



COALEX STATE INQUIRY REPORT - 16

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TOPIC: APPROXIMATE ORIGINAL CONTOUR (AOC)

INQUIRY: Investigate the legislative history of the phrase "Approximate Original Contour" (AOC).

SEARCH RESULTS:

Sec. 515(b)(3) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) requires that all surface coal mining operations backfill, compact and grade the mine site in order to restore the approximate original contour (AOC) of the land, and eliminate all highwalls, spoil piles, and depressions (unless small depressions are needed in order to retain moisture to assist revegetation or as otherwise authorized pursuant to SMCRA). Sec. 515(b)(3), while calling for the restoration of AOC also provides for circumstances under which a variance from AOC may apply. (See 30 CFR Sec. 816.102(k) and discussion below.)

This Report covers specifically the legislative history of the requirements for return to the approximate original contour. Closely related to the AOC requirement, are the requirements for the elimination of highwalls. The legislative history of the highwall elimination requirement is covered in IMCC SIGNIFICANT ISSUE REPORT - 1, attached.

GENERAL REQUIREMENTS

Approximate original contour (AOC) is defined in Sec. 701(2) of SMCRA as follows:

"Approximate original contour' means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated; water impoundments may be permitted where the regulatory authority determines that they are in compliance with section 515(b)(8) of the Act."

The federal regulations include a similar definition for AOC. (30 CFR Sec. 701.5)

Prior to the passage of SMCRA, the AOC provision was required under some of the state regulatory programs, including Montana, Ohio and Pennsylvania. Reference is also made in the legislative history to "complete contour restoration methods" employed on mines in West Virginia and Pennsylvania.



The issue of returning mined land to the approximate original contour was debated in nearly every session of Congress leading to the passage of P.L. 95-87. Environmental groups called for complete highwall elimination and return to AOC while industry and most state government representatives urged flexible requirements and local responsibility. (The course of this legislative development is traced in the National Research Council Report on Highwall Elimination, 1984, excerpts attached.)

The issue was finally resolved in the 95th Congress, in which the House and Senate conferees substantially agreed to the House version of the bill which included the AOC requirement with minimal exception. During these discussions, it was agreed that the definition of AOC should be clarified to make certain that it includes terracing and the construction of access roads. (See H. Rep. No. 95-218, 95th Cong., 1st Sess. 178 (1977).)

In developing the AOC requirement, Congress made a distinction between the premining "configuration" and the premining "elevation" of the land. In discussing this distinction, the House Committee Report in the 95th Congress notes:

"The term contour is defined by the dictionary as the outline of a figure or body, with a line or lines representing such an outline.' The contour of ground is similarly defined as the outline of the surface of the ground with respect to its undulations. These two definitions primarily refer to the shape or configuration of a surface. In addition, with respect to mapping, contour takes on an additional meaning; the imaginary line connecting the points on the land surface that have the same elevation and the line representing such line on a map or chart. In order to understand this concept it is necessary to distinguish between the two dimensions of elevation and configuration." (H. Rep. No. 95-218, 95th Cong., 1st Sess., at 97 (1977))

To what extent Congress intended the concept of AOC to include both the elements of "configuration" and "elevation" is not certain. However, it appears that Congress was primarily concerned with land configuration and not elevation. Thus, Senate Report No. 28 on Senate bill S. 7, which included provisions nearly identical to the final Act, states:

"It must be emphasized that the requirement to return to approximate original contour does not necessarily mandate the attainment of original elevation." (S. Rep. No. 28, 94th Cong., 1st Sess., at 214 (1974))

A more ambiguous statement in the reports issued in the 95th Congress provides:

"In area mining, the ability to reclaim to approximate original contour depends primarily on the quantity of spoil available in relation t the amount of coal removed (the stripping ratio).

"A profile of a typical area mining operation where the volume of spoil equals or exceeds the volume of coal removed is shown schematically in Figure 6. The environmental standard proposed intends that the overburden from the first cut will be blended into the undisturbed landscape and mine site and the final cut is backfilled with spoil from several previous cuts as well as from the top of the highwall if desired. In such instances, the actual elevation of the reclaimed land might be higher than the premined lands due to the swell of spoil material.

"Two other conditions arise in the area mining situation. The first occurs where the spoil is sufficient to return the mined area to approximate original contour but not to the approximate



original elevation. The second condition arises when the stripping ratio is such that there is not sufficient spoil to achieve either element of approximate original contour (elevation or configuration)." (H. Rep. No. 95-218, 95th Cong., 1st Sess., at 103 (1977))

Thus, it appears that Congress intended AOC= to reflect an approximate restoration of the land configuration to ensure proper drainage control and to provide for postmining land uses, but did not intend AOC to dictate any specific land elevations.

