

LANCE R. LEFLEUR
DIRECTOR



KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

March 01, 2018

Mr. Justin Burggraff
President
Centennial Natural Resources, LLC
Post Office Box 2420
Jasper, Alabama 35502

RE: Final Permit
No. 5 Mine
NPDES Permit No. AL0079936
Walker County (127)

Dear Mr. Burggraff:

Enclosed is the issued National Pollutant Discharge Elimination System (NPDES) permit for the above referenced facility. The issuance, effective, and expiration dates of the permit are specified on the cover page. Please see Part I for discharge limitations, conditions, and requirements.

Comments were received during the public comment period.

The Department encourages you to voluntarily consider additional pollution prevention practices/alternatives at your facility which may assist you in complying with effluent limitations, and possibly reduce or eliminate pollutant discharges.

If you wish to continue any regulated activity authorized by this permit after its expiration, departmental regulations require a completed NPDES permit application for reissuance and the appropriate processing fee be submitted in such a manner that the documents and fee arrive at the Department's Montgomery office no later than **180 days** before the permit expiration date.

Should you have any questions concerning this matter, please contact Michael T. Bergh by email at mtbergh@adem.alabama.gov or by phone at (334) 274-4238.

Sincerely,

A handwritten signature in black ink that reads "Catherine A. McNeill".

Catherine A. McNeill, Chief
Mining and Natural Resource Section
Stormwater Management Branch
Water Division

CAM/mtb File: FPER/39926

Enclosure

cc: Michael T. Bergh, ADEM
Environmental Protection Agency Region IV
Alabama Department of Conservation and Natural Resources
U.S. Fish and Wildlife Service
Alabama Historical Commission
Advisory Council on Historic Preservation
Alabama Department of Labor
Alabama Surface Mining Commission

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35602-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

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March 01, 2018

Mr. Nelson Brooke, Riverkeeper
Mr. John Kinney, Enforcement Coordinator
Ms. Eva Dillard, Staff Attorney
Black Warrior Riverkeeper
712 37th Street South
Birmingham, Alabama 35222

RE: Response to Comments
Draft NPDES Permit Number AL0079936
Centennial Natural Resources, LLC – No. 5 Mine
Walker County

Dear Ms. Dillard and Messrs. Brooke and Kinney:

The abovementioned draft National Pollutant Discharge Elimination System (NPDES) Permit was made available for public review for a period of thirty days beginning on October 11, 2017. Comments on the proposed permit were received from the Black Warrior Riverkeeper and the Birmingham Water Works Board (BWVB) on November 10, 2017.

The Department reviewed all submitted comments and has prepared a summary of the Riverkeeper and BWVB comments with the Department's responses. The summary of the comments and the Department's responses is enclosed.

The Department appreciates your careful review of the draft permit and your participation in the public review process. The NPDES Permit for No. 5 Mine was issued on March 1, 2018.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffery W. Kitchens".

Jeffery W. Kitchens, Chief
Stormwater Management Branch
Water Division

JWK/mtb

Enclosure: Comments Summary and Responses

File: FPER / 39926

cc: Michael T. Bergh, ADEM

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
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Mobile, AL 36608
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(251) 304-1189 (FAX)

RESPONSE TO COMMENTS

March 2018

Centennial Natural Resources, LLC. – No. 5 Mine
Proposed Reissuance of NPDES Permit No. AL0079936
Walker County

The proposed draft reissuance of National Pollutant Discharge Elimination System (NPDES) Permit AL0079936, Mine No. 5, was placed on Public Notice October 11, 2017. This document addresses comments received from the Birmingham Water Works Board (BWVB) and the Black Warrior Riverkeeper (Riverkeeper). The Department reviewed all comments and provides a summary of the comments, as well as the Department's responses, below.

Birmingham Water Works Board (BWVB) Comment 1:

Regarding water quality standards, BWVB writes:

“The conventional treatment process has a limited ability to remove many metals and other toxic compounds; hence, there is a maximum concentration of these contaminants that is acceptable in the water that the BWVB attempts to treat to drinking water standards. This maximum concentration is codified through an ADEM narrative Water Quality Standard (WQS) for waters designated as PWS, meaning dischargers are prohibited from causing contamination that would make the water unsuitable for drinking purposes if subjected to conventional treatment. (Ala. Admin Code 335-6-10-.09). This standard is the primary distinguishing characteristic of the PWS classification over the Fish and Wildlife classification, which is the classification assigned to most of the waters in the Black Warrior Basin. Unfortunately, it is apparent that ADEM has not considered the treatability of this water in its reasonable potential analysis (RPA). This analysis, contained in the NPDES permit rationale, compares likely discharges to the numeric water quality standards only, with no attempt to quantify the maximum tolerable concentration of the likely mining runoff contaminants.”

BWVB Response 1:

The draft permit proposes treated discharges to stream segments, other State waters, or local watersheds that currently have a use classification of Public Water Supply (PWS) and/or Fish and Wildlife (F&W) and was written to protect the receiving streams use classification(s) by minimizing the discharge of pollutants commonly associated with coal mining. Conventional mining pollutants expected in runoff from a facility of this type include pH, total iron, total manganese, settleable solids, and total suspended solids and are being limited with consideration given to the monthly average, daily minimum, and daily maximum effluent limit guidelines (ELGs) found in 40 CFR 434. The Department also completed a Reasonable Potential Analysis (RPA) for each discharge location to determine if additional discharge pollutants exist which have a potential to cause or contribute to excursions of Alabama's in-stream water quality standards (WQS). The RPAs were completed using available background stream data and, because the No. 5 Mine site has not experienced a discharge from mining activity to date, representative data from an upstream coal mine discharge. The Department used this representative data to compare expected instream concentrations of pollutants during critical low-flow conditions in the receiving stream with the PWS criteria which takes into account the effects on human health from both the consumption of fish and water. Based on the information available to the Department, the RPAs indicate that there is no reasonable potential for the discharges to exceed PWS water quality standards.

Also, see BWVB Responses 3 and 6.

BWVB Comment 2:

Regarding water quality standards, BWVB writes:

“The Board requests that ADEM take a more critical and scrutinizing look at the RPA to ensure that the likelihood of exceeding WQSs is truly assessed.”

BWVB Response 2:

The Department has re-reviewed the RPAs created prior to development of the Permit. Based on this review, the Department has again found that a reasonable potential does not exist for the discharge to cause or contribute to a contravention of state PWS water quality standards.

The Department believes that current permit development practices for surface coal mining operations in Alabama are appropriate and that compliance with the permit conditions and requirements is protective of water quality standards.

Also, see BWWB Responses 1 and 6.

BWWB Comment 3:

Regarding data used for the RPA, BWWB writes:

“The contribution of pollutants from the mines should be based on statistically significant and meaningful data from previous and similar mine operations. Using a single point of data collected under the current discharge monitoring protocol is wholly insufficient to characterize the true contributions of the mine to the PWS.”

BWWB Response 3:

EPA Application Form 2C is the basis for the “Coal Mining and/or Preparation Application Metals, Cyanide, and Total Phenols Outfall Data” form on which the results of discharge analysis are reported. The instructions for completing EPA Application Form 2C do not require more than one analysis for each applicable pollutant. Based on the Department’s requirements, the Applicant also submitted instream data from upstream of the mining operations. This additional data was used by the Department when considering whether a reasonable potential existed for the discharge to cause or contribute to a contravention of the State’s water quality standards. The Department agrees that additional discharge and in-stream data are useful in permit reviews. When available, the Department reviews historic Discharge Monitoring Report (DMR) data and considers the data during the RPA. The Department also has and continues to collect water quality information at ADEM’s ambient trend monitoring and ecoregional reference sites within the State’s coal mining regions. In addition, the Department reviewed for consideration available data in ALAWADR, ADEM’s water quality database, during the RPA for the Permit.

40 C.F.R. § 122.21(k)(5) states that the applicant must provide estimates of the daily maximum, daily average, and source of information for the certain pollutants if he or she knows or has a reason to believe that they will be present in discharges from any outfall. However, 40 C.F.R. § 122.21(k) does not state that the source of information must be from existing effluent data. The Applicant submitted estimates using representative effluent data from Outfall 001-1 at the nearby Burton Mine (AL0068888) because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine’s Outfall 001-1 would be representative of characteristics of discharges from this facility. It should be noted, however, that Part II.C.3 of the Permit requires the submittal of active mining effluent data for certain metals, cyanide, and phenols either within the first six months following the permit’s effective date or within six months following the date of the first discharge. Furthermore, under Permit Part II.C.3.d, the Department may reopen the Permit to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

The Department’s water quality data is stored and accessible to the public through the water quality portal found at the following website: www.waterqualitydata.us/portal/. Available data is reviewed and, if applicable, considered during the reasonable potential analysis. All information used in the development of the permit and its discharge limitations are provided in the draft version of the permit.

Also, see BWWB Responses 1 and 6.

BWWB Comment 4:

Regarding water quality standards, BWWB writes:

“Additional consideration should be given to the unique situation in this portion of the river, where the flow is regulated by dams upstream and downstream, and water can pool for extended periods.”

BWWB Response 4:

The Department considers the complete mix of discharges to the receiving streams under critical, low-flow conditions. Doing so provides reasonable assurance that discharges under normal conditions shouldn't exceed water quality standards. The segment of Mulberry Fork of Black Warrior River receiving discharges from this facility is not expected experience a lesser flow rate than the one used during the development of the permit. Although some discharges are to streams classified as F&W, all outfalls have been evaluated as if discharging to PWS. Full compliance with the proposed permit is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS), which are suitable as a source of water supply for drinking or food-processing purposes, for the receiving streams.

Additionally, the Department has considered the discharges potential synergistic effects by incorporating acute toxicity testing and chronic toxicity testing (at certain outfalls) requirements using undiluted effluent. The additional whole effluent toxicity testing (WET) will provide additional confirmation that the discharges do not contribute to an excursion of the State's narrative water quality standards.

BWWB Comment 5:

Regarding previous onsite activity, BWWB writes:

"Given the previous industrial activity and the acidic layers of soil on this site, there is significant potential for harmful contaminants to mobilize in the groundwater during normal and average weather patterns and impact the PWS."

BWWB Response 5:

Permit Part II.C.6 states, "unless authorized on page 1 of this Permit, this permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination."

Please note that proposed discharges to groundwater are not authorized on page 1 of the Permit.

Additionally, the Department has reviewed an onsite groundwater study to determine the presence of any additional pollutants present in the groundwater that was conducted as requested by the Alabama Surface Mining Commission (ASMC). The Department has found nothing during its review of the groundwater study to indicate the need for additional requirements within the Permit.

Also, see BWWB Response 6.

BWWB Comment 6:

Regarding previous onsite activity, BWWB writes:

"The wastewater lagoon that is present onsite was used as a process wastewater lagoon, meaning used chemicals and waste were sent to this pond, where they likely infiltrated the soil. There is no indication in the information provided by the applicant to ASMC or ADEM that the contamination in this pond has been mitigated in any way or that it has been closed in accordance with ADEM regulations. Again, this mining operation will proceed through this pond area with no knowledge of the contamination that exists."

BWWB Response 6:

For discharges from typical coal mining activities, the Department has acknowledged that many pollutants listed in EPA Form 2C and 2D (Parts A, B, and C) are not believed to be present. Water quality based pollutants of concern from typical coal mining activities for which the Department requires submittal of discharge analyses with an NPDES permit application include antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Because no discharges have been recorded at the site, the Permittee submitted discharge data from a neighboring mine for these pollutants. When discharge data is impossible to obtain from a site (as it was in this case), the Department believes it is reasonable and appropriate to make the assumption for permit development that data taken from a nearby location with similar regulated activities is representative.

However, in order to ensure that this Permit based on representative off-site data is protective of human health and the environment, Part II.C.3 of the Permit requires the Permittee to collect a sample of the discharge for all outfalls no later than six months following the effective date of the permit and analyze the sample for the parameters listed above. In addition, as a result of this comment, Part II.C.3 of the Permit has been modified to require the sampling and analysis of *all* pollutants listed in Parts A, B, and C of EPA Form 2C including those not typically associated with mining activities. If no discharge occurs within the first six months following the effective date of the permit, a sample must be collected no later than six months following the date of the first discharge. The data must be submitted on EPA form 2C and received by the Department no later than 28 days following six months after the permit effective date or initial discharge, whichever applies. The Permit may be reopened and modified, if required, to address any new information resulting from the completion and submittal of the abovementioned data.

Also, see BWWB Response 5.

BWWB Comment 7:

Regarding previous onsite activity, BWWB writes:

“The BWWB is rightly concerned with the lack of due diligence on this site because chemicals used in plywood manufacturing and wood treatment have the potential to cause significant harm to the drinking water supply and the people who consume the water.... The applicant provided a single sample at each of their groundwater monitoring wells that showed little phenols and aldehydes, but this is far from adequate to truly assess the presence of these compounds. The sampling wells are located on the upstream section of the site and away from the likely areas of highest concentration.”

BWWB Response 7:

See BWWB Responses 5 and 6.

BWWB Comment 8:

Regarding sediment loading, BWWB writes:

“The applicant...determined that the site will lose about 58 tons of sediment per acre annually from its sediment ponds to the river. In fact, over the course of a year, nearly 10,325 tons of sediment will enter the river. The applicant also performed dynamic modeling of the operation of its sediment basins during a large storm event to determine the performance of the pond and the expected quality of discharge at points during the storm. For the ponds designed to date, the peak sediment concentration during the 10-year, 24-hour storm event is between 3,200 and 14,300 mg/L and the total sediment leaving the ponds for that event is between 18 and 95 tons per pond.”

“These predictions represent massive amounts of material leaving the site and entering the river near the BWWB intake, and there is no protocol in place to monitor these discharges for sediment or any other contaminants that are discharged along with the sediment.”

BWWB Response 8:

The Permittee provided in the NPDES permit application that the cumulative loading rates for Total Suspended Solids (TSS) from all outfalls are approximately 12.15 tons per year.

Also, the Permit imposes a monthly average limitation of TSS from all outfalls of 35.0 mg/L. Considering the conservative, although unlikely, scenario of all outfalls being constructed and discharging continuously at the estimated flow rates provided in the application, compliance with the Permit would result in approximately 21 tons per year of suspended solids being discharged.

Additionally, Part II.A.2.c of the Permit reduces sediment loss by requiring the Permittee to minimize the contact of water with overburden and adequately stabilize disturbed areas by means of grading, diversion, and vegetation.

It is the Department's continued belief that full compliance with the proposed Permit's terms and conditions will be protective of instream water quality.

BWWB Comment 9:

Regarding contaminant modeling, BWWB writes:

“Given the lack of rigorous predictive analysis aimed at determining the likely impacts of the mine on the BWWB intake, the BWWB undertook an effort to make its own prediction of likely metals concentrations. The objective of the BWWB’s work has been to quantify the risk of exceeding the maximum tolerable raw water concentration for conventional treatment. The Board’s model uses the EPA’s EFDC hydrodynamic code to perform detailed 3D hydraulics calculations using actual rainfall data and detailed surveys of the river geometry. The storm water runoff quantities are calculated using the Rationale method and background river contaminant concentrations are from sampling performed by the BWWB. The last piece of information that goes into the model is the expected discharge from the mine outfalls. To date, the BWWB has used data from the literature as an input for the mine discharge quality because useful data does not exist for mines in the Mulberry watershed. The BWWB would like to advance the understanding of mining impacts in this area by improving its model, and asks ADEM to support this effort by improving its monitoring and reporting requirements.”

BWWB Response 9:

The Permit imposes bimonthly monitoring of flow and those metals which are reasonably expected to be found in the discharge in significant concentrations. Such monitoring is required to be reported to the Department quarterly on Discharge Monitoring Reports (DMRs) which are available for public review on the Department’s eFile System located at adem.alabama.gov/eFile/.

Metals which are not provided numeric limitations in the Permit are not expected to occur in the discharge in significant concentrations. Nonetheless, these metals are limited by the narrative responsibilities of Part II.D.4. which states “this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10.”

The Permit has been developed such that compliance with the Permit would ensure the discharges from the Mine will not cause or contribute to the water quality standard for a waterbody classified as Public Water Supply which are suitable as a source of water supply for drinking or food-processing purposes.

BWWB Comment 10:

Regarding monitoring, BWWB writes:

“The discharges from coal mines are almost exclusively storm water that lands on the site, runs over the ground surface to sedimentation ponds, and is discharged to the river. Given this function it is only logical that the ponds be monitored during rain events, when they are discharging pollutants of concern. However, the current protocol does not require sampling during discharge events, but exempts compliance with permit limits during these events.”

BWWB Response 10:

The technical information regarding discharge flow submitted in this application, which has been certified by a Professional Engineer (PE) licensed to practice in Alabama that the technical information and data within the application were prepared under his supervision utilizing effective, good engineering and pollution control practices, states that all discharges consist of stormwater drainage from the mining activities, and discharges may occur as a result of precipitation events or as a result of pumping.

The Permit imposes a monitoring frequency for the most limited pollutants of two days per month and for some pollutants of one day per quarter. In all cases, the Permit defines the frequencies as *any day of discharge* during that monitoring period. Indeed, sampling can only be conducted during discharge events, as the Permit does not allow for in-pond sampling.

The Department has determined that current permit requirements are sufficient for the regulated activity and will result in 120 sampling opportunities during the life of the permit providing results through all seasons, stages of operation, and weather conditions.

Response to Comments
AL0079936 – Centennial Natural Resources, LLC – No. 5 Mine

BWWB Comment 11:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Perform full characterization of the site relative to its historical use as a plywood manufacturing facility, including subsurface investigation, and fully characterize site groundwater and soil contaminants.”

BWWB Response 11:

See BWWB Responses 5 and 6.

BWWB Comment 12:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Update the RPA using actual background data and scrutinize mine discharge data to identify contaminants that are likely to exceed numerical WQSs and the narrative treatability WQS.”

BWWB Response 12:

See BWWB Responses 5, 6, and 9.

BWWB Comment 13:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Modify the implementation of permit limits to remove exemptions for rain events.”

BWWB Response 13:

The precipitation event discharge limitations are based on the effluent limit guidelines (ELGs) found in 40 CFR Part 434.63. EPA's *Development Document for Final Effluent Limitations Guidelines and Standards for the Coal Mining Point Source Category, 1982* indicates that toxic metal concentrations from pond effluent are expected to be at or below the detection limit, and concentrations of iron and manganese are expected to be at or below Best Practicable Control Technology (BPT) and Best Available Technology Economically Achievable (BAT) levels during precipitation events. Therefore, it is the Department's belief that the proposed limitations are protective of water quality during wet weather conditions and that specific effluent limitations for iron and manganese during applicable precipitation events are not needed. Moreover, the Permittee has the responsibility to establish and maintain appropriate erosion/sediment control and pollution abatement practices to effectively treat the discharge for all precipitation events.

BWWB Comment 14:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Modify sampling and reporting protocols to ensure that sampling events capture discharges, including significant rain events.”

BWWB Response 14:

See BWWB Response 10.

BWWB Comment 15:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Include monitoring requirements and limits in the permit for common mining pollutants and critical drinking water contaminants.”

BWWB Response 15:

The monitoring and reporting requirements in the Permit are based on the ELGs found in 40 CFR Part 434, the state's water quality standards found in ADEM Admin. Code ch. 10, and best professional judgement.

See BWWB Responses 4 and 6.

BWWB Comment 16:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ... ADEM: ... Require the mine operator to provide access to the outfall locations for the BWWB, and contractors to perform sampling and monitoring.”

BWWB Response 16:

The Department does not have the authority to grant BWWB access to the facility for sampling and monitoring purposes. Part II.D.6. of the Permit does, however, state that the Permittee shall allow access for the Department to sample or monitor any substance, parameter, or location for the purposes of assuring compliance with the Permit.

BWWB Comment 17:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ... ADEM: ... Require a Spill Prevention, Control, and Countermeasure (SPCC) plan that meets the requirements of 40 CFR 112. The current plan is incomplete and does not contain sufficient specific information or detail to adequately protect against spill contamination.”

BWWB Response 17:

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) the Permit requires the Permittee to design and implement a SPCC plan for all stored chemicals, fuels, and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill. The required SPCC plan for this facility has been, as evidenced by their seal and/or signature, prepared by a PE registered in the State of Alabama and submitted by the Permittee as part of the application.

BWWB Comment 18:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ... ADEM: ... Require sedimentation basins designs to meet best technology available (incl. ADEM guidelines).”

BWWB Response 18:

Because Alabama statutes grant authority exclusively to ASMC for the surface mining site, ADEM temporarily suspends application of the regulations which require a Pollution Abatement and/or Prevention Plan which would include basin design, since the responsibility is controlled, enforced, and monitored by ASMC during the performance of its regulations. ASMC requires coal mine operators to maintain sedimentation ponds and other sediment control facilities so that they meet performance standards and to submit certification that the construction of pollution prevention and/or abatement facilities was done in accordance with the approved design specifications. However, regardless of ASMC's involvement in the review process, ADEM does not completely relinquish or delegate its CWA responsibilities to ASMC, but rather, first allows ASMC to address these aspects during its permitting process. ADEM retains the ability to control and regulate discharges from mines to waters of the state.

It should also be noted that this and all other NPDES permits are drafted such that compliance with the permit will be protective of water quality regardless of the design of the operation and treatment processes.

BWWB Comment 19:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ... ADEM: ... Require notification of BWWB immediately upon on-site fuel spills or any other spills of potentially hazardous materials.”

BWWB Response 19:

The SPCC Plan states that the Permittee will contact the Department, the National Response Center, and the Alabama Emergency Management Agency in the event of an oil spill. These agencies are tasked in assessing threats to public water systems associated with reportable spills and are responsible for notifying affected systems as appropriate.

Response to Comments
AL0079936 – Centennial Natural Resources, LLC – No. 5 Mine

Riverkeeper Comment 1:

Regarding coal preparation and/or loading activities, Riverkeeper writes:

“In addition to surface mining, coal preparation will occur under the auspices of all of the advertised permits. Of note is the nature of coal preparation, a process which typically involves the crushing and storage of large quantities of coal and can require the use of chemicals. It is apparent that ADEM has failed to assess the possibility of chemical use at the preparation plants. If chemicals are used as part of preparation, it is critical that ADEM require monitoring for and limitation of any chemicals used (and/or their byproducts) to ensure that chemicals are not being discharged downstream.”

