disposal shall be placed upon or above a natural terrace, bench or berm to provide additional stability and prevent mass movement.
- (f)] (e) When the average slope of coal refuse disposal area exceeds 1v:2.8h–36%, or such lesser slopes as may be designated by the Department based on local conditions, key way cuts, or excavation into stable bedrock or bedrock toe buttresses shall be constructed to stabilize the fill. When the toe of the fill rests on a downslope, stability analysis shall be performed in accordance with § 90.39 (relating to ponds, impoundments, banks, dams, embankments, piles and fills) to determine the size of rock toe buttresses and key way cuts.
- [(g) The coal refuse disposal area should be located in areas where groundwater discharge and surface water flows are minimal.

- (h)] (f) If the disposal area contains springs, natural or manmade watercourses, or wet-weather seeps, the Department may approve an underdrain/subdrainage system, consisting of durable rock or other materials, designed and placed in a manner that prevents infiltration of the water into the fill material and ensures continued free drainage from the wet areas.
- (g) THE DISPOSAL AREA SHALL BE PROVIDED WITH A SYSTEM TO PREVENT

  ADVERSE IMPACTS TO THE SURFACE WATER AND GROUNDWATER. THE SYSTEM 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.
- (h) THE DISPOSAL AREA SHALL BE PROVIDED WITH A SYSTEM TO PREVENT PRECIPITATION FROM COMING IN CONTACT WITH THE COAL REFUSE. THE SYSTEM 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 PRECIPITATION FROM CONTACTING THE COAL REFUSE. 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 ONE YEAR) OR WHEN THE OPERATION PERMANENTLY CEASES. THE SYSTEM SHALL BE DESIGNED TO ALLOW FOR REVEGETATION OF THE SITE IN ACCORDANCE WITH THE STANDARD OF SUCCESS UNDER § 90.159 (RELATING TO REVEGETATION) AND FOR THE PREVENTION OF EROSION.

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§ 90.167. Cessation of operations: temporary.

- (a) As soon as it is known that the operation will temporarily cease for a period of 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 that will have been affected in the permit area, the extent and kind of reclamation of those areas, and identification of the disposal, regrading, revegetation, monitoring and water treatment activities which will continue during the temporary cessation.
- (b) Temporary cessation of an operation [shall] <u>MAY</u> not exceed 90 days unless the Department approves a longer period for reasons of seasonal shutdown or labor strike.
- (c) Temporary cessation shall not relieve the operator of the obligation to comply with any provisions of the permit.
- (d) THE OPERATOR SHALL INSTALL THE SYSTEM FOR PREVENTING

  PRECIPITATION FROM CONTACTING THE COAL REFUSE WHEN THE TEMPORARY

  CESSATION EXCEEDS 90 DAYS. THE DEPARTMENT MAY APPROVE A LONGER PERIOD, NOT

  TO EXCEED ONE YEAR, FOR REASONS OF A LABOR STRIKE OR BUSINESS NECESSITY.

(Editor's Note: Subchapters E - G are proposed to be added. They are printed in regular type to enhance readability.)

## SUBCHAPTER E. SITE SELECTION

#### § 90.201. Definitions.

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

Preferred Site – A watershed polluted by acid mine drainage; a watershed containing an unreclaimed surface mine but which has no mining discharge; a watershed containing an unreclaimed surface mine with discharges that could be improved by the proposed coal refuse disposal operation; unreclaimed coal refuse

disposal piles that could be improved by the proposed coal refuse disposal operation; or other unreclaimed areas previously affected by mining activities.

Search Area – For a proposed coal refuse disposal site associated with an existing coal mining activity, it is the geographical area within a one-mile radius of the existing coal preparation facility. For a proposed coal refuse disposal site associated with a proposed coal mining activity, it is a 25-square mile area [around] ENCOMPASSING the coal preparation facility[. in defining the 25-square mile area, consideration shall be given to] BASED ON environmental, technical, transportation, economic, and social factors.

