release of performance bonds. The selected plants shall be grouped and distributed in a manner which optimizes edge effect, cover, and other benefits to fish and wildlife.

(h) Where cropland is to be the postmining land use, and where appropriate for wildlife- and crop-management practices, the operator shall intersperse the fields with trees, hedges, or fence rows throughout the harvested area to break up large blocks of monoculture and to diversify habitat types for birds and other animals.

(i) Where residential, public service, or industrial uses are to be the postmining land use, and where consistent with the approved postmining land use, the operator shall intersperse reclaimed lands with greenbelts utilizing species of grass, shrubs, and trees useful as food and cover for wildlife.

[48 FR 30327, June 30, 1983, as amended at 52 FR 47360, Dec. 11, 1987]

### §816.99 Slides and other damage.

(a) An undisturbed natural barrier shall be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the regulatory authority as is needed to assure stability. The barrier shall be retained in place to prevent slides and erosion.

(b) At any time a slide occurs which may have a potential adverse affect on public property, health, safety, or the environment, the person who conducts the surface mining activities shall notify the regulatory authority by the fastest available means and comply with any remedial measures required by the regulatory authority.

#### §816.100 Contemporaneous reclamation.

Reclamation efforts, including but not limited to backfilling, grading, topsoil replacement, and revegetation, on all land that is disturbed by surface mining activities shall occur as contemporaneously as practicable with mining operations, except when such mining operations are conducted in accordance with a variance for concurrent surface and underground mining 30 CFR Ch. VII (7–1–13 Edition)

activities issued under \$785.18 of this chapter.

 $[48\ {\rm FR}\ 24652,\ {\rm June}\ 1,\ 1983,\ {\rm as}\ {\rm amended}\ {\rm at}\ 56\ {\rm FR}\ 65635,\ {\rm Dec.}\ 17,\ 1991]$ 

### \$816.101 Backfilling and grading: Time and distance requirements.

(a) Except as provided in paragraph (b) of this section, rough backfilling and grading for surface mining activities shall be completed according to one of the following schedules:

(1) Contour mining. Within 60 days or 1,500 linear feet following coal removal;

(2) Area mining. Within 180 days following coal removal, and not more than four spoil ridges behind the pit being worked, the spoil from the active pit constituting the first ridge; or

(3) Other surface mining methods. In accordance with the schedule established by the regulatory authority. For States with approved State programs, schedules are subject to the State program approval process.

(b) The regulatory authority may extend the time allowed for rough backfilling and grading for the entire permit area or for a specified portion of the permit area if the permittee demonstrates in accordance with \$780.18(b)(3) of this chapter that additional time is necessary.

[56 FR 65635, Dec. 17, 1991]

EFFECTIVE DATE NOTE: At 57 FR 33875, July 31, 1992, §816.101 was suspended indefinitely, effective Aug. 31, 1992.

# §816.102 Backfilling and grading: General requirements.

(a) Disturbed areas shall be backfilled and graded to—

(1) Achieve the approximate original contour, except as provided in paragraph (k) of this section;

(2) Eliminate all highwalls, spoil piles, and depressions, except as provided in paragraph (h) (small depressions) and in paragraph (k)(3)(iii) (previously mined highwalls) of this section;

(3) Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum longterm static safety factor of 1.3 and to prevent slides;

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(4) Minimize erosion and water pollution both on and off the site; and

(5) Support the approved postmining land use.

(b) Spoil, except excess spoil disposed of in accordance with §§816.71 through 816.74, shall be returned to the minedout area.

(c) Spoil and waste materials shall be compacted where advisable to ensure stability or to prevent leaching of toxic materials.

(d) Spoil may be placed on the area outside the mined-out area in nonsteep slope areas to restore the approximate original contour by blending the spoil into the surrounding terrain if the following requirements are met:

(1) All vegetative and organic material shall be removed from the area.

(2) The topsoil on the area shall be removed, segregated, stored, and redistributed in accordance with §816.22.

(3) The spoil shall be backfilled and graded on the area in accordance with the requirements of this section.

(e) Disposal of coal processing waste and underground development waste in the mined-out area shall be in accordance with §§816.81 and 816.83, except that a long-term static safety factor of 1.3 shall be achieved.

(f) Exposed coal seams, acid- and toxic-forming materials, and combustible materials exposed, used, or produced during mining shall be adequately covered with nontoxic and non-combustible material, or treated, to control the impact on surface and ground water in accordance with \$ 816.41, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use.

(g) Cut-and-fill terraces may be allowed by the regulatory authority where—

(1) Needed to conserve soil moisture, ensure stability, and control erosion on final-graded slopes, if the terraces are compatible with the approved postmining land use; or

(2) Specialized grading, foundation conditions, or roads are required for the approved postmining land use, in which case the final grading may include a terrace of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land-use plan.

(h) Small depressions may be constructed if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation.

(i) Permanent impoundments may be approved if they meet the requirements of §§ 816.49 and 816.56 and if they are suitable for the approved postmining land use.

(j) Preparation of final-graded surfaces shall be conducted in a manner that minimizes erosion and provides a surface for replacement of topsoil that will minimize slippage.

(k) The postmining slope may vary from the approximate original contour when—

(1) The standards for thin overburden in §816.104 are met;

(2) The standards for thick overburden in §816.105 are met; or

(3) Approval is obtained from the regulatory authority for—

(i) Mountaintop removal operations in accordance with §785.14 of this chapter;

(ii) A variance from approximate original contour requirements in accordance with §785.16 of this chapter; or

(iii) Incomplete elimination of highwalls in previously mined areas in accordance with §816.106.

[48 FR 23368, May 24, 1983, as amended at 48 FR 41734, Sept. 16, 1983]

# §816.104 Backfilling and grading: Thin overburden.

(a) Definition. Thin overburden means insufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. Insufficient spoil and other waste materials occur where the overburden thickness times the swell factor, plus the thickness of other available waste materials, is less than the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:

(1) Closely resemble the surface configuration of the land prior to mining; or