Riverkeeper Response 1:

The application submitted by Centennial Natural Resources, LLC. (Centennial) indicates that the processing proposed at the No. 5 Mine involves crushing and screening; chemical processing and leaching are not proposed by Centennial.

Where the RPA determined a pollutant in the discharge had a reasonable potential to cause or contribute to a contravention of the State’s water quality standards, a limitation for the pollutant was calculated to protect water quality standards and imposed in the Permit.

Additionally, it may be noted that 48-hour acute toxicity testing and short-term chronic toxicity testing (at certain outfalls) is required using undiluted effluent. The tests must be conducted with two species (*Ceriodaphnia dubia* and *Pimephales promelas*) as listed in Parts I.A., IV.F, and IV.G of the Permit. These testing requirements will help to confirm that the discharge does not cause or contribute to an excursion of the State’s narrative water quality standards.

Riverkeeper Comment 2:

Regarding Black Warrior River watershed study, Riverkeeper writes:

“ADEM’s study of surface mining impacts in the Black Warrior River watershed confirms a clear relationship between mining, together with associated activities like coal preparation, storage, and transportation, with negative downstream water quality impacts.... In light of these known impacts, we ask the Department to develop and implement a more robust permitting system for surface mining and associated activities that can better identify, limit, and even stop these acknowledged harms.”

Riverkeeper Response 2:

As the Riverkeeper has noted, the Department has completed a report to assess the impacts of surface coal mining on wadeable streams in the coal-mining regions of Alabama, *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama*.

The study did not conclude that surface mining causes or contributes to excursions of narrative or numeric water quality standards. The Department has concluded that the current permitting practices for surface coal mining operations are appropriate and compliance with the resulting permit conditions and requirements is protective of the water quality standards. However, it may be noted that the study did show a connection between coal mining and conductivity and Total Dissolved Solids (TDS), thus justifying the Permit’s inclusion of monitoring for Specific Conductance and TDS should it be necessary in the future to develop water quality criteria for these parameters.

Riverkeeper Comment 3:

Regarding surface mining in Alabama, Riverkeeper writes:

“Given EPA’s persistent failure to apply its guidance to Alabama, we call on ADEM to voluntarily adopt EPA’s guidance while making permitting decisions in order to make the regulation of surface mining and associated activities in Alabama more consistent with the rest of the Appalachian region, especially in light of the similar harms and regulatory issues.”

Riverkeeper Response 3:

The Department has concluded that the current permitting practices for surface coal mining operations in the State of Alabama are appropriate and that compliance with the proposed Permit’s terms and conditions will

be protective of instream water quality. The Department has included monitoring for Specific Conductance and TDS so that data is available should it be necessary in the future to develop water quality criteria for these parameters.

Riverkeeper Comment 4:

Regarding conductivity, Riverkeeper writes:

“In light of the evolving science that the conductivity benchmark promotes the water quality necessary to protect aquatic organisms living in streams, we would like an update on what steps ADEM is taking to develop State water quality standards or permit limitations for conductivity.”

Riverkeeper Response 4:

The Department's research, including that done for the 2013 *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin* has shown conductivity to have varying degrees of impact to aquatic communities. The Department has not found a correlation between conductivity and aquatic community health in Alabama streams, and has therefore determined that development of criteria for conductivity is inappropriate at this time.

See Riverkeeper Responses 2 and 3 above.

Riverkeeper Comment 5:

Regarding precipitation exemptions, Riverkeeper writes:

“According to the permit rationales, ADEM concludes that ‘it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the instream pH based on the low discharge/stream flow ration.’ *Id.* At 2. As we have stated in previous comments, *WQBELs are not eligible for alternate precipitation limits, whether for pH or metals.*”

Riverkeeper Response 5:

Based on the Department's regulations, Water Quality Based Effluent Limitations (WQBELs) are typically calculated assuming low flow conditions in the receiving stream. During a precipitation event, the receiving stream is expected to have a flow greater than the low flow conditions, and the assumptions for which limits are based may no longer be valid. As a result, an exceedance of an WQBEL during a precipitation event may not result in a violation of water quality standards due to the additional assimilative capacity of the receiving stream (*i.e.*, a discharge of pH at the limit of 9.0 s.u. during a precipitation event is not expected to cause the instream pH to exceed 8.5 s.u. due to the additional assimilative capacity).

However, it should be noted that Part 11.D.4.a. states “this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.” Also, Part IV.D. states that “the discharge shall not cause the in-stream pH values to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u.”

Riverkeeper Comment 6:

Regarding the RPA, Riverkeeper writes:

“EPA requires a Reasonable Potential Analysis (RPA) for each mine permit that includes background data for metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc), total phenols, and total cyanide levels in the receiving stream. We continue to be concerned about whether ADEM is requiring enough data from permit applicants to support statistically defensible calculations of appropriate permit limits.... We believe that single samples from supposedly representative outfalls cannot reliably predict proper effluent concentrations. Similarly, background, instream concentrations based on samples from a single day cannot provide statistically significant representations of actual instream water quality. Also, the Department should require applicants to furnish recent data.

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“We urge you to require additional instream and effluent samples. Requiring more data inputs ---and more representative inputs--- for the RPA calculation will help ADEM better calculate permit limits and also more accurately project the instream conditions during and after mining. We discourage the use of in-pond samples (they are not representative) as well as older samples like those for Narley and Carbon Hill mines. We suggest that ADEM require multiple effluent samples during a fairly recent time period to ensure that the Department is working with statistically significant data.”

Riverkeeper Response 6:

EPA Application Form 2C is the basis for the “Coal Mining and/or Preparation Application Metals, Cyanide, and Total Phenols Outfall Data” form on which the results of discharge analysis are reported. The instructions for completing EPA Application Form 2C do not require more than one analysis for each applicable pollutant. Centennial submitted effluent data from Outfall 001-1 at the nearby Burton Mine (AL0068888) because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine’s Outfall 001-1 can predict the future characteristics of discharges made by this facility. It should be noted, however, that Part II.C.3 of the Permit requires the submittal of active mining effluent data for certain metals, cyanide, and phenols either within the first six months following the permit’s effective date or within six months following the date of the first discharge. Furthermore, under Permit Part II.C.3.d, the Department may reopen the Permit to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

Based on the Department’s requirements, Centennial also submitted instream data from upstream of the mining operations. This additional data was used by the Department when considering whether a reasonable potential existed for the discharge to cause or contribute to a contravention of the State’s water quality standards. The Department agrees that additional discharge and in-stream data are useful in permit reviews. When available, the Department reviews historic DMR data and considers the data during the RPA. The Department also has and continues to collect water quality information at ADEM’s ambient trend monitoring and ecoregional reference sites within the State’s coal mining regions. In addition, the Department reviewed for consideration available data in ALAWADR, ADEM’s water quality database, during the RPA for the Permit.

Riverkeeper Comment 7:

Regarding the RPA, Riverkeeper further writes:

“We are glad to see that the Department has reviewed ‘available data’ from ALAWADR in order to better evaluate the data submitted by the permittees. However, we ask that ADEM state in the permit rationale the actual data reviewed from this database and include that data in its permit calculations. We continue to emphasize that, in order to accurately predict instream conditions, ADEM needs to search through not just its own water quality data, but also seek out additional data from other sources such as STORET or require the permittees to collect a statistically significant series of data points and report average concentrations of the relevant parameters.”

Riverkeeper Response 7:

The Department’s water quality data is stored and accessible to the public through the water quality portal found at the following website: www.waterqualitydata.us/portal/. Available data is reviewed and, if applicable, considered during the RPA. All information used in the development of the permit and its discharge limitations are provided in the draft version of the permit.

Also, See Riverkeeper Response 6.

Riverkeeper Comment 8:

Regarding the Pollution Abatement and/or Prevention (PAP) Plan, Riverkeeper writes:

“Absent PAP plans, there is no meaningful way to determine the total impact of the discharges from the sites on the water quality of the receiving waters.... ADEM could not have determined that PAP plans for these sites were adequate to provide for the protection of water quality because apparently no PAP plans were submitted with the permit applications. In the absence of such a reviews, ADEM could not possibly have determined that discharges from these facilities would not impair water quality or cause a violation of water

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quality standards. *Id.* ADEM’s reliance on the ASMC, which does not have primacy on issues related to water quality, to review PAP plans is wrong, and in our opinion illegal. Furthermore, the PAP plans submitted to the ASMC are generally submitted piecemeal, segment by segment, do not reflect the cumulative water quality implications of the mine as a whole, and generally consist of boilerplate specifications rather than site-specific blueprints for actual, on-the-ground pollution controls.”

Riverkeeper Response 8:

Because Alabama statutes grant authority exclusively to ASMC for the surface mining site, ADEM temporarily suspends application of the regulations which require a PAP Plan since the responsibility is controlled, enforced, and monitored by ASMC during the performance of its regulations. ASMC requires coal mine operators to maintain sedimentation ponds and other sediment control facilities so that they meet performance standards and to submit certification that the construction of pollution prevention and/or abatement facilities was done in accordance with the approved design specifications. However, regardless of ASMC’s involvement in the review process, ADEM does not completely relinquish or delegate its CWA responsibilities to ASMC, but rather, first allows ASMC to address these aspects during its permitting process. ADEM retains the ability to control and regulate discharges from mines to waters of the state.

It should also be noted that this and all other NPDES permits are drafted such that compliance with the permit will be protective of water quality regardless of the design of the operation and treatment processes.

Riverkeeper Comment 9:

Regarding the PAP Plan, Riverkeeper further writes:

“We also note that ADEM has included new language in NPDES permits for coal mining and associated activities beginning December 2013 about the role of permittee engineers.... We commend the Department for including this language in the permit rationales and for making the permittees’ engineers specifically responsible for the efficacy of the facilities’ wastewater treatment.

“However, we want to reiterate that such language cannot absolve ADEM of its independent responsibility under regulation to review submitted plans and designs or to likewise ensure that wastewater treatment facilities perform adequately. Just as the Department cannot abdicate responsibilities to review the PAP Plan, ADEM cannot disclaim legal obligations for review of waste treatment facilities.... It is the responsibility of the Department as well as individual permittees, to ensure that the wastewater facility designs submitted will protect water quality. While engineers must assume responsibility for these facilities on behalf of permittees, pursuant to legal mandate ADEM must assume responsibility for these facilities on behalf of the citizens of Alabama.”

Riverkeeper Response 9:

Comment noted.

See Riverkeeper Response 8.

Riverkeeper Comment 10:

Regarding applicable monitoring requirements, Riverkeeper writes:

“Under the terms of the NPDES permits at issue, the permittees are allowed to sample more frequently than required by the permits as long as they report all of the additional information on their DMRs (Part I.B.1.c. of the permits) and the sample collection and measurement actions are representative of the discharge (Part I.B.5. of the permits). We understand that this allows the permittees the opportunity to show that an elevated sample result on one day of sampling may not be a chronic occurrence and may not be representative of the average monthly concentration of the pollutant.

“However, if this is the case, we point out that a sample *within* permit limits on one day of sampling may not be a chronic occurrence and may also not be representative of the average monthly concentration of the pollutant. In other words, we believe that the better protocol for mining permits (absent unusual circumstances) is for sampling intervals to be chosen and consistently adhered to in order to calculate the monthly average permit limitations. To do otherwise, ADEM is creating circumstances that allow a permittee

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to selectively sample in order to better manipulate outcomes and meet permit limits – even if those outcomes are not representative of the discharge over time.”

Riverkeeper Response 10:

The Permit provides the Permittee with the ability to sample more often than the required frequency so that the Permittee can better represent, and the Department can better understand, the nature of the discharge over time. No change was made to the permit as a result of this comment.

Riverkeeper Comment 11:

Regarding in-stream monitoring and quoting the October 1, 2010, EPA Comment Letter, Riverkeeper writes: “77% of Alabama’s rivers and streams have not been assessed for water quality purposes.’ *Id.*

“Can ADEM update this figure? What percentage of Alabama’s waterbodies have been assessed for water quality purposes? We continue to ask that ADEM do more to ensure that the Department (and the public) have adequate water quality data in areas of concentrated coal mining. We call on ADEM to establish more active trend or reference water quality monitoring stations in Jefferson, Walker, and Tuscaloosa counties, which are the most heavily coal-mined counties in Alabama.”

Riverkeeper Response 11:

From the Department’s 2016 *Integrated Water Quality Monitoring and Assessment Report*, there are approximately 129,700 total miles of Alabama rivers and streams of which almost 14,000 have been assessed.

The Department has 14 trend stations located in the Black Warrior River Basin including Lost Creek at Browns Bridge Road (near Parrish) in Walker County which was added to the Department’s list of trend monitoring stations in 2010. The Department has one reference water quality monitoring site in Tuscaloosa County (Bear Creek at Oregonia Road) as well as numerous candidate reference streams in Tuscaloosa and Walker counties.

The Department currently has a trend monitoring stations in Locust Fork of the Black Warrior River in Jefferson County at State Highway 269; in Village Creek at Jefferson County Road 45 and at County Road 65; in Fivemile Creek at Old Highway 78 and at State Highway 79; and in Valley Creek at Jefferson County Road 54 and upstream of the 18th Avenue Bridge. The Department has been monitoring Locust Fork as part of the trend monitoring program for several years.

Additionally, the Department also has and continues to collect water quality information at ADEM’s ambient monitoring and ecoregional reference sites within the State’s coal mining regions.

Riverkeeper Comment 12:

Regarding in-stream monitoring, Riverkeeper further writes:

“Does ADEM plan a follow up to its flawed *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama* (December 2013) (‘the Assessment’)? Instead of being the robust, independent and scientific study that this issue deserves, a review of the study plan and data indicate that the Assessment was fatally flawed from its inception and poorly executed thereafter. We ask the Department to seek funding for a more accurate and scientific approach that will afford ADEM and the public with a true picture of the impacts of surface mining and related activities.

“We have pointed out the numerous problems with the study in the past. First, ADEM’s deliberate choice of an eco-reference stream influenced by clear-cut areas and coal bed methane operations is problematic and appears to be designed to skew the reference streams and ‘stack the deck’ for a finding of ‘no impact.’ Second, instead of being a study of ‘active’ surface mines as the study plan plainly states, at least half of the samples were actually taken from streams at *reclaimed* mines -- and one data set is actually from an *underground* mine. Third, the results of ADEM’s data may be skewed because they chose to focus on only ‘compliant’ mines. Fourth, there is apparently little or no quality control, as some of the data cannot be mass balanced; simple calculations are in error and understate potential impacts; and additional sampling took place well

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after the study was supposed to be concluded. Despite these carefully documented flaws the only conclusion one can draw from this data is that surface mining, even after reclamation, has a severe and pervasive adverse effect on downstream water quality.

“For example, according to the Assessment, toxicity was indicated at 50% of the outfalls (2 of 4) that ADEM studied. Arsenic exceeded human health water quality criteria in 5 out of 36 (14%) samples downstream of coal mines. Overall, there were significant increases in Conductivity and TDS downstream versus upstream; in addition, there were also significant increases in concentrations of some metals at some downstream locations. Both nitrogen and sulfate concentrations increase significantly downstream of mined areas. And arsenic was elevated in sediment at 3 out of 6 (50%) locations downstream of mine outfalls.

“Despite these flaws, one obvious takeaway from the study is that surface mining activities continue to exert a pronounced and pervasive negative influence on water quality well after reclamation is complete. In what way has ADEM applied this knowledge or the data gathered from this study in order to ensure that NPDES permits issued to coal mines address these negative effects on downstream water quality?”

Riverkeeper Response 12:

The Department notes the Riverkeeper’s comments regarding *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama*; however, it appears that the Department has reached a differing conclusion as to the findings of the study.

It is the Department’s continued belief that full compliance with the proposed Permit’s terms and conditions will be protective of instream water quality.

The Department does not currently have plans to conduct another water quality study specific to surface mining facilities.

Riverkeeper Comment 13:

Regarding daily flow monitoring, Riverkeeper writes:

“The draft permit should be revised to require daily flow monitoring as recommended by EPA. To get an accurate picture of just how often coal mines discharge, the Department must require daily flow monitoring at all active outfalls, which will also help ADEM assess the true impact of mining on Alabama’s streams and rivers. The surface impoundments should already be equipped with flow monitoring devices. Asking one employee to check and record the flow volumes daily can be carried out at minimal expense to the permittee, yet provide ADEM and the public with a wealth of information.

“The Department has responded in previous permit comments that ‘flow monitoring requirements mimic the other sampling requirements so that the Department may calculate mass pollutant loading rates of the discharge(s) when necessary.’ That is not the point of our request; we know that ADEM requires flow monitoring in conjunction with bi-monthly monitoring. We are asking the Department to adopt our recommendation, which has also been suggested by the EPA, to require *daily* flow monitoring so that ADEM (and the public) can know how often these mines are discharging and at what volumes, rather than rely on inaccurate expectations and/or assumptions. The entire basis for ADEM’s permit calculations is that discharges from surface coal mines and associated activities are precipitation-driven and do not occur absent rain events. It is essential that ADEM one-and-for-all drop this ridiculous assertion, as it is commonly known that many sediment basins are built in existing streams that flow year-round and that many discharges are pumped discharges – due to groundwater and/or rainwater being pumped out of working pits at surface mines and groundwater being pumped out of underground mines, which often comingles with rainwater in drainages, streams, and sediment ponds.... Unfortunately, we have seen far too many cases where permittees fail to disclose the likelihood of pumped discharges, and both ADEM and permittees fail to acknowledge that spring fed sediment ponds (which are numerous throughout the Black Warrior River watershed) may discharge continuously. Requiring daily flow monitoring would correct this oversight and allow ADEM to issue future permits based on actual conditions rather than assumptions.”

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Riverkeeper Response 13:

The technical information regarding discharge flow submitted in this application, which has been certified by a Professional Engineer licensed to practice in Alabama that the technical information and data within the application were prepared under his supervision utilizing effective, good engineering and pollution control practices, states that discharges occur as a result of precipitation events or, at certain outfalls, as a result of pumping. For those outfalls which may discharge as a result of pumping, the limitations have been drafted with the conservative assumption of a continuous discharge.

The monitoring frequency regarding discharge flow proposed in the permit meets the requirements of 40 CFR § 122.48, which states that “[a]ll permits shall specify... required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring.” Current requirements of the permit will result in 120 sampling opportunities during the life of the permit providing results through all seasons, stages of operation, and weather conditions. At this time the Department has made the determination that the proposed frequency of twice per month is sufficient to be representative of the regulated activity.

Riverkeeper Comment 14:

Regarding the permit rationale statement, Riverkeeper writes:

“In the permit rationale statements, ADEM concludes that ‘[f]ull compliance with permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable State instream water quality standards for the receiving streams.’ However, as stated previously, with so little instream monitoring performed in Alabama’s areas of concentrated coal mining, how can ADEM reliably know what instream water quality actually is, much less that the permit terms and conditions which will maintain that quality?”

Riverkeeper Response 14:

See Riverkeeper Responses 6, 7, and 11.

Riverkeeper Comment 15:

Regarding 303(d) streams, Riverkeeper writes:

“Several of the mines authorize the discharge of treated drainage into impaired waters! By issuing NPDES permits to discharge sediment and other pollutants into waterways where levels for these parameters already exceed water quality standards, ADEM is violating both the intent and purpose of the CWA. *Under the CWA, when a new source seeks to obtain a permit for a discharge of pollutants to a stream segment already exceeding its water quality standards for that pollutant, no permit may be issued.* ADEM’s authorization of these new discharges...to impaired waters are a clear violation of the CWA. 40 C.F.R. 122.4(i) prohibits issuance of an NPDES permit to a new source or a new discharge if that treated discharge will cause or contribute to a violation of applicable State water quality standards in the receiving water. It is our firm belief that ADEM should not permit the discharge of pollutants to streams that are impaired for those particular pollutants unless the Department has established a TMDL, and implemented appropriate reductions of pollutant concentrations at all permitted facilities discharging within and upstream of the impaired area.”

Riverkeeper Response 15:

The draft Permit proposes no new or existing discharges to a stream segment listed on Alabama’s current CWA §303(d) list or water of the State with an approved Total Maximum Daily Load (TMDL). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of water quality standards.

Riverkeeper Comment 16:

Regarding 303(d) streams, Riverkeeper further writes:

“ADEM’s use of the Ecoregional Reference Reach Monitoring Program...is no substitute for the development of TMDLs.”

Riverkeeper Response 16:

See Riverkeeper Response 15.

Riverkeeper Comment 17:

Regarding the presence of sensitive species, Riverkeeper writes:

“What makes the addition of more sediment to these waters even more disturbing is the known presence of the Threatened flattened musk turtle (FMT) and the Candidate (and pending proposed Endangered) Black Warrior waterdog.... Historically, strip mining for coal, habitat alterations, and water quality impacts have eliminated or severely impacted both the FMT and the Black Warrior waterdog. We are not confident that the perfunctory surveys performed as a part of the ASMC permit application process are adequate to evaluate either the presence of the turtle or the waterdog --- nor do they properly examine the potential effect of the mine on the survival and recovery of these rare species....

“It is long past time for ADEM to meaningfully consider the impacts of discharges to impaired waters using data, not unfounded opinions or bare conclusions, especially where impacts to sensitive species are involved.”

Riverkeeper Response 17:

The Department has no jurisdiction in regards to endangered species. The Department notified the United States Fish and Wildlife Service (USFWS) of the proposed Permit on October 11, 2017, and received no comments. You may contact USFWS for information regarding endangered/sensitive species regulations. Also, please note that the instream water quality standards are established to be protective of aquatic life. Compliance with the Permit's terms and conditions is expected to be protective of the instream water quality standards.