Selected Site – A location selected by the applicant and approved by the Department under this Subchapter for which the applicant can then apply for a permit to conduct coal refuse disposal activities.

## § 90.202. General requirements.

- (a) A preferred site shall be used for coal refuse disposal unless the applicant demonstrates to the Department that an alternate site is more suitable based upon engineering, geology, economics, transportation systems, and social factors and is not adverse to the public interest.
- (b) Where there are no preferred sites located within the search area, the applicant must conduct a comparative analysis of the potential coal refuse disposal sites in accordance with § 90.204(b) (relating to Proposing an Alternate Site).
- (c) The Department will not approve a site proposed by the applicant for coal refuse disposal activities where the Department finds [one of the following:] <u>THAT</u> [(1)] the adverse environmental impacts of using the site for coal refuse disposal activities would clearly outweigh the public benefits.
- [(2) The site is known or is likely to contain federally listed threatened or endangered plants or animals unless the Department concludes and the U.S. Fish and Wildlife Service concurs that the proposed use of the site would be unlikely to adversely affect those species.]

- (d) [The Department will not approve a site, unless it is a preferred site, proposed by the applicant for coal refuse disposal if the site contains one or more of the following:] <u>EXCEPT ON PREFERRED SITES, THE DEPARTMENT SHALL NOT APPROVE COAL REFUSE DISPOSAL ON OR WITHIN ANY OF THE FOLLOWING AREAS:</u>
  - (1) Prime Farmlands.
- (2) An exceptional value watershed as defined under 25 Pa. Code Chapter 93 (Relating to Water Quality Standards).
- (3) <u>SITES KNOWN TO CONTAIN</u> threatened or endangered [plants or] animals listed exclusively under Pennsylvania's protection programs.
- (4) An area that **IS HYDROLOGICALLY CONNECTED TO AND** contributes at least five percent of the drainage to wetlands designated as exceptional value under 25 Pa. Code Chapter 105 (relating to Dam Safety and Waterway Management) unless a larger percentage contribution is authorized by the Department after consultation with the Pennsylvania Fish and Boat Commission.
- (5) A watershed less than four square miles in area upstream of the intake of a public water supply .
- (6) A watershed less than four square miles in area upstream of the upstream limit of a public recreational impoundment.
- (7) SITES KNOWN TO CONTAIN FEDERALLY LISTED THREATENED OR
  ENDANGERED PLANTS OR ANIMALS. AT PREFERRED SITES KNOWN TO CONTAIN
  FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES, APPROVAL WILL BE
  GRANTED ONLY WHERE THE DEPARTMENT CONCLUDES AND THE U.S. FISH AND
  WILDLIFE SERVICE CONCURS THAT THE PROPOSED ACTIVITY IS NOT LIKELY TO
  ADVERSELY AFFECT FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES OR

## RESULT IN THE TAKE OF FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES IN VIOLATION OF SECTION 9 OF THE ENDANGERED SPECIES ACT.

(e) As part of the site selection process an applicant may request approval for more than one site. The Department will evaluate each site proposed for coal refuse disposal and, where the Department finds that a proposed site meets the requirements of this Subchapter, it will designate it as an approved site. The applicant will then have the option of choosing a selected site from among the approved sites and submitting an application for coal refuse disposal for that site.

## § 90.203. Proposing a preferred site.

If the applicant proposes to use a preferred site, the Department will approve the proposed site subject to § 90.202(c) (relating to General Requirements) provided the applicant demonstrates that the attendant adverse environmental impacts will not clearly outweigh the public benefits.

## § 90.204. Proposing an alternate site.

- (a) Where a preferred site(s) exists within the search area, but the applicant proposes an alternate site, the applicant must:
- (1) Demonstrate that the alternate site is more suitable, <u>USING CRITERIA IN</u>
  § 90.202(a) (RELATING TO GENERAL REQUIREMENTS), than all preferred sites within the search area.
- (2) Identify other alternate sites considered and provide the basis for the rejection of these sites.
- (3) Based on reasonably available data, demonstrate that it is the most suitable site based on environmental, economic, technical, transportation and social factors.

- (b) If a preferred site does not exist within the search area, the applicant shall:
- (1) Identify all the sites considered within the search area and provide the basis for their consideration.
  - (2) Provide the basis for the rejection of considered sites.
- (3) Based on reasonably available data, demonstrate to the Department that the proposed site is the most suitable based on environmental, economic, technical, transportation, and social factors.

## § 90.205. Alternatives analysis.

The alternatives analysis required by §§ 90.202(b)[,] AND 90.204 (relating to general requirements; and proposing an alternate site) [and 90.205] satisfies the requirement for an alternatives analysis under the act of November 26, 1978 (P.L. 1375, No. 325), known as the "Dam Safety and Encroachments Act" and regulations promulgated pursuant to the Dam Safety and Encroachments Act.

## § 90.206. Disapproval of a proposed site.

If the Department disapproves the applicant's proposed site, the applicant may submit a new proposal supporting the selection of another site located either within or outside of the search area.

#### § 90.207. Approval of a selected site.

Department approval of a selected site does not indicate the Department will approve an application for coal refuse disposal activities for the selected site.

## SUBCHAPTER F. COAL REFUSE DISPOSAL ACTIVITIES ON AREAS WITH PREEXISTING POLLUTIONAL DISCHARGES

#### § 90.301. Scope.

- (a) This Subchapter specifies procedures and rules applicable to those who seek authorization to engage in coal refuse disposal activities on an area on which there are preexisting pollutional discharges resulting from previous mining and describes the terms and conditions under which the Department may release bonds to operators who have received authorization.
- (b) Chapter 86 (relating to Surface and Underground Coal Mining: General) and Subchapters A D apply to authorizations to mine areas with preexisting pollutional discharges except as specifically modified by this Subchapter.

#### § 90.302. Definitions.

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

Abatement Plan – Any individual technique or combination of techniques, the implementation of which will result in reduction of the base line pollution load. Abatement techniques include but are not limited to: Addition of alkaline material, special plans for managing toxic and acid-forming material, regrading, revegetation and relocating coal refuse to a coal refuse disposal area that includes systems to prevent adverse impacts to surface and groundwater and to prevent precipitation from contacting the coal refuse.

Actual Improvement – The reduction of the baseline pollution load resulting from the implementation of the approved abatement plan; except that any reduction of the baseline pollution load achieved by water treatment may not be considered as actual improvement provided, however, that treatment approved by the Department of the coal refuse before, during or after placement in the coal refuse disposal area shall not be considered to be water treatment.

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 deemed relevant by the Department, including seasonal variations and variations in response to precipitation events. The Department will establish in each authorization the specific parameters it deems relevant for the baseline pollution load, including, at a minimum, iron and acid loadings.

Best Professional Judgment – The highest quality technical opinion forming the basis for the terms and conditions of the treatment level required after consideration of all reasonably available and pertinent data. The treatment levels shall be established by the Department under Sections 301 and 402 of the Federal Water Pollution Control Act, Act of June 30, 1948 (33 U.S.C.A. §§ 1311 and 1342).

Best Technology – Measures and practices which will abate or ameliorate, to the maximum extent possible, discharges from or on the pollution abatement area. These measures include engineering, geochemical or other applicable practices.

Coal Refuse Disposal Activities – The storage, dumping or disposal of any waste coal, rock, shale, slurry, culm, gob, boney, slate, clay, underground development wastes, coal processing wastes, excess soil and related materials, associated with or near a coal seam, that are either brought above ground or otherwise removed from a coal mine in the process of mining coal or are separated from coal during the cleaning or preparation operations. The term shall not include the removal or storage of overburden from surface mining activities.

Excess Soil and Related Material – Rock, clay or other material located immediately above or below a coal seam and which are extracted from a coal mine during the process of mining coal. The term does not include topsoil or subsoil.

