



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

23 MAR 2009

Ms. Ginger Mullins  
Chief, Regulatory Branch  
Huntington District  
U.S. Army Corps of Engineers  
Huntington, West Virginia 25701-2070

Re: PN 2006-2290-BCR; Colony Bay Coal Company, Colony Bay Surface Mine near Wharton, Boone County, West Virginia

Dear Ms. Mullins:

The U.S. Environmental Protection Agency has reviewed the public notice for Colony Bay Coal Company's proposed surface mining project involving the discharges of fill material into approximately 7,739 linear feet (1.5 miles) of waters of the United States in conjunction with the construction, operation, and reclamation of the Colony Bay Surface Mine. The applicant proposes a 1,198-acre (1.9 square miles) surface mine with placement of fill in four valleys and in four streams for temporary sedimentation ponds. The proposed temporary in-stream treatment between the toes of fills and the sedimentation pond embankments would occupy and impact a total of 1,720 linear feet of intermittent stream channels and 368 linear feet of ephemeral stream channels. The proposed underdrain systems associated with Valley Fills No. 4, 5, 6, and 7 would directly and permanently discharge into 4,271 linear feet of intermittent stream channels and 1,380 linear feet of ephemeral stream channels.

EPA believes this proposal will either cause or significantly contribute to impairment of downstream aquatic life use in an Aquatic Resource of National Importance, violation of the State's water quality standards, forest fragmentation and habitat loss within a globally significant and biologically diverse forest ecosystem, and cumulative aquatic and terrestrial adverse impacts in the Little Coal River watershed, which contains the largest number of impaired stream miles in the Central Appalachian Ecoregion in West Virginia. These impacts would result in significant impacts to the human environment, requiring further evaluation as to whether or not an environmental impact statement pursuant to Section 102 of the National Environmental Policy Act (NEPA) is warranted. Moreover, the proposal is inconsistent with the Clean Water Act Section 404(b)(1) Guidelines and consequently, EPA must recommend denial of the proposed permit.

The Clean Water Act Section 404(b)(1) Guidelines state that 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." The Corps must consider water quality impacts as part of its permit review process [See 33 C.F.R. 320.4(d) ("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"); 40 C.F.R. 230.10(b)(1) & (c)(3)]. Pursuant to the Section 404(b)(1) Guidelines, the permit shall not be issued if the project will cause or contribute to an excursion from water quality standards and/or cause significant degradation of waters of the United States. While we recognize that for purposes of this analysis the Corps generally defers to the state's certification pursuant to Section 401 of the Clean Water Act, the Corps must consider other water quality aspects brought to its attention by EPA [33 C.F.R. 320.4(d)]. Moreover, West Virginia's Section 401 (standard condition #10) certification in this instance states it is the Corps' responsibility that the 404 permit "...comply with water quality standards contained in the West Virginia Code of Regulations, Requirements Governing Water Quality Standards, Title 47, Series 2."

EPA Region III's Freshwater Biology Team, which has extensively investigated the downstream effects of surface mining and associated valley fills and published its findings in a peer-reviewed scientific journal (Pond et al 2008), found that these types of activities proposed by the applicant are strongly correlated to downstream aquatic life use impairment. These results confirm earlier studies that surface mining impacts to aquatic life are strongly correlated with ionic strength in the Central Appalachians. In EPA's dataset, all mined sites with the specific conductance greater than 500  $\mu\text{S}/\text{cm}$  were rated as impaired with a genus-level multi-metric index (GLIMPSS). Undisturbed streams in the Central Appalachians are naturally very dilute, with background conductivities generally less than 75  $\mu\text{S}/\text{cm}$ . Downstream of mine sites, specific conductance and component ions can be elevated 20 to 30 times over the background levels observed at unmined sites (Bryant et al. 2002). This increase in conductivity impairs aquatic life use and is persistent over time, which rises to the level of a violation of water quality standards (WQS). In West Virginia, the narrative WQS reads, "...no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed".

These results indicate that significant degradation of waters of the United States will occur and violate the antidegradation policy, which is part of water quality standards intended to protect existing uses, including aquatic life use [40 C.F.R. 131.12(a)(1)]. EPA has interpreted the antidegradation policy as not precluding physical modifications otherwise authorized pursuant to Section 404, provided the discharge does not result in "significant degradation" to the aquatic ecosystem as defined under Section 230.10(c) of the Section 404(b)(1) Guidelines [See EPA, *Water Quality Standards Handbook: Second Edition*, Section 4.4.3 (Aug. 1994)]. The Section 404(b)(1) Guidelines define significant degradation as including, among other things, significant adverse effects "on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes."

We would also note that the SMCRA review is not a substitute for and should not be used in lieu of a rigorous review under the Section 404(b)(1) Guidelines. As the Office of Surface Mining made clear in the recent revision to the Stream Buffer Zone Rule:

"In interpreting this statutory provision with respect to effluent limitations adopted as part of our initial regulatory program, the U.S. Court of Appeals for the D.C. Circuit held that "where the Secretary's regulation of surface coal mining's hydrologic impact overlaps EPA's, the Act expressly directs that the Federal Water Pollution Control Act and its regulatory framework are to control so as to afford consistent effluent standards nationwide." .... The new rules emphasize that issuance of a SMCRA permit is not a substitute for the reviews, authorizations, and certifications required under the Clean Water Act and does not authorize initiation of surface coal mining operations for which the applicant has not obtained all necessary authorizations, certifications, and permits under the Clean Water Act." [73 Fed. Reg. 75814, 75819 (Dec. 12, 2008)].

