

# **FINAL REPORT**

## **AN EVALUATION OF APPROXIMATE ORIGINAL CONTOUR AND POST-MINING LAND USE IN KENTUCKY**

**MAY 2000**

*PREPARED BY*

**U.S. Department of the Interior  
Office of Surface Mining  
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## I. FORWARD

The Office of Surface Mining (OSM) is committed to ensuring that State programs contain requirements that are no less effective than the Federal requirements and that those programs are being properly implemented. State and Federal surface mining laws generally require a site after mining to be returned to its approximate original contour (AOC). However, as discussed in this report, under certain limited circumstances, an applicant may obtain a variance from the AOC requirement. In connection with this variance, a critical issue is the appropriateness of the proposed post-mining land use. Consequently, OSM has been working diligently with the Kentucky Department for Surface Mining Reclamation and Enforcement (DSMRE) to improve the State's administration of its approved program in two areas: (1) the standards used by DSMRE in evaluating whether a particular post-mining land configuration constitutes a return to AOC; and (2) the post-mining land uses which DSMRE approves when it grants a waiver from the AOC requirement.

The Federal Surface Mining Control and Reclamation Act of 1977 (SMCRA) provides that a State program may grant variances from AOC for mountaintop removal and steep slope mining operations, provided the State program requirements are no less stringent than those set forth in §§515(c) and 515(e) of SMCRA. Section 515(c) of SMCRA specifies that a mountaintop removal AOC variance may be granted by the regulatory authority only if the entire coal seam or seams running through the upper fraction of the hill, ridge, or mountain is removed creating a level plateau or gently rolling contour with no highwalls remaining and capable of supporting post-mining land uses of industrial, commercial, agricultural, residential, or public facility (including recreation facilities) use. Section 515(e) of SMCRA provides that a steep slope AOC variance may be granted by the regulatory authority if (1) the proposed mining is going to occur in a steep slope area (greater than 20 degrees), (2) the watershed control of the area will be improved by granting such a variance, and (3) the landowner requests in writing that the variance be granted so that the land after reclamation will be suitable for an industrial, commercial, residential, or public use (including recreational facilities).

OSM conditionally approved Kentucky's permanent regulatory program on May 18, 1982. At the time, OSM found that the statutory and regulatory requirements of the program governing mountaintop removal and steep slope mining operations were consistent with the Federal requirements. Subsequent reviews of the State's program, however, have identified a minor aspect of the requirements for steep slope mining operations that is less stringent than the Federal requirements. As discussed in this report, the State is in the process of correcting that deficiency. OSM is actively working with the State of Kentucky and other States in the Appalachian Region to ensure that these mining methods, which are authorized by SMCRA, are being conducted properly and consistently with the approved State programs. Topical evaluations, as done in Kentucky last year, focus on specific program areas and are done periodically to assess a State's performance. It is through these studies that OSM plans to reassess State mountaintop mining requirements and to ensure that the approved standards are being properly enforced through the Appalachian Region.

## II. INTRODUCTION

The purpose of this report is to finalize the draft report dated September 1999 entitled "An Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky." OSM, with the assistance of the Kentucky DSMRE, completed a draft oversight evaluation report on Kentucky's approved surface mining regulatory program. The report focused on AOC variances, excess spoil, and post-mining land uses associated with mountaintop and steep slope mining operations. The draft report was released on September 21, 1999. An initial public comment period for receiving input into the report was set for October 22, 1999. The comment period was extended to November 19, 1999. Kentucky has submitted letters (dated June 23, 1999; June 25, 1999; September 8, 1999; and October 12, 1999) to OSM committing to correct deficiencies, and have already initiated some of these corrective actions. In addition, OSM has had numerous discussions with Kentucky on the issues identified in the draft report and the corrective actions discussed in this final report.

We received comments from two Federal agencies, one coal association, one environmental group, and two individuals. We also received comments from the Secretary of the Kentucky Natural Resources and Environmental Protection Cabinet (NREPC). We would like to take this opportunity to thank everyone who commented on the draft report. The comments were useful in helping OSM formulate an Action Plan with the State addressing all of the issues that were identified during the review. We would also like to thank DSMRE for its cooperation and assistance both during the review and in formulating the plan addressing the issues that were identified in the report. Appendix A contains a summary of all the public comments received on the report and OSM's responses.

The purpose of this report is to explain how the State and OSM plan to resolve the issues that were mentioned in the earlier oversight report. None of the comments that were submitted questioned any of the facts or findings that OSM provided in the draft oversight report. Several comments questioned the recommendation regarding the review of the AOC variances granted in existing permits. This recommendation has been rewritten to clarify OSM's intent. Rather than publish the entire report again, OSM decided that it would be more beneficial to focus on how OSM and DSMRE intend to fix the problems regarding AOC and unapproved post-mining land uses for mountaintop removal and steep slope mining operations with AOC variances. The proposed conclusions and recommendations from the earlier draft report are now being adopted in final and are contained in Part III of this report. This is being done so that the reader does not have to refer back to the earlier report, unless he or she wants information concerning specific permits that were evaluated in that report. An electronic version of the draft oversight report is still available on OSM's Web page and can be viewed at <http://www.osmre.gov/mtindex.htm>. Upon request, hard copies of the report may also be obtained from the Lexington Field Office.

Appendix C of this report contains a copy of the Action Plan that OSM and DSMRE have developed to address the issues raised in this final oversight report.

