**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 2 2 2008

Lt. Colonel Anthony P. Mitchell
District Engineer
U.S. Army Corps of Engineers
Nashville District
Attn: Ken Jones
3701 Bell Road
Nashville, Tennessee 37214-2660

Subject: LRN 2008-2130, A&G Coal
Long Rock Branch, Harlan County, Kentucky

Dear Colonel Mitchell:

The Environmental Protection Agency (EPA) has reviewed the Individual Permit application (IP) and public notice (PN) for an A&G Coal surface mine (LRN 2008-2130). The proposed project would create one sediment pond and mine through a ridge line. These proposed activities would impact 463 linear feet (lf) of ephemeral (116 lf) and intermittent (347 lf) streams of Long Rock Branch. Long Rock Branch is a first order stream that flows into Looney Creek about 1 mile downstream of the proposed activities. Looney Creek is a second order stream that flows in the Poor Fork of the Cumberland River (05130101 HUC) about 7 miles downstream of the proposed project. The Kentucky Department of Water (KDOW) has listed portions of the Poor Fork and upper Cumberland River as impaired use for Warm Water Aquatic Habitat (WWAH) and only partially supporting this use.

EPA applauds the efforts made by the applicant to place the overburden created by the cut-through outside of jurisdictional waters. This is consistent with the intent of the Clean Water Act (CWA) Section 404(b)(1) Guidelines (Guidelines) at 40 CFR §230.10(a). This regulation requires consideration (1) of practical alternatives that are presumed to be available for non-water-dependent activities and (2) that if dredged or fill material were placed into jurisdictional waters, alternatives should be considered to lessen adverse impacts on the aquatic ecosystem.

EPA's review of the IP and PN resulted with concerns for compensatory mitigation, water quality, cumulative effects, and environmental justice. The Supplemental Information (SI) and the Stream Restoration Plan (SRP) document, dated February 2009, provided the information on the proposed compensatory mitigation.

The Long Rock Branch baseline assessment was conducted using the Eastern Kentucky Stream Assessment Protocol (EKSAP). The baseline conditions included physical measurements to determine the habitat score and a specific conductivity (SC) measurement to describe the aquatic water column condition. The aquatic habitat score was 127 (marginal to suboptimal) while the water column condition was scored at the highest ranking of 1.0 (SC value

of 48 *u*S). Although the EKSAP allows for biological samples, no biological information was provided. The Ecological Integrity Units (EIUs) that will be lost by the proposed project were reported to be 319 EIUs. This was the same EIU value proposed in the SRP to compensate for the impacts. The proposal has almost the same length of ephemeral and intermittent stream channels to be created at the same habitat score.

EPA has concerns with the SRP. There should be objective success criteria for the creation of these streams, which should include the physical, chemical and biological measurements. It is recommended that physical design and assessment be held to a restored condition greater than marginal or sub-optical. EPA has concerns with the purposeful design and creation of new stream channels targeted for qualities lower than the goals set forth in Section 101(a)(2) of the CWA. One concern is that this SRP would not be consistent with the Guidelines at 40 CFR §230.10(c). These regulations prohibit discharges that would cause or contribute to significant degradation of the waters of the U.S. The proposed SRP would create streams that only partially support or completely do not support the created stream's designated use and/or downstream receiving water's designated use. This is the equivalent of creating impaired streams, which causes or contributes to significant degradation of those waters.

Another concern is the EKSAP and/or its application. It has been EPA's observation that biological measurements have not been provided for surface coal mining projects within the eastern coal fields of Kentucky. The direct measurement of the aquatic habitat designated use is preferred to surrogate inferred data that oversimplify the ecosystem services with a single measurement of 1 water quality parameter. The EKSAP was originally developed to address temporal loss of the stream resource. The development of compensatory mitigation plans with exactly one-to-one linear footage of stream impact to stream creation does not provide any temporal loss. The approval of designs that replicate the exact same quality of the existing condition also does not provide for any temporal loss consideration. EPA does not believe that it is the intent of the agencies relying upon the EKSAP for it to be used to replace existing poor quality streams with poor quality streams.

