

(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 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 23369, May 24, 1983, as amended at 48 FR 41734, Sept. 16, 1983]

**§ 816.111 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, a 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 exception 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 40160, Sept. 2, 1983]

**§ 816.113 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 40160, Sept. 2, 1983]

**§ 816.114 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 40160, Sept. 2, 1983]

**§ 816.116 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 § 816.111.

- (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., 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 the last 60 percent of that period is less than 20 percent of the total number of woody plants required. Any replanting must be by means of transplants to allow for adequate accounting of plant stocking. This final accounting may include volunteer trees and shrubs of approved species. Volunteer trees and shrubs of approved species shall be deemed equivalent to planted specimens two years of age or older and can be counted towards success. Suckers on shrubby vegetation can be counted as volunteer plants when it is evident the shrub community is vigorous and expanding.

(iii) Vegetative ground cover shall not be less than that required to achieve the approved postmining land use.

(4) For areas to be developed for industrial, commercial, or residential use less than 2 years after regrading is completed, the vegetative ground cover shall not be less than that required to control erosion.

(5) For areas previously disturbed by mining that were not reclaimed to the requirements of this subchapter and that are remined or otherwise redisturbed by surface coal mining operations, as a minimum, the vegetative ground cover shall be not less than the ground cover existing before redisturbance and shall be adequate to control erosion.

(c)(1) The period of extended responsibility for successful revegetation shall begin after the last year of augmented seeding, fertilizing, irrigation, or other work, excluding husbandry

practices that are approved by the regulatory authority in accordance with paragraph (c)(4) of this section.

(2) In areas of more than 26.0 inches of annual average precipitation, the period of responsibility shall continue for a period of not less than:

(i) Five full years, except as provided in paragraph (c)(2)(ii) of this section. The vegetation parameters identified in paragraph (b) of this section for grazing land, pasture land, or cropland shall equal or exceed the approved success standard during the growing season of any 2 years of the responsibility period, except the first year. Areas approved for the other uses identified in paragraph (b) of this section shall equal or exceed the applicable success standard during the growing season of the last year of the responsibility period.

(ii) Two full years for lands eligible for remining included in a permit for which a finding has been made under § 773.15(m) of this chapter. To the extent that the success standards are established by paragraph (b)(5) of this section, the lands must equal or exceed the standards during the growing season of the last year of the responsibility period.

(3) In areas of 26.0 inches or less average annual precipitation, the period of responsibility shall continue for a period of not less than:

(i) Ten full years, except as provided in paragraph (c)(3)(ii) in this section. The vegetation parameters identified in paragraph (b) of this section for grazing land, pasture land, or cropland shall equal or exceed the approved success standard during the growing season of any two years after year six of the responsibility period. Areas approved for the other uses identified in paragraph (b) of this section shall equal or exceed the applicable success standard during the growing season of the last year of the responsibility period.

(ii) Five full years for lands eligible for remining included in a permit for which a finding has been made under § 773.15(m) of this chapter. To the extent that the success standards are established by paragraph (b)(5) of this section, the lands must equal or exceed the standards during the growing sea-

sons of the last two consecutive years of the responsibility period.

(4) The regulatory authority may approve selective husbandry practices, excluding augmented seeding, fertilization, or irrigation, provided it obtains prior approval from the Director in accordance with § 732.17 of this chapter that the practices are normal husbandry practices, without extending the period of responsibility for revegetation success and bond liability, if such practices can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success. Approved practices shall be normal husbandry practices within the region for unmined lands having land uses similar to the approved postmining land use of the disturbed area, including such practices as disease, pest, and vermin control; and any pruning, reseeding, and transplanting specifically necessitated by such actions.

[48 FR 40160, Sept. 2, 1983, as amended at 53 FR 34642, Sept. 7, 1988; 60 FR 58492, Nov. 27, 1995; 71 FR 51705, Aug. 30, 2006; 73 FR 67630, Nov. 14, 2008]

#### **§ 816.131 Cessation of operations: Temporary.**

(a) Each person who conducts surface mining activities shall effectively secure surface facilities in areas in which there are no current operations, but in which operations are to be resumed under an approved permit. Temporary abandonment shall not relieve a person of their obligation to comply with any provisions of the approved permit.

(b) Before temporary cessation of mining and reclamation operations for a period of thirty days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, persons who conduct surface mining activities shall submit to the regulatory authority a notice of intention to cease or abandon mining and reclamation operations. This notice shall include a statement of the exact number of acres which will have been affected in the permit area, prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished,