

US EPA ARCHIVE DOCUMENT



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

12 JUN 2009

Colonel Dana R. Hurst
District Engineer
Huntington District
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701-2070

Re: PN 2007-89-OHR; Argus Energy WV, LLC; Wiley Branch Surface Mine Logan and Wayne Counties, West Virginia

Dear Colonel Hurst:

The U.S. Environmental Protection Agency (EPA) has reviewed the public notice for Argus Energy's proposed surface mining project, involving the discharges of fill material into approximately 2,724 linear feet of waters of the United States in conjunction with the construction, operation, and reclamation of the Wiley Branch Surface Mine located near Wilksdale in Lincoln and Wayne Counties, West Virginia.

The proposal includes the construction of three permanent valley fills and five in-stream sediment ponds. Construction of the proposed in-stream sediment ponds would impact 150 linear feet of perennial stream channel, 846 linear feet of intermittent stream channels and 70 linear feet of ephemeral channel. Construction of the underdrain systems associated with the proposed valley fills will result in the permanent direct discharge of fill material into approximately 1,478 linear feet of intermittent stream channels and 180 linear feet of ephemeral stream channel. The applicant has submitted a conceptual compensatory mitigation plan which incorporates the USACE Interim Functional Assessment Approach. The applicant proposes to re-establish/restore 1,006 linear feet of perennial and intermittent stream channels along with a 50-foot riparian zone along the channels, and establish 0.18 acre of emergent wetlands.

This project is proposed within unnamed tributaries of East Fork of Twelvepole Creek. East Fork of Twelvepole Creek is listed on the West Virginia 303(d) list for biological impairment, a condition not allowed under West Virginia's narrative standard. However it is also listed as a High Quality Stream for fisheries by the WV Division of Natural Resources. Aerial photography indicates that the area is heavily forested. Based on information available to EPA approximately ten percent of the 12-digit HUC watershed will be in mining with approval of the proposed permit.

EPA has identified valley fill 8 as an area of concern. The current drainage area for proposed valley fill number 8 is has been calculated by us to be approximately 71 acres at the toe. EPA believes that this stream could support perennial flow for several hundred feet. In fact a USGS study has found that perennial flows can occur in 40 acre drainages in the Central Appalachians. In addition to the



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question of flow regime, a similarly forested drainage of only 35 acres (Sweetwater Branch) was evaluated by EPA and identified as a high quality stream and is only 4 miles west of this proposed permit area. That area had 17 Ephemeroptera, Plecoptera, Trichoptera (EPT) taxa identified in February of 2008, which is exceptionally high for a drainage area that small. We believe that area of valley fill 8 may be of similar high quality. As the public notice is limited in the scope of information provided, EPA requests the water chemistry and biological data be made available for review for the headwater streams proposed to be impacted for this proposed fill so as to best inform this decision.

The Clean Water Act Section 404(b)(1) Guidelines provide the substantive environmental criteria upon which permit decisions are to be based. Only the least environmentally damaging practicable alternative (LEDPA) can be permitted and in order to identify the LEDPA, the applicant's alternatives analysis must examine a full range of alternatives that would avoid and minimize impacts to the maximum extent practicable. Cumulative impacts are required to be considered in the 404(b)(1) Guidelines analysis. The Guidelines also 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. Our review of the public notice indicates that the demonstrations required by the Guidelines may not have yet been met.

Based on the information available, the applicant proposes to place fill in 3 valleys adjacent to the site. Given the potential for these stream systems to be of high quality, providing for clean, freshwater dilution to downstream receiving waters to maintain the overall health and vitality of the larger watershed, and potential for cumulative effects, EPA believes other alternatives must be considered to minimize adverse effects to the watershed. Options that should be considered to maximize avoidance include returning overburden to the approximate original contour (AOC) or AOC+ and further backfill of overburden onto the proposed valley fill (VF) or existing VFs constructed by the company elsewhere where appropriate from a mining safety and stability standpoint. Evaluation of these options may result in an overall reduction of the number of valley fills sought for authorization.

In addition, the CWA Section 404(b)(1) Guidelines at 230.10(b) state that "no discharge of dredged or fill material shall be permitted if it (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violation of any applicable State water quality standard..." Many published studies indicate the activities proposed by the applicant, surface mining with valley fills, are strongly related to downstream biological impairment, as indicated by raw taxonomic data, individual metrics that represent important components of the macroinvertebrate assemblage, or when multi-metric indices are considered. These studies show that surface mining impacts on aquatic life are strongly correlated with ionic strength in the Central Appalachians. Downstream of mine sites, specific conductance and component ions can be elevated 20 to 30 times over the background levels observed at un-mined sites. This increase in conductivity impairs aquatic life use and is persistent over time, which cannot be easily mitigated or removed from stream channels. In addition these aquatic life use impairments can rise to a level of a violation of the State's narrative water quality standard and may violate the antidegradation policy.

In light of the above information, EPA believes that the evidence shows these activities may cause or contribute to an excursion of water quality standards. The CWA Section 404 permit evaluation must ensure that these excursions will not occur and that the cumulative impacts from past, present, and future mines will not have detrimental effects to the watershed and the human environment. To this end, EPA requests that the Corps require that measures are in place prior to the placement of fill in waters of the U.S. to ensure that excursion of the State's water quality standards do not occur, including excursions



of the narrative standard. We also request the Corps to incorporate monitoring conditions into the permit which require the applicant to submit a biological and chemical monitoring plan adequate to detect downstream impacts from valley fill effluent. In addition, the applicant should submit an adaptive management remedial action plan designed to eliminate water quality excursions should they occur. Both plans should be approved by EPA and the Corps prior to project construction. Should water quality excursions occur, implementation of the adaptive management remediation plan should be required.

According to the Guidelines, when it has been determined that impacts are unavoidable, only then can compensatory mitigation be considered. EPA believes it is premature to consider mitigation options but since the public notice addresses a conceptual plan, comments on the plan are offered. The applicant's plan must ensure the replacement of the lost functions and services of the impacted streams within the 12-digit HUC watershed in which the project will be located. The plan should be designed to ensure that created stream channels will match the lost flow regime (frequency, duration and seasonality of flow annually), provide the same structural habitat (riffle/pool, step/pool, shading, etc.), meet the same water chemistry characteristics (hardness, pH, conductance), and also support the same biologic communities (macroinvertebrates, fish, etc.). The mitigation must incorporate performance standards which include observable or measureable physical (including hydrological), chemical, and biological measures to determine if the compensatory mitigation project meets its objectives.

In conclusion, EPA is concerned that the project may adversely effect water quality resulting in an impairment of the aquatic life use, that the direct and cumulative impacts may be persistent and permanent. Additional avoidance and minimization efforts must be considered to reduce the impacts of this proposal. All alternatives which avoid and minimize impacts to waters of the U.S., such as those outlined above, must be considered and evaluated.

In light of these concerns, EPA believes that the project, as proposed and without further modifications, may not comply with the section 404(b)(1) Guidelines. EPA is committed to working with the applicant to identify additional opportunities to re-design and re-engineer the mine to develop the least environmentally damaging practicable alternative.

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.

Sincerely,



John R. Pomponio, Director
Environmental Assessment and Innovation Division

