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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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ATLANTA, GEORGIA 30303-8960

JUL 14 2010

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

Subject: LRN 2008-1178, Nally & Hamilton Enterprise, Inc., Nationwide 49 Permit Moore Creek, in Knox and Bell County, Kentucky.

Dear Lt. Colonel Mitchell:

The Environmental Protection Agency (EPA) has reviewed the proposed Nation Wide Permit 49 (NWP 49) permit application for the Nally & Hamilton Enterprises, Inc., application number LRN 2008-1178. The applicant is seeking authorization under the NWP 49 for deposition of fill into 4,057 linear feet (lf) in three streams that flow into Four-mile and Moore Creeks, which the Kentucky Department of Water (KDOW) has designated as an Outstanding State Resource Water (OSRW).

EPA recommends that this project be considered under an Individual Section 404 Permit (IP) due to the potential impacts associated with the potential to create or contribute to an exceedance of water quality standards for sediment and conductivity. The proposed NWP 49 is listed by the U.S. Army Corps of Engineers (COE) as a permit used for Coal Remining Activities. In this case, the activities include fill material to be deposited into the Black Lick branch and its unnamed tributary. The IP permit will function as a better permitting vehicle to address issues of concern including, environmental justice, endangered species, mitigation, avoidance, hydrologic impact including water quality that should be addressed within the permitting process. EPA recommends a watershed approach for the applicant to address these issues on at lease a HUC 12 digit watershed.

We outline our site specific concerns regarding the authorization of this permit below:

Project Purpose

NWP 49 requires "....The permittee must clearly demonstrate to the district engineer that the reclamation plan will result in a net increase in aquatic resource functions...." The applicant should be required to provide an assessment of the aquatic resource functions sequenced from existing conditions, during construction, and post re-

mined conditions to comply with this requirement. The applicant should provide a determination that identifies the aquatic resources and aquatic functions that they propose will result in a net increase from the depressed existing conditions of the previously mined site, abandoned mined areas, and, or mine lands under bond forfeiture contracts.

The applicant should provide project specific models for the pollutants of concern (sediment, temperature, dissolved oxygen, pH, total suspended solids, and total dissolved solids (TDS)) that the applicant believes will benefit from the proposed project. The applicant's determination should explain how the constituent(s) of concern will increase the aquatic resources including, and not limited to, aquatic functions such as the protection and propagation of balanced endemic populations of fish, and wildlife for each of the sequences identified above. The physical component of the aquatic resources should also be included. The applicant should provide aquatic resources associated with riparian zone and aquatic habitat for improvements for habitat that includes stability, diversity, and productivity. The applicant should be required, in either the water quality or compensatory mitigation sub-chapters, to provide a water quality monitoring plan that includes in-situ monitoring of the chemical, biological and physical characteristics of the streams they identified above. The sample site locations of the water quality plan should be below the downstream extent of the proposed project impact areas. This could start immediately below the proposed sediment pond(s). The water quality plan should clearly identify objective success criteria that demonstrate compliance with the project purpose.

The current information reviewed by EPA does not provide any of this information. This lack of information further supports EPA's recommendation that the project be re-noticed as an IP.

Avoidance and Minimization

40 CFR § 230.10(a), states, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." These recommendations for an analysis of alternatives are to meet a defined and scaled purpose. EPA believes that alternatives to the discharge of fill material do exist.

The applicant should conduct a thorough alternatives analysis and incorporate avoidance and minimization measures. The analysis should include at a minimum surface area disturbance, disposal location, drainage area, impacts, monitoring data, watershed conditions both at the site and downstream of the discharge point(s) and geological information. They should address the linear extent of streams impacted; reduce drainage through spoil and dispose of spoil materials on uplands such that they do not impact waters of the United States. NWP 49 does not address these issues in enough detail. Finally, the Kentucky Department of Mine Permits has published a Regulatory Advisory Memorandum 145, that provides the best available technology to determine if the fill placement optimization process results in the least environmental damaging

practicable alternative. Without this process applied to this permit there remains a viable practicable alternative.