Riverkeeper Comment 18:

Regarding drinking water, Riverkeeper writes:

“As noted in the permit rationale for the Centennial Resources No. 5 Mine (p.1), the proposed discharges would enter waters designated for use as Public Water Supply (PWS).... [W]e urge ADEM to...protect Alabama's citizens by denying the reissuance of the permit for Mine No. 5.”

Riverkeeper Response 18:

ADEM Admin. Code r. 335-6-10-.09(2)(a) states that the best usage of waters classified as PWS is as a “source of water supply for drinking or food-processing purposes.” ADEM Admin Code r. 335-6-11-.01(2) further states “Use classifications apply water quality criteria adopted for particular uses based on existing utilization, uses reasonably expected in the future, and those uses not now possible because of correctable pollution but which could be made if the effects of pollution were controlled or eliminated.”

The requirements of the draft permit are designed to protect the existing designated use classification of the receiving streams by minimizing the discharges of pollutants from the proposed facility into waters of the State. The pollutants of concern (pH, total iron, total manganese, settleable solids, and total suspended solids) are limited by the draft permit. These limitations are based on 40 CFR Part 434. The Department has also included additional testing requirements in the draft permit so that future determination can be made as to whether or not a reasonable potential exists for discharges to cause or contribute to an excursion of numeric or narrative water quality standards. These additional testing requirements consist of acute toxicity testing, chronic toxicity testing (at certain outfalls), specific conductance, sulfates, and total dissolved solids.

The Department has also completed a RPA of a representative discharge relative to metals, cyanide, and total phenols. As previously stated, the effluent data was collected from Outfall 001-1 at the nearby Burton Mine (AL0068888) and submitted because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine's Outfall 001-1 can predict the future characteristics of discharges made by this facility. The Department has also included in-stream surface water data acquired from the Mulberry Fork and Hydrologic Monitoring Reports in the RPA. The RPA indicates whether or not pollutants expected in the discharge have a potential to cause or contribute to excursions of Alabama's in-stream water quality standards. The RPA completed by the Department was done using the PWS criteria for all discharges from the Mine, not just the discharges directly to Mulberry Fork. The PWS criteria takes into account the effects on human health from both the consumption of fish and water. Based on the analytical data available to the Department, the RPA indicates that there is no reasonable potential for instream WQS to be exceeded. The

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proposed permit establishes limits that will enable water discharged from the the No. 5 Mine to be protective of human health, aquatic life, and designated use of the receiving stream.

Also, see Riverkeeper Responses 6 and 7.

Distribution List

1. Birmingham Water Works Board
Mr. Darryl Jones, Assistant General Manager
3600 First Avenue North, Post Office Box 830100
Birmingham, Alabama 35283
(205) 444-4000

LANCE R. LEFLEUR
DIRECTOR



KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

March 01, 2018

Mr. Darryl R. Jones, Assistant General Manager
The Birmingham Water Works Board
3600 First Avenue North, Post Office Box 830110
Birmingham, Alabama 35283

RE: Response to Comments
Draft NPDES Permit Number AL0079936
Centennial Natural Resources, LLC – No. 5 Mine
Walker County

Dear Mr. Jones:

The abovementioned draft National Pollutant Discharge Elimination System (NPDES) Permit was made available for public review for a period of thirty days beginning on October 11, 2017. Comments on the proposed permit were received from the Birmingham Water Works Board (BWVB) and the Black Warrior River Keeper (Riverkeeper) on November 10, 2017.

The Department reviewed all submitted comments and has prepared a summary of the BWVB and Riverkeeper comments with the Department's responses. The summary of the comments and the Department's responses is enclosed.

The Department appreciates your careful review of the draft permit and your participation in the public review process. The NPDES Permit for No. 5 Mine was issued on March 1, 2018.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffery W. Kitchens", is written over a horizontal line.

Jeffery W. Kitchens, Chief
Stormwater Management Branch
Water Division

JWK/mtb

Enclosure: Comments Summary and Responses

File: FPER / 39926

cc: Michael T. Bergh, ADEM

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3684 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1178
(251) 304-1189 (FAX)

RESPONSE TO COMMENTS

March 2018

Centennial Natural Resources, LLC. – No. 5 Mine
Proposed Reissuance of NPDES Permit No. AL0079936
Walker County

The proposed draft reissuance of National Pollutant Discharge Elimination System (NPDES) Permit AL0079936, Mine No. 5, was placed on Public Notice October 11, 2017. This document addresses comments received from the Birmingham Water Works Board (BWVB) and the Black Warrior Riverkeeper (Riverkeeper). The Department reviewed all comments and provides a summary of the comments, as well as the Department's responses, below.

Birmingham Water Works Board (BWVB) Comment 1:

Regarding water quality standards, BWVB writes:

“The conventional treatment process has a limited ability to remove many metals and other toxic compounds; hence, there is a maximum concentration of these contaminants that is acceptable in the water that the BWVB attempts to treat to drinking water standards. This maximum concentration is codified through an ADEM narrative Water Quality Standard (WQS) for waters designated as PWS, meaning dischargers are prohibited from causing contamination that would make the water unsuitable for drinking purposes if subjected to conventional treatment. (Ala. Admin Code 335-6-10-.09). This standard is the primary distinguishing characteristic of the PWS classification over the Fish and Wildlife classification, which is the classification assigned to most of the waters in the Black Warrior Basin. Unfortunately, it is apparent that ADEM has not considered the treatability of this water in its reasonable potential analysis (RPA). This analysis, contained in the NPDES permit rationale, compares likely discharges to the numeric water quality standards only, with no attempt to quantify the maximum tolerable concentration of the likely mining runoff contaminants.”

BWVB Response 1:

The draft permit proposes treated discharges to stream segments, other State waters, or local watersheds that currently have a use classification of Public Water Supply (PWS) and/or Fish and Wildlife (F&W) and was written to protect the receiving streams use classification(s) by minimizing the discharge of pollutants commonly associated with coal mining. Conventional mining pollutants expected in runoff from a facility of this type include pH, total iron, total manganese, settleable solids, and total suspended solids and are being limited with consideration given to the monthly average, daily minimum, and daily maximum effluent limit guidelines (ELGs) found in 40 CFR 434. The Department also completed a Reasonable Potential Analysis (RPA) for each discharge location to determine if additional discharge pollutants exist which have a potential to cause or contribute to excursions of Alabama's in-stream water quality standards (WQS). The RPAs were completed using available background stream data and, because the No. 5 Mine site has not experienced a discharge from mining activity to date, representative data from an upstream coal mine discharge. The Department used this representative data to compare expected instream concentrations of pollutants during critical low-flow conditions in the receiving stream with the PWS criteria which takes into account the effects on human health from both the consumption of fish and water. Based on the information available to the Department, the RPAs indicate that there is no reasonable potential for the discharges to exceed PWS water quality standards.

Also, see BWVB Responses 3 and 6.

BWVB Comment 2:

Regarding water quality standards, BWVB writes:

“The Board requests that ADEM take a more critical and scrutinizing look at the RPA to ensure that the likelihood of exceeding WQSs is truly assessed.”

BWVB Response 2:

The Department has re-reviewed the RPAs created prior to development of the Permit. Based on this review, the Department has again found that a reasonable potential does not exist for the discharge to cause or contribute to a contravention of state PWS water quality standards.

Response to Comments
AL0079936 – Centennial Natural Resources, LLC – No. 5 Mine

The Department believes that current permit development practices for surface coal mining operations in Alabama are appropriate and that compliance with the permit conditions and requirements is protective of water quality standards.

Also, see BWWB Responses 1 and 6.

BWWB Comment 3:

Regarding data used for the RPA, BWWB writes:

“The contribution of pollutants from the mines should be based on statistically significant and meaningful data from previous and similar mine operations. Using a single point of data collected under the current discharge monitoring protocol is wholly insufficient to characterize the true contributions of the mine to the PWS.”

BWWB Response 3:

EPA Application Form 2C is the basis for the “Coal Mining and/or Preparation Application Metals, Cyanide, and Total Phenols Outfall Data” form on which the results of discharge analysis are reported. The instructions for completing EPA Application Form 2C do not require more than one analysis for each applicable pollutant. Based on the Department’s requirements, the Applicant also submitted instream data from upstream of the mining operations. This additional data was used by the Department when considering whether a reasonable potential existed for the discharge to cause or contribute to a contravention of the State’s water quality standards. The Department agrees that additional discharge and in-stream data are useful in permit reviews. When available, the Department reviews historic Discharge Monitoring Report (DMR) data and considers the data during the RPA. The Department also has and continues to collect water quality information at ADEM’s ambient trend monitoring and ecoregional reference sites within the State’s coal mining regions. In addition, the Department reviewed for consideration available data in ALAWADR, ADEM’s water quality database, during the RPA for the Permit.

40 C.F.R. § 122.21(k)(5) states that the applicant must provide estimates of the daily maximum, daily average, and source of information for the certain pollutants if he or she knows or has a reason to believe that they will be present in discharges from any outfall. However, 40 C.F.R. § 122.21(k) does not state that the source of information must be from existing effluent data. The Applicant submitted estimates using representative effluent data from Outfall 001-1 at the nearby Burton Mine (AL0068888) because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine’s Outfall 001-1 would be representative of characteristics of discharges from this facility. It should be noted, however, that Part II.C.3 of the Permit requires the submittal of active mining effluent data for certain metals, cyanide, and phenols either within the first six months following the permit’s effective date or within six months following the date of the first discharge. Furthermore, under Permit Part II.C.3.d, the Department may reopen the Permit to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

The Department’s water quality data is stored and accessible to the public through the water quality portal found at the following website: www.waterqualitydata.us/portal/. Available data is reviewed and, if applicable, considered during the reasonable potential analysis. All information used in the development of the permit and its discharge limitations are provided in the draft version of the permit.

Also, see BWWB Responses 1 and 6.

BWWB Comment 4:

Regarding water quality standards, BWWB writes:

“Additional consideration should be given to the unique situation in this portion of the river, where the flow is regulated by dams upstream and downstream, and water can pool for extended periods.”

BWWB Response 4:

The Department considers the complete mix of discharges to the receiving streams under critical, low-flow conditions. Doing so provides reasonable assurance that discharges under normal conditions shouldn't exceed water quality standards. The segment of Mulberry Fork of Black Warrior River receiving discharges from this facility is not expected experience a lesser flow rate than the one used during the development of the permit. Although some discharges are to streams classified as F&W, all outfalls have been evaluated as if discharging to PWS. Full compliance with the proposed permit is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS), which are suitable as a source of water supply for drinking or food-processing purposes, for the receiving streams.

Additionally, the Department has considered the discharges potential synergistic effects by incorporating acute toxicity testing and chronic toxicity testing (at certain outfalls) requirements using undiluted effluent. The additional whole effluent toxicity testing (WET) will provide additional confirmation that the discharges do not contribute to an excursion of the State's narrative water quality standards.

BWWB Comment 5:

Regarding previous onsite activity, BWWB writes:

"Given the previous industrial activity and the acidic layers of soil on this site, there is significant potential for harmful contaminants to mobilize in the groundwater during normal and average weather patterns and impact the PWS."

BWWB Response 5:

Permit Part II.C.6 states, "unless authorized on page 1 of this Permit, this permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination."

Please note that proposed discharges to groundwater are not authorized on page 1 of the Permit.

Additionally, the Department has reviewed an onsite groundwater study to determine the presence of any additional pollutants present in the groundwater that was conducted as requested by the Alabama Surface Mining Commission (ASMC). The Department has found nothing during its review of the groundwater study to indicate the need for additional requirements within the Permit.

Also, see BWWB Response 6.

BWWB Comment 6:

Regarding previous onsite activity, BWWB writes:

"The wastewater lagoon that is present onsite was used as a process wastewater lagoon, meaning used chemicals and waste were sent to this pond, where they likely infiltrated the soil. There is no indication in the information provided by the applicant to ASMC or ADEM that the contamination in this pond has been mitigated in any way or that it has been closed in accordance with ADEM regulations. Again, this mining operation will proceed through this pond area with no knowledge of the contamination that exists."

BWWB Response 6:

For discharges from typical coal mining activities, the Department has acknowledged that many pollutants listed in EPA Form 2C and 2D (Parts A, B, and C) are not believed to be present. Water quality based pollutants of concern from typical coal mining activities for which the Department requires submittal of discharge analyses with an NPDES permit application include antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Because no discharges have been recorded at the site, the Permittee submitted discharge data from a neighboring mine for these pollutants. When discharge data is impossible to obtain from a site (as it was in this case), the Department believes it is reasonable and appropriate to make the assumption for permit development that data taken from a nearby location with similar regulated activities is representative.

However, in order to ensure that this Permit based on representative off-site data is protective of human health and the environment, Part II.C.3 of the Permit requires the Permittee to collect a sample of the discharge for all outfalls no later than six months following the effective date of the permit and analyze the sample for the parameters listed above. In addition, as a result of this comment, Part II.C.3 of the Permit has been modified to require the sampling and analysis of *all* pollutants listed in Parts A, B, and C of EPA Form 2C including those not typically associated with mining activities. If no discharge occurs within the first six months following the effective date of the permit, a sample must be collected no later than six months following the date of the first discharge. The data must be submitted on EPA form 2C and received by the Department no later than 28 days following six months after the permit effective date or initial discharge, whichever applies. The Permit may be reopened and modified, if required, to address any new information resulting from the completion and submittal of the abovementioned data.

Also, see BWWB Response 5.

BWWB Comment 7:

Regarding previous onsite activity, BWWB writes:

“The BWWB is rightly concerned with the lack of due diligence on this site because chemicals used in plywood manufacturing and wood treatment have the potential to cause significant harm to the drinking water supply and the people who consume the water.... The applicant provided a single sample at each of their groundwater monitoring wells that showed little phenols and aldehydes, but this is far from adequate to truly assess the presence of these compounds. The sampling wells are located on the upstream section of the site and away from the likely areas of highest concentration.”

BWWB Response 7:

See BWWB Responses 5 and 6.

BWWB Comment 8:

Regarding sediment loading, BWWB writes:

“The applicant...determined that the site will lose about 58 tons of sediment per acre annually from its sediment ponds to the river. In fact, over the course of a year, nearly 10,325 tons of sediment will enter the river. The applicant also performed dynamic modeling of the operation of its sediment basins during a large storm event to determine the performance of the pond and the expected quality of discharge at points during the storm. For the ponds designed to date, the peak sediment concentration during the 10-year, 24-hour storm event is between 3,200 and 14,300 mg/L and the total sediment leaving the ponds for that event is between 18 and 95 tons per pond.”

“These predictions represent massive amounts of material leaving the site and entering the river near the BWWB intake, and there is no protocol in place to monitor these discharges for sediment or any other contaminants that are discharged along with the sediment.”

BWWB Response 8:

The Permittee provided in the NPDES permit application that the cumulative loading rates for Total Suspended Solids (TSS) from all outfalls are approximately 12.15 tons per year.

Also, the Permit imposes a monthly average limitation of TSS from all outfalls of 35.0 mg/L. Considering the conservative, although unlikely, scenario of all outfalls being constructed and discharging continuously at the estimated flow rates provided in the application, compliance with the Permit would result in approximately 21 tons per year of suspended solids being discharged.

Additionally, Part II.A.2.c of the Permit reduces sediment loss by requiring the Permittee to minimize the contact of water with overburden and adequately stabilize disturbed areas by means of grading, diversion, and vegetation.

It is the Department’s continued belief that full compliance with the proposed Permit’s terms and conditions will be protective of instream water quality.

BWWB Comment 9:

Regarding contaminant modeling, BWWB writes:

“Given the lack of rigorous predictive analysis aimed at determining the likely impacts of the mine on the BWWB intake, the BWWB undertook an effort to make its own prediction of likely metals concentrations. The objective of the BWWB’s work has been to quantify the risk of exceeding the maximum tolerable raw water concentration for conventional treatment. The Board’s model uses the EPA’s EFDC hydrodynamic code to perform detailed 3D hydraulics calculations using actual rainfall data and detailed surveys of the river geometry. The storm water runoff quantities are calculated using the Rationale method and background river contaminant concentrations are from sampling performed by the BWWB. The last piece of information that goes into the model is the expected discharge from the mine outfalls. To date, the BWWB has used data from the literature as an input for the mine discharge quality because useful data does not exist for mines in the Mulberry watershed. The BWWB would like to advance the understanding of mining impacts in this area by improving its model, and asks ADEM to support this effort by improving its monitoring and reporting requirements.”

BWWB Response 9:

The Permit imposes bimonthly monitoring of flow and those metals which are reasonably expected to be found in the discharge in significant concentrations. Such monitoring is required to be reported to the Department quarterly on Discharge Monitoring Reports (DMRs) which are available for public review on the Departments eFile System located at adem.alabama.gov/eFile/.

Metals which are not provided numeric limitations in the Permit are not expected to occur in the discharge in significant concentrations. Nonetheless, these metals are limited by the narrative responsibilities of Part II.D.4. which states “this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10.”

The Permit has been developed such that compliance with the Permit would ensure the discharges from the Mine will not cause or contribute to the water quality standard for a waterbody classified as Public Water Supply which are suitable as a source of water supply for drinking or food-processing purposes.

BWWB Comment 10:

Regarding monitoring, BWWB writes:

“The discharges from coal mines are almost exclusively storm water that lands on the site, runs over the ground surface to sedimentation ponds, and is discharged to the river. Given this function it is only logical that the ponds be monitored during rain events, when they are discharging pollutants of concern. However, the current protocol does not require sampling during discharge events, but exempts compliance with permit limits during these events.”

BWWB Response 10:

The technical information regarding discharge flow submitted in this application, which has been certified by a Professional Engineer (PE) licensed to practice in Alabama that the technical information and data within the application were prepared under his supervision utilizing effective, good engineering and pollution control practices, states that all discharges consist of stormwater drainage from the mining activities, and discharges may occur as a result of precipitation events or as a result of pumping.

The Permit imposes a monitoring frequency for the most limited pollutants of two days per month and for some pollutants of one day per quarter. In all cases, the Permit defines the frequencies as *any day of discharge* during that monitoring period. Indeed, sampling can only be conducted during discharge events, as the Permit does not allow for in-pond sampling.

The Department has determined that current permit requirements are sufficient for the regulated activity and will result in 120 sampling opportunities during the life of the permit providing results through all seasons, stages of operation, and weather conditions.

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BWWB Comment 11:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Perform full characterization of the site relative to its historical use as a plywood manufacturing facility, including subsurface investigation, and fully characterize site groundwater and soil contaminants.”

BWWB Response 11:

See BWWB Responses 5 and 6.

BWWB Comment 12:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Update the RPA using actual background data and scrutinize mine discharge data to identify contaminants that are likely to exceed numerical WQSs and the narrative treatability WQS.”

BWWB Response 12:

See BWWB Responses 5, 6, and 9.

BWWB Comment 13:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Modify the implementation of permit limits to remove exemptions for rain events.”

BWWB Response 13:

The precipitation event discharge limitations are based on the effluent limit guidelines (ELGs) found in 40 CFR Part 434.63. EPA’s *Development Document for Final Effluent Limitations Guidelines and Standards for the Coal Mining Point Source Category, 1982* indicates that toxic metal concentrations from pond effluent are expected to be at or below the detection limit, and concentrations of iron and manganese are expected to be at or below Best Practicable Control Technology (BPT) and Best Available Technology Economically Achievable (BAT) levels during precipitation events. Therefore, it is the Departments belief that the proposed limitations are protective of water quality during wet weather conditions and that specific effluent limitations for iron and manganese during applicable precipitation events are not needed. Moreover, the Permittee has the responsibility to establish and maintain appropriate erosion/sediment control and pollution abatement practices to effectively treat the discharge for all precipitation events.

BWWB Comment 14:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Modify sampling and reporting protocols to ensure that sampling events capture discharges, including significant rain events.”

BWWB Response 14:

See BWWB Response 10.

BWWB Comment 15:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Include monitoring requirements and limits in the permit for common mining pollutants and critical drinking water contaminants.”

BWWB Response 15:

The monitoring and reporting requirements in the Permit are based on the ELGs found in 40 CFR Part 434, the state’s water quality standards found in ADEM Admin. Code ch. 10, and best professional judgement.

See BWWB Responses 4 and 6.

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BWWB Comment 16:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Require the mine operator to provide access to the outfall locations for the BWWB, and contractors to perform sampling and monitoring.”

BWWB Response 16:

The Department does not have the authority to grant BWWB access to the facility for sampling and monitoring purposes. Part II.D.6. of the Permit does, however, state that the Permittee shall allow access for the Department to sample or monitor any substance, parameter, or location for the purposes of assuring compliance with the Permit.

BWWB Comment 17:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Require a Spill Prevention, Control, and Countermeasure (SPCC) plan that meets the requirements of 40 CFR 112. The current plan is incomplete and does not contain sufficient specific information or detail to adequately protect against spill contamination.”

BWWB Response 17:

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) the Permit requires the Permittee to design and implement a SPCC plan for all stored chemicals, fuels, and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill. The required SPCC plan for this facility has been, as evidenced by their seal and/or signature, prepared by a PE registered in the State of Alabama and submitted by the Permittee as part of the application.

BWWB Comment 18:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Require sedimentation basins designs to meet best technology available (incl. ADEM guidelines).”

BWWB Response 18:

Because Alabama statutes grant authority exclusively to ASMC for the surface mining site, ADEM temporarily suspends application of the regulations which require a Pollution Abatement and/or Prevention Plan which would include basin design, since the responsibility is controlled, enforced, and monitored by ASMC during the performance of its regulations. ASMC requires coal mine operators to maintain sedimentation ponds and other sediment control facilities so that they meet performance standards and to submit certification that the construction of pollution prevention and/or abatement facilities was done in accordance with the approved design specifications. However, regardless of ASMC's involvement in the review process, ADEM does not completely relinquish or delegate its CWA responsibilities to ASMC, but rather, first allows ASMC to address these aspects during its permitting process. ADEM retains the ability to control and regulate discharges from mines to waters of the state.

It should also be noted that this and all other NPDES permits are drafted such that compliance with the permit will be protective of water quality regardless of the design of the operation and treatment processes.

BWWB Comment 19:

Regarding requested modifications to the Permit, BWWB writes:

“[T]he BWWB requests ...ADEM:...Require notification of BWWB immediately upon on-site fuel spills or any other spills of potentially hazardous materials.”

BWWB Response 19:

The SPCC Plan states that the Permittee will contact the Department, the National Response Center, and the Alabama Emergency Management Agency in the event of an oil spill. These agencies are tasked in assessing threats to public water systems associated with reportable spills and are responsible for notifying affected systems as appropriate.

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Riverkeeper Comment 1:

Regarding coal preparation and/or loading activities, Riverkeeper writes:
“In addition to surface mining, coal preparation will occur under the auspices of all of the advertised permits. Of note is the nature of coal preparation, a process which typically involves the crushing and storage of large quantities of coal and can require the use of chemicals. It is apparent that ADEM has failed to assess the possibility of chemical use at the preparation plants. If chemicals are used as part of preparation, it is critical that ADEM require monitoring for and limitation of any chemicals used (and/or their byproducts) to ensure that chemicals are not being discharged downstream.”

Riverkeeper Response 1:

The application submitted by Centennial Natural Resources, LLC. (Centennial) indicates that the processing proposed at the No. 5 Mine involves crushing and screening; chemical processing and leaching are not proposed by Centennial.

Where the RPA determined a pollutant in the discharge had a reasonable potential to cause or contribute to a contravention of the State’s water quality standards, a limitation for the pollutant was calculated to protect water quality standards and imposed in the Permit.

Additionally, it may be noted that 48-hour acute toxicity testing and short-term chronic toxicity testing (at certain outfalls) is required using undiluted effluent. The tests must be conducted with two species (*Ceriodaphnia dubia* and *Pimephales promelas*) as listed in Parts I.A., IV.F, and IV.G of the Permit. These testing requirements will help to confirm that the discharge does not cause or contribute to an excursion of the State’s narrative water quality standards.

Riverkeeper Comment 2:

Regarding Black Warrior River watershed study, Riverkeeper writes:
“ADEM’s study of surface mining impacts in the Black Warrior River watershed confirms a clear relationship between mining, together with associated activities like coal preparation, storage, and transportation, with negative downstream water quality impacts. ... In light of these known impacts, we ask the Department to develop and implement a more robust permitting system for surface mining and associated activities that can better identify, limit, and even stop these acknowledged harms.”

Riverkeeper Response 2:

As the Riverkeeper has noted, the Department has completed a report to assess the impacts of surface coal mining on wadeable streams in the coal-mining regions of Alabama, *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama*.

The study did not conclude that surface mining causes or contributes to excursions of narrative or numeric water quality standards. The Department has concluded that the current permitting practices for surface coal mining operations are appropriate and compliance with the resulting permit conditions and requirements is protective of the water quality standards. However, it may be noted that the study did show a connection between coal mining and conductivity and Total Dissolved Solids (TDS), thus justifying the Permit’s inclusion of monitoring for Specific Conductance and TDS should it be necessary in the future to develop water quality criteria for these parameters.

Riverkeeper Comment 3:

Regarding surface mining in Alabama, Riverkeeper writes:
“Given EPA’s persistent failure to apply its guidance to Alabama, we call on ADEM to voluntarily adopt EPA’s guidance while making permitting decisions in order to make the regulation of surface mining and associated activities in Alabama more consistent with the rest of the Appalachian region, especially in light of the similar harms and regulatory issues.”

Riverkeeper Response 3:

The Department has concluded that the current permitting practices for surface coal mining operations in the State of Alabama are appropriate and that compliance with the proposed Permit’s terms and conditions will

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be protective of instream water quality. The Department has included monitoring for Specific Conductance and TDS so that data is available should it be necessary in the future to develop water quality criteria for these parameters.

Riverkeeper Comment 4:

Regarding conductivity, Riverkeeper writes:

“In light of the evolving science that the conductivity benchmark promotes the water quality necessary to protect aquatic organisms living in streams, we would like an update on what steps ADEM is taking to develop State water quality standards or permit limitations for conductivity.”

Riverkeeper Response 4:

The Department's research, including that done for the 2013 *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin* has shown conductivity to have varying degrees of impact to aquatic communities. The Department has not found a correlation between conductivity and aquatic community health in Alabama streams, and has therefore determined that development of criteria for conductivity is inappropriate at this time.

See Riverkeeper Responses 2 and 3 above.

Riverkeeper Comment 5:

Regarding precipitation exemptions, Riverkeeper writes:

“According to the permit rationales, ADEM concludes that ‘it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the instream pH based on the low discharge/stream flow ration.’ *Id.* At 2. As we have stated in previous comments, *WQBELs are not eligible for alternate precipitation limits, whether for pH or metals.*”

Riverkeeper Response 5:

Based on the Department's regulations, Water Quality Based Effluent Limitations (WQBELs) are typically calculated assuming low flow conditions in the receiving stream. During a precipitation event, the receiving stream is expected to have a flow greater than the low flow conditions, and the assumptions for which limits are based may no longer be valid. As a result, an exceedance of an WQBEL during a precipitation event may not result in a violation of water quality standards due to the additional assimilative capacity of the receiving stream (*i.e.*, a discharge of pH at the limit of 9.0 s.u. during a precipitation event is not expected to cause the instream pH to exceed 8.5 s.u. due to the additional assimilative capacity).

However, it should be noted that Part II.D.4.a. states “this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.” Also, Part IV.D. states that “the discharge shall not cause the in-stream pH values to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u.”

Riverkeeper Comment 6:

Regarding the RPA, Riverkeeper writes:

“EPA requires a Reasonable Potential Analysis (RPA) for each mine permit that includes background data for metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc), total phenols, and total cyanide levels in the receiving stream. We continue to be concerned about whether ADEM is requiring enough data from permit applicants to support statistically defensible calculations of appropriate permit limits.... We believe that single samples from supposedly representative outfalls cannot reliably predict proper effluent concentrations. Similarly, background, instream concentrations based on samples from a single day cannot provide statistically significant representations of actual instream water quality. Also, the Department should require applicants to furnish recent data.

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“We urge you to require additional instream and effluent samples. Requiring more data inputs ---and more representative inputs--- for the RPA calculation will help ADEM better calculate permit limits and also more accurately project the instream conditions during and after mining. We discourage the use of in-pond samples (they are not representative) as well as older samples like those for Narley and Carbon Hill mines. We suggest that ADEM require multiple effluent samples during a fairly recent time period to ensure that the Department is working with statistically significant data.”

Riverkeeper Response 6:

EPA Application Form 2C is the basis for the “Coal Mining and/or Preparation Application Metals, Cyanide, and Total Phenols Outfall Data” form on which the results of discharge analysis are reported. The instructions for completing EPA Application Form 2C do not require more than one analysis for each applicable pollutant. Centennial submitted effluent data from Outfall 001-1 at the nearby Burton Mine (AL0068888) because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine’s Outfall 001-1 can predict the future characteristics of discharges made by this facility. It should be noted, however, that Part II.C.3 of the Permit requires the submittal of active mining effluent data for certain metals, cyanide, and phenols either within the first six months following the permits effective date or within six months following the date of the first discharge. Furthermore, under Permit Part II.C.3.d, the Department may reopen the Permit to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

Based on the Department’s requirements, Centennial also submitted instream data from upstream of the mining operations. This additional data was used by the Department when considering whether a reasonable potential existed for the discharge to cause or contribute to a contravention of the State’s water quality standards. The Department agrees that additional discharge and in-stream data are useful in permit reviews. When available, the Department reviews historic DMR data and considers the data during the RPA. The Department also has and continues to collect water quality information at ADEM’s ambient trend monitoring and ecoregional reference sites within the State’s coal mining regions. In addition, the Department reviewed for consideration available data in ALAWADR, ADEM’s water quality database, during the RPA for the Permit.

Riverkeeper Comment 7:

Regarding the RPA, Riverkeeper further writes:

“We are glad to see that the Department has reviewed ‘available data’ from ALAWADR in order to better evaluate the data submitted by the permittees. However, we ask that ADEM state in the permit rationale the actual data reviewed from this database and include that data in its permit calculations. We continue to emphasize that, in order to accurately predict instream conditions, ADEM needs to search through not just its own water quality data, but also seek out additional data from other sources such as STORET or require the permittees to collect a statistically significant series of data points and report average concentrations of the relevant parameters.”

Riverkeeper Response 7:

The Department’s water quality data is stored and accessible to the public through the water quality portal found at the following website: www.waterqualitydata.us/portal/. Available data is reviewed and, if applicable, considered during the RPA. All information used in the development of the permit and its discharge limitations are provided in the draft version of the permit.

Also, See Riverkeeper Response 6.

Riverkeeper Comment 8:

Regarding the Pollution Abatement and/or Prevention (PAP) Plan, Riverkeeper writes:

“Absent PAP plans, there is no meaningful way to determine the total impact of the discharges from the sites on the water quality of the receiving waters.... ADEM could not have determined that PAP plans for these sites were adequate to provide for the protection of water quality because apparently no PAP plans were submitted with the permit applications. In the absence of such a reviews, ADEM could not possibly have determined that discharges from these facilities would not impair water quality or cause a violation of water

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quality standards. *Id.* ADEM's reliance on the ASMC, which does not have primacy on issues related to water quality, to review PAP plans is wrong, and in our opinion illegal. Furthermore, the PAP plans submitted to the ASMC are generally submitted piecemeal, segment by segment, do not reflect the cumulative water quality implications of the mine as a whole, and generally consist of boilerplate specifications rather than site-specific blueprints for actual, on-the-ground pollution controls."

Riverkeeper Response 8:

Because Alabama statutes grant authority exclusively to ASMC for the surface mining site, ADEM temporarily suspends application of the regulations which require a PAP Plan since the responsibility is controlled, enforced, and monitored by ASMC during the performance of its regulations. ASMC requires coal mine operators to maintain sedimentation ponds and other sediment control facilities so that they meet performance standards and to submit certification that the construction of pollution prevention and/or abatement facilities was done in accordance with the approved design specifications. However, regardless of ASMC's involvement in the review process, ADEM does not completely relinquish or delegate its CWA responsibilities to ASMC, but rather, first allows ASMC to address these aspects during its permitting process. ADEM retains the ability to control and regulate discharges from mines to waters of the state.

It should also be noted that this and all other NPDES permits are drafted such that compliance with the permit will be protective of water quality regardless of the design of the operation and treatment processes.

Riverkeeper Comment 9:

Regarding the PAP Plan, Riverkeeper further writes:

"We also note that ADEM has included new language in NPDES permits for coal mining and associated activities beginning December 2013 about the role of permittee engineers.... We commend the Department for including this language in the permit rationales and for making the permittees' engineers specifically responsible for the efficacy of the facilities' wastewater treatment.

"However, we want to reiterate that such language cannot absolve ADEM of its independent responsibility under regulation to review submitted plans and designs or to likewise ensure that wastewater treatment facilities perform adequately. Just as the Department cannot abdicate responsibilities to review the PAP Plan, ADEM cannot disclaim legal obligations for review of waste treatment facilities.... It is the responsibility of the Department as well as individual permittees, to ensure that the wastewater facility designs submitted will protect water quality. While engineers must assume responsibility for these facilities on behalf of permittees, pursuant to legal mandate ADEM must assume responsibility for these facilities on behalf of the citizens of Alabama."

Riverkeeper Response 9:

Comment noted.

See Riverkeeper Response 8.

Riverkeeper Comment 10:

Regarding applicable monitoring requirements, Riverkeeper writes:

"Under the terms of the NPDES permits at issue, the permittees are allowed to sample more frequently than required by the permits as long as they report all of the additional information on their DMRs (Part I.B.1.c. of the permits) and the sample collection and measurement actions are representative of the discharge (Part I.B.5. of the permits). We understand that this allows the permittees the opportunity to show that an elevated sample result on one day of sampling may not be a chronic occurrence and may not be representative of the average monthly concentration of the pollutant.

"However, if this is the case, we point out that a sample *within* permit limits on one day of sampling may not be a chronic occurrence and may also not be representative of the average monthly concentration of the pollutant. In other words, we believe that the better protocol for mining permits (absent unusual circumstances) is for sampling intervals to be chosen and consistently adhered to in order to calculate the monthly average permit limitations. To do otherwise, ADEM is creating circumstances that allow a permittee

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to selectively sample in order to better manipulate outcomes and meet permit limits – even if those outcomes are not representative of the discharge over time.”

Riverkeeper Response 10:

The Permit provides the Permittee with the ability to sample more often than the required frequency so that the Permittee can better represent, and the Department can better understand, the nature of the discharge over time. No change was made to the permit as a result of this comment.

Riverkeeper Comment 11:

Regarding in-stream monitoring and quoting the October 1, 2010, EPA Comment Letter, Riverkeeper writes: “77% of Alabama’s rivers and streams have not been assessed for water quality purposes.” *Id.*

“Can ADEM update this figure? What percentage of Alabama’s waterbodies have been assessed for water quality purposes? We continue to ask that ADEM do more to ensure that the Department (and the public) have adequate water quality data in areas of concentrated coal mining. We call on ADEM to establish more active trend or reference water quality monitoring stations in Jefferson, Walker, and Tuscaloosa counties, which are the most heavily coal-mined counties in Alabama.”

Riverkeeper Response 11:

From the Department’s 2016 *Integrated Water Quality Monitoring and Assessment Report*, there are approximately 129,700 total miles of Alabama rivers and streams of which almost 14,000 have been assessed.

The Department has 14 trend stations located in the Black Warrior River Basin including Lost Creek at Browns Bridge Road (near Parrish) in Walker County which was added to the Department’s list of trend monitoring stations in 2010. The Department has one reference water quality monitoring site in Tuscaloosa County (Bear Creek at Oregonia Road) as well as numerous candidate reference streams in Tuscaloosa and Walker counties.

The Department currently has a trend monitoring stations in Locust Fork of the Black Warrior River in Jefferson County at State Highway 269; in Village Creek at Jefferson County Road 45 and at County Road 65; in Fivemile Creek at Old Highway 78 and at State Highway 79; and in Valley Creek at Jefferson County Road 54 and upstream of the 18th Avenue Bridge. The Department has been monitoring Locust Fork as part of the trend monitoring program for several years.

Additionally, the Department also has and continues to collect water quality information at ADEM’s ambient monitoring and ecoregional reference sites within the State’s coal mining regions.

Riverkeeper Comment 12:

Regarding in-stream monitoring, Riverkeeper further writes:

“Does ADEM plan a follow up to its flawed *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama* (December 2013) (‘the Assessment’)? Instead of being the robust, independent and scientific study that this issue deserves, a review of the study plan and data indicate that the Assessment was fatally flawed from its inception and poorly executed thereafter. We ask the Department to seek funding for a more accurate and scientific approach that will afford ADEM and the public with a true picture of the impacts of surface mining and related activities.

“We have pointed out the numerous problems with the study in the past. First, ADEM’s deliberate choice of an eco-reference stream influenced by clear-cut areas and coal bed methane operations is problematic and appears to be designed to skew the reference streams and ‘stack the deck’ for a finding of ‘no impact.’ Second, instead of being a study of ‘active’ surface mines as the study plan plainly states, at least half of the samples were actually taken from streams at *reclaimed* mines --- and one data set is actually from an *underground* mine. Third, the results of ADEM’s data may be skewed because they chose to focus on only ‘compliant’ mines. Fourth, there is apparently little or no quality control, as some of the data cannot be mass balanced; simple calculations are in error and understate potential impacts; and additional sampling took place well

Response to Comments

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after the study was supposed to be concluded. Despite these carefully documented flaws the only conclusion one can draw from this data is that surface mining, even after reclamation, has a severe and pervasive adverse effect on downstream water quality.

“For example, according to the Assessment, toxicity was indicated at 50% of the outfalls (2 of 4) that ADEM studied. Arsenic exceeded human health water quality criteria in 5 out of 36 (14%) samples downstream of coal mines. Overall, there were significant increases in Conductivity and TDS downstream versus upstream; in addition, there were also significant increases in concentrations of some metals at some downstream locations. Both nitrogen and sulfate concentrations increase significantly downstream of mined areas. And arsenic was elevated in sediment at 3 out of 6 (50%) locations downstream of mine outfalls.

“Despite these flaws, one obvious takeaway from the study is that surface mining activities continue to exert a pronounced and pervasive negative influence on water quality well after reclamation is complete. In what way has ADEM applied this knowledge or the data gathered from this study in order to ensure that NPDES permits issued to coal mines address these negative effects on downstream water quality?”

Riverkeeper Response 12:

The Department notes the Riverkeeper's comments regarding *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama*; however, it appears that the Department has reached a differing conclusion as to the findings of the study.

It is the Department's continued belief that full compliance with the proposed Permit's terms and conditions will be protective of instream water quality.

The Department does not currently have plans to conduct another water quality study specific to surface mining facilities.

Riverkeeper Comment 13:

Regarding daily flow monitoring, Riverkeeper writes:

“The draft permit should be revised to require daily flow monitoring as recommended by EPA. To get an accurate picture of just how often coal mines discharge, the Department must require daily flow monitoring at all active outfalls, which will also help ADEM assess the true impact of mining on Alabama's streams and rivers. The surface impoundments should already be equipped with flow monitoring devices. Asking one employee to check and record the flow volumes daily can be carried out at minimal expense to the permittee, yet provide ADEM and the public with a wealth of information.

“The Department has responded in previous permit comments that ‘flow monitoring requirements mimic the other sampling requirements so that the Department may calculate mass pollutant loading rates of the discharge(s) when necessary.’ That is not the point of our request; we know that ADEM requires flow monitoring in conjunction with bi-monthly monitoring. We are asking the Department to adopt our recommendation, which has also been suggested by the EPA, to require *daily* flow monitoring so that ADEM (and the public) can know how often these mines are discharging and at what volumes, rather than rely on inaccurate expectations and/or assumptions. The entire basis for ADEM's permit calculations is that discharges from surface coal mines and associated activities are precipitation-driven and do not occur absent rain events. It is essential that ADEM one-and-for-all drop this ridiculous assertion, as it is commonly known that many sediment basins are built in existing streams that flow year-round and that many discharges are pumped discharges – due to groundwater and/or rainwater being pumped out of working pits at surface mines and groundwater being pumped out of underground mines, which often combines with rainwater in drainages, streams, and sediment ponds... Unfortunately, we have seen far too many cases where permittees fail to disclose the likelihood of pumped discharges, and both ADEM and permittees fail to acknowledge that spring fed sediment ponds (which are numerous throughout the Black Warrior River watershed) may discharge continuously. Requiring daily flow monitoring would correct this oversight and allow ADEM to issue future permits based on actual conditions rather than assumptions.”

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Riverkeeper Response 13:

The technical information regarding discharge flow submitted in this application, which has been certified by a Professional Engineer licensed to practice in Alabama that the technical information and data within the application were prepared under his supervision utilizing effective, good engineering and pollution control practices, states that discharges occur as a result of precipitation events or, at certain outfalls, as a result of pumping. For those outfalls which may discharge as a result of pumping, the limitations have been drafted with the conservative assumption of a continuous discharge.

The monitoring frequency regarding discharge flow proposed in the permit meets the requirements of 40 CFR § 122.48, which states that “[a]ll permits shall specify... required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring.” Current requirements of the permit will result in 120 sampling opportunities during the life of the permit providing results through all seasons, stages of operation, and weather conditions. At this time the Department has made the determination that the proposed frequency of twice per month is sufficient to be representative of the regulated activity.

Riverkeeper Comment 14:

Regarding the permit rationale statement, Riverkeeper writes:

“In the permit rationale statements, ADEM concludes that ‘[f]ull compliance with permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable State instream water quality standards for the receiving streams.’ However, as stated previously, with so little instream monitoring performed in Alabama’s areas of concentrated coal mining, how can ADEM reliably know what instream water quality actually is, much less that the permit terms and conditions which will maintain that quality?”

Riverkeeper Response 14:

See Riverkeeper Responses 6, 7, and 11.

Riverkeeper Comment 15:

Regarding 303(d) streams, Riverkeeper writes:

“Several of the mines authorize the discharge of treated drainage into impaired waters! By issuing NPDES permits to discharge sediment and other pollutants into waterways where levels for these parameters already exceed water quality standards, ADEM is violating both the intent and purpose of the CWA. *Under the CWA, when a new source seeks to obtain a permit for a discharge of pollutants to a stream segment already exceeding its water quality standards for that pollutant, no permit may be issued.* ADEM’s authorization of these new discharges...to impaired waters are a clear violation of the CWA. 40 C.F.R. 122.4(i) prohibits issuance of an NPDES permit to a new source or a new discharge if that treated discharge will cause or contribute to a violation of applicable State water quality standards in the receiving water. It is our firm belief that ADEM should not permit the discharge of pollutants to streams that are impaired for those particular pollutants unless the Department has established a TMDL, and implemented appropriate reductions of pollutant concentrations at all permitted facilities discharging within and upstream of the impaired area.”

Riverkeeper Response 15:

The draft Permit proposes no new or existing discharges to a stream segment listed on Alabama’s current CWA §303(d) list or water of the State with an approved Total Maximum Daily Load (TMDL). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of water quality standards.

Riverkeeper Comment 16:

Regarding 303(d) streams, Riverkeeper further writes:

“ADEM’s use of the Ecoregional Reference Reach Monitoring Program...is no substitute for the development of TMDLs.”

Riverkeeper Response 16:

See Riverkeeper Response 15.

Riverkeeper Comment 17:

Regarding the presence of sensitive species, Riverkeeper writes:

“What makes the addition of more sediment to these waters even more disturbing is the known presence of the Threatened flattened musk turtle (FMT) and the Candidate (and pending proposed Endangered) Black Warrior waterdog.... Historically, strip mining for coal, habitat alterations, and water quality impacts have eliminated or severely impacted both the FMT and the Black Warrior waterdog. We are not confident that the perfunctory surveys performed as a part of the ASMC permit application process are adequate to evaluate either the presence of the turtle or the waterdog --- nor do they properly examine the potential effect of the mine on the survival and recovery of these rare species....

