§ 86.1. Definitions.

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

Surface mining activities—Activities **incident to the extraction of coal, including activities incident to the extraction of coal occurring before the extraction of coal, and the extraction of coal,** whereby coal is extracted from the earth or from waste or stock piles or from pits or banks by removing the strata or material which overlies or is above or between the coal or otherwise exposing and retrieving the coal from the surface, including, but not limited to, strip, auger mining, dredging, quarrying and leaching, and surface activity connected with surface or underground mining, including, but not limited to, exploration, site preparation, entry, tunnel, slope, shaft, drift and borehole drilling and construction**, excavation for the purpose of obtaining the coal, reclamation,** and activities related thereto. The term does not include portions of mining operations carried out beneath the surface by means of shafts, tunnels or other underground mine openings. The term includes activities in which the land surface has been or is disturbed **in connection with,** as a result of, or incidental to, surface mining operations of the operator, including, but not limited to, private ways and roads appurtenant to a surface mining operation, land excavations, workings, refuse banks, spoil banks, culm banks, tailings, repair areas, storage areas, processing areas, shipping areas and areas in which facilities, equipment, machines, tools or other materials or property which result from, or are used in, surface mining activities are situated. The term includes the construction of a road or similar disturbance for any purpose related to a surface mining activity, including that of moving or ''walking'' a dragline or other equipment, or for the assembly or disassembly or staging of equipment. **The term includes any activities meeting the definition "surface mining activities" as it is defined at 30 CFR 701.5.**

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§ 86.31. Public notices of filing of permit applications.

(c) Upon receipt of a complete application, the Department will publish notice of the proposed activities in the *Pennsylvania Bulletin* and send notice to the following:

(1) **[By registered mail, the city, borough, incorporated town or township]The municipality** in which the activities are located.

(2) Sewage and water treatment authorities and water companies that may be affected by the activities.

(3) Governmental planning agencies with jurisdiction to act with regard to land use, air or water quality planning in the area of the proposed activities.

(4) Federal, State and local government agencies with jurisdiction over or an interest in the area of the proposed activities, including, but not limited to, general governmental entities and fish and wildlife and historic preservation agencies.

*****

§ 86.51. Reviews of active permits.

(a) The Department will review each permit issued and outstanding during the term of the permit. This review shall occur at the discretion of the Department during the permit term except as required by § 87.175 (relating to variance to contouring). For permits of longer than 5-year terms, a review of the permit shall be no less frequent than the permit midterm **[of] or** every 5 years, whichever is more frequent.

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§ 86.54. Public notice of permit revision.

A permit revision request shall be subject to the notice requirements of § 86.31 (relating to public notices of filing of permit applications) under the following circumstances:

(1) For surface mining activities:

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(iii) The addition of coal refuse disposal, **[fly ash disposal] beneficial use of coal ash** or [**sewage sludge|biosolids** for land reclamation to the operation.

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86.62. Identification of interests.

(a) *Application information.* An application shall contain the following information, except that the submission of a social security number is voluntary:

(1) The name, address, telephone number and, as applicable, social security number and employer identification number of the following:

(i) The permit applicant.

(ii) The resident agent of the applicant who will accept service of process.

(iii) The person who will pay the abandoned mine land reclamation fee.

(2) The names and addresses of the owners of record of the following:

(i) Surface and subsurface areas contiguous to any part of the proposed permit area.

(ii) Every legal or equitable owner of record of the coal to be mined and areas to be affected by surface operations and facilities, including legal and equitable owners of the surface area within the proposed permit area.

(iii) The holders of record of a leasehold interest in the coal to be mined and areas to be affected by surface operations and facilities.

(iv) A purchaser of record under a real estate contract of the coal to be mined and the areas to be affected by surface operations and facilities.

(3) The name of the proposed mine and the Mine Safety and Health Administration (MSHA) Identification Number, **[with the date of issuance,]** for the mine and all mine-associated structures that require MSHA approval.

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§ 86.84. Applications for assistance.

(a) An application for assistance shall contain the following information:

(3) A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant under this section. For each location, the schedule shall include:

(ii) The permit number and [**Mining Enforcement and] Mine** Safety **and Health** Administration identification number, if available.

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§ 86.151. Period of liability.

(d) The extended period of liability which begins upon completion of augmenting seeding, fertilization, irrigation or other work necessary to achieve permanent revegetation of the permit area shall include additional time taken by the permittee to repeat augmented seeding, fertilization, irrigation or other work under a requirement by the Department but may not include selective husbandry practices approved by the Department, such as pest and vermin control, pruning, repair of rills and gullies or reseeding or transplanting, or both, which constitute normal conservation practices within the region for other land with similar land uses. [**Augmented s]S**eeding, fertilization, irrigation and repair of rills and gullies performed at levels or degrees of management which exceed those normally applied in maintaining use or productivity of comparable unmined land in the surrounding area, would necessitate extending the period of liability.

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§ 86.158. Special terms and conditions for collateral bonds.

(b) Collateral bonds pledging negotiable government securities are subject to the following conditions:

(1) The Department [**may]will** determine the current market value of government securities for the purpose of establishing the value of the securities for bond deposit.

(2) The current market value**, less any legal and liquidation costs,** is at least equal to the amount of the required bond amount.

(3) The Department may periodically revalue the securities and may require additional amounts if the current market value is insufficient to satisfy the bond amount requirements for the facility. **At a minimum, the Department shall require any necessary additional amounts with each permit renewal.**

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§ 86.162a. Anthracite [Deep] Mine Operators Emergency Bond Fund.

(a) For permitted anthracite **[deep]** mine operators required to post a bond under § 86.143 (relating to requirements to file a bond), and who can demonstrate to the Department that they are unable to post a conventional surety or collateral bond as described in § 86.156 (relating to the form of the bond), and do not meet the requirements of § 86.161 (relating to phased deposits of collateral), may apply to the Department for an Anthracite **[Deep]** Mine Emergency Bond Loan. The purpose of this loan is to guarantee a collateral bond posted by the operator.