The permit, if issued, will eliminate or impact 13,174 linear feet of headwater streams. EPA remains concerned about the conceptual mitigation plan. The conceptual plan is likely inadequate to fully compensate for lost functions of the aquatic ecosystem and will not be able to return aquatic life uses downstream. The use of constructed sediment ditches to comply with SMCRA and NPDES requirements as stream channels post reclamation is a concern. These channels are designed to carry polluted waters during active mining. These constructed channels even after reclamation will not provide clean, freshwater dilution to the watershed, which is so essential to the overall health of those receiving waters. To date it has not been demonstrated that the mitigation of headwater streams at these sites are adequately constructed to provide the functions of natural headwater streams, therefore incurring a loss of aquatic functions which can not be adequately restored or replaced. Headwater streams are vital components of the ecosystem. These ephemeral and intermittent streams collectively provide high levels of water quality and quantity, sediment control, nutrients, and organic matter, and as a result, are largely responsible for maintaining the quality of downstream riverine systems. Even though ephemeral and intermittent streams may go dry during a portion of the year, they continue to provide habitat for macroinvertebrates and amphibians that utilize the interstitial water flows in the substrate below the stream. These streams provide clean, freshwater dilution to downstream receiving waters to maintain the overall health and vitality of the larger watershed. Such aquatic resources have been significantly impacted by mining in Southern West Virginia.

This permit is proposed in the headwaters of the Spruce Fork watershed which drains into the Little Coal River. Three of the valley fills proposed by the applicant are located in tributaries to the Spruce Laurel Fork and one valley fill is located in an unnamed tributary to Skin Poplar Branch. The four valley fills themselves are located in forested areas that have not been previously disturbed by mining activities. Skin Poplar Branch, Spruce Laurel Fork and the Little Coal River have all been listed on the State's 303(d) list as impaired for mining related pollutants, including iron, aluminum and sediment. The Little Coal River system contains the largest number of impaired stream miles in the Central Appalachian Ecoregion in West Virginia. As these streams are all impaired it is important to protect the remaining forested headwater streams in the project area so as to continue to offer clean, freshwater dilution to downstream receiving waters to maintain the overall health and vitality of the larger watershed. (Pond, et al, 2008).

In addition to the importance of headwater streams these large tracks of intact forested areas are also vitally important. The mining region of Appalachia is characterized by the Anderson Level Land Use/Land Cover as approximately 92% forested, providing large interior forested habitats. These habitats are important ecologically because a variety of wildlife species

require large forested tracts of continuous forest cover to subsist. Forest fragmentation can adversely impact these species and in some cases, result in their disappearance from the area. Forested areas are therefore important from the standpoint of maintenance of interior forest species.

In light of the information above, this proposed project has the potential to add to the miles of impaired streams in this watershed. Cumulative impacts are required to be considered in the 404(b)(1) Guidelines analysis. Given the past mining conducted in this watershed, the cumulative and synergistic impacts of past and proposed mining must be evaluated. The Guidelines require an analysis to determine if significant degradation of the aquatic ecosystem will occur, with special emphasis on the persistence and permanence of effects, both individually and cumulatively. The most current science and data provides the evidence of the extent of persistent and permanent degradation to aquatic communities does exist.

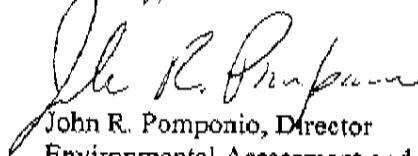
We have provided evidence that these activities will cause or contribute to an excursion of water quality standards. EPA believes that this proposal will cause or contribute to an excursion from the State's water quality standards downstream and that the direct and cumulative impacts from this and future mines will be persistent and permanent and can not be sufficiently or effectively compensated through the proposed mitigation, therefore EPA must recommend denial of the permit as proposed.

Thank you for opportunity to provide comments for this proposed project. EPA's comments reflect a concern that the substantive environmental criteria upon which permit decisions are to be based will not be met. Based on the evidence that this project will cause excursions from water quality standards, specifically, impairment of the aquatic life use, and will impact remaining unmined streams necessary to provide clean freshwater dilution to the watershed, EPA believes that the proposed project may result in substantial and unacceptable impacts to aquatic resources of national importance. EPA reserves the option to elevate the decision in accordance with Section 404(q) of the Clean Water Act.

In addition, Section 404(c) of the Clean Water Act gives EPA the authority to prohibit the issuance of a permit to fill waters of the United States if it is determined that such a discharge will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. After careful consideration, we find that the extensive cumulative and other impacts give this proposed project potential as a candidate for a 404(c) action.

Should you have any questions, please feel free to contact Ms. Jessica Martinsen at 215-814-5144 or by email at [martinsen.jessica@epa.gov](mailto:martinsen.jessica@epa.gov).

Sincerely,



John R. Pomponio, Director  
Environmental Assessment and Innovation Division