Therefore, EPA recommends that the US Army Corps of Engineers (USACE) permit require the applicant to monitor the macroinvertebrates downstream of the sediment pond using the appropriate KDOW high gradient stream assessment protocol on an annual basis. Furthermore, EPA recommends that chemical monitoring and success criteria be set consistent with KDOW's water quality standards, including numeric and narrative criteria and their Antidegradation Policy. Please consider chemical monitoring to include all the parameters, protocol, and durations identified in KDOW's most recent Kentucky Pollutant Discharge Elimination System coal mining general permit along with chronic whole effluent testing. Finally, the SRP should include the objective requirements detailed above along with an adaptive management plan that identifies what will happen if given objective criteria are not met within a specified time frame. EPA is available to assist in the development of special conditions to address these issues.

Water quality and cumulative effects for the proposed project are of concern to the EPA. Looney Creek is a surface water drinking source for the cities of Lynch and Benham, Kentucky. The drinking water withdrawal point is within five miles of the proposed project. KDOW

applies the designated use of drinking water five miles upstream of the withdrawal location. Along with the designated use, the narrative and numeric criteria necessary to protect the designated use, and the Antidegradation Policy apply. There is no site-specific consideration of this issue in the IP or PN. Increased sedimentation, total suspended solids, and total dissolved solids can require additional treatment for the public water supply. The applicant should provide an analysis on the potential effects of this project on the drinking water source.

Other water quality and cumulative effects involve the project's potential to contribute to the impaired segments of the Poor Fork (one segment) of the Cumberland River and the Cumberland River (two segments) in Harlan County, KY. KDOW has listed three segments with impaired uses to the WWAH, only partially supporting, with the pollutants identified as "Sedimentation/Siltation," "Unknown," "Iron," and SC. KDOW identified the suspected sources for Sedimentation/Siltation as "Rural" (Residential Areas) and "Site Clearance" (Land Development or redevelopment)"; Unknown cause from "Unknown" sources; "Iron" associated with siltation, and SC from "Surface Mining."

Since there are no Total Maximum Daily Loads (TMDL) for the watersheds above the three segments, then any new source and new load may contribute to the existing condition. Sediment, iron, and SC are constituents of surface mining activities. The requested water quality and biological monitoring should be part of the permit to ensure the permit complies with the Guidelines.

Environmental justice consideration should be applied to this permit action. The 2000 U.S. Census data reported that the median income for the Lynch community was below the state average, and that state average is below the national average. This would indicate that the Lynch community is an economically disproportionately disadvantaged community. There was no information provided in the PN or IP that addressed this subject. EPA requests that the applicant provide information on the impacts of surface mining on the local residents and how these impacts may be mitigated. Recent observations of coal mining impacts on local residents include fugitive dust, vibrations, increased noise levels, and increased dangerous traffic. Two observations of concern along local routes traveled by haul trucks are blankets of fugitive dust and high haul truck speeds. A description of the fugitive dust chemical make-up should be provided. Evaluations of each chemical's effect on human health should be provided with emphasis on airborne exposure and human health problems. The expected increased change on local road traffic should be provided and any mitigation actions governoring the hauling trucks. The governors should be set at the median legal speed along the truck routes from the site to a four lane highway.

We appreciate the coordination provided on this IP. There are unresolved issues with this project that result in a determination that the project as proposed may not be consistent with the Guidelines, and therefore, should not be permitted. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement between EPA and the Department of the Army, Part IV, paragraph 3(a), regarding Section 404(q) of the CWA.

Thank you for the opportunity to comment on this permit application. If you have any questions regarding these comments, please contact Larry Long (long.larry@epa.gov or 404-562-9460) or Duncan Powell (powell.duncan@epa.gov or 404-562-9258).

Sincerely,

James D. Giattina
Director
Water Protection Division

cc: Joe Blackburn, OSM, Lexington, KY
Bruce Scott, KDEP, Frankfort, KY
Carrie Lona, USFWS, Louisville, KY
Carl Campbell, KDNR, Framkfort, KY