(b) Permitted anthracite **[deep]** mine operators who wish to use the anthracite **[deep]** mine emergency bond loan program shall demonstrate one of the following:

(c) The Department and the qualified operator shall enter into a written loan agreement, on forms provided by the Department, which shall contain at a minimum, the following provisions:

(d) The Department will deposit appropriations and moneys collected under this section into the Anthracite **[Deep]** Mine Emergency Bond Loan Fund.

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§ 86.189. Reclamation of bond forfeiture sites.

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(b) The Department will provide for reclamation of bond forfeiture sites through one of the following:

(1) The Department may provide for reclamation to be conducted under the public bidding and contracting requirements of the Commonwealth under the site evaluation procedure in § 86.188 (relating to evaluation of bond forfeiture sites). Under this approach, the Department will advertise for bids for reclamation of the bond forfeiture site in a newspaper of general circulation in the locality in which the work is to take place. The advertisement will appear once a week for a minimum of 2-consecutive weeks. In advertising for bids, the Department may consider various construction methods for bidding, including the rental of equipment with equipment operators to be supervised by the Department during completion of the reclamation plan.

(2) Based on an engineering cost estimate for completing the approved reclamation plan of the licensed mine operator whose bonds were forfeited for the reclamation site, the Department may negotiate and enter into a contract with the landowner of a bond forfeiture site or another licensed mine operator to complete the reclamation of a bond forfeiture site advertised for bids under paragraph (1). The Department will give public notice of the intent to reclaim sites selected by the Department to be advertised for public bids under paragraph (1) in a newspaper of general circulation in the locality in which the work is to take place. The public notice will appear once a week for a minimum of 2 consecutive weeks and may be combined with the notice in paragraph (1). Payments to a person to whom the Department has granted a contract under this paragraph will be made to the extent of the appropriate compensation provisions according to a payment schedule to be established by the Department. The final payment will be made when the Department is satisfied that the person has completed reclamation of the site in accordance with the approved reclamation plan and as specified in the contract.

(i) The Department will compensate landowners of bond forfeiture sites at a rate equal to the lesser of one of the following:

(A) The Department's engineering cost estimate for the site.

(B) The prevailing bond rate.

(ii) The Department will compensate licensed mine operators at a rate equal to the lesser of one of the following:

(A) The Department's engineering cost estimate for the site.

(B) The prevailing bond rate.

(3) When a licensed mine operator is granted a permit or has filed a permit application on property contiguous to a property on which the Department has forfeited bonds for failure to complete the reclamation plan, the permittee shall be provided the opportunity to make a proposal to complete the reclamation plan of the bond forfeiture site developed under § 86.187 (relating to use of money).

(i) The proposal shall contain estimated costs and the necessary information upon which the Department can determine the cost effectiveness of the proposal. Upon receipt of the proposal, the Department may negotiate and enter into a contract with the permittee to complete the reclamation plan. A determination whether to negotiate will be made by the Department within 30 days of receipt of a complete proposal. Contract negotiations will begin within 30 days of the determination to negotiate.

(ii) Payments to a person with whom the Department has entered into a contract under this paragraph will be made to the extent of the appropriate compensation provisions according to a payment schedule to be established by the Department, and the final payment will be made when the Department is satisfied that the person has completed reclamation of the site in accordance with the approved reclamation plan and as specified in the contract. The Department will compensate licensed mine operators at a rate equal to the lesser of one of the following:

(A) The Department's engineering cost estimate for the site.

(B) The prevailing bond rate.

(4) Under cooperative agreements among the Department, the State Conservation Commission and the County **[Soil]** Conservation District in which the bond forfeiture site is located, the District may enter into a contract with the landowner of the bond forfeiture site to reclaim the site.

(i) The landowners of bond forfeiture sites will be compensated at a rate equal to the lesser of one of the following:

(A) The Department's engineering cost estimate for the site.

(B) The amount of the forfeited and collected bond.

(ii) The District may also compensate landowners for the reasonable cost of insurance required for landowner reclamation and the design and engineering costs incurred by the landowner in the incidental modification of the reclamation plan, subject to approval by the Department.

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§ 86.193. Assessment of penalty.

(b) The Department will assess a civil penalty for each violation if the violation is assessable in an amount of $**[1,100] 2,100** or more under the system for assessment described in § 86.194 (relating to system for assessment of penalties).

(c) The Department may assess a penalty for each violation which is assessable in an amount less than $**[1,100] 2,100** under the system for assessment described in § 86.194.

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§ 86.232. Definitions.

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

Department—The Department of Environmental **[Resources] Protection**.

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§ 86.238. What to report.

(a) Each employe shall report information required on the statement of employment and financial interests of the employe, the employe's spouse, minor children or other relatives who are full-time residents of the employe's home. The report shall be on OSM Form **[705-1]23** as provided by the Department. The statement consists of three major parts:

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§ 86.281. Financial guarantees to insure reclamation—general.

(a) In the Remining Financial Assurance Fund there is a special account providing financial guarantees for qualified operators who conduct remining. Funds in this special account may be used to financially assure bonding obligations under § 86.143 (relating to requirement to file a bond) of a qualified operator engaged in remining.

(b) The financial guarantee applies to a permit with remining areas approved by the Department. Operators who wish to participate in this program shall demonstrate, for each permit, their eligibility under § § 86.253 and 86.282 (relating to operator and project qualification; and participation requirements).

(c) **[For each approved permit of an eligible operator for a remining area, the]The** Department will designate a specified amount of the financial guarantees special account in the Remining Financial Assurance Fund to financially assure reclamation obligations on the permit**s** with an approved remining area. **[The specific amount designated will be the estimated cost for the Department to reclaim the remining area.]**

(d) The Department may not issue financial guarantees on a permit in excess of 10% of the then current **designated** amount in the special account in the Remining Financial Assurance Fund. The Department will not issue financial guarantees to a mine operator if the aggregate amount of financial guarantees on permits issued to the operator will exceed 30% of the then current **designated** amount in the special account in the Remining Financial Assurance Fund. The Department will not issue additional financial guarantees when the aggregate amount of outstanding financial guarantees exceeds that amount resulting from dividing the current **designated** amount in the special account in

the Remining Financial Assurance Fund by the historical rate of bond forfeiture under § 86.181 (relating to general) with a margin of safety determined by the Department.

