

## § 817.107

to be insufficient to completely backfill the reaffected or enlarged highwall. The highwall shall be eliminated to the maximum extent technically practical in accordance with the following criteria:

(1) All spoil generated by the remaining operation and any other reasonably available spoil shall be used to backfill the area. Reasonably available spoil in the immediate vicinity of the remaining operation shall be included within the permit area.

(2) The backfill shall be graded to a slope which is compatible with the approved postmining land use and which provides adequate drainage and long-term stability.

(3) Any highwall remnant shall be stable and not pose a hazard to the public health and safety or to the environment. The operator shall demonstrate, to the satisfaction of the regulatory authority, that the highwall remnant is stable.

(4) Spoil placed on the outslope during previous mining operations shall not be disturbed if such disturbances will cause instability of the remaining spoil or otherwise increase the hazard to the public health and safety or to the environment.

[48 FR 41735, Sept. 16, 1983, as amended at 51 FR 41737, Nov. 18, 1986]

### § 817.107 Backfilling and grading: Steep slopes.

(a) Underground mining activities on steep slopes shall be conducted so as to meet the requirements of §§ 817.102–817.106 and the requirements of this section.

(b) The following materials shall not be placed on the downslope:

(1) Spoil.

(2) Waste materials of any type.

(3) Debris, including that from clearing and grubbing.

(4) Abandoned or disabled equipment.

(c) Land above the highwall shall not be disturbed unless the regulatory authority finds that this disturbance will facilitate compliance with the environmental protection standards of this subchapter and the disturbance is limited to that necessary to facilitate compliance.

(d) Woody materials shall not be buried in the backfilled area unless the

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regulatory authority determines that the proposed method for placing woody material within the backfill will not deteriorate the stable condition of the backfilled area.

[48 FR 23370, May 24, 1983, as amended at 48 FR 41735, Sept. 16, 1983]

### § 817.111 Revegetation: General requirements.

(a) The permittee shall establish on regraded areas and on all other disturbed areas except water areas and surface areas of roads that are approved as part of the postmining land use, as vegetative cover that is in accordance with the approved permit and reclamation plan and that is—

(1) Diverse, effective, and permanent;

(2) Comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved postmining land use and approved by the regulatory authority;

(3) At least equal in extent of cover to the natural vegetation of the area; and

(4) Capable of stabilizing the soil surface from erosion.

(b) The reestablished plant species shall—

(1) Be compatible with the approved postmining land use;

(2) Have the same seasonal characteristics of growth as the original vegetation;

(3) Be capable of self-regeneration and plant succession;

(4) Be compatible with the plant and animal species of the area; and

(5) Meet the requirements of applicable State and Federal seed, poisonous and noxious plant, and introduced species laws or regulations.

(c) The regulatory authority may grant exception to the requirements of paragraphs (b) (2) and (3) of this section when the species are necessary to achieve a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved permit and reclamation plan.

(d) When the regulatory authority approves a cropland postmining land use, the regulatory authority may grant exceptions to the requirements of paragraphs (a) (1), (3), (b) (2), and (3) of this section. The requirements of

part 823 of this chapter apply to areas identified as prime farmland.

[48 FR 40161, Sept. 2, 1983]

**§ 817.113 Revegetation: Timing.**

Disturbed areas shall be planted during the first normal period for favorable planting conditions after replacement of the plant-growth medium. The normal period for favorable planting is that planting time generally accepted locally for the type of plant materials selected.

[48 FR 40161, Sept. 2, 1983]

**§ 817.114 Revegetation: Mulching and other soil stabilizing practices.**

Suitable mulch and other soil stabilizing practices shall be used on all areas that have been regraded and covered by topsoil or topsoil substitutes. The regulatory authority may waive this requirement if seasonal, soil, or slope factors result in a condition where mulch and other soil stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetative cover.

[48 FR 40161, Sept. 2, 1983]

**§ 817.116 Revegetation: Standards for success.**

(a) Success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the general requirements of § 817.111.

(1) Standards for success and statistically valid sampling techniques for measuring success shall be selected by the regulatory authority, described in writing, and made available to the public.

(2) Standards for success shall include criteria representative of unmined lands in the area being reclaimed to evaluate the appropriate vegetation parameters of ground cover, production, or stocking. Ground cover, production, or stocking shall be considered equal to the approved success standard when they are not less than 90 percent of the success standard. The sampling techniques for measuring success shall use a 90-percent statistical

confidence interval (i.e., a one-sided test with a 0.10 alpha error).

(b) Standards for success shall be applied in accordance with the approved postmining land use and, at a minimum, the following conditions:

(1) For areas developed for use as grazing land or pasture land, the ground cover and production of living plants on the revegetated area shall be at least equal to that of a reference area or such other success standards approved by the regulatory authority.

(2) For areas developed for use as cropland, crop production on the revegetated area shall be at least equal to that of a reference area or such other success standards approved by the regulatory authority.

(3) For areas to be developed for fish and wildlife habitat, recreation, undeveloped land, or forest products, success of vegetation shall be determined on the basis of tree and shrub stocking and vegetative ground cover. Such parameters are described as follows:

(i) Minimum stocking and planting arrangements shall be specified by the regulatory authority on the basis of local and regional conditions and after consultation with and approval by the State agencies responsible for the administration of forestry and wildlife programs. Consultation and approval may occur on either a programwide or a permit-specific basis.

(ii) Trees and shrubs that will be used in determining the success of stocking and the adequacy of the plant arrangement shall have utility for the approved postmining land use. Trees and shrubs counted in determining such success shall be healthy and have been in place for not less than two growing seasons. At the time of bond release, at least 80 percent of the trees and shrubs used to determine such success shall have been in place for 60 percent of the applicable minimum period of responsibility. The requirements of this section apply to trees and shrubs that have been seeded or transplanted and can be met when records of woody vegetation planted show that no woody plants were planted during the last two growing seasons of the responsibility period and, if any replanting of woody plants took place during the responsibility period, the total number planted during