In evaluating the application of AOC to various mining types, Congress enumerated several objectives. Specifically, House Report No. 95-218 indicates that the principle of AOC is based upon:

1. Retention of overburden material on the bench;
2. Avoiding all unnecessary placement of unconsolidated material on steep slopes;
3. Elimination of slides, sedimentation, siltation and other offsite effects which threaten downstream areas;
4. Blending the site into the surrounding terrain to the greatest degree possible; and
5. Conforming the reclaimed area to the prevailing hydrologic pattern. (H. Rep. No. 95-218, 95th Cong., 1st Sess., at 80 (1977))

Beyond meeting these goals, the Congress indicated that it wanted to provide flexibility in backfilling and grading the mine site. This point is emphasized in the legislative history:

"H.R. 2 [the House bill that became P.L. 95-87] requires that the mine site be regraded to the approximate original contour. Moreover, the regrading standard of H.R. 2 was formulated to cover all types of mining operations under all conditions. Thus it is, of necessity, a flexible standard which contemplates different mining circumstances. The bill's critics have alleged, to the contrary, that the term 'approximate original contour' imposes an overly rigid and impractical requirement. It should be emphasized, therefore, that a reasonable interpretation of H.R. 2 cannot justify the assertion that the bill requires either the impossible task of restoration of the original contour or the useless act of digging a new pit to obtain fill material to achieve full restoration of the original topography. . . .

"The operator is required to regrade the site to its approximate original contour.... Highwalls are to be eliminated and regraded slopes are to be shaped in order to assure mass stability and to control surface erosion. The configuration of the reclaimed mine site is to match that approved in the mining plan and thus can be suitably shaped for a wide range of post-mining land uses. . . .

"The emphasis on return to the approximate original contour, should not obscure the fact that the appropriate methodology will vary from site to site. Responsibility for devising methods for reaching any necessary reclamation goals should be left up to the operator. . . .

"It should be noted that the regrading standard of approximate original contour allows for the surficial shaping of the regraded area to adequately control drainage and erosion." (H. Rep. No. 95-218, 95th Cong., 1st Sess., at 80, 96, 115, and 173 (1977))

In providing the AOC restoration requirements, Congress believed that the requirements were "equally valid when applied to midwestern and western coal surface mining" as they were to the



eastern mines. (See H. Rep. No. 95-218, 9th Cong., 1st Sess., at 80 (1977)) To accommodate the varying conditions nationwide, provisions were added to Sec. 515(b)(3) recognizing both thin and thick overburden situations.

In addition to the basic AOC restoration requirements, Congress provided several opportunities for a variance from the general provision. These are discussed briefly below.

VARIANCES

MOUNTAINTOP REMOVAL

Sec. 515(c) of SMCRA permits an exception to the AOC restoration requirement for mountaintop removal operations which, after reclamation, would be capable of supporting specified postmining uses. In such operations, "where an entire coal seam or seams running through the upper fraction of a mountain, ridge, or hill" is removed, the operator is permitted to remove all the overburden and to create "a level plateau of a gently rolling contour with no highwalls remaining" instead of restoring AOC. Such land has to be capable of supporting certain specified postmining land uses which include "an industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use." The regulatory authority may grant a permit of this nature if a number of additional specified conditions are also satisfied. (See SMCRA Sec. 515(c), and 30 CFR Part 824)

SEC. 515(e) VARIANCES FROM AOC RESTORATION

Sec. 515(e) of SMCRA allows a "variance from the requirement to restore [lands] to approximate original contour...for surface mining of coal where the owner of the surface knowingly requests, in writing, as part of the permit application, that such a variance be granted so as to render the land, after reclamation, suitable for an industrial, commercial, residential, or public use (including recreational facilities)." Such variances are allowed "provided that the watershed control of the area is improved; and further provided that backfilling with spoil material...cover[s] completely the highwall which material will maintain stability following mining and reclamation." (SMCRA Sec. 515(e))

In *IN RE: PERMANENT SURFACE MINING REGULATION LITIGATION*, Civil Action No. 79-1144, pp. 69-70 (DDC February 26, 1980), District Court Judge Flannery ruled that the provisions of Sec. 515(e) apply only to steep slope mining. However, upon review of the legislative history, OSM later concluded that this position was incorrect and promulgated a new regulation allowing the variance to be used in non-steep slope areas. The legislative history of Sec. 515(e) is outlined in OSM's Federal Register notice accompanying this rule change. (48 FR 39899, (SEPTEMBER 1, 1983). A copy of this Federal Register notice is attached.)

EXPERIMENTAL PRACTICES

A final variance provided to the AOC restoration requirements is included in the experimental practices section of SMCRA. This variance must meet certain requirements and be approved by the Director of OSM (SMCRA Sec. 717) In considering this variance, House Report No. 92-218 provides:



"A number of witnesses indicated that superior land uses would be obtained in contour mining by leaving a highwall and a bench. A small number of specific examples were listed to support this contention. The committee amendment includes modifications of the [experimental practices] section to provide for limited exceptions from approximate original contour standard on a case-by-case basis. The Secretary is to approve each exception." (H. Rep. 95-218, 95th Cong., 1st Sess., p. 71 (1977))

ATTACHMENTS:

- A. Excerpts from H. Rep. 95-218, 95th Cong., 1st Sess. (1977).
- B. Excerpts from H. Rep. No. 94-1445, 94th Cong., 2nd Sess. (1976).
- C. Excerpts from H. Rep. No. 94-896, 94th Cong., 2nd Sess. (1976).
- D. Excerpts from S. Rep. No. 94-28, 94th Cong., 1st Sess. (1975).
- E. Excerpts from National Research Council, Committee on Highwalls and Approximate Original Contour, Board on Mineral and Energy Resources, HIGHWALL ELIMINATION AND RETURN TO APPROXIMATE ORIGINAL CONTOUR AS REQUIRED IN THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977, National Academy Press, 1984.
- F. 48 FR 39899 (SEPTEMBER 1, 1983).
- G. COALEX SIGNIFICANT ISSUE REPORT - 1.