(e) Upon declaration of forfeiture, the specified amount of the financial guarantee from the financial guarantee special account will be used with other bonds forfeited on the permit by the Department to complete reclamation of the mine site in accordance with the procedures and criteria in § § 86.187—86.190. If the actual cost of reclamation by the Department exceeds the specified amount of the financial guarantee, additional funds from the Remining Financial Assurance Fund may be used to complete reclamation.

(f) The Department will hold in reserve in the Remining Financial Assurance Fund funds that are not designated to underwrite Remining Financial Guarantees. The Department will use funds held in reserve in the Remining Financial Assurance Fund to assure the availability of funds to cover reclamation liabilities when there is a mine operator bond forfeiture under § 86.181 (relating to general).

§ 86.282. Participation requirements.

(a) Upon completion of the technical review of a permit application and receipt of a request for bond, an operator may apply to participate in the financial guarantees program for a remining area if the requirements of § 86.253 (relating to operator and project qualification) are met. To participate in this program, an operator shall demonstrate to the Department's satisfaction one of the following:

(1) The operator would be able to post a collateral bond otherwise required by this chapter and demonstrate appropriate experience in coal mining and reclamation.

(i) The operator shall demonstrate ability to post a collateral bond by meeting the following conditions for the operator's most recently completed fiscal year and the 2 preceding fiscal years:

(A) A ratio of current assets to current liabilities of 1.5 or greater.

(B) A ratio of total liabilities to tangible net worth of 3 or less.

(ii) The operator shall submit a notarized statement signed by the operator and an independent certified public accountant (CPA), an officer of a financial institution with which the operator conducts business or other person or entity responsible for the accounts of the operator. The statement shall list the operator's ratio of current assets to current liabilities and the operator's ratio of total liabilities to tangible net worth for the most recently completed fiscal year and the 2 preceding fiscal years.

(iii) The operator shall demonstrate appropriate experience in coal mining and reclamation by showing that he has had a coal mining license under section 3.1 of the act (52 P. S. § 1396.3a) for 5 years or the person designated by the operator to manage the operation has a minimum of 5 years of experience in coal mining and reclamation.

(2) The operator would be able to obtain a surety bond otherwise required under this chapter. The operator will demonstrate this by submitting a letter of acceptance from a surety company licensed to do business in this Commonwealth and which writes bonds for reclamation of mine sites located in this Commonwealth or by submitting a surety bond for an equal portion of the remaining reclamation liability for the proposed remining site. The acceptance letter shall indicate the complete name and address of the surety company and state that the surety company would write the bond.

(3) The operator would be eligible to self-bond under § 86.159 (relating to self-bonding).

(4) The operator has previously participated in the remining financial guarantee program and met its reclamation obligations and made timely payments. **An operator will be eligible under this subsection if it has not been cited through a notice of violation under § 86.165(a) (relating to failure to maintain proper bond) within the previous 3 years prior to the request for a remining financial guarantee**

(b) Notwithstanding subsection (a), an operator will not be approved to participate in the financial guarantees program when the financial guarantees exceed the limits established in § 86.281(d) (relating to financial guarantees to insure reclamation—general).

(c) If an operator, CPA or other person submits false information in the financial test or falsifies other information required by this section, the operator shall be ineligible to participate in the financial guarantees program. In addition, the operator, the CPA or other person are subject to 18 Pa.C.S. § § 4903 and 4904 (relating to false swearing; and unsworn falsification to authorities).

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§ 86.284. Forfeiture.

(a) Upon forfeiture under § 86.181 (relating to general), the Department will declare forfeit the specified amount of the financial guarantee for the permit in the financial guarantees special account in the Remining Financial Assurance Fund in addition to other bonds posted by the operator to cover the reclamation obligation on the permit.

(b) The Department's declaration of forfeiture under this section does not excuse the operator from meeting the requirements of this chapter or other requirements under the act.

(c) Upon declaration of forfeiture, the Department will use the bond money posted by the operator and the specified amount of the financial guarantee to complete the reclamation of the mine site in accordance with the procedures and criteria in § § 86.187—86.190.

(d) The financial guarantees program **[will]may** be discontinued immediately and notice published in the *Pennsylvania Bulletin*, if 25% or greater of the total outstanding financial guarantees are **[declared forfeit]subject to forfeiture**. If the financial guarantees program is discontinued, no additional financial guarantees may be approved. Outstanding financial guarantees will remain in effect until released under § § 86.170—86.175.

(e) The financial guarantees program may be suspended upon notice in the *Pennsylvania Bulletin* when the number of participating permits declared forfeit is equal to that number of permits calculated by multiplying the historical rate of forfeiture plus a margin of safety times the number of permits participating in the program. No additional financial guarantees will be approved until the total amount of financial guarantees declared forfeit has been replaced through the accumulation of annual payments or by other means.

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§ 87.53. Prime farmland investigation.

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

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

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

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

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

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

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

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

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

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§ 87.100. Topsoil: nutrients and soil amendments.

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

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

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

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

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§ 87.102. Hydrologic balance: effluent standards.

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(f) In addition to the requirements of subsections (a)—(e), the discharge of water from areas disturbed by mining activities shall comply with this title, including Chapters 91—93, 95, **96,** 97 (reserved) and 102.

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§ 87.103. Precipitation event exemption.

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are listed as follows:

[Deleted table]

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

(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 (b)]**.

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

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

(1) Dams located on a natural or artificial water course when one of the following applies:

(i) The contributary drainage area exceeds 100 acres.