“It is long past time for ADEM to meaningfully consider the impacts of discharges to impaired waters using data, not unfounded opinions or bare conclusions, especially where impacts to sensitive species are involved.”

Riverkeeper Response 17:

The Department has no jurisdiction in regards to endangered species. The Department notified the United States Fish and Wildlife Service (USFWS) of the proposed Permit on October 11, 2017, and received no comments. You may contact USFWS for information regarding endangered/sensitive species regulations. Also, please note that the instream water quality standards are established to be protective of aquatic life. Compliance with the Permit's terms and conditions is expected to be protective of the instream water quality standards.

Riverkeeper Comment 18:

Regarding drinking water, Riverkeeper writes:

“As noted in the permit rationale for the Centennial Resources No. 5 Mine (p.1), the proposed discharges would enter waters designated for use as Public Water Supply (PWS).... [W]e urge ADEM to...protect Alabama's citizens by denying the reissuance of the permit for Mine No. 5.”

Riverkeeper Response 18:

ADEM Admin. Code r. 335-6-10-.09(2)(a) states that the best usage of waters classified as PWS is as a “source of water supply for drinking or food-processing purposes.” ADEM Admin Code r. 335-6-11-.01(2) further states “Use classifications apply water quality criteria adopted for particular uses based on existing utilization, uses reasonably expected in the future, and those uses not now possible because of correctable pollution but which could be made if the effects of pollution were controlled or eliminated.”

The requirements of the draft permit are designed to protect the existing designated use classification of the receiving streams by minimizing the discharges of pollutants from the proposed facility into waters of the State. The pollutants of concern (pH, total iron, total manganese, settleable solids, and total suspended solids) are limited by the draft permit. These limitations are based on 40 CFR Part 434. The Department has also included additional testing requirements in the draft permit so that future determination can be made as to whether or not a reasonable potential exists for discharges to cause or contribute to an excursion of numeric or narrative water quality standards. These additional testing requirements consist of acute toxicity testing, chronic toxicity testing (at certain outfalls), specific conductance, sulfates, and total dissolved solids.

The Department has also completed a RPA of a representative discharge relative to metals, cyanide, and total phenols. As previously stated, the effluent data was collected from Outfall 001-1 at the nearby Burton Mine (AL0068888) and submitted because an engineer licensed to practice in the state of Alabama believes that effluent data from Burton Mine's Outfall 001-1 can predict the future characteristics of discharges made by this facility. The Department has also included in-stream surface water data acquired from the Mulberry Fork and Hydrologic Monitoring Reports in the RPA. The RPA indicates whether or not pollutants expected in the discharge have a potential to cause or contribute to excursions of Alabama's in-stream water quality standards. The RPA completed by the Department was done using the PWS criteria for all discharges from the Mine, not just the discharges directly to Mulberry Fork. The PWS criteria takes into account the effects on human health from both the consumption of fish and water. Based on the analytical data available to the Department, the RPA indicates that there is no reasonable potential for instream WQS to be exceeded. The

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proposed permit establishes limits that will enable water discharged from the the No. 5 Mine to be protective of human health, aquatic life, and designated use of the receiving stream.

Also, see Riverkeeper Responses 6 and 7.

Distribution List

1. Black Warrior Riverkeeper
Nelson Brooke, Riverkeeper
712 37th Street South
Birmingham, Alabama 35222
(205) 458-0095



BIRMINGHAM
WATER WORKS

November 10, 2017

Mr. Russell A. Kelly, Chief
Permits and Services Division
ADEM
1400 Coliseum Blvd.
Montgomery, AL 36110-2400

Subject: No.5 Mine Draft Permit AL0079936 (Comments)

Dear Mr. Kelly:

The Water Works Board of the City of Birmingham (BWWB, Board) would like to provide the following comments regarding the draft permit (AL0079936) issued to Centennial Natural Resources, LLC for discharges from a surface mining operation on the Mulberry Fork of the Black Warrior River. The BWWB owns and operates an intake pumping station in the immediate vicinity of the proposed mining operation. The water from the Mulberry Fork is conveyed to the Western Filter Plant (WFP) where it is treated and distributed to consumers in the Birmingham metro area. Approximately one third of the BWWB's customers, or 200,000 people, are supplied with water from the Mulberry Fork/WFP.

The Board holds with utmost importance its task to supply the areas residents with reliably clean and affordable drinking water. This job requires that the BWWB maintain careful watch over all parts of its system, including protection of the quality of its raw water source. Fortunately, many others in the drinking water industry and other industries also recognize the importance of identifying and mitigating risks when the public health and safety is at stake. The RAMCAP (Risk Analysis and Management for Critical Asset Protection) protocol is an industry best practice for assessing and addressing risks in a most effective manner; this protocol has been adopted by the American Water Works Association (AWWA) for the water sector as standard J-100. This method is predicated on the identification of factors that increase the likelihood of a negative event and the identification of consequences from a negative event. Reducing the likelihood of an event and/or the consequences of an event are the ways in which risk is reduced; minimizing probability and maximizing early detection are essential.

For the specific situation at hand, the BWWB is faced with the risk that contaminants from a surface mine will pollute its water supply to the point that the water is not treatable to regulatory standards and the supply of drinking water to its customers would be interrupted. In addition to typical surface mining risks, this site's previous use as a plywood manufacturing facility presents unique concerns. The onus is on the permitting authorities to mitigate risk through proper due diligence in assessing the likelihood of a contravention of water quality standards, and through ensuring proper monitoring and controls to identify and correct any pollution that does occur.

Due to the proximity of the mine to the drinking water intake, the margin for error is razor thin. In fact, polluted mine runoff can travel to the BWWB's intake pumps in a matter of hours after leaving the mine site. With this narrow margin for error and the health of many Alabama residents at stake, this issue deserves exceptional consideration.

The source water protection regulations administered by the Alabama Department of Environmental Management (ADEM) concerning the protection of the supply for drinking water utilities were created with the current situation in mind. In fact, the source water protection area (SWPA) is defined as, "the critical, or special, area in the immediate vicinity of a surface water plant intake that is closely scrutinized for contaminant sources." The SWPA extends 15 miles upstream of the intake and includes the land 500 ft. inland along all waterway banks. (Appendix A). The No. 5 Mine is in the Board's Mulberry SWPA and should be closely scrutinized as directed in the regulations. The news headlines are increasingly occupied with stories of municipal drinking water supplies that are interrupted because of nearby industrial activities. Events in Charleston, West Virginia, Toledo, Ohio, and on the Dan River in North Carolina highlight how quickly an incident can transpire and how the public can be affected when risks are unmitigated at a site close to the drinking water intake. Each of the events involving the interruption of public water supplies seemed unlikely until the day of occurrence. They did occur, however, and impacted hundreds of thousands of people for many days and weeks. The BWWB respectfully requests that ADEM consider the comments below and modify its approach to permitting this site, in the best interest of its customers and so that Birmingham does not endure similar catastrophes to those seen elsewhere.

Potential to Exceed Water Quality Standards

The conventional treatment process has a limited ability to remove many metals and other toxic compounds; hence, there is a maximum concentration of these contaminants that is acceptable in the water that the BWWB attempts to treat to drinking water standards. This maximum concentration is codified through an ADEM narrative Water Quality Standard (WQS) for waters designated as PWS, meaning dischargers are prohibited from causing contamination that would make the water unsuitable for drinking purposes if subjected to conventional treatment. (Ala. Admin Code 335-6-10-.09). This standard is the primary distinguishing characteristic of the PWS classification over the Fish and Wildlife classification, which is the classification assigned to most of the waters in the Black Warrior Basin. Unfortunately, it is apparent that ADEM has not considered the treatability of this water in its reasonable potential analysis (RPA). This analysis, contained in the NPDES permit rationale, compares likely discharges to the numeric water quality standards only, with no attempt to quantify the maximum tolerable concentration of the likely mining runoff contaminants. The BWWB has gone through the exercise of quantifying these tolerable limits for potential mining contaminants and they are given in Appendix B.

The BWWB will suffer significant harm if the levels of contaminants listed in Appendix B exceed the maximum tolerable concentrations given there. If the BWWB cannot remove a contaminant to the MCL, they are required to issue public notice of violation and implement a solution to regain compliance. In some cases, the BWWB would be forced to undertake additional and exceptional expense in chemicals, power, and residuals disposal if the maximum tolerable concentrations are exceeded. The BWWB prides itself in delivering high quality water at a reasonable price to its customers; any of the situations described above would severely erode this mission and the confidence of the BWWB's customers.

The Board requests that ADEM take a more critical and scrutinizing look at the RPA to ensure that the likelihood of exceeding WQSs is truly assessed. (Appendix C) In addition to the inclusion of treatability standards, the BWVB has identified other areas in the RPA that should be modified to provide a more robust, scientifically defensible analysis:

- The contribution of pollutants from the mines should be based on statistically significant and meaningful data from previous and similar mine operations. Using a single point of data collected under the current discharge monitoring protocol is wholly insufficient to characterize the true contributions of the mine to the PWS. (There will be further discussion below on the protocols needed to capture useful data.)
- Additional consideration should be given to the unique situation in this portion of the river, where the flow is regulated by dams upstream and downstream, and water can pool for extended periods. When this happens, pollutants can accumulate in the pool and be difficult to eliminate.

Beyond the assessment of ADEM, it is clear and admitted that the Alabama Surface Mining Commission (ASMC) has not tried to calculate or otherwise make an educated prediction concerning the treatability of the PWS following introduction of runoff from this mine. As a partner in permitting surface mines, and as the reviewer of the pollution abatement plan (PAP), ASMC has not fulfilled its role in preventing contraventions of water quality standards. With this dual-body regulatory approach, it is important for ADEM to consider the gaps in permit review by both parties.

Previous Industrial Activity Onsite

In addition to the water quality impacts that one would typically expect from the land disturbance associated with mining operations, this operation has the potential for unique impacts due to its history as an industrial site. In fact, the applicant has acknowledged the heightened risk associated with this activity and performed some additional sampling. Unfortunately, the additional sampling that was performed is inadequate in the number of samples taken and the locations sampled. A careful review of the environmental documents concerning this site over its lifespan yields a several concerning issues that have not been adequately addressed by the applicant, ASMC, or ADEM.

First, the underground storage tank closure report for this site includes a series of test wells and a review by licensed surveyors that indicates the flow direction of the groundwater from this site is toward the river and that the groundwater is hydraulically connected to the river. This distinction is important as any connection to the river means that groundwater contaminants will enter the PWS, not just contaminants from surface water. Given the previous industrial activity and the acidic layers of soil on this site, there is significant potential for harmful contaminants to mobilize in the groundwater during normal and average weather patterns and impact the PWS.

Second, environmental assessments performed by the applicant (and reviewed as part of the ASMC process) does not adequately characterize the site regarding use as a mine. The analysis performed was simply a surface analysis; that is, the only samples taken were in the top 12 inches of soil. This is defined by ADEM as a surface investigation; a subsurface investigation, which would be appropriate before an activity that will disturb the soil down to 50+ feet, would require the analysis to proceed to the depth of bedrock. In fact, the environmental assessment did not assess very much of this site at all, and this mine operation will be disturbing soil that has not been assessed for toxic contamination.

The unknown conditions on this site are particularly concerning when you note the presence of a process wastewater lagoon onsite which was likely a repository of harmful chemical compounds. The wastewater lagoon that is present onsite was used as a process wastewater lagoon, meaning used chemicals and waste were sent to this pond, where they likely infiltrated the soil. There is no indication in the information provided by the applicant to ASMC or ADEM that the contamination in this pond has been mitigated in any way or that it has been closed in accordance with ADEM regulations. Again, this mining operation will proceed through this pond area with no knowledge of the contamination that exists.

The BWWB is rightly concerned with the lack of due diligence on this site because chemicals used in plywood manufacturing and wood treatment have the potential to cause significant harm to the drinking water supply and the people who consume the water. Phenolic compounds and aldehydes are used as a treatment to preserve wood, and some of these compounds and their derivatives are regulated by EPA. In fact, chlorinated phenols subjected to drinking water treatment processes form regulated disinfection by-products. The applicant provided a single sample at each of their groundwater monitoring wells that showed little phenols and aldehydes, but this is far from adequate to truly assess the presence of these compounds. The sampling wells are located on the upstream section of the site and away from the likely areas of highest concentration. That is, these samples were taken away from the source and in the opposite direction of migration.

Sediment Loading

The ASMC application for No. 5 Mine gives useful information on the amount of sediment that will leave the site. The applicant used a well-established industry method to identify erosion factors used to calculate soil loss, and determined that the site will lose about 58 tons of sediment per acre annually from its sediment ponds to the river. In fact, over the course of a year, nearly 10,325 tons of sediment will enter the river. The applicant also performed dynamic modeling of the operation of its sediment basins during a large storm event to determine the performance of the pond and the expected quality of discharge at points during the storm. For the ponds designed to date, the peak sediment concentration during the 10-year, 24-hour storm event is between 3,200 and 14,300 mg/L and the total sediment leaving the ponds for that event is between 18 and 95 tons per pound. (Appendix E)

These predictions represent massive amounts of material leaving the site and entering the river near the BWWB intake, and there is no protocol in place to monitor these discharges for sediment or any other contaminants that are discharged along with the sediment.

Contaminant Modeling

Given the lack of rigorous predictive analysis aimed at determining the likely impacts of the mine on the BWWB intake, the BWWB undertook an effort to make its own prediction of likely metals concentrations. The objective of the BWWB's work has been to quantify the risk of exceeding the maximum tolerable raw water concentration for conventional treatment. The Board's model uses the EPA's EFDC hydrodynamic code to perform detailed 3D hydraulics calculations using actual rainfall data and detailed surveys of the river geometry. The storm water runoff quantities are calculated using the Rational method and background river contaminant concentrations are from sampling performed by the BWWB. The last piece of information that goes into the model is the expected discharge from the mine outfalls. To date,

the BWWB has used data from the literature as an input for the mine discharge quality because useful data does not exist for mines in the Mulberry watershed. The BWWB would like to advance the understanding of mining impacts in this area by improving its model, and asks ADEM to support this effort by improving its monitoring and reporting requirements.

Monitoring and Identifying Exceedances

The BWWB contends that the current protocol for monitoring the discharges from surface mines is fundamentally flawed. These mines discharge primarily under wet weather conditions, but the protocol is designed for dry weather discharges. The discharges from coal mines are almost exclusively storm water that lands on the site, runs over the ground surface to sedimentation ponds, and is discharged to the river. When rain is not falling, there is typically no discharge from the ponds. Given this function, it is only logical that the ponds be monitored during rain events, when they are discharging pollutants of concern. However, the current protocol does not require sampling during discharge events, but exempts compliance with permit limits during these events.

Given the primary pathway for contaminants, sediment and metals, to enter the river is through precipitation-driven runoff, it would follow that, if one wanted to monitor the performance of pollution prevention operations, one would monitor the performance of the treatment systems during precipitation events. The BWWB performed a study of the sampling reports for the previous mines relied on by the applicant, ASMC, and ADEM to determine if the data contained in their reports should be expected to contain an accurate account of performance of the mines' treatment systems. What the Board found was that very few precipitation events are sampled at all, and virtually no samples are taken in any time proximate to significant precipitation events. In fact, only about 15% of "samples" reported include information on the concentration of contaminants leaving the site; 85% of the time the mines perform a "sampling event" when the ponds are not releasing any water.

Naturally, the more significant the precipitation event, the more significant the potential pollution and the more likely that harmful contaminants will be released, so the BWWB looked further at these events. Significant precipitation events were designated as those which meet the classification standard for an annualized return frequency (i.e. 1 year/ 24-hour storm, 2 year/ 24-hour storm, etc.). During the period from 2005 – 2013 when the Red Star Mine, Quinton Mine, and Horse Creek Mine operated, there were a total of eleven classified storms. There were four 1-year storms, five 2-year storms, one 5-year storm, and one 100-year storm. During these storms, there were various basins in operation, and for each storm there were a certain number of basins active and available for sampling. For all the storms combined, there were 231 opportunities to collect a sample from a basin discharging because of a classified storm; a total of four samples were collected. (Appendices F & G) And those four samples were collected the day after the storm when the pond had nearly ceased discharging, far away from the peak or prime discharge period. This means that the discharge reports considered by the applicant, ASMC, and ADEM as the basis for expected mine discharge quality should not be expected to provide virtually any information on the performance of the ponds during rain events. No assurances or conclusions should be made based on these reports, as they miss the very information they should be designed to capture. Unfortunately, that is exactly what has happened in virtually all the analyses by Centennial et al., ASMC, and ADEM.

Permit Modification

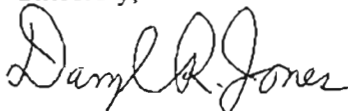
If this mine is allowed to operate, the BWWB must request that this permit be modified. To properly mitigate the risk presented by the No. 5 Mine located this close to the Mulberry drinking water intake, additional analysis and controls are required. The changes below are necessary to fully assess the likelihood that water quality standards will be violated and to put in place proper protocols to monitor and correct polluting discharges from the site. Specifically, the BWWB requests the following from ADEM:

- Perform full characterization of the site relative to its historical use as a plywood manufacturing facility, including subsurface investigation, and fully characterize site groundwater and soil contaminants.
- Update the RPA using actual background data and scrutinized mine discharge data to identify contaminants that are likely to exceed numerical WQSs and the narrative treatability WQS.
- Modify the implementation of permit limits to remove exemptions for rain events.
- Modify sampling and reporting protocols to ensure that sampling events capture discharges, including significant rain events. Monitoring of contaminant concentration and total flow (rate and duration) is vital to determining load into the river.
- Include monitoring requirements and limits in the permit for common mining pollutants and critical drinking water contaminants.
- Require the mine operator to provide access to the outfall locations for the BWWB, and contractors, to perform sampling and monitoring.
- Require a Spill Prevention, Control, and Countermeasure (SPCC) plan that meets the requirements of 40 CFR 112. The current plan is incomplete and does not contain sufficient specific information or detail to adequately protect against spill contamination.
- Require sedimentation basin designs to meet best technology available (incl. ADEM guidelines).
- Require notification of BWWB immediately upon on-site fuel spills or any other spills of potentially hazardous materials

The No. 5 Mine has the potential to bring significant harm to the function of the Mulberry Fork as a public water supply and represents a risk to the supply of drinking water for 200,000 Birmingham area residents. The current protocols for the assessment of potential WQS violations and for monitoring mine discharges is wholly inadequate as they have not considered the full impact of wet weather discharges. This permit should be updated and modified to correct the assessments where needed and impose proper monitoring and reporting requirements. The BWWB appreciates the work the ADEM does in protecting the citizens of Alabama and we appreciate to opportunity to participate in protecting this vital water resource.

Please e-mail me at Darryl.Jones@bwwb.org or call at 205-244-4404 if you have any questions or comments.

Sincerely,



Darryl R. Jones, P.E.
Assistant General Manager
Operations & Technical Services

Black Warrior RIVERKEEPER®
712 37th Street South
Birmingham, AL 35222
Tel: (205) 458-0095
Fax: (205) 458-0094
edillard@blackwarriorriver.org
www.BlackWarriorRiver.org



November 10, 2017

Russell Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
P. O. Box 301463
Montgomery, AL 36130-1463

Re: Narley Mine (NPDES Permit No. AL0075752) (Jefferson County)
Crescent Valley Mine (NPDES Permit No. AL0078751) (Walker County)
Carbon Hill Mine (NPDES Permit No. AL0079553) (Walker County)
Centennial No. 5 Mine (NPDES Permit No. AL0079936) (Walker County)
Gooden Creek Mine No. 2 (NPDES Permit No. AL0083364) (Winston County)

Via electronic mail only

Dear Mr. Kelly:

Thank you for the opportunity to provide comments on the Alabama Department of Environmental Management's ("ADEM") proposed issuance, reissuance and/or modification of the NPDES permits referenced above. We write on behalf of Black Warrior Riverkeeper ("Riverkeeper"), a nonprofit organization dedicated to protecting and restoring the Black Warrior River and its tributaries.

The proposed permit for Narley Mine authorizes the discharge of treated drainage from a dry preparation coal mining operation and associated areas, discharging to Locust Fork, Trouble Creek, an unnamed tributary to Crooked Creek, unnamed tributaries to Trouble Creek, unnamed tributaries to Whites Creek, and Whites Creek, all classified as Fish and Wildlife, in the Black Warrior River basin. The proposed permit for Crescent Valley Mine authorizes the discharge of treated drainage from a dry preparation coal mining operation and associated areas, discharging to Allen Creek, unnamed tributaries to Allen Creek, and Lost Creek, all classified as Fish and Wildlife, in the Black Warrior River basin. The proposed permit for Carbon Hill Mine authorizes the discharge of treated drainage from a dry and wet preparation coal mining operation and associated areas, discharging to Cranford Creek and unnamed tributaries to Cranford Creek, all classified as Fish and Wildlife, in the Black Warrior River basin. The proposed permit for Centennial No. 5 Mine authorizes the discharge of treated drainage from a dry preparation coal mining operation and associated areas, discharging to Mulberry Fork which is classified as Public Water Supply and Fish and Wildlife, and to an unnamed tributary to Mulberry Fork which is

classified as Fish and Wildlife, in the Black Warrior River basin. Finally, the proposed permit reissuance for Gooden Creek Mine No. 2 authorizes the discharge of treated drainage from a dry preparation coal mining operation and associated areas, discharging to Goodwin Creek and unnamed tributaries to Goodwin Creek, all classified as Fish and Wildlife, in the Black Warrior River basin.

In addition to surface mining, coal preparation will occur under the auspices of all of the advertised permits. Of note is the nature of coal preparation, a process which typically involves the crushing and storage of large quantities of coal and can require the use of chemicals. It is apparent that ADEM has failed to assess the possibility of chemical use at the preparation plants. If chemicals are used as part of preparation, it is critical that ADEM require monitoring for and limitation of any chemicals used (and/or their byproducts) to ensure that chemicals are not being discharged downstream.

