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

J. Robert Hume, III
U.S. Army Corps of Engineers
Norfolk District Regulatory Branch
803 Front Street
Norfolk, Virginia 23510-1096

21 OCT 2009

Re: PCN NAO-2007-1351, Ison Rock Ridge Surface Mine, Wise County, Virginia

Dear Mr. Hume:

The Environmental Protection Agency (EPA) has reviewed the additional information provided by A&G Coal Corporation for the proposed Ison Rock Ridge Surface Mine in response to comments submitted by the EPA on April 3, 2009. EPA requested the Norfolk District revoke the previously authorized Nationwide Permit (NWP) 21, and review the project through the Individual Permit process because of environmental concerns. On May 6, 2009 the Norfolk District suspended the Nationwide Permit. In a letter dated August 11th to the applicant the Corps requested additional information and clarification which was not provided in the initial Preconstruction Notification (PCN) including an alternatives and minimization analysis and a discussion of permitted surface mine impacts associated with the proposed mine site.

On June 11, 2009 the Corps of Engineers, EPA, and the Department of Interior entered into a Memorandum of Understanding for further review of surface coal mining in Appalachia. On July 15, 2009, the Corps published a proposal in the Federal Register to take two actions concerning NWP 21. The Corps proposed to modify NWP 21 to prohibit its use to authorize discharges of degraded material into waters of the United States for surface coal mining activities in Appalachia. Additionally, the Corps proposed to suspend NWP 21 to provide an interim means of requiring individual permit review for surface coal mining in Appalachia.

The Ison Rock Ridge project area is located less than one mile upstream of the town of Appalachia in Wise County, Virginia. The proposed surface mine site comprises approximately 1,291 acres and impacts tributaries of Looney Creek, Preacher Creek, and Callahan Creek, all of which are within the Powell River watershed . The aquatic resource impacts are associated with nine hollow fills, construction of 19 sediment ponds, and associated reclamation activities. Total aquatic resource impacts from the operation are 14,640 linear feet of intermittent stream and will occur in five tributaries of Looney Creek, two tributaries of Preacher Creek, and one tributary of Callahan Creek. Preacher Creek is a tributary to Callahan Creek, which is a tributary to Powell River. Looney Creek is a tributary to Pigeon Creek, which is a tributary to Powell River. The Callahan Creek watershed consists of approximately 18,386 acres of which 558 acres are proposed to be impacted and Looney Creek watershed is approximately 4,000 acres in size of which 672 acres are proposed to be impacted.

EPA remains concerned that this project's proposed impacts may have more than a minimal individual or cumulative adverse effect on the aquatic environment under the Clean

Water Act Section 404(b)(1) Guidelines. EPA believes that further avoidance and minimization efforts are needed, that the proposed project may cause or contribute to an impairment of the aquatic life use in downstream receiving waters, and that the direct and cumulative impacts from this proposal as well as past and future mines will be persistent and permanent and may not be sufficiently or effectively compensated through the proposed mitigation.

EPA has reviewed the submitted documentation and offers the following comments:

- EPA recommended in our letter dated April 3, 2009 that the applicant conduct an analysis to determine whether the project has the potential to cause or contribute to significant degradation and/or excursions from water quality standards. This analysis has not been provided to EPA in response to our letter. EPA believes that this information is essential to make a reasonable determination that significant degradation will likely not occur and to inform the permit decision.
- Callahan Creek has been identified as impaired for aquatic life use. EPA approved a Total Maximum Daily Load (TMDL) for total suspended solids (TSS) and total dissolved solids (TDS) in 2006. The aquatic life impairment of Callahan Creek extends 1.68 miles from the confluence with Preacher Creek to its mouth at the Powell River. We have been provided with information as to how the applicant proposes to ensure consistency with the TMDL. The National Pollutant Discharge Elimination System (NPDES) permit for this project is currently under review by EPA. We will coordinate with EPA's NPDES program to provide further comment on the project's water quality impacts and consistency with the TMDL. The NPDES review is expected to be completed within 60 days. As a preliminary matter, we note that EPA has published a *Water Quality Trading Toolkit for Permit Writers* (August 2007). In addition, to the extent it is proposed that best management practices to control for TSS will be effective to control TDS, it is not clear that this assumption is correct. TSS is generally filterable sediment and other small particles; TDS is associated with dissolved cations which form salts within the water thereby increasing salinity and affects aquatic communities. It is not clear, therefore, that BMPs that control for TSS will effectively control TDS.
- Past and future mining proposals within Callahan Creek watershed have impacted over 45% of the watershed comprising approximately 8,355 acres. The addition of Ison Rock Ridge would increase the total impacts to 48.5% or 8,913 acres of potential mining impacts. The Looney Creek watershed consists of approximately 4,000 acres of which, 44% have been impacted by mining or 1,775 acres of the watershed. The proposed mine would impact an additional 672 acres within the watershed increasing total impacts to 61% or 2,448 acres with in the Looney Creek watershed. EPA recommends that the Corps conduct a thorough cumulative effects analysis which includes a detailed presentation of past, present and reasonably foreseeable activities, fully analyzes the current state of the aquatic ecosystem and considers of the effects on the human environment including impacts to the subwatershed from the filling of streams and potential impacts to private drinking wells and other drinking water supplies.
- The applicant proposes remining 326 acres of which 135.9 acres occur within the Callahan Creek watershed. The proposed project expands beyond the remining areas and proposes to impact an additional 965 acres of previously unmined land. The land disturbance within an already heavily mined and impaired watershed may result in an overall increase in TDS and conductivity within the impacted watersheds. EPA is concerned that the land disturbance be included in the above recommended cumulative effects analysis, EPA recommends that an analysis also be conducted of all reasonably

foreseeable activities on water quality, loss of stream function and habitat and the effects of the hydrologic modifications to the watershed.