(ii) The greatest depth of water at a maximum storage elevation exceeds 15 feet.

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

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

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

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§ 87.117. Hydrologic balance: surface water monitoring.

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

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§ 87.155. Revegetation: standards for successful revegetation.

(a) When the approved postmining land use is cropland, or as provided in subsection (c):

(1) The standards for successful revegetation shall be based upon crop productivity or yield.

(2) The approved standards shall be the average yields per acre for the crop and soil type as specified in the Soil Surveys of the United States Department of Agriculture **[Soil]Natural Resources** Conservation Service.

(3) The productivity or yield of the mined area shall be equal to or greater than the approved standard for the last two consecutive growing seasons of the 5-year responsibility period established in § 86.151 (relating to period of liability). Productivity or yield shall be considered equal if production or yield is at least 90% of the approved standard.

*****

§ 87.157. 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 that will have been affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, vegetation, monitoring and water treatment activities which will continue during the temporary cessation.

(b) Temporary cessation of an operation may not exceed 90 days unless the Department approves a longer period not to exceed 180 days or unless the Department approves a longer period.

(c) Temporary cessation does not relieve the operator of the obligations to comply with the permit.]

(a) Before temporary cessation status of operations for a period of 30 days or more, an operator shall submit to the Department a notice of intention to temporarily cease operations. The notice shall include a statement of the exact number of acres affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation status.

(b) Temporary cessation status of operations does not relieve the operator of the obligations to comply with the Acts, Chapters 86-90, or the approved permit, including the obligation to submit an application for permit renewal at least 180 days before the expiration of the existing permit. The Department may enforce these obligations during the temporary cessation status of operations.

(c) Temporary cessation status will end with the resumption of coal extraction. Any subsequent notices of temporary cessation status must include updated information outlined in paragraph (a).

(d) Temporary cessation status will terminate where the Department finds a failure to comply with the Acts, Chapters 86-90, or the approved permit. Termination of temporary cessation status due to failure to comply with the Acts, Chapters 86-90, or the approved permit will place the mining operation in permanent cessation status, subject to the provisions of §87.158 (Cessation of operations: permanent).

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§ 87.177. Prime farmland: special requirements.

(a) When the surface mining activities are being conducted on prime farmland historically used for cropland, a permit for the mining and reclamation operation may be granted by the Department if it first finds, in writing, and after consultation with the **[Soil]Natural Resources** Conservation Service, that the applicant has demonstrated that:

(1) The approved postmining land use of these prime farmlands will be cropland.

(2) The applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in surrounding areas under equivalent levels of management.

(3) The proposed operations will be conducted in compliance with the requirements of this section and § § 87.178—87.181.

(b) If a permit is granted under this section, the permit shall be specifically conditioned as containing the plan submitted under § 87.83 (relating to prime farmlands), including any revisions to that plan suggested by the **[Soil]Natural Resources** Conservation Service.

(c) Areas where mining was authorized by permits issued under SMCRA prior to August 4, 1977, are exempt from the prime farmland requirements.

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§ 87.181. Prime farmland: revegetation.

(a) A vegetative cover capable of stabilizing the soil surface with respect to erosion shall be established following soil replacement. Vegetation shall be in compliance with the plan approved by the Department under § 87.83 (relating to prime farmlands) and carried out in a manner that encourages prompt vegetative cover and recovery of productive capacity. The timing and mulching provisions of § § 87.148 and 87.153 (relating to revegetation: timing; and revegetation: mulching) shall be met.

(b) Within a time period specified in the permit but not to exceed 10 years after completion of backfilling and rough grading, any portion of the permit area which is prime farmland shall be restored to a condition capable of equivalent or higher levels of yields as nonmined prime farmland in surrounding areas under equivalent levels of management. When used for crops, crops may be grown in rotation with hay or pasture crops as defined for cropland. The Department may approve a crop use of perennial plants for hay when this is a common, long-term use of prime farmland soils in the

surrounding area. The level of management shall be equivalent to that on which the target yields are based.

(c) Standards for determining success of restoration on prime farmlands soils shall be based upon the soil surveys and soil interpretations and the latest yield data available from the United States Department of Agriculture **[Soil]Natural Resources** Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be based on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the Secretary of Agriculture before approval of the permit application. The crop productivity or yield of the mined area shall be compared to the predetermined target level. As a minimum, the following standards shall be met:

(i) Average annual crop production shall be determined based upon a minimum of 3 years data. Crop production shall be measured for the 3 years immediately prior to release of bonding according to Chapter 86 Subchapter F (relating to bonding and insurance requirements).

(ii) Adjustment for weather-induced variability in the annual crop production may be permitted by the Department.

(iii) Restoration of prime farmland shall be considered a success when the adjusted 3 year average annual crop production is equivalent to, or higher than, the predetermined target level of crop production.

(2) If crops are not grown, standards for determining success of restoration shall be based on a soil survey, in addition to meeting the standards of § 87.155(b) (relating to revegetation: standards for successful revegetation). The permittee shall demonstrate to the Department that the prime farmland soil has been restored to a capability of equivalent or higher levels of yield as nonmined prime farmland of the same soil type in the surrounding area. The demonstration shall include erodability, moisture-holding capacity, permeability, depth, texture, pH and other analysis deemed relevant by the Department for determining quality of the restored soils as prime farmland.

(d) In all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as nonmined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed under § 87.53 (relating to prime farmland investigation).

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§ 88.1. Definitions.

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. **The term includes public roads that are used as an integral part of the coal mining activity.**

Road—A surface right-of-way for purposes of travel by land vehicles used in coal exploration [**of]** **or** 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

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§ 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]Natural Resources** 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]Natural Resources** Conservation Service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for the lands within the proposed permit area, the applicant shall cause a survey to be made.

(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]Natural Resources** 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]Natural Resources** 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]Natural Resources** Conservation Service, the applicant shall submit with the permit application a request for negative determination for nondesignated land establishing compliance with subsection (b).