Pollution Abatement Area – The part of the permit area that is causing or contributing to the baseline pollution load. It shall include adjacent and nearby areas that must be affected to bring about significant improvements of the baseline pollution load and may include the immediate locations of the discharges.

## § 90.303. Applicability.

- (a) Authorization may **[not]** be granted under this Subchapter **WHEN [unless]** the authorization is part of the following:
- (1) A permit issued after February 6, 1995, but only if the authorization request is made during one of the following periods:
- (i) At the time of the submittal of the permit application for the coal refuse disposal activities, including the proposed pollution abatement area.
  - (ii) Prior to a Department decision to issue or deny that permit.
- (2) A permit revision under § 86.52 (relating to permit revisions), but only if the operator affirmatively demonstrates to the satisfaction of the Department that:
- (i) The operator has discovered pollutional 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 pollutional discharges.
- (iii) The proposed pollution abatement area is not hydrologically connected to an area where coal refuse disposal activities have been conducted under the permit.
- (iv) The operator has not affected the proposed pollution abatement area by coal refuse disposal activities.
- (v) The Department has not granted a bonding authorization and mining approval for the area under § 86.37(b) (relating to Criteria for Permit Approval or Denial).

(b) Notwithstanding Subsection (a), no authorization may be granted under this Subchapter for repermitting under §§ 86.12 and 86.14 (relating to continued operation under interim permits; and permit application filing deadlines), permit renewals under § 86.55 (relating to Permit Renewals: General Requirements) or permit transfers under § 86.56 (relating to Transfer of Permit).

## § 90.304. Application for authorization.

- (a) An operator who requests authorization under this Subchapter shall comply with the permit application requirements of Chapter 86 (relating to Surface and Underground Coal Mining: General) and Subchapters A D, except as specifically modified by this Subchapter. The operator shall also:
- (1) Delineate on a map the proposed pollution abatement area, including the location of the preexisting 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 pH alkalinity, acidity, total iron, total manganese, aluminum, sulfates, total suspended solids and other water quality parameters the Department deems relevant.
- (3) Provide a description of the abatement plan that represents best technology and includes the following:
- (i) Plans, cross-sections and schematic drawings describing the abatement plan proposed to be implemented.

- (ii) A description and explanation of the range of abatement level that is anticipated to be achieved, costs and each step in the proposed abatement plan.
- (iii) A description of the standard of success for revegetation necessary to ensure success of the abatement plan.
- (b) The operator seeking this authorization shall continue the water quality and quantity monitoring program required by Paragraph (2) after making the authorization request. The operator shall submit the results of this continuing monitoring program to the Department on a monthly basis until a decision on the authorization request is made.

## § 90.305. Application approval or denial.

- (a) Authorization may not be granted under this Subchapter unless the operator seeking the authorization affirmatively demonstrates the following to the satisfaction of the Department on the basis of information set forth in the application:
- (1) Neither the operator, nor an officer, principal shareholder, agent, partner, associate, parent corporation, subsidiary or affiliate, sister corporation, contractor or subcontractor, or a related party as defined in § 86.1 (relating to Definitions) has either of the following:
- (i) Legal responsibility or liability as an operator for treating the water pollution discharges from or on the proposed pollution abatement area.
- (ii) Statutory responsibility or liability for reclaiming the proposed pollution abatement area.
- (2) The proposed 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 coal refuse disposal activities on the proposed pollution abatement area will not cause additional surface water pollution or groundwater degradation.
- (5) The standard of success for revegetation will be achieved. The standard of success for revegetation for sites previously reclaimed to the standards of Chapters 87, 88 and 90 shall be the standards set forth in § 90.159 (relating to Revegetation: Standards for Successful Revegetation). The standard of success for revegetation for sites not previously reclaimed to the standards of Chapters 87, 88 and 90 shall be, at a minimum, the following, provided the site is not a bond forfeiture site where the forfeited money paid into the fund is sufficient to reclaim the forfeited site to the applicable standards:
- (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 coal refuse disposal activities.
- (iii) Adequate vegetation to control erosion. Vegetation may be no less than that necessary to ensure the success of the abatement plan.
- (6) The coal refuse disposal activities on permitted areas other than the proposed pollution abatement area will not cause surface water pollution or groundwater degradation.
- (7) Requirements of § 86.37(a) (relating to Criteria for Permit Approval or Denial) that are consistent with this section have been met.
- (b) An authorization may be denied under this Subchapter if granting the authorization will, or is likely to, affect a legal responsibility or liability under the Clean Streams Law (35 P.S. \$\$ 691.1 691.1001),