### III. CONCLUSIONS AND RECOMMENDATIONS

OSM is adopting the conclusions contained in the draft report from September 1999 as a final document. The recommendations have been revised (a) in response to comments regarding appropriate, corrective actions for existing permits, and (b) to include the corrective actions contained in the negotiated Action Plan. The Action Plan included as Appendix C contains the corrective actions and a schedule for implementing the changes that will be taken as a result of the review.

Mountaintop removal and steep slope mining in Kentucky share characteristics of mining practices in the border states of West Virginia and Virginia. While the number of permits with AOC variances in Kentucky is substantial, the number of permits issued annually and the acreage permitted have remained fairly constant since program approval in 1982. The field office conducted a detailed review of 29 permits at 20 mines.

OSM and DSMRE have agreed that any reforms that resulted from the draft report would be applied prospectively, and that existing mining operations, some of which were initially permitted many years ago, would be altered only to the extent practicable. OSM requested that, in addition to those permits which were examined for the draft report, DSMRE review all existing permits with AOC variances and apply the reforms prospectively. For example, OSM proposed that DSMRE require revisions of any permits or portions thereof that have not been reclaimed in order to ensure that final reclamation leads to an approvable post-mining land use. OSM did not recommend that any areas that have been regraded or that have established vegetation be disturbed in order to address the concerns raised in the report.

Some industry representatives argued that all reforms should be applied prospectively. They contend that operators obtained the permits after extensive review and public comment. To apply the reforms retroactively is simply not fair and could cause needless paperwork and potentially environmentally damaging consequences. Others commented that to limit the reforms resulting from the report to prospective application is both illegal and unwise. These commenters stated that any proposal to allow operations that are engaged in mining under permits which do not satisfy the mandates of State law and to continue such operations indefinitely is unlawful.

After consideration of all comments, OSM has decided that the various levels of technical deficiencies in existing permits must be addressed differently depending on the extent that the deficiency would actually cause a violation of the State program with "on-the-ground" consequences. Where the deficiency relates only to permit documentation, no retroactive correction will be required. Where the deficiency actually authorizes a post-mining land use that is not provided for by the approved program, OSM and DSMRE have agreed to require that the permit and, to the degree practicable, the actual mining operation be revised. However, OSM still maintains that sites which have been backfilled, regraded, and revegetated should not be disturbed to satisfy the concerns raised in the draft report. Disturbances of this kind do not

always benefit the environment. OSM and DSMRE will examine each permit on a site-specific basis to make sure that the State's approved program is being properly enforced and any on-the-ground environmental problems identified are corrected to our mutual satisfaction.

#### **A. Approximate Original Contour and Variances**

**Conclusion:** DSMRE approved some surface mining permits in the mountains of Eastern Kentucky that contained unnecessary or unjustified variances from the AOC requirement. In determining if a permit application met AOC, DSMRE placed greater emphasis on terrace width and the amount of spoil material returned to the mined area and not enough emphasis upon land configuration and use, slope stability, and drainage controls. During the evaluation, OSM also observed that, in some cases, not much difference existed between mines which have received variances from the AOC requirement and those that are supposed to restore the land to AOC. That is, there was little difference between the final grading plans that DSMRE accepted as AOC for some mines and the final grading plans at other mines that DSMRE required to obtain variances from AOC. Finally, DSMRE issued a number of permits involving variances from AOC without requiring appropriate post-mining land uses for the sites.

As explained in the draft report, permits involving mountaintop removal or steep slope mining operations with variances from AOC may be issued by the regulatory authority only if they will be capable of supporting the post-mining land uses specified in the State program.

**Recommendation:** To implement the AOC standard properly, DSMRE should take steps to insure that its permit reviewers, when they determine whether or not to approve variances, consider not just the amount of backfill but also site configuration, stability, and drainage. In addition, DSMRE should review all outstanding permits with AOC variances and reclassify any sites that have been inappropriately granted variances. In a letter dated June 23, 1999, DSMRE committed to develop a formal policy that better defines what is required to achieve AOC. Upon development of this new AOC policy, DSMRE will apply this policy prospectively for all new permits. In addition, as discussed above, DSMRE and OSM will review all previously-issued permits and correct any deficiencies to the extent practicable.

#### **B. Excess Spoil Fills**

**Conclusion:** OSM found that, in a number of instances, DSMRE has given operators approval to construct fills for excess spoil that are either entirely unnecessary or that exceed the capacity necessary for the operation. OSM also found that construction problems with some fills have caused unnecessary impacts to headwaters and streams.

**Recommendation:** DSMRE should revise its permitting practices to better insure that fill size is minimized. DSMRE should also take steps to insure that, before a permittee changes its method of mining, it obtains an appropriate modification of its permit, including revisions to the number and/or capacity of the fills. Finally, the State should adopt policies to eliminate the practice of

“wing-dumping” in constructing excess spoil fills. “Wing-dumping” is a practice for constructing an excess spoil fill. This practice is to push excess spoil from the lowest coal seam bench into the permitted spoil disposal area from all points along the sides of the fill disposal area. The State should consider a policy that restricts the construction of fills in stages to begin in the upper portion of the watershed and to progress downstream only as necessary until the full capacity of the fill is achieved. This will avoid unnecessary impacts to the watershed where, after mining commences, the permittee changes its method of mining resulting in less excess spoil to be placed in fills.

### **C. Post-Mining Land Uses**

**Conclusion:** In a number of cases involving mountaintop removal or steep slope AOC variances, DSMRE improperly granted permits that approved post-mining land uses not authorized by the State program. Prospectively, DSMRE has now reformed its policy regarding permissible post-mining land uses, but it still needs to address this problem in connection with previously-issued permits.