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§ 88.92. Hydrologic balance: effluent standards.

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(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, **96,** 97 (reserved) and 102.

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§ 88.93. Hydrologic balance: precipitation event exemption.

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are listed as follows:

[Deleted table]

(c) For the permittee to demonstrate that the **10-year, 24-hour precipitation** 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:

(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)]**.

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§ 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]Natural Resources** 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.

§ 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]Natural Resources Conservation** Service's *Pennsylvania Field Office Technical Guide, Section IV, Standard 378, ''Pond''* as applicable.

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§ 88.106. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92**a** (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.

§ 88.107. Hydrologic balance: water rights and replacement.

(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.

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§ 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]Natural Resources** 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]Natural Resources** Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be based on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the 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).

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§ 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.]

(a) Before temporary cessation status of operations for a period of 30 days or more, an operator shall submit to the Department a notice of intention to temporarily cease operations. The notice shall include a statement of the exact number of acres affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation status.

(b) Temporary cessation status of operations does not relieve the operator of the obligations to comply with the Acts, Chapters 86-90, or the approved permit, including the obligation to submit an application for permit renewal at least 180 days before the expiration of the existing permit. The Department may enforce these obligations during the temporary cessation status of operations.

(c) Temporary cessation status will end with the resumption of coal extraction. Any subsequent notices of temporary cessation status must include updated information outlined in paragraph (a).

(d) Temporary cessation status will terminate where the Department finds a failure to comply with the Acts, Chapters 86-90, or the approved permit. Termination of

temporary cessation status due to failure to comply with the Acts, Chapters 86-90, or the approved permit will place the mining operation in permanent cessation status, subject to the provisions of §87.158 (Cessation of operations: permanent).

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§ 88.187. Hydrologic balance: effluent standards.

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(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, **96,** 97 (reserved) and 102.

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§ 88.188. Hydrologic balance: precipitation event exemption.

(b) The 10-year, 24-hour precipitation event for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are listed as follows:

[Deleted table]

(c) For the permittee to demonstrate that the **10-year, 24-hour precipitation** event **[listed in subsection (b)]** has for **[his] the** mine area been exceeded, or that dry weather flow conditions did not exist, the permittee shall do one of the following:

(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)]**.

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§ 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]Natural Resources** 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.

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§ 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]Natural Resources** 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.

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

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§ 88.202. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92**a** (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.

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§ 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]Natural Resources** 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]Natural Resources** Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be based on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the 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).

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§ 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.]

(a) Before temporary cessation status of operations for a period of 30 days or more, an operator shall submit to the Department a notice of intention to temporarily cease operations. The notice shall include a statement of the exact number of acres affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation status.

(b) Temporary cessation status of operations does not relieve the operator of the obligations to comply with the Acts, Chapters 86-90, or the approved permit, including the obligation to submit an application for permit renewal at least 180 days before the expiration of the existing permit. The Department may enforce these obligations during the temporary cessation status of operations.

(c) Temporary cessation status will end with the resumption of coal extraction. Any subsequent notices of temporary cessation status must include updated information outlined in paragraph (a).

(d) Temporary cessation status will terminate where the Department finds a failure to comply with the Acts, Chapters 86-90, or the approved permit. Termination of temporary cessation status due to failure to comply with the Acts, Chapters 86-90, or the approved permit will place the mining operation in permanent cessation status, subject to the provisions of §87.158 (Cessation of operations: permanent).

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§ 88.292. Hydrologic balance: effluent standards.

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(f) In addition to the requirements of subsections (a)—(e), the discharge of water from areas disturbed by mining activities shall comply with this title, including Chapters 91—93, 95, **96,** 97 (reserved) and 102.

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§ 88.293. Hydrologic balance: precipitation event exemption.

(b) The 1-year and 10-year; 24-hour precipitation events for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are listed as follows:

[Deleted table]

(c) For the permittee to demonstrate that the [**10-year, 24-hour precipitation]** event **[listed in subsection (b)]** has for **[his]** **the** mine area been exceeded, or that dry weather flow conditions did not exist, the permittee shall comply with one of the following:

(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)]**.

(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)]**.

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§ 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]Natural Resources** 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.

§ 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]Natural Resources** Conservation Service’s *Pennsylvania Field Office Technical Guide, Section IV, Standard 378, ‘‘Pond’’*, as applicable.

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§ 88.306. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92**a** (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.

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§ 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]Natural Resources** 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]Natural Resources** Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be based on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the 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).

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§ 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.]

(a) Before temporary cessation status of operations for a period of 30 days or more, an operator shall submit to the Department a notice of intention to temporarily cease operations. The notice shall include a statement of the exact number of acres affected in the permit area, the extent and kind of reclamation of the areas and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation status.

(b) Temporary cessation status of operations does not relieve the operator of the obligations to comply with the Acts, Chapters 86-90, or the approved permit, including the obligation to submit an application for permit renewal at least 180 days before the expiration of the existing permit. The Department may enforce these obligations during the temporary cessation status of operations.

(c) Temporary cessation status will end with the resumption of coal extraction. Any subsequent notices of temporary cessation status must include updated information outlined in paragraph (a).

(d) Temporary cessation status will terminate where the Department finds a failure to comply with the Acts, Chapters 86-90, or the approved permit. Termination of temporary cessation status due to failure to comply with the Acts, Chapters 86-90, or the approved permit will place the mining operation in permanent cessation status, subject to the provisions of §87.158 (Cessation of operations: permanent).

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§ 88.491. Minimum requirements for information on environmental resources.

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(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]Natural Resources** 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 tiime—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]Natural Resources** Conservation Service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for the lands within the proposed 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]Natural Resources** 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]Natural Resources** 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]Natural Resources** Conservation Service, the applicant shall submit with the permit application a request for negative determination for nondesignated land establishing compliance with paragraph (1).

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§ 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]Natural Resources** 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).

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§ 88.502. Definitions.

