

CHAPTER 87. SURFACE MINING OF COAL

§ 87.147. Revegetation: general requirements.

- (a) Vegetation shall be established on land affected by surface mining activities.
- (b) Revegetation shall provide for a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area, except that introduced species may be used in the revegetation process when desirable and necessary to achieve the approved postmining land use plan. Vegetative cover shall be considered of the same seasonal variety when it consists of a mixture of species of equal or superior utility for the approved postmining land use, when compared with the utility of naturally occurring vegetation during each season of the year.
- (1) For areas previously disturbed by surface mining activities that were not reclaimed to the standards of SMCRA and this chapter, and are proposed to be reaffected or redisturbed, the Department may approve a vegetative cover which, at a minimum, may not be less than the vegetative cover existing before redisturbance and shall be adequate to control erosion and achieve the approved postmining land use.
- (2) For areas designated as prime farmland, § § 87.177—87.181 apply.
- (c) Revegetation shall provide a quick-germinating, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.
- (d) Revegetation shall be completed in compliance with the plans submitted under § 87.68 (relating to reclamation information) as approved by the Department in the permit and carried out in a manner that encourages a prompt vegetative cover and recovery of productivity levels compatible with the approved postmining land use.

Source

The provisions of this § 87.147 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended May 8, 1998, effective May 9, 1998, 28 Pa.B. 2215. Immediately preceding text appears at serial pages (206840) to (206841).

Cross References

This section cited in 25 Pa. Code § 86.151 (relating to period of liability); 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.105 (relating to hydrologic balance: diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); 25 Pa. Code § 87.150 (relating to revegetation: agriculture crops); and 25 Pa. Code § 87.166 (relating to haul roads and access roads: restoration).

§ 87.148. Revegetation: timing.

(a) A disturbed area shall be seeded and planted when weather and planting conditions permit, but the seeding and planting of a disturbed area shall be performed prior to the end of the first full normal period for favorable planting after backfilling and grading. The normal periods for favorable planting are:

(1) Early spring until May 30, and August 10 until September 15 for permanent herbaceous species.

(2) Early spring until May 20 for woody species.

(b) When necessary to control erosion effectively, the disturbed area shall be seeded and planted as contemporaneously as practicable with the completion of backfilling and grading with a temporary cover of small grain, grasses or legumes until a permanent cover is established.

(c) The periods listed in subsection (a) may be extended by the Department when abnormal weather conditions or excessive soil moisture conditions exist which prohibit seeding and planting prior to the end of the first full normal period for favorable planting after backfilling and grading or when weather conditions allow for favorable planting outside the normal periods.

Source

The provisions of this § 87.148 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 15, 1990, 20 Pa.B. 3383, effective July 27, 1991, 21 Pa.B. 3316. Immediately preceding text appears at serial pages (148688) to (148689).

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection

of fish, wildlife and related environmental values); 25 Pa. Code § 87.140 (relating to contemporaneous reclamation); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

§ 87.149. Revegetation: introduced species.

The use of introduced species in the revegetation process may be approved by the Department under the following conditions:

- (1) The species have been proven acceptable through field trials to be capable of providing permanent vegetation and are desirable and necessary to achieve the approved postmining land use.
- (2) The species are necessary to achieve a quick, temporary and stabilizing cover that aids in controlling erosion, and measures to establish permanent vegetation are included in the approved plan submitted in § 87.68 (relating to reclamation information).
- (3) The species are compatible with the plant and animal species of the region.
- (4) The species meet the requirements of applicable State and Federal seed or introduced species statutes and are not poisonous or noxious.

Source

The provisions of this § 87.149 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

§ 87.150. Revegetation: agriculture crops.

When the approved postmining land use is cropland, the planting of agriculture crops normally grown in the general locality of the permit area will satisfy the revegetation requirements of § 87.147 (relating to revegetation: general requirements). If planting of the crop will be delayed, a temporary cover of annual or perennial grasses or small grains shall be established.

Source

The provisions of this § 87.150 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

§ 87.151. Revegetation: species.

(a) Species, rates and techniques of seeding and planting shall be adequate to achieve the standards for successful revegetation of § 87.155 (relating to revegetation: standards for successful revegetation).

(b) Legume seed shall be inoculated or treated with the specific inoculant for that seed, and the seed shall be seeded within 24 hours after inoculation or treatment.

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

(d) When the approved postmining land use is fish and wildlife habitat, unless alternative plans are approved or required by the Department, a minimum of 75% of the land affected shall be planted with a mixture of woody species which provides a diverse plant community. The remaining affected area shall be planted to an approved herbaceous cover. The configuration and species composition of the cover types shall be established in accordance with guidelines established by the Fish and Boat Commission and the Game Commission.

Source

The provisions of this § 87.151 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (176072) and (170013).

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection

of fish, wildlife and related environmental values); and 25 Pa. Code § 87.155 (relating to revegetation: standards for successful revegetation).