ADEM's study of surface mining impacts in the Black Warrior River watershed confirms a clear relationship between mining, together with associated activities like coal preparation, storage, and transportation, with negative downstream water quality impacts. See discussion *infra* at pp. 7-8 of ADEM's *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama* (December 2013). In light of these known impacts, we continue to ask the Department to develop and implement a more robust permitting system for surface mining and associated activities that can better identify, limit, and even stop these acknowledged harms.

We specifically ask EPA to participate in this process and to bring new tools to the process as necessary. See discussion *infra* at pp. 2-4. We know that the Warrior Coal Field has locally elevated concentrations of mercury, as well as elevated levels of arsenic, molybdenum, selenium, copper and thallium. See Gold, Dielhaber and Hatch, *Modes of Occurrence of Other Trace Elements in Coals from the Warrior Field, Black Warrior Basin, Northwestern Alabama* (April 27, 2004). The presence of these and other toxic elements associated with coal mining in areas where local residents drink water, swim, recreate, and fish, and where rare and endangered aquatic species live make it imperative that NPDES permits for coal mining and associated activities in Alabama protect both human health and the environment.

EPA's Disparate Regulatory Treatment of Surface Mining in Alabama .. Continues

As we have observed many times before, surface coal mining and associated activities impose terrific burdens on streams within the Black Warrior basin. We have asked numerous times, with no acknowledgement or response, that EPA apply its July 21, 2011 Final Guidance on Improving EPA Review of Appalachian Surface Coal Mining Operations under the CWA, NEPA, and the Environmental Justice Executive Order ("Final Guidance") to surface coal mining operations in Alabama. Even though EPA R4 has repeatedly acknowledged that many of the same concerns which drove the development and implementation of the Final Guidance are applicable to surface mining here, to date EPA has failed to take necessary steps to implement the Final Guidance in Alabama. Will EPA apply the Final Guidance in Alabama? If so, when? If not, why?

The U.S. Circuit Court of Appeals for the District of Columbia ruled that the EPA was within its authority in issuing the Final Guidance, which is aimed at enhancing coordination between responsible federal agencies while reducing conductivity pollution from surface mining activities. *See Nat'l Mining Assoc., et al., v. McCarthy, et al.*, 758 F.3d 243 (D.C.Cir. 2014). If necessary, we again ask EPA to undertake any necessary field-based validation and/or studies (if in fact these studies are even required) to apply the Final Guidance in order to better protect the streams of Alabama, the citizens who use them, and the diverse array of aquatic life that calls them home.¹ Although EPA and the Corps have conspicuously excluded Alabama from the defined six-state “Appalachian region” in the past, EPA R4 has acknowledged for years that the same types of mining concerns identified in the defined “Appalachian region” are also at issue in Alabama. *See, e.g., December 17, 2010 EPA Letter to the U.S. Army Corps of Engineers in re: Swann's Crossing Mine (Tuscaloosa County, Alabama); February 23, 2011 EPA Letter to the U.S. Army Corps of Engineers in re: Reese's Branch Mine No. 2 (Walker County, Alabama); February 24, 2011 EPA Letter to the U.S. Army Corps of Engineers in re: Cedar Lake Mining (Blount County, Alabama)*. While we shouldn't have to point out the obvious, Alabama is indeed part of the Appalachian region – the Appalachian Mountains extend well into Alabama and exist throughout the Warrior Coal Field.

In letters, written several years ago, EPA acknowledges that Alabama is “within the United States Geographical Survey Ecoregion 68f of the major Appalachian geographical province” and states that “[w]hile Alabama is not within the defined [Appalachian] region . . . EPA believes that these same types of concerns exist in Alabama both individually and cumulatively.” Appalachian surface coal mining activities are harmful to streams no matter where it takes place and Alabama deserves the same protections from this practice that the EPA has afforded central Appalachia. To exclude Alabama from the ambit of the Final Guidance in these circumstances is not just a poor choice by EPA; it could also be construed as an arbitrary and capricious decision that lacks sound scientific basis and/or the appropriate consideration of the environment.

Given EPA's persistent failure to apply its guidance to Alabama, we call on ADEM to voluntarily adopt EPA's guidance while making permitting decisions in order to make the regulation of surface mining and associated activities in Alabama more consistent with the rest of the Appalachian region, especially in light of the similar harms and regulatory issues. *See, e.g., Hopkins, et al.*,

¹ We question whether field validation studies are even necessary. According to EPA, “[r]ather than use toxicity test results, the adaptation uses field data to determine the loss of 5% of genera from streams. The method is applied to derive effect benchmarks for dissolved salts as measured by conductivity in Central Appalachian streams using data from *West Virginia and Kentucky*.” *See* preface to *A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams*. Because Alabama, like Kentucky, is in Eco-region 68 we believe that if studies in West Virginia and Kentucky are adequate to support validation for the remaining four Central Appalachian states, they should be adequate to validate the studies for Alabama. If they are not, we would like to understand what scientific basis EPA relies upon to treat like states and ecoregions so differently.

Exploring the legacy effects of surface coal mining on stream chemistry (2013) (Study concludes that distinctions drawn between surface mining in West Virginia or Kentucky versus that in Ohio or Alabama makes little scientific sense: “Comparable to [mountaintop removal and valley fill] practices (see Bernhardt and Palmer, 2011), surface coal mining appears to have a strong legacy effect on stream chemistry Aquatic systems are highly sensitive to surface mining disturbances, and the negative effects on stream chemistry appear to persist over time, in spite of reclamation efforts”). *See also* ADEM’s *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama* (December 2013) (Despite documented flaws in study plan methodology, data indicates that even after reclamation at “compliant” mines, Alabama surface mining has a significant adverse effect on instream water quality, even well after active mining has ended).

Development of State Water Quality Standard and NPDES Permit Limitations for Conductivity

There are no State water quality standards for total dissolved solids (TDS), sulfate or conductivity; they are “monitor only” under Alabama NPDES permits for surface mining and associated activities. However, as early as August 2010, EPA appears to suggest that there is (or perhaps should be) a narrative and/or numeric water quality standard for conductivity:

A Water Quality Standards Protection Plan (WQSPP), specific to the proposed mining activity, should be adopted before authorizing the final permit. The permit shall require that the WQSPP include [BMPs] that will ensure discharges from the mine’s permitted outfalls do not cause or contribute to a violation of the State’s narrative water quality standards, in particular [conductivity]. The specific content of the WQSPP should be tailored to the conditions of the proposed mine and should limit [conductivity] to below 500 $\mu\text{S}/\text{cm}$.

See, e.g., August 27, 2010 Letter from EPA R4 to Col. Steven Roemhildt (Shannon Mine) at 3.

In guidance, we note that EPA has recommended a conductivity benchmark of 300 - 500 $\mu\text{S}/\text{cm}$. for the Central Appalachian region. *See Final Guidance; see also A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams*. Again, if EPA can validate these studies for other states in the Appalachian region, we think they should be validated for the state of Alabama. *See discussion at pp. 2-3. In light of the evolving science that the conductivity benchmark promotes the water quality necessary to protect aquatic organisms living in streams, we would like an update on what steps ADEM is taking to develop State water quality standards or permit limitations for conductivity.* *See generally A Field-based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams*. We have asked this question in previous comment letters and await the Department’s response.

Improper Allowance of Precipitation Exemption

ADEM acknowledges in the Narley Mine permit rationale that “[p]recipitation event discharge limitations are an alternate set of technology based limits afforded a facility under certain conditions, and *they do not apply automatically.*” See *Narley Mine* permit rationale at 1. In the Narley draft permit, ADEM appears to be automatically allowing the exemption in circumstances where it is plainly not authorized. According to the permit rationales, ADEM concludes that “it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the instream pH based on the low discharge/stream flow ratio.” *Id.* at 2. As we have stated in previous comments, *WQBELs are not eligible for alternate precipitation limits, whether for pH or metals.* The final NPDES permit for Narley Mine should clearly reflect, as ADEM has acknowledged, that WQBELs are not eligible for precipitation event exemptions. As stated by EPA R4:

WQBELs are not eligible for alternate precipitation limits - The WQBELs included in the draft permit because a determination was made that the effluent could cause or contribute to a numeric water quality standard exceedance during a precipitation induced discharge. The draft permit did not apply the WQBELs during qualified storm events. Alternate limits are allowed during certain precipitation events for TBELs according to 40 C.F.R § 434.63; however, precipitation exemptions are not available for WQBELs because they are more stringent than the TBELs. Water quality standards are to be maintained at all times. Accordingly, the draft permit fails to ensure compliance with Alabama’s water quality standards during the discharges from qualifying precipitation events. To adequately protect water quality the final permit should clarify that WQBELs are ineligible for alternate precipitation limits.

See December 11, 2013 E-mail (Global Met Coal AL0081931) from Kip Tyler, EPA Region 4 to Catherine McNeill, ADEM.

Reasonable Potential Analysis

EPA requires a Reasonable Potential Analysis (RPA) for each mine permit that includes background data for metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc), total phenols, and total cyanide levels in the receiving stream. We continue to be concerned about whether ADEM is requiring enough data from permit applicants to support statistically defensible calculations of appropriate permit limits. For example, the (stale) data for the Narley Mine was all gathered May 9, 2013. The data for Crescent Valley Mine was all gathered January 17, 2017. The (stale) data for Carbon Hill Mine was gathered March 1, 2013. The data for Centennial No. 5 Mine was all gathered March 15, 2017. Finally, the data for Gooden Creek Mine No. 2 was all gathered January 20, 2017. We believe that single samples from supposedly representative outfalls cannot reliably predict proper effluent concentrations. Similarly, background, instream concentrations based on samples from a single day cannot provide statistically significant representations of actual instream water quality. Also, the Department should require applicants to furnish recent data.

We urge you to require additional instream and effluent samples. Requiring more data inputs --- and more representative inputs--- for the RPA calculation will help ADEM better calculate permit limits and also more accurately project the instream conditions during and after mining. We discourage the use of in-pond samples (they are not representative) as well as older samples like those for Narley and Carbon Hill mines. We suggest that ADEM require multiple effluent samples during a fairly recent time period to ensure that the Department is working with statistically significant data.

We observe that until October 2010 when the Department revamped its coal mining permits, ADEM and industry asserted that what surface mines discharged was essentially stormwater and should be permitted as such. When ADEM began to require monitoring of other pollutants and toxic substances associated with coal mining, subsequent Forms 2C and DMRs began to show the presence (sometimes in significant levels) of many pollutants not typically associated with stormwater but present in wastewater discharges from coal mining and associated activities. ADEM similarly believed in the past that calculating the RPA assuming background levels of "0" was sufficiently accurate and protective in making permitting decisions. But as the Department has begun to require instream sampling by permittees, those results demonstrate that in many places background assumptions of "0" are simply not accurate. We now urge ADEM to take another significant step which is absolutely necessary to write protective permits: look at other water quality data and require a statistically significant set of samples to calculate the RPA in order to make the calculation statistically reliable and properly predictive.

We are glad to see that the Department has reviewed "available data" from ALAWADR in order to better evaluate the data submitted by the permittees. However, we ask that ADEM state in the permit rationale the actual data reviewed from this database and include that data in its permit calculations. We continue to emphasize that, in order to accurately predict instream conditions, ADEM needs to search through not just its own water quality data, but also seek out additional data from other sources such as STORET or require the permittees to collect a statistically significant series of data points and report average concentrations of the relevant parameters.

ADEM's failure to require or consider sufficient data to substantiate accurate Forms 2C for the proposed permits can potentially undermine the draft WQBELs. The Fourth Circuit Court of Appeals acknowledged the critical importance of accurate Form 2C information to coal mine permitting. *See Southern Appalachian Mtn. Stewards, et al. v. A & G Coal Corp.*, App. No. 13-2050 (4th Cir. July 11, 2014). "The effectiveness of the permitting process is heavily dependent on permit holder compliance with the CWA's monitoring and reporting requirements." Slip Op. at 10 (citation omitted). "[T]he Clean Water Act and its implementing regulations focus on the information that the permit applicant must gather and provide to the permitting agency, so that it can make a fully informed decision to issue the requested permit." *Id.* at 10. Because the disclosures on the permit application form the basis for drafting a permit protective of water quality, determining their accuracy and *reliability* must be paramount.

Pollution Abatement and Prevention Plan

While there are generic BMP and SPCC plans in some of the draft permits, there are no site-specific Pollution Abatement and Prevention plans (“PAP plan”) in the ADEM permit files, only preliminary checklists. We therefore assume that ADEM did not review PAP plans for these facilities. Absent PAP plans, there is no meaningful way to determine the total impact of the discharges from the sites on the water quality of the receiving waters. *See Warner Golden Affidavit (Black Warrior Riverkeeper, Inc. v. ADEM, EMC Docket No. 09-04)*. The PAP plan is intended to be:

a site-specific, detailed document which explains the measures that a mining operation will employ to minimize its impacts on water quality resulting from precipitation driven runoff. Pursuant to ADEM regulations and good engineering practices, PAP plans typically include an explanation of the design of sediment ponds at the site and diagrams of this design for all ponds, plans to minimize impacts from mining on nearby streams, plans to minimize sediment and other pollutants’ release from haul roads, and plans to minimize the effect of non-point source pollution from the mining operation.

Id. ADEM could not have determined that PAP plans for these sites were adequate to provide for the protection of water quality because apparently no PAP plans were submitted with the permit applications. In the absence of such reviews, ADEM could not possibly have determined that discharges from these facilities would not impair water quality or cause a violation of water quality standards. *Id.* ADEM’s reliance on the ASMC, which does not have primacy on issues related to water quality, to review PAP plans is wrong, and in our opinion illegal. Furthermore, the PAP plans submitted to the ASMC are generally submitted piecemeal, segment by segment, do not reflect the cumulative water quality implications of the mine as a whole, and generally consist of boilerplate specifications rather than site-specific blueprints for actual, on-the-ground pollution controls.

We also note that ADEM has included new language in NPDES permits for coal mining and associated activities beginning December 2013 about the role of permittee engineers. That language provides that:

[i]n accordance with ADEM Admin. Code r. 335-6-3-.07 the design professional engineer, as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the Permittee’s effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama’s water quality standards, when such treatment facilities are properly operated.

This language incorporates the requirements of Ala. Admin. Code r. 335-6-3-.07, which is intended to supply evidence that the permittee’s professional engineer accepts full responsibility for the waste

treatment facility if properly operated. We commend the Department for including this language in the permit rationales and for making the permittees' engineers specifically responsible for the efficacy of the facilities' wastewater treatment.

However, we want to reiterate that such language cannot absolve ADEM of its independent responsibility under regulation to review submitted plans and designs or to likewise ensure that wastewater treatment facilities perform adequately. Just as the Department cannot abdicate responsibilities to review the PAP Plan, ADEM cannot disclaim legal obligations for review of waste treatment facilities. *See* Ala. Code § 22-22-9(g). It is the *duty* of the Department:

to receive and examine applications, plans, specifications and other data and to issue permits for the discharge of pollutants, industrial wastes entering directly or through a municipal or private treatment facility, and other wastes into the waters of the state, stipulating in each permit the conditions under which such discharge may be permitted.

See id. It is the responsibility of the Department as well as individual permittees, to ensure that the wastewater facility designs submitted will protect water quality. While engineers must assume responsibility for these facilities on behalf of permittees, pursuant to legal mandate ADEM must assume responsibility for these facilities on behalf of the citizens of Alabama.

Applicable Monitoring Requirements

Under the terms of the NPDES permits at issue, the permittees are allowed to sample more frequently than required by the permits as long as they report all of the additional information on their DMRs (Part I.B.1.c. of the permits) and the sample collection and measurement actions are representative of the discharge (Part I.B.5. of the permits). We understand that this allows the permittees the opportunity to show that an elevated sample result on one day of sampling may not be a chronic occurrence and may not be representative of the average monthly concentration of the pollutant.

However, if this is the case, we point out that a sample *within* permit limits on one day of sampling may not be a chronic occurrence and may also not be representative of the average monthly concentration of the pollutant. In other words, we believe that the better protocol for mining permits (absent unusual circumstances) is for sampling intervals to be chosen and consistently adhered to in order to calculate the monthly average permit limitations. To do otherwise, ADEM is creating circumstances that allow a permittee to selectively sample in order to manipulate outcomes and meet permit limits – even if those outcomes are not representative of the discharge over time.

In-Stream Monitoring

Over seven years ago, EPA observed that “[d]espite the amount of data Alabama has collected for CWA Section 303(d) listing purposes, there is a scarcity of information available to EPA specifically pertaining to in-stream water quality in coal mining areas” and that “much remains to be done in assessing waters in areas of active coal mining in Alabama.” EPA October 1, 2010 Comment Letter at p. 2. Coal mining activities rank as the second largest source of impairment for stream miles in our state. EPA October 1, 2010 Comment Letter at p. 2 (*citing Table 2-7 of ADEM’s 2010 Integrated Water Quality Monitoring and Assessment 305(b) Report*). Most coal mines discharge to rivers and streams yet remarkably “77% of Alabama’s rivers and streams have not been assessed for water quality purposes.” *Id.*

Can ADEM update this figure? What percentage of Alabama’s waterbodies have been assessed for water quality purposes? We continue to ask that ADEM do more to ensure that the Department (and the public) have adequate water quality data in areas of concentrated coal mining. We call on ADEM to establish more active trend or reference water quality monitoring stations in Jefferson, Walker, and Tuscaloosa counties, which are the most heavily coal-mined counties in Alabama.

Does ADEM plan a follow up to its flawed *Assessment of Water Quality in Wadeable Streams near Surface Coal Mining Facilities in the Black Warrior River Basin in Alabama* (December 2013) (“the Assessment”)? Instead of being the robust, independent and scientific study that this issue deserves, a review of the study plan and data indicate that the Assessment was fatally flawed from its inception and poorly executed thereafter. We ask the Department to seek funding for a more accurate and scientific approach that will afford ADEM and the public with a true picture of the impacts of surface mining and related activities.

We have pointed out the numerous problems with the study in the past. First, ADEM’s deliberate choice of an eco-reference stream influenced by clear-cut areas and coalbed methane operations is problematic and appears to be designed to skew the reference streams and “stack the deck” for a finding of “no impact.” Second, instead of being a study of “active” surface mines as the study plan plainly states, at least half of the samples were actually taken from streams at *reclaimed* mines --- and one data set is actually from an *underground* mine. Third, the results of ADEM’s data may be skewed because they chose to focus on only “compliant” mines. Fourth, there is apparently little or no quality control, as some of the data cannot be mass balanced; simple calculations are in error and understate potential impacts; and additional sampling took place well after the study was supposed to be concluded. Despite these carefully documented flaws the only conclusion one can draw from this data is that surface mining, even after reclamation, has a severe and pervasive adverse effect on downstream water quality.

For example, according to the Assessment, toxicity was indicated at 50% of the outfalls (2 of 4) that ADEM studied. Arsenic exceeded human health water quality criteria in 5 out of 36 (14%) samples downstream of coal mines. Overall, there were significant increases in Conductivity and TDS downstream versus upstream; in addition, there were also significant increases in concentrations of some metals at some downstream locations. Both nitrogen and sulfate concentrations increase significantly downstream of mined areas. And arsenic was elevated in sediment at 3 out of 6 (50%) locations downstream of mine outfalls.

Despite these flaws, one obvious takeaway from the study is that surface mining activities continue to exert a pronounced and pervasive negative influence on water quality well after reclamation is complete. In what way has ADEM applied this knowledge or the data gathered from this study in order to ensure that NPDES permits issued to coal mines address these negative effects on downstream water quality?

Daily Flow Monitoring

The draft permit should be revised to require daily flow monitoring as recommended by EPA. To get an accurate picture of just how often coal mines discharge, the Department must require daily flow monitoring at all active outfalls, which will also help ADEM assess the true impact of mining on Alabama's streams and rivers. The surface impoundments should already be equipped with flow monitoring devices. Asking one employee to check and record the flow volumes daily can be carried out at minimal expense to the permittee, yet provide ADEM and the public with a wealth of information.

The Department has responded in previous permit comments that "flow monitoring requirements mimic the other sampling requirements so that the Department may calculate mass pollutant loading rates of the discharge(s) when necessary." That is not the point of our request; we know that ADEM requires flow monitoring in conjunction with bi-monthly monitoring. We are asking the Department to adopt our recommendation, which has also been suggested by the EPA, to require *daily* flow monitoring so that ADEM (and the public) can know how often these mines are discharging and at what volumes, rather than rely on inaccurate expectations and/or assumptions. The entire basis for ADEM's permit calculations is that discharges from surface coal mines and associated activities are precipitation-driven and do not occur absent rain events. It is essential that ADEM once-and-for-all drop this ridiculous assertion, as it is commonly known that many sediment basins are built in existing streams that flow year-round and that many discharges are pumped discharges – due to groundwater and/or rainwater being pumped out of working pits at surface mines and groundwater being pumped out of underground mines, which often comes with rainwater in drainages, streams, and sediment ponds. In the case of Narley Mine, we commend ADEM for acknowledging that several outfalls are fed by pumped water and adjusting the permit accordingly. Unfortunately, we have seen far too many cases where permittees fail to disclose the likelihood of pumped discharges, and both ADEM and permittees fail to acknowledge that spring fed sediment ponds (which are numerous throughout the Black Warrior River watershed)

may discharge continuously. Requiring daily flow monitoring would correct this oversight and allow ADEM to issue future permits based on actual conditions rather than assumptions.

Permit Rationale Statement, 303(d) Streams

In the permit rationale statements, ADEM concludes that “[f]ull compliance with permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable State instream water quality standards for the receiving streams.” However, as stated previously, with so little instream monitoring performed in Alabama’s areas of concentrated coal mining, how can ADEM reliably know what instream water quality actually is, much less that the permit terms and conditions which will maintain that quality?