**Recommendation:** DSMRE should conduct a comprehensive review to identify all operations that have been improperly issued either a mountaintop removal or a steep slope AOC variance. Various levels of technical deficiencies must be addressed differently depending on the extent that the deficiency would actually cause a violation of the State program with “on-the-ground” consequences. OSM and DSMRE will examine each permit on a site-specific basis to make sure that the State’s approved program is being properly enforced and any on-the-ground environmental problems identified are corrected to our mutual satisfaction.

**Conclusion:** In a number of instances, DSMRE issued mountaintop removal permits without obtaining the required assurances that the requested post-mining land use be obtainable according to data regarding expected need and market.

**Recommendation:** Kentucky should immediately begin requiring this information.

### **D. Mine Classification and Inventory**

**Conclusion:** OSM’s oversight has been made difficult by several record keeping problems. First, with respect to outstanding permits, inconsistencies exist between the AOC variances requested by the applicants, the information actually supplied by the applicant, and the AOC variances that DSMRE ultimately granted. Second, the State’s permit tracking system, the Surface Mining Information System (SMIS), does not currently contain any data fields for variance information. Thus, it was impossible to obtain a reliable electronic inventory of mountaintop mining permitted to be restored to AOC, mountaintop mining permitted with an AOC variance, and steep slope mining permitted with an AOC variance.



**Recommendation:** DSMRE should conduct a comprehensive review of the 395 permits issued for mountaintop operations in Eastern Kentucky to consistently identify AOC variances granted based on the backfilling and grading information in the permit application and the AOC variances requested. In addition, DSMRE should add data fields to SMIS for variance information and add this information for all existing permits.

DSMRE has developed guidance regarding AOC classifications for these existing permits and added necessary data fields to SMIS. OSM will monitor completion of these steps.

#### **E. Needed Program Amendment**

**Conclusion:** The approved Kentucky program does not specifically require applicants for steep slope variances to demonstrate that the total volume of flow from the proposed mine, during every season of the year, will not vary in any way that adversely affects the ecology of any surface water or of any existing or planned use of surface or groundwater, and that the plan must be approved by the “appropriate State environmental agency.”

**Recommendation:** As soon as possible, DSMRE should submit a program amendment that sets out this requirement. On February 1, 2000, OSM received a proposed program amendment from DSMRE to address this issue.

#### **F. Permit Findings**

**Conclusion:** DSMRE has been using an Affirmative Findings - Issuance/Denial Checklist to document permit applicants’ compliance with the regulatory requirements for mountaintop removal and steep slope AOC variance. Specifically, DSMRE relies upon three very general findings to satisfy the requirement of 405 KAR 8:050 for affirmative findings before approving mining with a mountaintop removal AOC variance. It also relies upon these three findings to satisfy the requirements of 405 KAR 8:050, Section 6, for affirmative findings before approving mining with a steep slope AOC variance.

Reliance on these general findings does not demonstrate the specific considerations required for the State to approve mining with either a mountaintop removal or a steep slope AOC variance or if, in fact, a variance is approved.

**Recommendation:** Specifically, DSMRE should modify its findings checklist to include the specific finding required by 405 Kentucky Administration Regulations (KAR) 8:050, Section 4, for a mountaintop removal AOC variance, the specific finding required by 405 KAR 8:050, Section 6, for a steep slope AOC variance, and to include some reference to the relevant portions of the permit application that support these findings. DSMRE has agreed to review all of its findings documents.

**APPENDIX A: Disposition of Public Comments**

## **Disposition of Public Comments**

OSM received comments on the draft report from ten individuals and organizations. Comments were received from the Kentucky Environmental Protection and Natural Resources Cabinet, four Federal agencies, one industry trade association, one citizen's advocacy group, an individual mineral owner, an individual citizen, and an OSM employee. Presented below is a summary of the relevant comments as well as OSM's responses to the comments. The comments are grouped as follows:

1. A section containing a discussion of the more general overview comments received.
2. A section containing a discussion of comments on the specific conclusions and recommendations and organized in line with the structure of the conclusions and recommendations section.
3. A section containing a discussion of the miscellaneous comments received.

### **General: OSM Should Ensure Full Compliance with the Surface Mining Control and Reclamation Act and the Approved Kentucky Program**

1. *Comments:* Two comments indicated the need for OSM to take the lead in ensuring strict compliance with the regulatory and statutory requirements of the respective laws and regulations.

*Response:* OSM agrees that full compliance with an approved State program does ensure better environmental protection. OSM continually works with States to improve their permanent regulatory programs and the implementation of those programs. Also, OSM revised the oversight process in 1996 to enable OSM to take innovative, results-oriented evaluation approaches tailored to individual State programs with input from various stakeholder interests. As a result of this public input, blasting, landslides, transportation, and hydrologic issues have been identified as the concerns in Kentucky, and OSM has worked on these issues.

2. *Comments:* Three different comments indicated the view that the draft report did not sufficiently credit DSMRE with responding in a timely manner to the concerns identified by OSM to improve environmental protection for mountaintop removal and steep slope mining operations.

*Response:* OSM acknowledges that DSMRE has taken diligent and prompt action to respond to the concerns raised during this study. Furthermore, the corrective actions provided in the Action Plan in Appendix C will ensure continued improvement of the Kentucky program.