Water Quality

As described in the Clean Water Act Section 404(b)(1) Guidelines (Guidelines), implemented through 40 CFR §230.10(a)(3), when activities associated with proposed impacts to special aquatic sites are not water-dependent, practicable alternatives that do not involve special aquatic sites are presumed to be available.

The aquatic resources of concern: Four-mile Creek and Moore Creek are OSRW. EPA considers these streams and their associated drainage features to be Aquatic Resources of National Importance. According to 40 CFR §230.10(b), no discharge may be authorized if it causes or contributes to violations of any applicable State water quality standard or violates any applicable toxic effluent standard; 40 CFR §230.10(c) further prohibits discharges that would cause or contribute to significant degradation of waters of the United States. 40 CFR §230.10(b) further states that no discharge may be permitted if it jeopardizes the continued existence of species listed as endangered or threatened, or may destroy or adversely impact critical habitat for those species and EPA recommends that the applicant complete a site survey to determine the potential impacts to endangered and threatened species.

Historical documentation for in-stream specific conductivity (SC) levels in upper Appalachia indicates that for the permit to address narrative water quality concerns a numeric level for SC should not exceed 500 µS. The NWP 49 permit does not address the water quality standards necessary to ensure downstream water quality. The CWA 402 and 404 permits work in tandem and when the 402 permit has been issued without appropriate limits, the 404 permit, in this case the NWP 49, should address water quality conditions to protect water quality and prevent significant degradation. These requirements are accomplished using numeric and narrative water quality criteria to protect existing water quality.

The CWA Guidelines require that no discharge of dredge or fill material shall be permitted if it will cause or contribute, after consideration of disposal site dilutions and dispersion, to an exceedance of any applicable State water quality standard (40 CFR § 230.10(b) or which will cause or contribute to significant degradation of the waters of the United States (40 CFR § 230.10(c)). The application's material provided with the permit application does not address these issues in sufficient detail for EPA to review for consistency with water quality standards. The applicant should provide an analysis prior to authorization and construction that the project will not cause or contribute to excursion(s) from water quality criteria and/or significant degradation of the water body. The permits should include a monitoring plan that appropriately addresses these issues.

EPA does not believe that a sufficient reasonable potential analysis for SC or TDS has been conducted in accordance with Section 301(b) (1) (c), of the CWA and 40 C.F.R. §122.4 (a, d, and i) and 40 C.F.R. § 122.44(d) (1). EPA concludes that sufficient

evidence exists based on our review of water quality data from other mining projects in eastern Kentucky that it is reasonable to assume that significant water quality degradation will occur absent an site specific analysis demonstrating that discharges from the proposed discharge site will not have a reasonable potential to cause or contribute to a violation of the Kentucky narrative water quality standards and specifically for sediment and SC. The Four-mile Creeks flows into the Cumberland River, and Moore Creeks flows into Stinking Creek and then into the Cumberland River. The Cumberland River is listed as impaired on the KDOW's Section 303(d) impaired waters list. EPA's concern is that the discharge from the proposed site could degrade the water quality down stream and, thereby, degrade the water quality in the Cumberland River to a greater extent. SC values greater than 500 µS may result in reduction of availability of dilution waters from stream reaches necessary to support a balanced population of indigenous aquatic species. A SC trigger should be included in the permit such that the site does not contribute to existing environmental degradation within the watershed and downstream in the Cumberland River.

EPA is unclear how this project complies with general permit condition #19 that states the placement of dredged and fill material into waters of the United States is not authorized by NWP 49 if the waters are officially designated by a state as having a particular environmental or ecological significance. The KDOW designated the waters within the Four-mile Creek and Moore Creek watersheds as OSRW. As such, the State has officially designated these waters as having a particular environmental or ecological significance. This point further supports EPA's recommendation that this project be re-noticed as an IP, because from a simple reading of the regulation above, this project should not be permitted under NWP 49.

Mitigation

EPA has reviewed the enclosed mitigation plan. As proposed, the plan does not comply with the Guidelines and 2008 mitigation rule. EPA's concern is that the current proposed permit is inconsistent and has not explored all of the options available. Therefore, if additional avoidance and minimization cannot be achieved through off-site spoil disposal, thereby, increasing the success of mitigation, additional mitigation should be required to compensate for the loss of the aquatic systems.