Several of the mines authorize the discharge of treated drainage into impaired waters!² By issuing NPDES permits to discharge sediment and other pollutants into waterways where levels for these parameters already exceed water quality standards, ADEM is violating both the intent and purpose of the CWA. *Under the CWA, when a new source seeks to obtain a permit for a discharge of pollutants to a stream segment already exceeding its water quality standards for that pollutant, no permit may be issued.* ADEM’s authorization of these new discharges (39 new outfalls at Narley Mine, which will discharge either to tributaries of the impaired Locust Fork, or immediately downstream of the impaired segment, as well as numerous, as yet unconstructed, outfalls at Crescent Valley and Carbon Hill mines) to impaired waters are a clear violation of the CWA. 40 C.F.R. 122.4(i) prohibits issuance of an NPDES permit to a new source or a new discharge if that treated discharge will cause or contribute to a violation of applicable State water quality standards in the receiving water. It is our firm belief that ADEM should not permit the discharge of pollutants to streams that are impaired for those particular pollutants unless the Department has established a TMDL, and implemented appropriate reductions of pollutant concentrations at all permitted facilities discharging within and upstream of the impaired area.

ADEM’s own website proclaims that the 303(d) List is a “list of waterbodies in Alabama that *do not fully support their designated uses* based on a review of water quality data and information.” The fact that bodies of water like the Locust Fork and Lost Creek do not fully support their designated uses means that they are in current, ongoing violation of water quality standards. ADEM Admin. Code 335-6-6-.04 Prohibited Discharges states “[a]n NPDES permit shall not be issued to a person proposing any of the following discharges: ... (i) A discharge from the construction of a new source or the construction of a new discharger, if the discharge from its construction will cause or contribute to a violation of water quality standards.” Both of the proposed mines will discharge the very pollutant for which these streams are impaired (siltation), thereby contributing to the ongoing violations of water quality standards identified in Alabama’s 2016 CWA §303(d) List and are therefore prohibited by state law.

² Narley Mine will discharge to tributaries of a segment of the Locust Fork that is listed for nutrients and siltation; both Crescent Valley and Carbon Hill mines will discharge upstream of Lost Creek, which is listed for siltation;

The draft permits for Narley, Crescent Valley and Carbon Hill mines authorize the discharge of TSS during all phases of mining and Settleable Solids (SS) during precipitation events and post-mining. Siltation refers to the increased concentration of suspended solids, or accumulation of settleable solids, which can form bottom deposits. These solids will inevitably accumulate in the Locust Fork (Narley) and Lost Creek (Crescent Valley and Carbon Hill) as a result of their authorized discharge at the mines.

The Department has calculated permit limits for TSS at all three mines based upon the 90th percentile ecoregional reference for Ecoregion 68 (or 68f), stating that “[t]he Department believes limiting the TSS to the 90th percentile ... provides reasonable assurance that the pollutants will not be present in the discharge at levels of concern and/or the facility will not discharge pollutants at levels that will cause or contribute to a violation of applicable State water quality standards” “Beliefs” and “reasonable assurances” are no substitute for science and an actual TMDL. It is our firm belief that ADEM should not permit the discharge of pollutants at all to streams that are impaired for those particular pollutants unless the Department has established a TMDL and knows that the increased discharges of a pollutant will not violate water quality standards

In allowing additional discharges of sediment to impaired streams, ADEM is effectively limiting its ability to protect these waterbodies from additional siltation, and guaranteeing that these impaired waterbodies remain impaired – as opposed to the appropriate goal under the Clean Water Act of achieving a return to compliance with water quality standards. ADEM’s use of the Ecoregional Reference Reach Monitoring Program to approximate a load which the Department believes will not violate water quality standards is no substitute for the development of TMDLs. Unless and until ADEM develops TMDLs and can allocate loads with the certainty that they will not violate water quality standards, the Department should not permit discharges like these one that will contribute to ongoing impairments.

Presence of Sensitive Species

What makes the addition of more sediment to these waters even more disturbing is the known presence of the Threatened flattened musk turtle (FMT) and the Candidate (and pending proposed Endangered) Black Warrior waterdog in the Locust Fork (Narley) and Lost Creek (Crescent Valley and Carbon Hill). The preferred habitat for both the turtle and the waterdog is free-flowing streams with good water quality, rocky substrate, and a good mix of downed trees and leaf litter. The Locust Fork and Lost Creek are among the few remaining homes to the turtle and the waterdog, which share nearly identical habitat. Historically, strip mining for coal, habitat alterations, and water quality impacts have eliminated or severely impacted both the FMT and the Black Warrior waterdog. We are not confident that the perfunctory surveys performed as a part of the ASMC permit application process are adequate to evaluate either the presence of the turtle or the waterdog --- nor do they properly examine the potential effect of the mine on the survival and recovery of these rare species.

In 1981, U.S. Fish and Wildlife Service contracted with Dr. Robert H. Mount, Auburn University, to determine the status of the flattened musk turtle. In his report, Dr. Mount concluded that the single greatest threat to the turtle is siltation, and he placed the major blame for siltation on surface coal mining. See Ernst, Cox and Marion, *The Distribution and Status of the Flattened Musk Turtle, Tulane Studies in Zoology and Botany, Volume 27, Number 1* at p. 2. Part of ADEM's rationalization for permitting increased discharges at sites like Narley, Crescent Valley and Carbon Hill mines is the stated belief that compliance with permit limitations will be sufficiently protective of water quality. Given the number of current and past mines in the area, that confidence is surely misplaced. That confidence also fails to account for the precipitation event limitation exemptions, which effectively throw permit limitations out the window during the very large rain events, which we expect to cause contributions of vast amounts of sediment to the receiving streams.

Waterdog habitat is similar to that of the flattened musk turtle and water quality degradation is the primary threat to its continued existence; Bailey (2000, pp. 19-20) considered water quality degradation to be the primary reason for the extirpation of this species over much of its historical range in the Upper Black Warrior system. Surface mining represents a threat to the biological integrity of streams in the Black Warrior basin and has undoubtedly affected the distribution of the waterdog in the past (Bailey 1995, p.10). The FWS proposed listing the Black Warrior waterdog as endangered in 2016. 81 Fed. Reg. 69500 (October 6, 2016). The Service assigned the waterdog a listing priority number of 2, which indicates the amphibian is a species with threats that are both imminent and high in magnitude. *Id.* at 69500.

In addition, eight more species listed as threatened and endangered under the Endangered Species Act, including the Cahaba shiner, Alabama moccasinshell, dark pigtoe, orange-nacre mucket, plicate rocksnail, triangular kidneyshell, ovate clubshell, and upland combshell occur near the Narley Mine site, and designated critical habitat for six species occurs in the Locust Fork downstream of the project area. Like the FMT and waterdog, all of these species are known to be negatively and profoundly affected by the impacts of surface coal mining,

To date, we have never seen ADEM deny a coal mining permit application where the mine proposes a discharge to impaired waters or critical habitat area. The anti-degradation analysis or permit rationale is *always* written to authorize the new discharge. No matter what the impairment or how many threatened and endangered species may be harmed, the permit is *always* deemed to be protective. The presence of fragile species which depend upon water quality for their survival is ignored. It is long past time for ADEM to meaningfully consider the impacts of discharges to impaired waters using data, not unfounded opinions or bare conclusions, especially where impacts to sensitive species are involved. These three proposed NPDES mining permits will continue to authorize further degradation of water quality and endangered species habitat and therefore should be denied.

Drinking Water

As noted in the permit rationale for the Centennial Resources No. 5 Mine (p.1), the proposed discharges would enter waters designated for use as Public Water Supply (PWS). In fact, those discharges would enter the Mulberry Fork just a few miles upstream of the Birmingham Water Works Board's (BWVB) Mulberry Fork drinking water pumping station (Mulberry Intake), which serves a population of approximately 200,000 people per day in the greater Birmingham area. As we, and BWVB, have noted in previous comment letters and numerous legal filings, the water quality near the intake has already been severely impacted by coal mining upstream in the Mulberry Fork watershed and is nearing a tipping point that could trigger the necessity for additional treatment of source water prior to distribution to customers. The original issuance of the permit for the (formerly Reed Minerals) No. 5 mine was ill-considered and clearly demonstrated ADEM's deference to industry at the cost of the health and safety of the citizens of Alabama. Without re-litigating all of the reasons that allowing the discharge of polluted coal mine wastewater into a primary drinking water source for hundreds of thousands of people is a terrible idea, we urge ADEM to not make the same mistake again. Take a stance, for once, to protect Alabama's citizens by denying the reissuance of the permit for Mine No. 5. Given the magnitude of importance of this permit re-issuance, *we request a public hearing on Centennial Resource No. 5 Mine* on behalf of the Mulberry Fork and all who live on it, all who utilize it for fishing, swimming, and recreation, and the hundreds of thousands of people who use the water, which is treated and provided by the Birmingham Water Works Board, every day for drinking, bathing, cooking, gardening, etc.

Conclusion

In order to ensure that ADEM's NPDES permits for coal mining and associated activities do not cause or contribute to violations of water quality standards, the Department must begin relying on comprehensive data from instream monitoring and statistically relevant sampling so that all permits are premised upon sound, scientific data. ADEM must develop and require more extensive and specific monitoring requirements for surface water, groundwater, and aquatic biota during mining. We note that EPA's recent guidance sets forth specific parameters for monitoring in CWA permits of water quality and biological conditions in streams below surface mining operations. We support stricter permit limits for contaminants of concern, many of which endanger not just aquatic life, but all life. As EPA rightly observes, the environmental legacy of mining operations is far-reaching; recent studies "point to new environmental and health challenges that were largely unknown even ten years ago." *EPA Guidance* at p. 3. In order to meet these new challenges, ADEM must not only write better, more protective permits for coal mining operations --- the Department must consider whether operations like these can be permitted without violating Alabama's water quality standards.

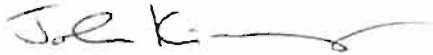
Thank you for your consideration of our comments. Please do not hesitate to contact us if you have any questions or if you require any additional information. We look forward to receiving a

response to our comments from the Department, as well as notice of the Department's final permit decision.

For the River,



Nelson Brooke
Riverkeeper



John Kinney
Enforcement Coordinator



Eva Dillard
Staff Attorney

Cc: Glenda Dean, Chief
ADEM Water Division

Catherine McNeill, Chief
ADEM Mining and Natural Resources Section

Mary Walker, Director
Water Protection Division
EPA Region 4

Duncan Powell, Chief
Surface Mining
EPA Region 4

Mark LaRue
Surface Mining Team
EPA Region 4



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE: Centennial Natural Resources, LLC
Post Office Box 2420
Jasper, AL 35502

FACILITY LOCATION: No. 5 Mine
Plywood Plant Road
Cordova, AL 35550
Walker County
T15S, R6W, Sections 9, 10, 11, 14, 15, 16, & 22

PERMIT NUMBER: AL0079936

DSN RECEIVING STREAM

- 001-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 003-1 Mulberry Fork of the Black Warrior River
- 005-1 Mulberry Fork of the Black Warrior River
- 007-1 Mulberry Fork of the Black Warrior River
- 009-1 Mulberry Fork of the Black Warrior River
- 011-1 Mulberry Fork of the Black Warrior River
- 013-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 015-1 Mulberry Fork of the Black Warrior River
- 017-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 019-1 Mulberry Fork of the Black Warrior River
- 021-1 Mulberry Fork of the Black Warrior River
- 023-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River

DSN RECEIVING STREAM

- 002-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 004-1 Mulberry Fork of the Black Warrior River
- 006-1 Mulberry Fork of the Black Warrior River
- 008-1 Mulberry Fork of the Black Warrior River
- 010-1 Mulberry Fork of the Black Warrior River
- 012-1 Mulberry Fork of the Black Warrior River
- 014-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 016-1 Mulberry Fork of the Black Warrior River
- 018-1 Unnamed Tributary to Mulberry Fork of the Black Warrior River
- 020-1 Mulberry Fork of the Black Warrior River
- 022-1 Mulberry Fork of the Black Warrior River

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: March 01, 2018
EFFECTIVE DATE: March 1, 2018
EXPIRATION DATE: February 28, 2023

GENIA L. DEAN
Alabama Department of Environmental Management

**MINING AND NATURAL RESOURCE SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

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PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Active Mining Limitations and Monitoring Requirements

- a. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfalls 001-1, 002-1, 013-1, 014-1, 017-1, 018-1, and 023-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Except as provided in Parts 1.A.2. and 3., discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-----	8.5 s.u.	Grab	2/Month
pH ² 00400	6.0 s.u.	-----	10.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	35.0 mg/L	70.0 mg/L	Grab	2/Month
Iron, Total (As Fe) 01045	-----	3.0 mg/L	6.0 mg/L	Grab	2/Month
Manganese, Total (As Mn) ³ 01055	-----	2.0 mg/L	4.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant ⁴ 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month
Toxicity, Ceriodaphnia Acute ⁵ 61425	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Ceriodaphnia Chronic ⁶ 61426	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Acute ⁵ 61427	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Chronic ⁶ 61428	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

¹ See Part I.C.2. for further measurement frequency requirements

² See Part IV.D. for pH Exemption Discharge Limitations.

³ See Part IV.E. for Manganese Exemption Discharge Limitations

⁴ Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department

⁵ See Part IV.F. for Effluent Toxicity Limitations and Biomonitoring Requirements for Acute Toxicity.

⁶ See Part IV.G. for Effluent Toxicity Limitations and Biomonitoring Requirements for Chronic Toxicity.

- b. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfalls 003-1 through 012-1, 015-1, 016-1, and 019-1 through 022-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Except as provided in Parts I.A.2. and 3., discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ⁷
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	2/Month
pH ⁸ 00400	6.0 s.u.	-----	10.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	35.0 mg/L	70.0 mg/L	Grab	2/Month
Iron, Total (As Fe) 01045	-----	3.0 mg/L	6.0 mg/L	Grab	2/Month
Manganese, Total (As Mn) ⁹ 01055	-----	2.0 mg/L	4.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant ¹⁰ 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month
Toxicity, Ceriodaphnia Acute ¹¹ 61425	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Acute ¹¹ 61427	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

⁷ See Part I.C.2. for further measurement frequency requirements

⁸ See Part IV.D. for pH Exemption Discharge Limitations.

⁹ See Part IV.E. for Manganese Exemption Discharge Limitations

¹⁰ Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department

¹¹ See Part IV.F. for Effluent Toxicity Limitations and Biomonitoring Requirements for Acute Toxicity.

2. Precipitation Exemption Limitations and Monitoring Requirements¹²

During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. During periods of applicable 24-hour precipitation events for which the Permittee claims an exemption of standard mining limits as provided by Part IV.C., such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹³
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	2/Month
Solids, Settleable ¹⁴ 00545	-----	-----	0.5 mL/L	Grab	2/Month
Iron, Total (As Fe) ¹⁵ 01045	-----	-----	7.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant ¹⁶ 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

¹² See Part IV.C. for Precipitation Event Discharge Limitations

¹³ See Part I.C.2. for further measurement frequency requirements

¹⁴ The discharge limitation for Settable Solids is not applicable for precipitation events greater than a 10-year, 24-hour precipitation event

¹⁵ The discharge limitation for Total Iron (As Fe) is only applicable for precipitation events less than or equal to a 2-year, 24-hour precipitation event

¹⁶ Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department

3. Post Mining Limitations and Monitoring Requirements¹⁷

- a. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfalls 001-1, 002-1, 013-1, 014-1, 017-1, 018-1, and 023-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. For those outfalls which the Department has granted written approval pursuant to Part IV.D., such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹⁸
Specific Conductance 00095	-----	Report μS/cm	Report μS/cm	Grab	1/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	1/Month
pH 00400	6.0 s.u.	-----	8.5 s.u.	Grab	1/Month
Solids, Settleable 00545	-----	-----	0.5 mL/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant ¹⁹ 50050	-----	Report MGD	Report MGD	Instantaneous	1/Month
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

¹⁷ See Part IV.C. for Post-Mining Discharge Limitations

¹⁸ See Part I C 2. for further measurement frequency requirements.

¹⁹ Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department

- b. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfalls 003-1 through 012-1, 015-1, 016-1, and 019-1 through 022-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. For those outfalls which the Department has granted written approval pursuant to Part IV.D., such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ²⁰
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	1/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	1/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	1/Month
Solids, Settleable 00545	-----	-----	0.5 mL/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant ²¹ 50050	-----	Report MGD	Report MGD	Instantaneous	1/Month
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is not authorized by this Permit until the outfall has been constructed and certification received by the Department from a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the ASMC, if applicable. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the ASMC, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.
2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.
3. Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.
4. Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

²⁰ See Part I.C.2 for further measurement frequency requirements.

²¹ Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department

1. Sampling Schedule and Frequency

- c. Except as provided in Parts IV.B. and C., the Permittee shall collect samples of the discharge from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application, at the frequency specified in Part I.A. Analysis of the samples shall be conducted for the parameters specified in Part I.A.
- d. For each permitted, constructed, and certified point source which results from direct pumped drainage from the underground works of an underground coal mine or from surface drainage, if the final effluent is pumped in order to discharge (e.g. incised ponds, old highwall cuts, old pit areas or depressions), at least one grab sample from the permitted point source shall be obtained and analyzed each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period.
- e. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

2. Measurement Frequency

Measurement frequency requirements found in Part I.A. shall mean:

- a. A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.
- b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.
- c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.
- d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.
- e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.
- f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

3. Monitoring Schedule

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

- a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge

Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).

- b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).
- c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).
- d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

4. Sampling Location

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

5. Representative Sampling

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

6. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136, guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.

- b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the Permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

7. Recording of Results

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

- a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used including source of method and method number; and
- f. The results of all required analyses.

8. Routine Inspection by Permittee

- a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.
- b. If required by the Director, the Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:

- (1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;
- (2) Whether there was a discharge from the point source at the time of inspection by the Permittee;
- (3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;
- (4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and
- (5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

9. Records Retention and Production

- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
- b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

10. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

D. DISCHARGE REPORTING REQUIREMENTS

1. Requirements for Reporting of Monitoring

- a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).

- b. The Department utilizes a web-based electronic environmental (E2) reporting system for submittal of DMRs. **Except as allowed by Part I.D.1.c. or d., the Permittee shall submit all DMRs required by Part I.D.1.a. by utilizing the E2 reporting system.** The E2 reporting system Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>.
- c. If the electronic environmental (E2) reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by the required submittal date. However, if the E2 system is down on the 28th day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 system resuming operation, the Permittee shall enter the data into the E2 reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date).
- d. The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable. Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The Permittee shall submit the Department-approved DMR forms to the address listed in Part I.D.1.j.
- e. If the Permittee, using approved analytical methods as specified in Part I.C.6., monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form.
- f. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.
- g. The Permittee shall report "No Discharge During Quarterly Monitoring Period" on the appropriate DMR Form for each point source receiving pumped discharges pursuant to Part I.C.1.b. provided that no discharge has occurred at any time during the entire quarterly (three month) monitoring period.
- h. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1. must be legible and bear an original signature or electronic signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.
- i. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized

representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- j. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

- k. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.
- l. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.

2. Requirements for Outfall Certification Summary Submittal

The Permittee shall submit as an attachment to the certification required by Part I.B.1, an Outfall Certification Summary in a format approved or provided by the Department. The Outfall Certification Summary shall indicate whether each outfall identified on Page 1 of this Permit has been certified and, if so, it shall include the date for each certification as well as the latitude and longitude of the certified outfall. If any outfall identified on Page 1 of this Permit has received written approval from the Department pursuant to Part IV.C. of this Permit stating that the Permittee may utilize the Post-Mining Discharge Limitations specified in Part I.A.3., then the list of outfalls shall include the date of the Post-Mining Discharge Limitations approval. If any outfall identified on Page 1 of this Permit has been released from monitoring requirements as provided in Part I.D.4. of this Permit, then the list of outfalls shall include the date of the monitoring requirement release.

3. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
- (1) Potentially threatens human health or welfare;
 - (2) Potentially threatens fish or aquatic life;
 - (3) Causes an in-stream water quality criterion to be exceeded;
 - (4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);
 - (5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or
 - (6) Exceeds any discharge limitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as provided in Part I.D.3.c., no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director, as provided in Part I.D.3.c. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.
- c. Form 401 or Form 421 must be submitted to the Director in accordance with Parts I.D.3.a. and b. The completed form must document the following information:
- (1) A description of the discharge and cause of noncompliance;
 - (2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If not corrected by the due date of the written report, then the Permittee is to state the anticipated timeframe that is expected to transpire before the noncompliance is resolved; and
 - (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

4. Reduction, Suspension, or Termination of Monitoring and/or Reporting Requirements

- a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:

- (1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;
 - (2) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, by the Alabama Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;
 - (3) The Permittee has certified to the Director that the 100% Bond Release has been granted by the Alabama Surface Mining Commission for all areas disturbed in the drainage basin(s) associated with the discharge;
 - (4) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc., must be removed and disposed of according to applicable state and federal regulations;
 - (5) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions;
 - (6) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;
 - (7) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;
 - (8) The Permittee's request has included the certification required by Part I.D.1.d. of this Permit; and
 - (9) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (8) above.
- b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

3. Updating Information

- a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.
- b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

- a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.
- b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

F. SCHEDULE OF COMPLIANCE

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

Compliance must be achieved by the effective date of this Permit.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Management

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

2. Best Management Practices (BMPs)

- a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.
- b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.
- c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.
- d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.
- e. **Spill Prevention, Control, and Management**

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as provided by ADEM Admin. Code r. 335-6-6-.08(j)5. The Plan shall describe and the Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management pursuant to ADEM Admin. Code r. 335-6-6-.12 (r) sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. The Plan shall include at a minimum, the engineering requirements provided in 40 C.F.R. §§112.1. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The Plan shall list any

materials which the Permittee may utilize to contain and to absorb fuel and chemical spills and leaks. The Permittee shall maintain sufficient amounts of such materials onsite or have sufficient amounts of such materials readily available to contain and/or absorb fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in a manner consistent with all State and federal regulations.

- f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.
- g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

3. Biocide Additives

- a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:
 - (1) Name and general composition of biocide or chemical;
 - (2) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);
 - (3) Quantities to be used;
 - (4) Frequencies of use;
 - (5) Proposed discharge concentrations; and
 - (6) EPA registration number, if applicable.
- b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

4. Facility Identification

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason(s).