3. *Comment:* One comment criticizes the analysis in the draft report of the Federal requirements and urges that Section 102 of SMCRA be discussed in the final report. Section 102 describes the purpose of the Act including the charge to "strike a balance between protection of the environment and agricultural productivity and the nation's need for coal as an essential source of energy." In addition, the comment criticizes the draft report for not fully discussing Section 515(c)(2), which authorizes the variance from AOC for mountaintop removal operations.

*Response:* The balance provided in Section 102 is implemented by OSM in the development of the entire regulatory program and continually in our day-to-day activities. After reviewing the analysis of the Federal requirements regarding Section 515(c)(2), we believe that the analysis is appropriate. Consequently, no changes in the report were made because of this comment.

4. *Comment:* One comment recommended that this oversight report be expanded so that the scope will address location of fills, stream bio-diversity, stream buffer zones, riparian vegetation, and cumulative aquatic impacts.

*Response:* The oversight report addresses only specific aspects of excess spoil fills. It did not address those aspects suggested by the commenter. Due to the litigation in West Virginia, OSM, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the West Virginia Division of Environmental Protection are developing a programmatic Environmental Impact Statement (EIS) to address the underlying policy issues relating to the commenters' concerns. Upon completion of this programmatic EIS, OSM will address these issues in its oversight of the Kentucky program. As a result, we are not making the suggested changes in the scope of this report.

#### **A. Approximate Original Contour and Variances**

5. *Comment:* One comment indicated that neither DSMRE nor OSM had a formal AOC policy. Another comment stated that the State has primary responsibility to interpret what constitutes AOC.

*Response:* OSM Directive INE-26 establishes OSM policy regarding AOC and relies heavily on the policies of the State regulatory agency as applied on a site-specific basis. OSM agrees that DSMRE has primary responsibility for defining AOC based on the site conditions found in Kentucky. The concern expressed in the draft report is that, because the State does not have a formal policy, OSM observed very inconsistent field conditions. On June 23, 1999, DSMRE, in response to the concern identified by OSM, committed to develop a formal policy on AOC. Appendix C describes the Action Plan for this issue. OSM agrees that the State has primary responsibility to interpret what constitutes AOC,

but OSM has an oversight responsibility to assure that the approved State program is being properly administered.

6. *Comments:* Several comments were received regarding how mining operations have been reclaimed to AOC. One comment agreed with OSM's analysis in the draft report that disturbance at Kentucky's minesites have generally been in the upper elevation of the mountains and that total relief has not been eliminated. Another comment agreed with OSM's analysis that a change in elevation by itself did not constitute a departure from AOC. Another comment questioned whether in fact there was a need to more clearly define AOC for Kentucky operations.

*Response:* As discussed in the draft AOC report, the Federal and State regulations define AOC to include several factors including spoil placement, stability, access, drainage control, and post-mining land use configuration. We appreciate the comments agreeing with parts of the analysis but affirm our recommendation that Kentucky develop a formal AOC policy.

7. *Comment:* One comment stated that the excess spoil fills were not subject to the AOC requirement.

*Response:* OSM agrees with the comment. Both the Federal definition and Kentucky's approved program definition of AOC define the applicability to the "mined area" and, therefore, the requirement would not apply to other areas such as the excess spoil fills.

8. *Comments:* Several comments expressed concern as to what extent the new standards would apply to existing permits. Two comments expressed the view that retroactive application of a new policy would be neither logical nor fair since those permits had developed mine plans based on permits that had ample public and regulatory involvement. One comment expressed concern that this action could represent a regulatory taking. Another comment recommended a comprehensive review of all existing permits and required improperly issued permits be modified. The comment endorsed a short timetable to complete this work with periodic public notices and updates.

*Response:* In response to these comments, we have expressed our intention regarding existing permits more clearly in this report in Section III - Conclusions and Recommendations, and also in the Action Plan in Appendix C.

## **B. Excess Spoil Fills**

9. *Comments:* Two comments stated their view that "wing dumping" or "side dumping" was either not an issue or only a minor concern. One comment expressed concern about eliminating "wing dumping" because of the restrictive cost of the alternative, hauling

material to the head of the hollow. One comment advocated that this issue should be resolved between the coal industry and DSMRE. Another comment stated that existing regulations and enforcement policies can be used efficiently and effectively by DSMRE to address any fill construction issues.

*Response:* The draft report pointed out that the practice of "wing dumping" or "side dumping" of excess spoil creates the unnecessary disturbance to the head waters and streams. DSMRE and OSM are also conducting a more in-depth engineering study of excess spoil fills. In this study, the practice will be further evaluated for stability concerns. OSM agrees that the existing regulations and enforcement policies can effectively address this issue, as is provided in the Action Plan in Appendix C.

10. *Comments:* Two comments advocate continuation of policies that allow flexibility in mining plans for the number and capacity of excess spoil fills. The comments argue that experience has shown that a restrictive mine plan needs constant permit modifications causing delays in mining.

*Response:* These comments relate to two concerns OSM has about the excess spoil fills that have been permitted. One concern is that, when there is a change in mining method, the permittee must revise its backfilling and grading plan and recalculate the volume of material that must be placed in excess spoil fills. In addition, OSM is concerned that some operations over-permit the number of fills and fill capacity so as to maximize the flexibility for the operator. OSM understands the need for some flexibility but believes that this practice creates an undesirable regulatory situation where the inspector does not know which fills will be constructed and to what capacity. As provided in the Action Plan, OSM will work with DSMRE to improve these practices, while recognizing that some degree of flexibility will remain necessary in spite of improved engineering practices.

