

US EPA ARCHIVE DOCUMENT



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

MAR 23 2009

Colonel Dana R. Hurst  
District Engineer  
U.S. Army Corps of Engineers, Huntington District  
502 Eighth Street  
Huntington, WV 25701

Re: DA Permit No. 2004-1400; Central Appalachia Mining, LLC  
Pre-Construction Notification and Compensatory Mitigation Plan  
KYDNR Permit No. 898-0610

Dear Colonel Hurst:

The U.S. Environmental Protection Agency (EPA), Region 4 has reviewed Central Appalachia Mining, LLC's proposal to discharge fill material into approximately 22,233 linear feet of waters of the United States in conjunction with the construction, operation, and reclamation of the Big Branch Surface Mine in Pike County, KY. The proposal includes the direct permanent impacts to 18,833 linear feet of ephemeral and intermittent channels of Big Branch, Swamp Fork, Shannon Branch, Daniels Branch, and Left Fork Malachi Branch. Project water-dependant components include eight valley fills, eight sediment control ponds, and three temporary stream crossings. The project purpose is to construct attendant and associated features to facilitate efficient extraction of 7.3 million tons of coal reserves in the Surface Mining Control and Reclamation Act (SMCRA) permitted area. A compensatory mitigation plan was included with the original and revised permit application; the plan was again revised in October 2008, and subsequently reviewed by EPA to ensure avoidance and minimization of impacts. However, EPA continues to have significant concerns, as described below, regarding the cumulative impacts of this project on the watershed, impairment of downstream water quality, the degradation of perennial stream channels, and that impacts have not been adequately avoided and minimized. Moreover, EPA does not believe the proposed mitigation will adequately offset the persistent and permanent impacts to the aquatic ecosystem communities and functions.

The USEPA Region 3 Freshwater Biology Team has extensively investigated the downstream effects of mountaintop mining (MTM) and the associated valley fills (VFs). The results show that MTM and VF activities are strongly related to downstream biological impairment, as indicated by raw taxonomic data, individual metrics that represent important components of the macroinvertebrate assemblage, or multi-metric

interpret narrative standards. For example, in Kentucky the narrative water quality standard states: "Surface waters shall not be aesthetically or otherwise degraded by substances that: injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish and other aquatic life." Kentucky's Department for Environmental Protection has used biological data to interpret their narrative WQS, and then listed mining-impaired streams on their 303(d) lists. Also, 33 CFR 320.4(d) states "Applications for permits for activities which may adversely affect the quality of waters of the United States will be evaluated for compliance with applicable effluent limitations and water quality standards, during the construction and subsequent operation of the proposed activity. The evaluation should include the consideration of both point and non-point sources of pollution. It should be noted, however, that the Clean Water Act assigns responsibility for control of non-point sources of pollution to the states. Certification of compliance with applicable effluent limitations and water quality standards required under provisions of section 401 of the Clean Water Act will be considered conclusive with respect to water quality considerations unless the Regional Administrator, Environmental Protection Agency (EPA), advises of other water quality aspects to be taken into consideration." In light of the conclusions reached in the study with respect to the downstream effects of mountaintop mining, the water quality effects demonstrated by the EPA study must be taken into consideration before the Section 404 permit can be issued.

The Clean Water Act Section 404(b)(1) Guidelines state the "fundamental precept of these Guidelines is that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern." Based on EPA Region 3's investigations and our review of the application, the activities described in this permit will bury approximately 3.5 miles of stream and are likely to degrade water quality downstream of the permitted facility and cause impairment of the aquatic life uses in downstream waters. Further, the compensatory mitigation projects proposed by the applicant, while addressing physical parameters, do not address degraded downstream water quality and may not fully restore the aquatic life uses or ensure that water quality standards are met.

We believe additional avoidance and minimization must be considered to reduce the overall individual and cumulative effects of the proposal and ensure downstream water quality standards are met. Such measures to be more fully considered include a reduction on the valley fill size and frequency, revisiting the approximate original contour configurations to maximize the spoil returned to the mined area, and consideration of alternative disposal sites that do not impact waters of the United States. While EPA feels the applicant has made significant progress in scaling back the project scope, we believe that additional measures may be available to reduce the impact of this proposal and that all alternatives should be exhausted to ensure that this proposal does not result in an unacceptable adverse impact, either individually or cumulatively, on the aquatic environment. Should additional avoidance and minimization of the project's impact be found feasible, we would ask that the District require the applicant to submit a

aquatic environment. Should additional avoidance and minimization of the project's impact be found feasible, we would ask that the District require the applicant to submit a revised version of the Environmental Information Document and Compensatory Mitigation Plan prior to permit approval.

The Guidelines further state that no discharge of dredged or fill shall be permitted if it causes or contributes to violations of any applicable State water quality standard. With the overall size of the proposed project and its impacts, EPA is working with the Commonwealth of Kentucky to ensure a Section 402 Individual Permit is obtained by the applicant rather than the General Permit for Coal Mining Activities currently issued by the Commonwealth. Possibilities remain for further restrictions to this project mainly centered on water quality issues, such as, requiring chronic whole effluent toxicity (WET) testing (IC25) and instream benthic macroinvertebrate studies in CWA Section 402 permits. Since the proposed surface mining moves forward in phases, where one area is mined before moving to another, we suggest that the applicant develop an adaptive management plan that includes best management practices (BMPs) or best available technologies (BATs) to address potential impacts to water quality as each valley fill is constructed. We further recommend that the U.S. Army Corps of Engineers-Huntington District include the development and approval of the adaptive management plan as a condition in the Section 404 permit.

In addition, EPA believes conservation easements or deed restrictions are necessary to cover all waterways in avoided valleys within the permit boundaries as well as all restoration stream reaches to prevent future impacts from coal mining. These waterways include the entire reach of Big Branch, all side channels and tributaries to Big Branch, such as, Little Fork and Swamp Branch, and both left and right forks of Malachi Branch into Knox Creek. Additionally, for those deed restrictions and easements added and already in the compensatory mitigation plan, we recommend that the District require the easement to be recorded by the county (Pike, KY) prior to project initiation to prevent loss of the easement area in perpetuity should property ownership change hands.

We appreciate the District's and the company's willingness to work with EPA in adjusting project parameters and augmenting the extent of mitigation to offset anticipated impacts of the proposed project. We have worked closely with the company's consultant, Summit Engineering, to address our past concerns with the loss of over 20,000 linear feet of jurisdictional waters, and in formulating a revised mitigation plan. We believe that if the recommendations given above are addressed and met, Central Appalachia Mining's proposal is a suitable candidate for receiving an individual permit from the District.

My staff is interested in discussing these issues with the applicant, their consultant, and the District as quickly as possible to resolve these concerns. In addition, we will be contacting other agencies to ensure all facets of environmental quality have been addressed in order to allow this application to move forward. Please do not hesitate to contact Todd Bowers (404-562-9225) or Jennifer Derby (404-562-9401) of my staff if you have questions.

Sincerely,



James D. Giattina  
Director  
Water Protection Division