the Surface Mining Conservation and Reclamation Act (52 P.S. §§ 1396.1 – 1396.19a), Chapter 86 (relating to Surface and Underground Coal Mining: General) or Subchapters A – D, 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 preexisting 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.

## § 90.306. Operational requirements.

- (a) An operator who receives an authorization under this Subchapter shall comply with the requirements of Chapter 86 (relating to Surface and Underground Coal Mining: General) and Subchapters A D 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 § 90.309 (relating to Criteria and Schedule for Release of Bonds on Pollution Abatement Areas) are met.
  - (2) Implement the approved abatement plan.
- (3) Notify the Department immediately prior to the completion of each step of the abatement plan.
- (4) Provide a progress report to the Department within 30 days after the completion of each step of the abatement program that includes a **[notarized]** statement signed by the operator, and if required by the Department, a statement signed by the supervising engineer, that all work has been performed in accordance with the terms and conditions of the pollution abatement authorization, the approved maps, plans, profiles and specifications.

## § 90.307. Treatment of discharges.

- (a) Except for preexisting discharges that are not encountered during coal refuse disposal activities or the implementation of the abatement plan, the operator shall comply with § 90.102 (relating to Hydrologic Balance: Effluent Standards).
- (b) The operator shall treat the preexisting discharges that are not encountered during coal refuse disposal activities or implementation of the 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 limitation at § 90.102 for that parameter, the operator shall treat the preexisting discharge for that parameter to comply with either effluent limitations established by best professional judgment or the effluent limitations at § 90.102.
- (c) For purposes of Subsections (a) and (b), the term encountered may not be construed to mean diversions of surface water and shallow groundwater flow from areas undisturbed by the implementation of the abatement plan that would otherwise drain into the affected area, as long as the diversions are designed, operated and maintained under § 90.104 (b) (h) (relating to Hydrologic Balance: Diversions).
- (d) An operator required to treat preexisting discharges will be allowed to discontinue treating the discharges under Subsection (b) when the operator affirmatively demonstrates the following to the Department's satisfaction:
- (1) The preexisting 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) Coal refuse disposal activities under the permit including the pollution abatement area are being or were conducted under the requirements of the permit and the authorization, and Chapter 86

(relating to Surface and Underground Mining: General) and this Chapter except as specifically modified by this Subchapter.

- (3) The operator has implemented each step of the abatement plan as approved in the authorization.
- (4) The operator did not cause or allow additional surface water pollution or groundwater degradation by reaffecting the pollution abatement area.
- (e) If after discontinuance of treatment of discharges under Subsection (d) the discharges fail to meet the effluent limitations established by Subsection (b), the operator shall reinstitute treatment of the discharges under Subsection (b). An operator who reinstitutes 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 § 90.309 (relating to Criteria and Schedule for Release of Bonds on Pollution Abatement Areas).

## § 90.308. Request for bond release.

Sections 86.172(c) and 90.309 (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) shall not be applicable to the release of bonds.

