

Section 17.24.501

GENERAL BACKFILLING AND GRADING

(1) Completion of Backfilling and Grading Prior to Removal of Reclamation Equipment

All backfilling and grading of disturbed areas will be completed prior to removal of the reclamation equipment needed to complete such operations.

(2) Burial of Material Not Conducive To Revegetation

During the normal course of mining materials, not conducive to revegetation, as determined by field and laboratory testing, results found in drill log data, soil surveys or the 100-foot grid pattern survey, will not be left on the top or within 4 ft. of the regraded spoil surface as approved by the MDEQ. Required cover depth used at Spring Creek Mine is discussed in detail under Section 17.24.304(1)(g). Chemical and/or physical treatment of unsuitable material or neutralization would be an alternative measure. All other recontoured spoil will be covered with a minimum of 12 inches of suitable plant growth media, unless otherwise approved by MDEQ for establishment of specific vegetation or wildlife enhancement futures.

(3)(a) Placement of Backfilled Material

SCM will place and recontour backfill material so as to limit erosion and sedimentation of adjacent undisturbed and reclaimed areas. Surface runoff from these areas will be contained within the mine drainage system until revegetation is adequately established.

(3)(b) Placement and Compaction of Backfilled Material to Prevent Leaching and Ensure Stability

Backfilled material will be selectively placed and compacted to prevent leaching of acid, acid-forming, toxic, or toxic forming materials into surface or subsurface waters and wherever necessary to ensure stability of backfilled materials. SCM will obtain the approval of the MDEQ on the design and specifications of placing and compacting materials prior to any compacting operations.

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### (4) Final Grading

Affected lands will be final graded to approximate original contour in accordance with 82-4-232(1), MCA. In addition SCM will continue to work in consultation with the Department to improve the as-constructed PMT to better approximate pre-mine topography, drainage basin, valley, floodplain and channel characteristics (e.g. patterns, profiles and cross sections), and to enhance post-mine topographic diversity where needed. Small depressions may be incorporated in the backfill to minimize erosion, conserve soil moisture, promote vegetation and wildlife habitat as discussed in 17.24.313.

#### (4)(a) Achievement of AOC; Boxcut Spoil Haulback

SCM will transport, backfill and compact spoil material to ensure compliance with ARM 17.24.501(3), 17.24.505, and (3)(b). Highwalls will be reduced or backfilled as appropriate in compliance with Section 17.24.515(1), or approved highwall reduction alternatives in compliance with ARM 17.24.515(2).

#### (4)(b) Use of Cut and Fill Terraces

SCM does not anticipate the need for any terracing procedures as part of the final reclamation process.

#### (4)(c) Regraded Slopes Must Approximate Pre-Mining Natural Slopes

In general regraded slopes will be flatter in comparison to pre-mining conditions but will still result in a stable, diverse topography capable of supporting the post-mine land uses. Plate J-2 in Appendix J shows how the post mining slopes will approximate premine slopes. Reference also Section 17.24.308 and 17.24.313.

### (5) Blending with Surrounding Area

Disturbed areas will be blended with surrounding and undisturbed ground to provide a smooth transition in topography.

### (6) Backfilling and Grading Must Keep Current with Mining Operations

Unless otherwise approved by MDEQ, SCM will keep backfilling and grading current with mining operations. Plate 6, Reclamation Sequence depicts the backfill and reclamation timing. The Reclamation Sequence map will be kept current with regular updates (for MDEQ review and approval).

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Backfilling and grading will occur as discussed in Sections 308, 313, and as shown on Plate 6. Backfilling and grading of other excavations must be kept current as departmental directives dictate for each set of field circumstances. All backfilling and grading will approximate the approved postmining topography. In some instances, backfilling and grading may deviate from the contours as shown on Plate 4 to incorporate microtopographic features and general backfill requirements. However, drainage areas will be constructed as shown on Plate 4, or as approved by the department.

##### (7) Notification of Grading Problems

SCM will notify the department, in writing, upon detection of grading problems that would result in topography not consistent with the approved postmine topography.