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]i**) (relating to hydrologic balance: diversions; hydrologic balance: diversions; and hydrologic balance: diversions and conveyances), as applicable.

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§ 88.507. Treatment of discharges.

(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)**-(g)**, 88.190(b)**-(g)** and 88.295(b)**-(i)** (relating to hydrologic balance: diversions; hydrologic balance: diversions; and hydrologic balance: diversions and conveyances).

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§ 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 pollutional abatement areas authorized by this subchapter. Section 86.172(a)**[,] and** (b) **[and (d)]** shall be inapplicable to the release of bonds.

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§ 89.52. Water quality standards, effluent limitations and best management practices.

(e) *Exceptions to effluent limitations.* **[Exceptions to effluent limitations are as follows:]**

[(1)] The pH of water being discharged shall be maintained between 6.0 and 9.0 except in the following circumstances:

[(i)](1) The operator demonstrates that the wastes are discharged to an acid stream in which cases the pH may be greater than 9.0.

[(ii)](2) The operator affirmatively demonstrates, in writing, to the Department that biological respiration in the wastewater treatment system will cause the discharge to exceed the limits in this section and that exceeding these limits will not result in a violation of applicable water quality standards in Chapter 93 (relating to water quality standards) or of the applicable treatment requirements and effluent limitations to which a discharge is subject under the Clean Water Act (33 U.S.C.A. § § 1251—1376), in which case the Department may grant a variance in writing from the limitation in this section.

[(iii)] (3) The operator affirmatively demonstrates to the Department that the wastewater treatment process being used by the operator requires the pH to be raised above 9.0, that the elevated pH will not cause a safety hazard at the outfall and that the elevated pH will not result in a violation of applicable water quality standards in Chapter 93 or of the applicable treatment requirements and effluent limitations to which a discharge is subject under the Clean Water Act, in which case 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.]

(f) *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 (e), (g) or (h). 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 (c), including modifications authorized or required under subsection (e) or (h). [**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 (c), whichever percentage is less.

(ii) The system shall] produce an effluent alkalinity which exceeds effluent acidity.

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(h) *Additional requirements.* In addition to the requirements of subsections (c)—(g), the discharge of water from the permit area shall comply with this title, including Chapters 91—93, 95, **96,** 97 (reserved) and 102.

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§ 89.53. Precipitation event exemption.

(b) The 10-year, 24-hour rainfall events for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are as follows, in inches:

[Deleted table]

(c) For the permittee to demonstrate that the **10-year, 24-hour** event **[listed in subsection (b)]**has for **[his] the** mine area been exceeded, or that dry weather flow conditions did not exist, the permittee shall comply with one of the following:

(ii) 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 rainfall event specified for the mine area**[in subsection (b)]**.

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§ 89.59. Surface water and groundwater monitoring.

(a) Surface water and groundwater monitoring shall be conducted under § 89.34 (relating to hydrology) and with the monitoring plan contained in the permit. At a minimum, surface water and groundwater monitoring shall include the following conditions:

(3) In addition to the monitoring and reporting requirements in Chapter 92**a** (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), surface water shall be monitored accurately to measure and record the water quantity and quality of discharges from the permit area and the effect of the discharges 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 § 89.36 (relating to protection of hydrologic balance). At a minimum, total dissolved solids or specific conductance corrected to 25°C, total suspended solids, total iron, total manganese, acidity, alkalinity, pH, sulfates and flow shall be monitored and reported to the Department at least every 3 months for each monitoring location.

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§ 89.86. Revegetation.

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(e) Standards for successful revegetation shall be as follows:

(1) When the approved postmining land use is cropland:

(i) The standards for successful revegetation shall be based upon crop productivity, yield or soil tests.

(ii) The approved standard shall be the average yield per acre for the crop and soil type as specified in the Soil Surveys of the United States Department of Agriculture **[Soil]Natural Resources** Conservation Service.

(iii) The productivity or yield of the mined area shall be equal to or greater than the approved standard for the last 2 consecutive growing seasons of the 5-year responsibility period established in this section. Productivity or yield shall be considered equal if production or yield is at least 90% of the approved standard.

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§ 89.112. Impoundments.

An impoundment shall be designed in accordance with the United States **[Soil]Natural Resources** Conservation Service's Pennsylvania Field Office Technical Guide, Section IV, Standards 350, ''Sediment Basin,'' and 378, ''Pond,'' or United States **[Soil]Natural Resources** Conservation Service Technical Release No. 60, ''Earth Dams and Reservoirs,'' whichever is applicable. The standards are incorporated by reference. In addition to the requirements in ''Sediment Basin,'' a minimum static safety factor of 1.3 is required. Each impoundment shall be certified that it has been constructed and is being

maintained as designed and in accordance with the approved plan and all applicable performance standards. These structures shall also meet the following requirements:

(1) The entire embankment, including the surrounding areas disturbed by construction, shall be stabilized with respect to erosion by a vegetative cover or other means immediately after the embankment is completed. The active upstream face of the embankment where water is being impounded may be riprapped or otherwise stabilized. Areas in which the vegetation is not successful or where rills and gullies develop shall be repaired and revegetated in accordance with § 89.86 (relating to revegetation).

(2) Ponds shall be examined annually by the operator for structural weakness, erosion and other hazardous conditions. If structural weakness, erosion or other hazardous conditions exist, the operator shall immediately notify the Department.

(3) Plans for enlargement, reduction in size, reconstruction or other modification of dams or impoundments shall be submitted to the Department and shall comply with the requirements of § 86.52 (relating to permit revisions). Except when a modification is required to eliminate an emergency condition constituting a hazard to public health, safety or the environment, the plans shall be approved by the Department before modification begins.

(4) Emergency spillways may not discharge unless precipitation exceeds a 10-year, 24-hour rainfall event. Precipitation includes:

(i) Snow melt, or a combination snow melt and rainfall event.

(ii) Multiple rainfall events occurring within the design drawdown period of the pond.