## § 90.309. Criteria and schedule for release of bonds on pollution abatement areas.

(a) The Department will release up to 50% of the amount of bond for the authorized pollution abatement area if the applicant demonstrates and the Department finds the following:

- (1) The coal refuse disposal 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 Mining: General) and this Chapter except as specifically modified by this Subchapter.
- (2) The Operator has satisfactorily completed backfilling, **[planting,]** grading, installing the water impermeable cover 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 groundwater and surface water monitoring conducted by the permittee under § 90.306(a)(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 reaffecting the pollution abatement area.
- (b) The Department will release up to an additional 35% of the amount of bond for the authorized pollution abatement area but retain an amount sufficient to cover the cost to the Department of reestablishing vegetation if completed by a third party if the operator demonstrates and the Department finds the following:
- (1) The Operator has replaced the topsoil or material conserved under § 90.97 (relating to Topsoil: Removal), completed final grading, planting and established revegetation under the approved reclamation plan and achieved the standards of success for revegetation in § 90.305(a)(5) (relating to Approval or Denial).
- (2) The Operator has not caused or contributed to groundwater or surface water pollution by reaffecting the pollution abatement area.

- (3) The Operator has achieved the following standards:
- (i) Achieved the actual improvement of the baseline pollution load described in the approved abatement plan as shown by groundwater and surface water monitoring conducted by the permittee for the time provided in the abatement plan after completion of backfilling, final grading, drainage control, topsoiling and establishment of revegetation to achieve the standard for success in § 90.305(a)(5).

## (ii) Achieved the following:

- (A) At a minimum has not caused degradation of the baseline pollution load as shown by groundwater and surface water monitoring conducted by the operator or the Department for one of the following:
- (I) For a period of 12 months from the date of initial bond release under Subsection (a), if backfilling, final grading, drainage control, placement of impermeable cover, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 90.205(a)(5) have been completed.
- (II) If treatment has been initiated at any time after initial bond release under Subsection (a) and § 90.307(e) (relating to Treatment of Discharges), for 12 months from the date of discontinuance of treatment under § 90.307(d) (relating to Treatment of Discharges), if backfilling, final grading, drainage control, placement of impermeable cover, topsoiling and establishment of revegetation to achieve the standard of success for revegetation in § 90.305(a)(5) have been completed.
- (B) Conducted all the measures provided in the approved abatement plan and additional measures specified by the Department in writing at the time of initial bond release under subsection (a) of this section for the area requested for bond release.

- (C) Caused aesthetic or other environmental improvements and the elimination of public health and safety problems by engaging in coal refuse disposal activities and reaffecting 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 operator demonstrates and the Department finds the following:
- (1) The Operator has successfully completed the approved abatement and reclamation plans, and the pollution abatement area is capable of supporting the postdisposal land use approved under § 90.166 (relating to 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) of this Section or, if treatment has been initiated after bond release under Subsection (b) of this Section in accordance with § 90.307(e) for 5 years from the discontinuance of treatment under § 90.307(d).
  - (4) The applicable liability period has expired under § 86.151 (relating to period of liability).

#### SUBCHAPTER G. EXPERIMENTAL PRACTICES

## § 90.401. General.

(a) To encourage advances in coal refuse disposal practices, coal refuse site reclamation, and advances in technology or practices that will enhance environmental protection with respect to coal refuse

disposal activities, the Department may grant permits approving experimental practices and demonstration projects. The Department may grant these permits under the following circumstances:

- (1) The environmental protection provided will be potentially more protective or at least as protective as required by this Chapter, the Coal Refuse Disposal Control Act (52 P.S. §§30.51-30.66) and Chapter 86 (relating to Surface and Underground Coal Mining: General).
- 2) The coal refuse disposal activities approved under the permits are not larger or more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practices or demonstration projects.
- (3) The experimental practices or demonstration projects do not reduce the protection afforded public health and safety below that provided by this Chapter, the Coal Refuse Disposal Control Act, and Chapter 86.
- (b) Experimental practice permits issued under this Subchapter shall meet all the provisions, standards, and information requirements of the federal 30 CFR Part 785, Section 785.13 (relating to Experimental Practices Mining).