- To the extent the Corps relies upon the State's Section 401 Certification, a Cumulative Hydrologic Impact Analysis ("CHIA"), or the applicant's determination of probable Hydrologic Consequences as a part of the cumulative impacts analysis, the Corps' analysis should identify the specific language (including not only the conclusions but the underlying analysis) within the Section 401 Certification and/or CHIA that is relevant to the Corps' analysis.

Alternatives and Minimization Analysis

- EPA is concerned that it has not been established that the preferred alternative is in fact the least environmentally damaging practicable alternative (LEDPA). The applicant has stated that efforts have been made to reduce permanent impacts by 1,700 linear feet and temporary impacts by 600 linear feet utilizing contour, area, and auger mining as opposed to traditional mountaintop mining. However, we recommend that further offsite fill analysis be undertaken either individually or in combination with the alternative placement of excess over burden, as the applicant has identified other techniques that have the potential of being utilized either individually or in combination to reduce stream impacts. We also recommend additional evaluation for the potential placement on Permit No. 1101954 site for "significant spoil storage." The site is in close proximity to the proposed mine and the limitations listed in the analysis should be more thoroughly vetted in order to determine that this is not a practical alternative.
- EPA recommends that the mine plan be designed for sequential building of valley fills. This would allow for each fill to be monitored for water quality considerations and would require the operator to certify the mine plan prior to the start of the next valley fill. By doing so, the applicant assures that each fill is still necessary, informs decisions about subsequent fills, and allows for project modification to further avoid and minimize impacts during construction.
- AOC is the minimally acceptable reclamation method. Every effort should be employed beyond AOC to maximize avoidance to jurisdictional aquatic resources in consideration of safety and design stability.
- As part of the alternatives and minimization analysis the applicant has identified a series of best management practices (BMPs) it believes will be protective of downstream water quality. Examples include progressive backfilling of disturbed areas, stabilization of backfill material to reduce the rate and volume of runoff, diverting runoff away from disturbed areas, directing runoff through protected channels, and reclamation of disturbed lands by mining as contemporaneously as practicable. To ensure protection of downstream water quality, EPA believes that the CWA Section 404 permit should be conditioned to require appropriate instream chemical and biological monitoring and monitoring of the effluent for iron, conductivity, TDS, TSS, selenium, sulfates, and chlorides at a minimum.
- EPA recommends that the permit incorporate a requirement for an approved adaptive management plan to address monitoring data that reflects a trend toward potential significant degradation and/or excursions from water quality standards downstream of the project. The adaptive management plan should contain a sequence of specified actions to be taken in response to specified monitoring results including, where it is identified that the project is causing or contributing to an excursion from water quality

standards, ceasing of filling activities until excursions are remediated.

Mitigation

- Based on the information available to EPA, we believe it has not been established that the proposed mitigation will offset the proposed impact. EPA requests additional documentation explaining how the mitigation will offset the proposed impacts.
- EPA recommends that the permit include observable and measurable success criteria with biological, chemical, and physical components and a monitoring plan to determine if success criteria are being met. At a minimum, the biological scores should be similar to either the current conditions or an agreed to reference reach as portions of this watershed have been impacted by mining. Additionally, baseline benthic sampling should be conducted on the reaches proposed to be impacted prior to project inception and post restoration, or an agreed to reference may serve as a target community. This baseline data will establish the success criteria for both benthic and water chemistry.
- In addition, EPA believes the permit should require chemical monitoring to ensure that created or restored streams do not become conduits that export poor water quality downstream.
- EPA recommends that the monitoring of the mitigation plan should be of sufficient duration to determine success of all criteria components. For example, if it is not expected to achieve a biotic community indicative of attainment of aquatic life use for ten years, then monitoring should be required for a minimum of ten years.
- EPA also recommends that the permit should include a condition requiring additional mitigation in the event that success criteria are not achieved.

EPA believes that additional avoidance and minimization efforts should be considered to reduce the adverse impacts of this proposal, that the project has the potential to cause or contribute to significant degradation of waters of the United States or a violation of water quality standards, and an impairment to downstream aquatic life use, and that the direct and cumulative impacts from past, present, and future mines will be persistent and permanent and would not be sufficiently or effectively compensated through the proposed mitigation. For these reasons, in addition to the current Corps review of NWP 21 use within Appalachia, EPA requests that the proposal be reviewed and processed as an Individual Permit.

Thank you for your consideration and continued cooperation in this process. Should you have any questions or concerns please feel free to contact Mr. Mark Douglas of my staff at 215-814-2767, or by email at douglas.mark@epa.gov.

Sincerely,

Jeffrey D. Lapp, Associate Director
Office of Environmental Programs