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§ 89.121. Prime farmland investigation.

(a) The applicant shall contact the county office of the **[Soil]Natural Resources** Conservation Service to determine whether lands within the area may be prime farmland.

(b) Land shall not be considered prime farmland when the applicant can demonstrate one or more of the following:

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

(2) The slope of the land is 10% or greater;

(3) The land is not irrigated or naturally subirrigated;

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

(5) On the basis of a soil survey of the lands proposed to be affected by surface operations or facilities, there are no soil map units that have been designated prime farmland by the United States **[Soil]Natural Resources** Conservation Service; or

(6) The area disturbed 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).

(c) Lands containing soils which are not excluded under the criteria of subsection (b) shall be considered prime farmland.

(d) The applicant shall submit the results of the investigation along with certification by the **[Soil]Natural Resources** Conservation Service that the conclusions are correct.

(e) If the investigation indicates that lands within the proposed area to be affected by surface operations and facilities are prime farmlands, the applicant shall submit a plan, in accordance with § 89.122(b) (relating to prime farmlands) for the designated land.

§ 89.122. Prime farmlands.

(a) This section applies to a person who conducts or intends to conduct underground mining activities on prime farmlands historically used for cropland except for the following:

(1) A permit issued prior to August 3, 1977.

(2) A renewal or revision of a permit issued prior to August 3, 1977. For the purposes of this paragraph, ‘‘renewal’’ of a permit means a decision by the Department to extend the time by which the permittee may complete mining within the boundaries of the original permit, and ‘‘revision’’ of the permit means a decision by the Department to allow changes in the method of mining operations within the original permit area, or a decision of the Department to allow incidental boundary changes to the original permit.

(b) A person who conducts or intends to conduct underground mining activities on prime farmlands historically used for cropland, except those persons exempted under subsection (a), shall submit a plan as part of the permit application for the mining and restoration of the land. A plan shall contain, at a minimum, the following:

(1) A soil survey of the permit area according to the standards of the National Cooperative Soil Survey and in accordance with the procedures in *United States Department of Agriculture Handbooks 436 (Soil Taxonomy, 1975) and 18 (Soil Survey Manual, 1951)*. The soil survey shall include a map unit and representative soil profile description as determined by the United States **[Soil]Natural Resources** Conservation Service for each prime farmland soil within the 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]Natural Resources** Conservation Service. 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 § § 89.131—89.133 (relating to soil removal; soil stockpiling; and soil replacement).

(2) The proposed method and type of equipment to be used for removal, storage and replacement of the soil in accordance with § § 89.131—89.133.

(3) 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.

(4) The location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before redistribution.

(5) 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 A, B or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as nonmined prime farmlands in the surrounding area under equivalent levels of management.

(6) 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 F (relating to bonding and insurance requirements). Proper adjustments for seasons must 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.

(7) 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.

(8) Standards for determining success of revegetation 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]Natural Resources** Conservation Service. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by

the Department in consultation with the Secretary of Agriculture before approval of the permit application.

(c) Before a permit is issued for areas that include prime farmlands, the Department will consult the **[Soil]Natural Resources** Conservation Service. The **[Soil]Natural Resources** Conservation Service shall have the opportunity for review and comment of the proposed method of soil reconstruction in the plan submitted under subsection (b).

(d) When the underground mining activities are being conducted on prime farmland, a permit for the mining and reclamation operation may be granted by the Department, if it first finds, in writing, that:

(1) The approved postmining land use of these prime farmlands will be cropland.

(2) The applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in surrounding areas under equivalent levels of management.

(3) The proposed operations will be conducted in compliance with the requirements of § § 89.131—89.134 (relating to performance standards).

(4) The permit incorporates as specific conditions the contents of the plan submitted under subsection (b), after consideration of any revisions to the plan suggested by the **[Soil]Natural Resources** Conservation Service under subsection (c).

(e) 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 subsection (b).

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§ 89.134. Revegetation.

(a) A vegetative cover capable of stabilizing the soil surface with respect to erosion shall be established following soil replacement. All vegetation shall be in compliance with the plan approved by the Department under § 89.122 (relating to prime farmlands) and carried out in a manner that encourages prompt vegetative cover and recovery of productive capacity. The timing and mulching provisions of § 89.86(c) and (d) (relating to revegetation) shall be met.

(b) Within a time period specified in the permit, but not to exceed 10 years after completion of backfilling and rough grading, any portion of the permit area which is prime farmland shall be restored to a condition capable of equivalent or higher levels of yield as nonmined prime farmland in surrounding areas under equivalent levels of management. When used for cropland, crops may be grown in rotation with hay or

pasture crops as defined for cropland. The Department may approve a crop use of perennial plants for hay, when this is a common long term use of prime farmland soils in the surrounding area. The level of management shall be equivalent to that on which the target yields are based.

(c) Standards for determining success of restoration on prime farmlands soils shall be based upon the soil surveys and soil interpretations and the latest yield data available from the United States Department of Agriculture **[Soil]Natural Resources** Conservation Service.

(1) If crops are grown, standards for determining success of restoration shall be used on crop yields. The current estimated yields under equivalent levels of management for each soil map unit and for each crop shall be used by the Department as the predetermined target level for determining success of revegetation. The target yields may be adjusted by the Department in consultation with the Secretary of 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) Average annual crop production shall be determined based upon a minimum of three years data. Crop production shall be measured for the 3 years immediately prior to release of bonding according to Chapter 86 Subchapter F (relating to bonding and insurance requirements).

(ii) Adjustment for weather-induced variability in the annual crop production may be permitted by the Department.

(iii) Restoration on prime farmland shall be considered a success when the adjusted 3-year average annual crop production is equivalent to, or higher than, the predetermined target level of crop production.