§ 87.152. Revegetation: seedbed preparation.

(a) The soil surface shall be prepared by disking or harrowing. If soil conditions or steep slopes prohibit these practices, the soil surface shall be scarified by any mechanical method which will loosen the surface material. Scarification will not be required if seeding is done immediately following final grading when the soil is still loose.

(b) Disking or harrowing shall be accomplished following or along the contours of all slopes.

(c) Topsoil shall be disked or harrowed to a depth of at least three inches prior to seeding.

Source

The provisions of this § 87.152 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

§ 87.153. Revegetation: mulching.

(a) Mulch shall be applied to all regraded and topsoiled areas at rates adequate to control erosion, promote germination of seeds and increase the moisture retention of the soil, except the Department may waive the requirement for mulch under the following conditions:

(1) When seeding can be accomplished using a conventional agricultural farm drill.

(2) When the approved postmining land use is for agricultural row crops.

(3) When annual grasses or small grains will be seeded immediately following final grading, resulting in a quick vegetative cover which will provide adequate soil erosion control.

(4) When the permittee can demonstrate that alternative procedures will achieve the standards for revegetation success of § 87.155 (relating to revegetation: standards for successful revegetation).

(b) When required by the Department, mulches shall be mechanically or chemically anchored to the soil surface.

(c) Chemical soil stabilizers may be used alone or in combination with appropriate mulches.

Source

The provisions of this § 87.153 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.174 (relating to steep slope operations); and 25 Pa. Code § 87.181 (relating to prime farmland: revegetation).

§ 87.154. [Reserved].

Source

The provisions of this § 87.154 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; reserved July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

§ 87.155. Revegetation: standards for successful revegetation.

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

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

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

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

(b) When the approved postmining land use is other than cropland:

(1) The standards for successful revegetation shall be determined by ground cover.

(2) The approved standard shall be the percent ground cover of the vegetation which exists on the proposed area to be affected by surface mining activities. The Department will not approve less than a minimum of 70% ground cover of permanent plant species with not more than 1% of the area having less than 30% ground cover with no single or contiguous area having less than 30% ground cover exceeding 3,000 square feet. When woody species are planted in mixture with herbaceous species, the standards in this paragraph shall be met and a minimum of 400 woody plants per acre shall be established except:

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

(ii) When the approved postmining land use is commercial forest land, the minimum number of woody plants shall be 450 trees per acre with at least 75% commercial tree species.

(iii) When the approved postmining land use is wildlife habitat, the requirements of § 87.151(d) (relating to revegetation: species) shall apply and the areas approved for the planting of woody species shall have a stocking equal to or greater than 90% of the stocking of woody plants of the same life form on the proposed area to be affected by surface mining activities. The Department will not approve stocking of less than 400 woody plants per acre.

(3) The percent ground cover of the mined area shall meet the standards of paragraph (2) for a minimum of the last 2 consecutive years of the 5-year period of responsibility.

(4) For purposes of this section, “herbaceous species” means grasses, legumes, and nonleguminous forbs; “woody plants” means woody shrubs, trees and vines; and “ground cover” means the area of ground covered by the combined aerial parts of vegetation and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement.

(5) Trees and shrubs counted in determining revegetation success shall be healthy and have been in place for at least two growing seasons.

(c) When the approved postmining land use is pastureland, the crop productivity standards of subsection (a) and the ground cover standards of subsection (b) shall be met.

Source

The provisions of this § 87.155 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382; amended June 25, 1993, effective June 26, 1993, 23 Pa.B. 3075. Immediately preceding text appears at serial pages (170014) to (170016).

Cross References

This section cited in 25 Pa. Code § 86.172 (relating to criteria for release of bond); 25 Pa. Code § 87.49 (relating to vegetation information); 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values); 25 Pa. Code § 87.151 (relating to revegetation: species); 25 Pa. Code § 87.153 (relating to revegetation: mulching); 25 Pa. Code § 87.181 (relating to prime farmland: revegetation); and 25 Pa. Code § 89.134 (relating to revegetation).

§ 87.156. Revegetation: techniques and frequency of measurement.

The person who conducts surface mining activities shall conduct periodic measurements of vegetation to identify conditions during the applicable periods of responsibility specified in § 86.151 (relating to period of liability). The permittee shall report the findings of these measurements to the Department.

Source

The provisions of this § 87.156 adopted December 19, 1980, 10 Pa.B. 4789, effective July 31, 1982, 12 Pa.B. 2382; amended July 30, 1982, 12 Pa.B. 2473, effective July 31, 1982, 12 Pa.B. 2382.

Cross References

This section cited in 25 Pa. Code § 87.68 (relating to reclamation information); 25 Pa. Code § 87.100 (relating to topsoil: nutrients and soil amendments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); and 25 Pa. Code § 87.138 (relating to protection of fish, wildlife and related environmental values).

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