11. *Comment:* One comment questioned how to define specific fill characteristics.

*Response:* OSM has not made any change in the report in response to this comment. The nature of the points raised will be considered as policies and practices are reviewed and changed in accordance with the Action Plan.

12. *Comment:* One comment questioned whether the "Observed Construction Concerns" in the draft report truly identify a construction issue.

*Response:* The draft report identified all issues considered by OSM during its permit review and field observations of the selected sites. DSMRE had properly cited all violations, and those violations are being corrected in accordance with State procedures. No change in the report was adopted as a result of this comment.

### C. Post-Mining Land Uses

13. *Comment:* One comment pointed out DSMRE's timely response when OSM identified this concern with AOC variances based on fish and wildlife post-mining land use.

*Response:* OSM agrees with this comment that DSMRE is committed to enforcing its approved program and works diligently to improve its program.

14. *Comments:* One comment stated that mining can restore the land so as to encourage economic use of the land after mining. Another comment asked that the regulatory agencies not allow the industry to misuse the post-mining land use provisions of the approved State program. They offer the view that placing a picnic table on a reclaimed area should not allow the area to be classified as recreational land use.

*Response:* OSM has not made any changes in this report because of these comments. OSM does recognize that post-mining land is an important component of the AOC variance process. Therefore, OSM is developing post-mining land use policy related to this concern. This policy has been developed from the public concerns expressed to OSM. The public has had an opportunity to comment on OSM's draft post-mining land use policy. A final policy will be posted on OSM's web page at [www.osmre.gov](http://www.osmre.gov).

15. *Comments:* A comment stated that fish and wildlife habitat for AOC variance sites had been promoted by the Kentucky Department of Fish and Wildlife Resources as a better post-mining land use than agricultural or pastureland. The comment also stated that fish and wildlife habitat is considered a more realistic land use. Another comment suggested that DSMRE and OSM should not adopt a comprehensive policy that precludes fish and wildlife habitat without considering the merits of each proposal.

*Response:* A post-mining land use of fish and wildlife habitat is acceptable for a minesite returned to AOC. For sites with an AOC variance, neither Federal law nor State law allow fish and wildlife post-mining land use.

16. *Comments:* Three comments recommended that changes in permits to post-mining land uses be made only prospectively for new permits. They argue that some permits were initially permitted many years ago and should only be altered to the extent practicable.

*Response:* OSM has responded to these comments by revising Section III - Conclusions and Recommendation, to clarify its expectations for reviewing existing permits. This position repeats OSM's position taken in West Virginia and Virginia.

17. *Comment:* One comment indicated that permits issued at several U.S. Army Corps of Engineers projects with an approved post-mining land use of public use (including

recreational facilities) did not appear to comply with Section 515(d) of the Surface Mining Control and Reclamation Act.

*Response:* None of the sites reviewed for this evaluation were on U.S. Army Corps of Engineers project areas. OSM will further discuss this issue with the Corps of Engineers to better understand the concern.

#### **D. Mine Classification and Inventory**

18. *Comments:* One comment stated that database tracking systems for mountaintop removal operations and associated waivers are not required by Kentucky or Federal law. Kentucky has consistently improved its SMIS database to reflect pertinent information. OSM should work with Kentucky on relevant data collection. OSM should not be critical of Kentucky's existing database. Two comments were that there was no objection to the findings and recommended that OSM and DSMRE work together.

*Response:* Section 201 of SMCRA established OSM to administer and implement the Act. OSM's primary role in a State that has received primacy with an approved program is to monitor the State to ensure that it maintains the capability to fulfill those SMCRA responsibilities. In Kentucky, OSM chose to use SMIS in many of the evaluations in lieu of receiving each permit issued within the State. Therefore, it is important that SMIS be reliable for oversight and public credibility. DSMRE has taken the lead to improve SMIS as agreed to in the Action Plan found in Appendix C.

#### **E. Needed Program Amendment**

19. *Comments:* Two comments agreed with the finding that the approved Kentucky program does not specifically require applicants for steep slope variances to demonstrate the total volume of flow from the proposed mine, during every season of the year, will not vary in any way that adversely affects the ecology of any surface water or of any existing or planned use of surface or groundwater, and that the plan must be approved by the "appropriate State environmental agency." Other comments pointed out that DSMRE has committed to correcting these issues. One comment questioned why OSM made an issue of this deficiency in the draft report. One comment recommended that the identified agency be DSMRE while another recommended the Kentucky Division of Water.

*Response:* DSMRE has initiated promulgation of an administrative regulation that addresses the required amendment. This final report reflects DSMRE'S commitment to complete that rulemaking. Finally, the proposed regulation will be processed with public participation both at the State and Federal level.



## **F. Permit Findings**

20. *Comments:* Two comments agreed with OSM's report findings that Affirmative Findings - Issuance/Denial Checklist to document permit applicants' compliance with the regulatory requirements for mountaintop removal and steep slope AOC variance. At least in its present form, this checklist fails to adequately assure that applicants have fully satisfied the pertinent requirements. Specifically, DSMRE should modify its findings checklist to include the specific finding required by 405 Kentucky Administration Regulations (KAR) 8:050, Section 4, for a mountaintop removal AOC variance, the specific finding required by 405 KAR 8:050, Section 6, for a steep slope AOC variance, and to include some reference to the relevant portions of the permit application that support these findings. One comment recommended using invertebrate studies to support the affirmative finding for material damage of the quality or quantity of water.