The applicant proposes to pay an In-Lieu Fee of $41,292 for the mitigation of 222 lf of intermittent stream, and restore all existing mine benches to approximate original contours with excess spoil being placed in the hollow fill locations. The applicant also proposes the restoration of 2,809 lf of intermittent stream from previous mining activities. A functional assessment (as suggested in the Project Purpose) should be performed that include stream impacts, quantify environmental impacts and ensures adequate compensation for lost stream functions.

The stream mitigation plan provided by the applicant states that "[A]ll mitigation was projected with a 25-year maturity life and 50 percent failure risk. EPA recommends that the mitigation have a 50 percent success rate and 5-year maturity, and that the plan

contain detailed success criteria. For this reason the plan is incomplete. Depending on the flow velocity, and the stream geology within the natural flood plain the mitigation proposal has the potential to increase downstream erosion. This in turn will decrease the downstream water quality. Natural sloping of the stream bank with native vegetation to support the bank is mentioned in the mitigation plan; however the plan is not specific enough.

Cumulative Effects

While EPA is not specifically opposing authorization of mining projects under a NWP, we are unclear how this project, as proposed, is consistent with 40 C.F.R. § 230.1(c) and 40 C.F.R. § 230.11(g). The cumulative impact analysis should address past, present, and foreseeable future impacts. To accomplish this EPA recommends an assessment at the watershed scale HUC 12. The HUC 12 watershed map provides greater analysis capability for natural resources than the HUC 8. The proposed project is located in the HUC 12 (0305) and falls within Ecoregion 69. The proposed project is located in the headwaters of the Cumberland River. SC parameters in the unnamed tributary(s) of Moore and Four-mile Creeks are presently unknown and EPA is concerned that the project as presently proposed would decrease the water quality conditions in Four-mile and Moore Creeks, which are OSRW. These creeks are critical to supporting the existing state water quality standards in the Cumberland River.

EPA requests that the permit be held in abeyance until the cumulative impact analysis is complete and the COE has made a determination that the proposed project 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. Should a permit be issued then it should be conditioned to include in-stream chemical, physical and biological monitoring, together with the remedial actions required, to ensure that further cumulative effects are sufficiently monitored and avoided.

Environmental Justice

The requirements of Executive Order (E.O.) 12898 and the Presidential Memorandum accompanying it must be addressed appropriately in federal action such as federal permitting under 404 of the CWA and National Environmental Policy Act. Under E.O. 12898, "each Federal agency shall make achieving environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." EPA would encourage the District to include EJ as part of this permit's review. Residences may be affected by changes in ground water (drinking water wells), air quality (particulate matter), noise, vibrations, and increased traffic. EPA is also concerned that the Pre-discharge Notification will not provide the EJ community with a chance to review and comment. One way to achieve the President's Executive Order is to provide open communication to the public and the IP permit is a better vehicle to achieve this goal. Where applicable Geographical Information System demographics maps specific for EJ issues and epidemiological maps

should be used to address the impact that the proposed project would have on disadvantage populations within the permit site and downstream from the site. Review of the application did not display any EJ survey maps or was the EJ issue properly addressed, for this reason EPA would request that the applicant provide this information and that the COE ensure that the EJ issues have been properly addressed, prior to the issuance of any permit.

Conclusion

EPA feels that the application package presented is not complete and requires more thought be directed to the issues in reference to project purpose, avoidance and minimization, water quality, compensatory mitigation, cumulative impacts, and EJ impacts of the proposed project. Given that the unnamed tributaries to Moore and Four-mile Creeks would be impacted, that in-stream treatment pond(s) would be used, that the project is covered under a general 402 Kentucky Pollutant Discharge Elimination System permit, and that the potential for degradation of water quality may occur, it appears that the proposed activities' environmental impact will not be minimal and the project should be reviewed under an individual permit.

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,

for James D. Giattina
Director
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Concurrence: LLong – g:\ G:\Coal Mining NON-IAP\4.Tennessee Coal Mine Permits\LRN-2008-1178.Nally & Hamilton Enterprise, Inc. NWP49\LRN-2008-1178 Nally & Hamilton NWP 49 comment ltr.Rv.071210tr.doc

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