(2) If crops are not grown, standards for determining success of restoration shall be based on a soil survey, in addition to meeting the standards of § 87.155(b) (relating to revegetation: standards for successful revegetation). The permittee shall demonstrate to the Department that the prime farmland soil has been restored to a capability of equivalent or higher levels of yield as nonmined prime farmland of the same soil type in the surrounding area. The demonstration shall consider erodability, moisture-holding capacity, permeability, depth, texture, pH and any other factors deemed relevant by the Department for determining quality of the restored soils as prime farmland.

(d) In all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as nonmined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed under § 89.122.

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§ 90.22. Prime farmland investigation.

(a) The applicant shall conduct a preapplication investigation of the area proposed to be affected by coal refuse disposal activities to determine whether lands within the area may be prime farmland.

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

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

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

(3) The slope of the land is 10% or greater.

(4) The land is not irrigated or naturally subirrigated.

(5) There are no soil map units that have been designated prime farmland by the United States **[Soil]Natural Resources** Conservation Service, on the basis of a soil survey of the lands proposed to be affected by coal refuse disposal activities.

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

(d) If the investigation indicates that lands within the proposed area to be affected by coal refuse disposal activities may be prime farmlands, the applicant shall contact the United States **[Soil]Natural Resources** Conservation Service to determine if these lands have a soil survey and whether the applicable soil map units have been designated prime farmlands. If a soil survey has not been made for these lands, the applicant shall cause a survey to be made.

(1) When a soil survey as required in this subsection contains soil map units which have been designated as prime farmlands, the applicant shall submit a soil survey of the proposed permit area according to the standards of the National Cooperative Soil Survey and in accordance with the procedures in the *United States Department of Agriculture Handbooks 436 (Soil Taxonomy, 1975) and 18 (Soil Survey Manual, 1951)*. The soil survey shall include a map unit and representative soil profile description as determined by the United States **[Soil]Natural Resources** 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]Natural Resources** Conservation Service.

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

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§ 90.102. Hydrologic balance: water quality standards, effluent limitations and best management practices.

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(f) *Additional requirements.* In addition to the requirements of subsections (a)—(e), the discharge of water from coal refuse disposal activities shall comply with this title, including Chapters 91—93, 95, **96,** 97 (reserved) and 102.

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§ 90.103. Precipitation event exemption.

(b) The 1-year and 10-year 24-hour rainfall events for specific areas in this Commonwealth **shall be determined by reference to data provided by the National Oceanic Atmospheric Administration or equivalent resources [**are listed as follows:

[Deleted table]

(c) For the coal refuse disposal permittee to demonstrate that the event **[listed in subsection (b)]** has for **[his] the** mine area been exceeded, or that dry weather flow conditions did not exist, the permittee shall comply with paragraph (1), (2) or (3).

(ii) 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 precipitation event specified for the mine area**[in subsection (b)]**.

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

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(b) The design, construction and maintenance of dams, ponds, embankments and impoundments shall achieve the minimum design criteria contained in the United States **[Soil]Natural Resources** Conservation Service's *Pennsylvania Field Office Technical*

Guide, Section IV, Standards 350 ''Sediment Basin'' and 378, ''Pond,'' or United States **[Soil]Natural Resources** Conservation Service's Technical Release No. 60, Earth Dams and Reservoirs, whichever is applicable. The standards are incorporated by reference. In addition to the requirements in ''Sediment Basin,'' a minimum static safety factor of 1.3 is required. These structures shall meet the following requirements:

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

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(c) The design freeboard between the lowest point on the embankment crest and the maximum water elevation shall be at least 3 feet. The maximum water elevation shall be that determined by the freeboard hydrograph criteria contained in the United States **[Soil]Natural Resources** Conservation Service's Technical Release No. 60, ''Earth Dams and Reservoirs.'' The standards contained therein are hereby incorporated by reference.

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§ 90.116. Hydrologic balance: surface water monitoring.

(a) In addition to the monitoring and reporting requirements established by the Department under Chapter 92**a** (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), surface water shall be monitored to accurately measure and record the water quantity and quality of the discharges from the permit area and the effect of the discharge on the receiving waters. Surface water shall be monitored for parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in § 90.35 (relating to protection of hydrologic balance). At a minimum, total dissolved solids or specific conductance corrected to 25°C, total suspended solids, pH, acidity, alkalinity, total iron, total manganese, sulfates and flow shall be monitored and reported to the Department at least every 3 months for each monitoring location.

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§ 90.159. Revegetation: standards for successful revegetation.

(a) When the approved postdisposal land use is cropland or as provided in subsection (c), the following apply:

(1) The standards for successful revegetation shall be based upon crop productivity or yield.

(2) 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]Natural Resources** Conservation Service.

(3) The productivity or yield of the disposal area shall be equal to or greater than the approved standard for the last two consecutive growing seasons of the 5-year responsibility period established in this section. Productivity or yield shall be considered equal if production or yield is at least 90% of the approved standard.

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§ 90.161. Prime farmland: special requirements.

(a) When the coal refuse disposal activities are being conducted on prime farmland historically used for cropland, a permit for the mining and reclamation operation may be granted by the Department if it first finds, in writing and after consultation with the **[Soil]Natural Resources** Conservation Service, that the applicant has demonstrated that:

(1) The approved postdisposal land use of this prime farmland will result in the land restored to a condition of being used for cropland.

(2) The applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as nondisposal prime farmland in surrounding areas under equivalent levels of management.

(3) The proposed reclamation will be conducted in compliance with the requirements of this section and § § 90.162—90.165.

(b) If a permit is granted under this section, the permit shall be specifically conditioned as containing the plan submitted under § 90.33 (relating to reclamation plan), including any revisions to that plan suggested by the United States **[Soil]Natural Resources** Conservation Service.

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§ 90.165. Prime farmland: revegetation.

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(c) 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]Natural Resources** Conservation Service.

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§ 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; **or an area adjacent to or an expansion of an existing coal refuse disposal site**.

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§ 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 pollutional abatement areas authorized by this subchapter. Section 86.172(a)**[,] and** (b) **[and (d)]** shall be inapplicable to the release of bonds.