*Response:* DSMRE has agreed to improve permit findings for both steep slope and mountaintop removal AOC variances. The Action Plan in Appendix C further describes those actions. In addition, DSMRE has developed an internal effort to improve all written findings and permit decisions. Finally, OSM has not adopted the suggestion to rely on invertebrate studies for determining material damage to the quantity and quality of water. Any invertebrate studies or other biological information may be used in other aspects of the permitting decision, but is not the focus of the Cumulation Hydrologic Impact Assessment (CHIA) for the SMCRA permit decision.

### **Miscellaneous**

21. *Comment:* One agency agreed with the draft report, however, they wanted all parties to be concerned with the health and safety of the miners.

*Response:* OSM and DSMRE have been and will continue to be concerned for the health and safety of the miners and also for the general public.

22. *Comment:* A comment was received that was concerned with the writing style of the report.

*Response:* OSM is committed to issuing well developed written documents.

**APPENDIX B: Comments from Natural Resources and  
Environmental Protection Cabinet Secretary on  
*Draft Evaluation of Approximate Original Contour  
and Post-Mining Land Use in Kentucky***

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October 12, 1999

OSM LEXINGTON

OCT 14 1999

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Dear Mr. Kovacic:

Thank you for the opportunity to comment on the *Draft Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky* dated September 21, 1999 and prepared by your office.

For the past year, the Department for Surface Mining Reclamation and Enforcement has been diligently working toward improving its regulation of mountaintop removal and steep slope mining operations, particularly in the areas of approximate original contour and post-mining land use. We believe that most of the problems OSM has identified in its report have already been identified by this agency, and procedures have been put into place to resolve any deficiencies.

One of the main issues identified in OSM's report was a former policy of allowing the post-mining land use of fish and wildlife habitat on mountaintop removal operations and steep slope mining operations with a variance from approximate original contour. Over a year ago, in a letter dated September 8, 1998, this agency notified OSM that it had repudiated its policy of allowing fish and wildlife as a post-mining land use on these operations. OSM was also notified that the DSMRE had instructed its Division of Permits about this prohibition. These documents appear in the Appendix to the report. OSM has suggested that the DSMRE review permits that were improperly granted a post-mining land use of fish and wildlife habitat, and require permit revisions. Because the policy of granting the fish and wildlife post-mining land use for mountaintop removal and steep slope operations was in existence for seven (7) years, and because OSM performed its oversight activities during this period of time, seemingly acquiescing in the policy, we believe that now requiring these permits to be revised constitutes an unreasonable burden.

This agency is committed to requiring proper documentation for variances from approximate original contour. We are especially mindful of the requirement that the proposed post-mining land use will be obtainable according to data regarding the expected need and market.



AN EQUAL OPPORTUNITY EMPLOYER M/F/D

OSM has stated in its report that the DSMRE should consider site configuration, stability, and drainage, as well as the amount of backfill in determining whether to approve variances from approximate original contour. The Appendix to the report includes a June 23, 1999 commitment from DSMRE to better define approximate original contour, considering these additional factors.

The criticisms regarding excess spoil fills are currently being addressed by this agency. The DSMRE has worked with OSM to accomplish the goal of minimizing the size of fills and eliminating the practice of "wing-dumping." DSMRE has met this year on numerous occasions with representatives from EPA, OSM, the U.S. Army Corps of Engineers, U.S. Fish and Wildlife, and the Kentucky Department of Fish and Wildlife, at which fill size and placement were discussed. As recently as September 13, DSMRE met with OSM to discuss the two agencies' joint recommendations regarding the elimination of "wing dumping." This agency's goal of minimizing disturbances to the watershed is consistent with the comments of OSM.

The report states that OSM's oversight of Kentucky's program has been made more difficult by record keeping problems and failure to electronically track variances. OSM points out that there are some inconsistencies in the permit package between the variances requested by the operator, the information supplied by the applicant in the permit package, and the variances granted. In both DSMRE permits and federal lands permits issued by OSM, there are some instances where information in the permit supports the approved variance, but the variance does not appear on the permit face. DSMRE will make every effort to correct seemingly inconsistent permit face sheets to reflect the information in the permit itself. In addition, DSMRE has redesigned its Surface Mining Information System (SMIS) to better meet the reporting needs of the agency. The improvements made in SMIS, and those which will be made in the near future, will resolve OSM's concerns about tracking variances.

With regard to OSM's concerns for the need for program amendments, DSMRE has already begun the rulemaking process to amend 405 KAR 20:060 Section 3(3). The regulatory change will clarify that, in approving a steep slope variance, the total volume of the flow from the proposed mine area, during every season of the year, must not vary in any way that adversely affects the ecology of any surface water, or any planned use of surface or groundwater. This change will likely take about eight (8) months to complete the regulatory process. DSMRE appreciates OSM's acknowledgement that this information has been required in the permit applications, and that the failure to have made the regulation change has not contributed to any of the issues raised in the report.

The shortcomings of the current DSMRE checklist and affirmative findings for issuance of permits were identified by this agency prior to this report. We are currently working on a revision to the checklist and affirmative findings, and have met with OSM on this issue on more than one occasion. This issue is expected to be resolved in the near future.

There is some clarification necessary in the report's supporting data and OSM's conclusions. Table A-5 lists for each of the reviewed sites the proposed fill volume in percentages. It is noteworthy that typically 25% of that volume is swell. Taking this into consideration, it is apparent that *swell yardage* alone accounts for a significant percentage of the

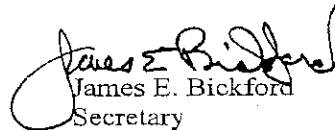
William J. Kovacic, Director  
October 12, 1999  
Page 3

proposed fill volume. Tables A-5 and B-2 show that for the 29 sites reviewed, more spoil was returned to the bench than was placed in hollowfills, and that there were no significant changes to the drainage patterns. 405 KAR 8:050 Section 4, in defining mountaintop removal mining, states that substantially all of the overburden will be removed from the bench. Consequently, OSM is correct in its conclusion that some of these permits contained unnecessary AOC variances. What is not clear from the report is that considering the amount of spoil placed back on the bench, the lack of substantial changes to the drainage systems, and site configuration, many of the reviewed sites currently meet the definition of AOC. It is important to note that in Kentucky there is not wide-spread abuse of the requirement to restore to AOC.

This agency is committed to enforcement of the requirements for approximate original contour, proper documentation for variances from AOC on mountain-top removal operations and steep slope operations, granting only authorized post mining land use changes and requiring proper documentation for those changes, minimizing stream loss from fills, integrity in the permitting process, and comprehensive computer tracking. It is apparent from the report that the issues identified in Kentucky are in the process of being resolved, and that the valley fill issues in this state are not of the magnitude found elsewhere.

Again, we appreciate the opportunity to comment.

Sincerely,

  
James E. Bickford  
Secretary

cc: Carl Campbell  
Barbara Foster

**APPENDIX C: NREPC/OSM Action Plan for Resolving  
Mountaintop Mining Issues**

## **NREPC/OSM Action Plan for Resolving Mountaintop Mining Issues**

### **A. Purpose**

OSM and NREPC recognize that there are outstanding issues and questions related to mountaintop mining practices that need to be addressed as priority items between the two agencies. The following action elements include all issues identified in "An Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky." As a result of this agreement, both parties are committing to activities which should ensure the timely and effective resolution of all known issues relating to mountaintop mining practices in Kentucky.

### **B. OSM's Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky**

#### **1. Approximate Original Contour: Policy and Implementation of Approximate Original Contour**

*Issue:* OSM did not find any formal State policy guidance on the meaning of the term "approximate original contour" except for the State statutory definition, that essentially repeats the Federal definition. OSM found an informal AOC policy. In determining if a permit application met AOC, DSMRE placed greater emphasis on terrace width and the amount of spoil material returned to the mined area and not enough emphasis upon land configuration and use, slope stability, and drainage controls.

DSMRE approved some surface mining permits in the mountains of Eastern Kentucky that contained unnecessary or unjustified variances from the AOC requirement. In deciding whether AOC variances were necessary at these sites, DSMRE relied almost exclusively upon the informal policy discussed previously. During the evaluation, OSM also observed that, in some cases, not much difference existed between mines which have received variances from the AOC requirement and those that are supposed to restore the land to AOC. That is, there was little difference between the final grading plans that DSMRE accepted as AOC for some mines and the final grading plans at other mines that DSMRE required to obtain variances from AOC.

*Proposed Action-Policy:* The Kentucky Natural Resources and Environmental Protection Cabinet agreed to develop clear, written guidelines on determining whether or not a mine permit meets AOC. To begin this process, DSMRE, in conjunction with the Kentucky Division of Water and the U.S. Army Corps of Engineers, conducted an in-depth training session on December 16, 1999, reviewing permitting requirements under the Clean Water Act and clarifying the AOC decisions to be made on an interim basis until a more comprehensive policy

can be developed. A copy of all training materials dealing with AOC and post-mining land use was forwarded to the OSM Lexington Field Office. DSMRE will develop a draft AOC policy by April 17, 2000, to address both existing, as well as future, permits. OSM will provide any technical assistance requested. By May 15, 2000, DSMRE will issue a final AOC policy and implement this policy for future permitting decisions.

*Implementation-Existing Permits:* DSMRE will conduct an internal review of all AOC and variance determinations for surface mining in the steep slope areas of Eastern Kentucky. DSMRE will develop a policy for consistent treatment of these existing permits. OSM agrees that these existing operations, some of which were initially permitted many years ago, will only be altered to the extent practicable. In accordance with this policy, DSMRE will notify all permittees of any required changes by June 30, 2000.

*Implementation-New Permits:* DSMRE will develop a draft AOC policy and submit it to OSM by April 17, 2000. OSM will complete its review and submit any comments to DSMRE by May 1, 2000. After May 15, 2000, DSMRE will issue any new permits in accordance with the AOC policy.

*Action Dates-Policy:* A draft AOC policy for both existing and future permits will be developed by April 17, 2000. OSM will submit comments to DSMRE by May 1, 2000. DSMRE will issue final policy by May 15, 2000.

*Implementation:* The initial evaluation of all existing permits will be completed by May 1, 2000. DSMRE will notify all permittees of any required changes by June 30, 2000. After May 15, 2000, DSMRE will issue any new permits in accordance with the AOC policy.

## **2. Excess Spoil Fills: Design and Construction**

*Issue:* OSM found that, in a number of instances, DSMRE has given operators approval to construct fills for excess spoil that become unnecessary because of mining method changes or that are larger than are necessary for the operation. DSMRE is taking steps to ensure that, before a permittee changes its method of mining, it obtains an appropriate modification of its permit, including revisions to the number and/or capacity of the fills. Finally, the State is in the process of adopting policies to address the practice of "wing-dumping" in constructing excess spoil fills. The State should consider a policy that would encourage the construction of fills in stages. These fills would begin in the upper portion of the watershed and to progress downstream only as necessary until the full capacity of the fill is achieved. This will avoid unnecessary impacts to the watershed where, after



mining commences, the permittee changes its method of mining resulting in less excess spoil to be placed in fills.

OSM also found that construction problems with a few fills have caused unnecessary impacts to headwaters and streams. DSMRE has taken enforcement actions to correct these construction problems.

*Proposed Action-Design and Construction:* A joint special study has recently been completed by DSMRE and OSM for the design and construction of excess spoil fills. The findings of this study are currently being reviewed by DSMRE. Policy decisions for both design and construction of fills will result from this study.

*Action Date-Design and Construction:* May 1, 2000.

### **3. Post-Mining Land Uses**

*Issue:* In a number of cases involving mountaintop removal or steep slope AOC variances, DSMRE improperly granted permits that approved post-mining land uses not authorized by the State program. Prospectively, DSMRE has now reformed its policy regarding permissible post-mining land uses, but it still needs to address this problem in connection with previously-issued permits.

*Proposed Action:* In accordance with Section A, DSMRE is currently reviewing existing issued permits. For those that are returned to AOC, the post-mining land use regulations will be evaluated to insure compliance. With an AOC variance to a permit was issued with an inappropriate post-mining land use, the permittee will be required to make appropriate changes to comply with the State program to the extent practicable. The application of prospective review is discussed in Section A.

*Action Date:* The initial evaluation of existing permits will be completed by March 2000 and post-mining land use changes, if necessary, will be completed by September 2000.

### **4. Mine Classification and Inventory**

*Issue:* DSMRE has classified a number of different mining types as "mountaintop removal" operations. This practice creates confusion because "mountaintop removal mining" is specifically defined in Kentucky's approved program.

Although a database tracking system for mountaintop removal operations and associated waivers is not required by State or Federal laws, the State's permit tracking system, the Surface Mining Information System (SMIS), does not

currently contains any data fields for variance information. This omission made it impossible to obtain a reliable electronic inventory of mountaintop mining permitted to be restored to AOC, mountaintop mining permitted with an AOC variance, and steep slope mining permitted with an AOC variance.

*Proposed Action:* The SMIS database has been completed with the ability to reflect appropriate AOC variances, post-mining land uses associated with the variance, and acreage. The changes to the database were completed in November 1999.

An internal policy on how data will be input by DSMRE was completed in December 1999.

*Action Date:* December 1999.

## **5. Needed Program Amendment**

*Issue:* The approved Kentucky program does not specifically require applicants for steep slope variances to demonstrate that the total volume of flow from the proposed mine, during every season of the year, will not vary in any way that adversely affects the ecology of any surface water or of any existing or planned use of surface or groundwater, and that the plan must be approved by the "appropriate State environmental agency."

*Proposed Action:* DSMRE published a Notice of Intent to Promulgate an Administrative Regulation on September 1, 1999. This regulation filed a proposed regulation with the Legislative Research Commission on January 27, 2000. On February 1, 2000, OSM received the proposed program amendment from DSMRE to address this ongoing issue.

*Action Date:* January 27, 2000.

## **6. Permit Findings**

*Issue:* DSMRE has been using an Affirmative Findings - Issuance/Denial Checklist to document permit applicants' compliance with the regulatory requirements for mountaintop removal and steep slope AOC variance. At least in its present form, this checklist fails to adequately assure that applicants have fully satisfied the pertinent requirements. Specifically, DSMRE should modify its findings checklist to include the specific finding required by 405 Kentucky Administrative Regulations (KAR) 8:050, Section 4, for a mountaintop removal AOC variance, the specific finding required by 405 KAR 8:050, Section 6, for a steep slope AOC variance, and to include some reference to the relevant portions of the permit application that support these findings.

*Proposed Action–Draft Finding Document:* DSMRE has completed an initial draft. OSM provided comments to DSMRE. DSMRE will continue its comprehensive review of its procedures regarding written findings.

*Action Date:* July 1, 2000.

**7. Permit Documentation: Expected Need and Market Data**

*Issue:* In a number of instances, DSMRE issued mountaintop removal permits without obtaining the required assurances that the requested post-mining land use be obtainable according to data regarding expected need and market.

*Proposed Action:* DSMRE is currently reviewing the past interpretation and implementation of 405 KAR 8:050, Section 4 and will develop new policy.

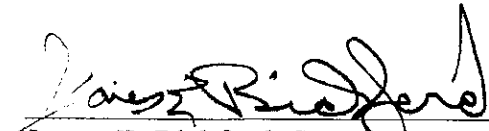
*Action Date:* May 1, 2000.

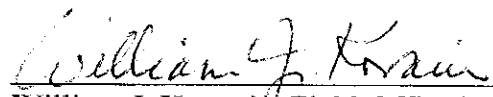
**C. OSM Oversight and Technical Assistance**

OSM and DSMRE agree that OSM oversight of compliance with the actions in this agreement will be conducted through spot sampling of activities in the permitting process. OSM will provide assistance to DSMRE if requested.

Additionally, OSM is currently developing policy guidance for approving alternative post-mining land uses. This information will be shared with states as soon as the guidance is finalized.

Concurrence by:

  
\_\_\_\_\_  
James E. Bickford, Secretary  
Natural Resources and Environmental Protection Cabinet

  
\_\_\_\_\_  
William J. Kovacic, Field Office Director  
Lexington Field Office, Office of Surface Mining