5. Removed Substances

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

6. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

7. Duty to Mitigate

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and minimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

B. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c.

b. A bypass is not prohibited if:

- (1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;
- (2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;
- (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and
- (4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:

- (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
- (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.

d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

2. Upset

a. Except as provided in Parts II.B.2.b. and c., a discharge which results from an upset need not meet the applicable discharge limitations specified in Part I.A. of this Permit if:

- (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
- (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
 - (i) An upset occurred;
 - (ii) The Permittee can identify the specific cause(s) of the upset;
 - (iii) The Permittee's treatment facility was being properly operated at the time of the upset; and
 - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.

b. Notwithstanding the provisions of Part II.B.2.a., a discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not exempted from the discharge limitations specified in Part I.A. of this Permit unless:

- (1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the facility during a 24-hour period without an increase in volume from

precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes.

In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and

- (2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.
- c. The Permittee has the burden of establishing that each of the conditions of Parts II.B.2.a. and b. have been met to qualify for an exemption from the discharge limitations specified in Part I.A. of this Permit.

C. PERMIT CONDITIONS AND RESTRICTIONS

1. Prohibition against Discharge from Facilities Not Certified

- a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or
- b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

2. Permit Modification, Suspension, Termination, and Revocation

- a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
 - (1) The violation of any term or condition of this Permit;
 - (2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts;

- (3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit;
 - (4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
 - (5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;
 - (6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
 - (7) The threat of the Permittee's discharge on human health or welfare; or
 - (8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.
- b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

3. Requirements for Metals, Cyanide, and Phenols Monitoring and Reporting

- a. For all outfalls, the Permittee shall collect a sample of the discharge to be analyzed for all pollutants listed in EPA Form 2C no later six months following the effective date of the Permit. The analyses shall be submitted on EPA Form 2C and received by the Department no later than 28 days following six months after the effective date of the Permit.
- b. For all outfalls, should a discharge not occur within the first six months following the effective date of this Permit, the Permittee shall collect a sample of the discharge to be analyzed for all pollutants listed in EPA Form 2C no later than six months following the date of the first discharge. The analyses shall be submitted on EPA Form 2C and received by the Department no later than 28 days following six months after the first discharge.
- c. Parts 11.C.3.a. and b. do not apply for any outfall that is represented by analyses conducted at a substantially similar outfall as indicated on EPA Form 2C or 2D.
- d. The Permit shall be reopened, if required, to address any new information resulting from the completion and submittal of the data referenced in Parts 11.C.3.a. and b.

4. Automatic Expiration of Permits for New or Increased Discharges

- a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(g) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.
- b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(g) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.

- c. Construction has begun when the owner or operator has:
- (1) Begun, or caused to begin as part of a continuous on-site construction program:
 - (i) Any placement, assembly, or installation of facilities or equipment; or
 - (ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.
- d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.

5. Transfer of Permit

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

6. Groundwater

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

7. Property and Other Rights

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

D. RESPONSIBILITIES

1. Duty to Comply

- a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.
- c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and Code of Alabama 1975, §§22-22A-1 *et. seq.*, as amended, and/or a criminal penalty as authorized by Code of Alabama 1975, §22-22-1 *et. seq.*, as amended.
- d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.
- e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or local government permits, certifications, licenses, or other approvals.
- f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.
- g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

2. Change in Discharge

- a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations specified in Part J.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A. of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

4. Compliance with Water Quality Standards and Other Provisions

- a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.
- b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page 1 of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.
- c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

5. Compliance with Statutes and Rules

- a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.
- b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

6. Right of Entry and Inspection

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

7. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration.
- b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-.09.
- c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit as provided by ADEM Admin. Code r. 335-6-6-.06, and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

3. Permit Enforcement

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

4. Relief From Liability

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

C. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

D. DEFINITIONS

1. Acid or ferruginous mine drainage - means mine drainage which, before any treatment, either has a pH of less than 6 or a total iron concentration equal to or greater than 10 mg/l.
2. Alabama Environmental Management Act (AEMA) - means Code of Alabama 1975, §§22-22A-1 et. seq., as amended.
3. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §§22-22-1 et. seq., as amended.

4. Alkaline mine drainage - means mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/l.
5. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
6. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.
7. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand
8. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
9. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
10. Coal Mine - means an area, on or beneath land, used or disturbed in activities related to the extraction, removal, or recovery of coal from natural or artificial deposits, including active mining and reclamation.
11. Coal Preparation Plant - means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility.
12. Coal Preparation Plant Associated Areas - means the coal preparation plant yards, immediate access roads, coal refuse piles and coal storage piles and facilities.
13. Coal Preparation Plant Water Circuit - means all pipes, channels, basins, tanks, and all other structures and equipment that convey, contain, treat, or process any water that is used in coal preparation processes within a coal preparation plant.
14. Coal Refuse Disposal Pile - means any coal refuse deposited on the earth and intended as permanent disposal or long-term storage (greater than 180 days) of such material, but does not include coal refuse deposited within the active mining area or coal refuse never removed from the active mining area.
15. Controlled Surface Mine Drainage - means any surface mine drainage that is pumped or siphoned from the active mining area.
16. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
17. Daily maximum - means the highest value of any individual sample result obtained during a day.
18. Daily minimum - means the lowest value of any individual sample result obtained during a day.
19. Day - means any consecutive 24-hour period.
20. Department - means the Alabama Department of Environmental Management.

21. Director - means the Director of the Department or his authorized representative or designee.
22. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).
23. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES permit.
24. DO - means dissolved oxygen.
25. E. coli – means the pollutant parameter *Escherichia coli*.
26. 8HC - means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
 - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
27. EPA - means the United States Environmental Protection Agency.
28. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.
29. Flow – means the total volume of discharge in a 24-hour period.
30. Geometric Mean - means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
31. Grab Sample - means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
32. Indirect Discharger - means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
33. Industrial User - means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
34. mg/L - means milligrams per liter of discharge.
35. MGD - means million gallons per day.
36. Monthly Average - means, other than for *E. coli* bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for *E. coli* bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)

37. New Discharger - means a person owning or operating any building, structure, facility or installation:
 - a. From which there is or may be a discharge of pollutants;
 - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and
 - c. Which has never received a final effective NPDES permit for dischargers at that site.

38. New Source - means:
 - a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and
 - b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.

39. NH3-N - means the pollutant parameter ammonia, measured as nitrogen.

40. 1-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.

41. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.

42. Point Source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. § 1362(14).

43. Pollutant - includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.

44. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.

45. Preparation, Dry - means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.

46. Preparation, Wet - means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the

customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.

47. Privately Owned Treatment Works - means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
48. Publicly Owned Treatment Works (POTW) - means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
49. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".
50. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
51. 10-year, 24-hour precipitation event - means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
52. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.
53. TON - means the pollutant parameter Total Organic Nitrogen.
54. TRC - means Total Residual Chlorine.
55. TSS - means the pollutant parameter Total Suspended Solids
56. Total Year-to-Date discharge limitation - means the sum of the discharge mass flow rates of a pollutant on all previous days within a calendar year. For days when data has not been collected, the mass flow rates shall be assumed to be equal to the most recent calculated daily mass flow rate.
57. Treatment facility and treatment system - means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.
58. 24HC - means 24-hour composite sample, including any of the following:
 - a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

- c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
59. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.
60. 2-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
61. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.
62. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.
63. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
64. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

E. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

F. PROHIBITIONS AND ACTIVITIES NOT AUTHORIZED

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.
2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.
3. Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.

4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

PART IV SPECIAL REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS

A. DISCHARGES TO IMPAIRED WATERS

1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.
2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.
3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

B. PRECIPITATION EVENT DISCHARGE LIMITATIONS

1. Monitoring for Claims of Precipitation Event Discharge Limitation Exemption

Any sample of discharge collected in accordance with Parts I.C.1.a. and b. for which the Permittee submits a claim of exemption pursuant to Part IV.B.2., shall be collected within 48 hours after the commencement of the 24-hour precipitation event and prior to the cessation of the discharge or increased discharge. The sample shall be analyzed for each effluent characteristic as specified in Part I.A.2. Within 24 to 36 hours after the cessation of the 24-hour precipitation event, the Permittee shall collect an additional sample of the discharge and shall analyze such sample for each effluent characteristic specified in Part I.A.1. of this Permit.

2. Precipitation Event Discharge Limitation Exemption Submittal

Excluding discharges of drainage from the underground workings of an underground coal mine which are not commingled with other drainage eligible for precipitation event discharge limitations, any discharge or increase in the volume of a discharge which is caused by an applicable 24-hour precipitation event as described in Part IV.B.3. and which occurs during or within 24-hours after such event, may be exempt from the discharge limitations specified in Part I.A. provided that the discharge is addressed in Parts IV.B.4. through 8. and the Permittee submits a written claim of exemption to the Director with the DMR required to be submitted by Part I.D. of this Permit, which shall contain:

- a. Persuasive evidence that the discharge or increase in the volume of a discharge was caused by an applicable 24-hour precipitation event;
- b. Persuasive evidence of the amount of precipitation occurring during the applicable 24-hour precipitation event;
- c. Persuasive evidence demonstrating the origin of the drainage causing a discharge;
- d. The day and time at which the 24-hour precipitation event commenced and ceased;
- e. The volume or amount in inches of the applicable 24-hour precipitation event; and
- f. The results of monitoring conducted pursuant to Part I.A. of this Permit, if required thereby.

3. Applicable 24-Hour Precipitation Events

Applicable 24-hour precipitation events include those that are greater than 1-year, 24-hour precipitation events or less than, equal to, or greater than 2-year, 24-hour precipitation events, and 10-year, 24-hour precipitation events.

4. 24-Hour Precipitation Event Greater Than a 1-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events

Discharge limitations listed in Part I.A.2. may apply to discharges of acid or ferruginous drainage from coal refuse disposal piles, provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 1-year, 24-hour precipitation event, but less than or equal to a 10-year, 24-hour precipitation event.

5. 24-Hour Precipitation Event Less Than or Equal to a 2-Year, 24-Hour Precipitation Event

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from acid or ferruginous mining areas (excluding discharges from steep slope mining areas, discharges from mountaintop removal operations, discharges from controlled surface mine, and discharges from underground workings of underground mines), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event less than or equal to a 2-year, 24-hour precipitation event.

6. 24-Hour Precipitation Event Greater Than a 2-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from acid or ferruginous mining areas (excluding discharges from steep slope mining areas, discharges from mountaintop removal operations, discharges from controlled surface mine, and discharges from underground workings of underground mines), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 2-year, 24-hour precipitation event, but less than or equal to a 10-year, 24-hour precipitation event.

7. 24-Hour Precipitation Event Less Than or Equal to a 10-Year, 24-Hour Precipitation Event

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from steep slope mining areas, discharges of drainage from mountaintop removal areas, discharges of alkaline drainage (excluding discharges from underground workings of underground mines and that are not commingled with other discharges), and discharges from coal preparation plant associated areas

(excluding acid or ferruginous mine drainage from coal refuse disposal piles), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event less than or equal to a 10-year, 24-hour precipitation event.

8. 24-Hour Precipitation Event Greater Than a 10-Year, 24-Hour Precipitation Event

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from alkaline, acid, or ferruginous mining areas, discharges of steep slope mining areas, discharges of drainage from mountaintop removal operations, discharges of drainage from coal preparation plants and associated areas, discharges of drainage from coal refuse piles, the underground workings of an underground coal mine which are commingled with other discharges eligible for precipitation event discharge limitations, and discharges from reclamation areas, provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

C. POST-MINING DISCHARGE LIMITATIONS

1. Excluding discharges from the underground workings of an underground coal mine, any discharge shall be exempt from the discharge limitations specified in Part I.A.1., provided that:
 - a. All mining in the drainage basin(s) associated with the discharge has ceased;
 - b. Revegetation has been established on all areas mined in the drainage basin(s) associated with the discharge;
 - c. The Permittee has been granted, in writing, a Phase II Bond Release, if applicable, by the ASMC for all areas mined in the drainage basin(s) associated with the discharge;
 - d. The Permittee has certified to the Director, in writing, its compliance with Parts IV.C.1.a. through c.; and
 - e. The Permittee's request for post-mining discharge limitations has been approved by the Department in writing.
2. Any discharge, which pursuant to Part IV.C.1. is exempt from the discharge limitations specified in Part I.A.1., shall be limited and monitored by the Permittee as specified in Part I.A.3.

D. pH EXEMPTION DISCHARGE LIMITATIONS

Where the application of neutralization and sedimentation treatment technology results in the Permittee's inability to comply with applicable total manganese discharge limitations, the daily maximum discharge limitation for pH shall be 10.5 s.u. However, the discharge shall not cause the in-stream pH values to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u. Use of this exemption must be noted on the DMR Form when submitted for each eligible outfall. Documentation justifying the necessity for the exemption must be also be submitted at the time of the associated DMR submittal.

E. MANGANESE EXEMPTION DISCHARGE LIMITATIONS

Limitations and monitoring requirements for total manganese do not apply if the drainage, before any treatment, has a pH equal to or more than 6.0 s.u. and a total iron concentration of less than 10.0 mg/l. Use of this exemption must be noted on the Discharge Monitoring Report (DMR) form when submitted for each

eligible outfall. Documentation of alkaline mine drainage before treatment must also be submitted at the time of the associated DMR submittal.

F. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR ACUTE TOXICITY

Except as provided below, the Permittee shall perform 48-hour acute toxicity screening tests on the discharges required to be tested for acute toxicity in Part I.A. of this Permit.

The Permittee may certify, in writing, that the activities at the site at the time of sample collection will result in representative discharges, and therefore perform the toxicity tests on only the samples collected from the representative outfalls. The certification must be signed by a responsible official of the Permittee as defined in ADEM Admin Code r. 335-6-6-.09 and include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1. Test Requirements

- a. The tests shall be performed using undiluted effluent.
- b. Any test where survival in the effluent concentration is less than 90% and statistically lower than the control indicates acute toxicity and constitutes noncompliance with this Permit.

2. General Test Requirements

- a. A grab sample shall be obtained for use in above biomonitoring tests. The holding time for each sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-012 or most current edition or another control water selected by the Permittee and approved by the Department.
- b. Effluent toxicity tests in which the control survival is less than 90% or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period.
- c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.
- d. Should results from five consecutive testing periods indicate that the effluent does not exhibit acute toxicity, the Permittee may request, in writing, that the Toxicity monitoring and reporting requirements be suspended. It remains the responsibility of the Permittee to comply with the Toxicity monitoring and reporting requirements until written authorization to suspend the monitoring and reporting is received by the Permittee from the Director.

3. Reporting Requirements

- a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).
- b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 6. of this part, an effluent toxicity report containing the information in Section 6. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

4. Additional Testing Requirements

- a. If acute toxicity is indicated (noncompliance with permit limit), the Permittee shall perform two additional valid acute toxicity tests in accordance with these procedures. The toxicity tests shall be performed on new samples collected during the first discharge event after becoming aware of the acute toxicity. The additional samples shall be collected a minimum of 12 hours apart, or sooner if the discharge is not expected to continue for 12 hours. In the event that the discharge ceases prior to collection of the second additional sample, the sample shall be collected during the beginning of the next discharge event. The results of these tests shall be submitted no later than 28 days following the month in which the tests were performed. Additional testing sample collection and analysis timeframes may be extended, as necessary, to obtain the samples during discharges.
- b. After evaluation of the results of the additional tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The Permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" and shall be performed using the fathead minnow (*Pimephales promelas*) and the cladoceran (*Ceriodaphnia dubia*).

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate this requirement or may increase or decrease the frequency of submittals.

- a. Introduction
 - (1) Facility Name, location and county
 - (2) Permit number
 - (3) Toxicity testing requirements of permit
 - (4) Name of receiving water body
 - (5) Contract laboratory information (if tests are performed under contract)

- (i) Name of firm
 - (ii) Telephone number
 - (iii) Address
- (6) Objective of test
- b. Plant Operations
 - (1) Discharge operating schedule (if other than continuous)
 - (2) Volume of discharge during sample collection to include Mean daily discharge on sample collection date (MGD, CFS, GPM)
- c. Source of Effluent Water and Dilution Water
 - (1) Effluent samples
 - (i) Sample point
 - (ii) Sample collection dates and times
 - (iii) Sample collection method
 - (iv) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
 - (v) Sample temperature when received at the laboratory
 - (vi) Lapsed time from sample collection to delivery
 - (vii) Lapsed time from sample collection to test initiation
 - (2) Dilution Water samples
 - (i) Source
 - (ii) Collection date(s) and time(s) (where applicable)
 - (iii) Pretreatment (if applicable)
 - (iv) Physical and chemical characteristics (pH, hardness, water temperature, alkalinity, specific conductivity, etc.)
- d. Test Conditions
 - (1) Toxicity test method utilized
 - (2) End point(s) of test
 - (3) Deviations from referenced method, if any, and reason(s)
 - (4) Date and time test started

- (5) Date and time test terminated
 - (6) Type and volume of test chambers
 - (7) Volume of solution per chamber
 - (8) Number of organisms per test chamber
 - (9) Number of replicate test chambers per treatment
 - (10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)
 - (11) Feeding frequency, and amount and type of food
 - (12) Light intensity (mean)
- e. Test Organisms
- (1) Scientific name
 - (2) Life stage and age
 - (3) Source
 - (4) Disease treatment (if applicable)
- f. Quality Assurance
- (1) Reference toxicant utilized and source
 - (2) Date and time of most recent acute reference toxicant test(s), raw data, and current cusum chart(s)
 - (3) Results of reference toxicant test(s) (LC50, etc.), report concentration-response relationship and evaluate test sensitivity. The most recent reference toxicant test shall be conducted within 30-days of the routine.
 - (4) Physical and chemical methods utilized
- g. Results
- (1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
 - (2) Provide table of endpoints: LC50, NOAEC, Pass/Fail (as required in the applicable NPDES permit)
 - (3) Indicate statistical methods used to calculate endpoints
 - (4) Provide all physical and chemical data required by method
 - (5) Results of test(s) (LC50, NOAEC, Pass/Fail, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD)

- h. Conclusions and Recommendations
 - (1) Relationship between test endpoints and permit limits
 - (2) Action to be taken

G. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

Except as provided below, the Permittee shall perform short-term chronic toxicity tests on the discharges required to be tested for chronic toxicity by Part I.A. of this permit.

The Permittee may certify, in writing, that the activities at the site at the time of sample collection will result in representative discharges, and therefore perform the toxicity tests on only the samples collected from the representative outfalls. The certification must be signed by a responsible official of the Permittee as defined in ADEM Admin Code r. 335-6-6-.09 and include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1. Test Requirements (Screening Test)

- a. The tests shall be performed using undiluted effluent for Outfalls 001-1, 002-1, 013-1, 014-1, 017-1, 018-1, and 023-1.
- b. Any test result that shows a statistically significant reduction in survival, growth or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.

2. General Test Requirements

- a. A grab sample shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third and fifth day of the seven-day test period. The holding time for each sample shall not exceed 36 hours, unless sample collection was not possible due to discharge cessation. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the Permittee and approved by the Department.
- b. Should the discharge cease prior to the third grab sample on the fifth day of discharge, the chronic test shall be terminated early and the code "NODI=F" shall be reported on the DMR to indicate insufficient flow. A report of insufficient flow shall not indicate noncompliance with the chronic toxicity testing requirements.
- c. Effluent toxicity tests in which the control survival is less than 80%, *P. promelas* dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where

less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period.

- d. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.
- e. Should results from five consecutive testing periods indicate that the effluent does not exhibit chronic toxicity, the Permittee may request, in writing, that the Toxicity monitoring and reporting requirements be suspended. It remains the responsibility of the Permittee to comply with the Toxicity monitoring and reporting requirements until written authorization to suspend the monitoring and reporting is received by the Permittee from the Director.

3. Reporting Requirements

- a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).
- b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 6. of this part, an effluent toxicity report containing the information in Section 6. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

4. Additional Testing Requirements

- a. If chronic toxicity is indicated (noncompliance with permit limit), the Permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures. The toxicity tests shall be performed on new samples collected during the first discharge event after becoming aware of the chronic toxicity. The additional samples shall be collected a minimum of 12 hours apart, or sooner if the discharge is not expected to continue for 12 hours. In the event that the discharge ceases prior to collection of the second additional sample, the sample shall be collected during the beginning of the next discharge event. The results of these tests shall be submitted no later than 28 days following the month in which the tests were performed. Additional testing sample collection and analysis timeframes may be extended, as necessary, to obtain the samples during discharges.
- b. After evaluation of the results of the additional tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The Permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

- (1) Facility name, location and county
- (2) Permit number
- (3) Toxicity testing requirements of permit
- (4) Name of receiving water body
- (5) Contract laboratory information (if tests are performed under contract)
 - (i) Name of firm
 - (ii) Telephone number
 - (iii) Address
- (6) Objective of test

b. Plant Operations

- (1) Discharge Operating schedule (if other than continuous)
- (2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)
- (3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

- (1) Effluent samples
 - (i) Sampling point
 - (ii) Sample collection dates and times
 - (iii) Sample collection method
 - (iv) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
 - (v) Lapsed time from sample collection to delivery
 - (vi) Lapsed time from sample collection to test initiation

- (vii) Sample temperature when received at the laboratory
- (2) Dilution Water
 - (i) Source
 - (ii) Collection/preparation date(s) and time(s)
 - (iii) Pretreatment (if applicable)
 - (iv) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)
- d. Test Conditions
 - (1) Toxicity test method utilized
 - (2) End point(s) of test
 - (3) Deviations from referenced method, if any, and reason(s)
 - (4) Date and time test started
 - (5) Date and time test terminated
 - (6) Type and volume of test chambers
 - (7) Volume of solution per chamber
 - (8) Number of organisms per test chamber
 - (9) Number of replicate test chambers per treatment
 - (10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)
 - (11) Specify if aeration was needed
 - (12) Feeding frequency, amount and type of food
 - (13) Specify if (and how) pH control measures were implemented
 - (14) Light intensity (mean)
- e. Test Organisms
 - (1) Scientific name
 - (2) Life stage and age
 - (3) Source
 - (4) Disease(s) treatment (if applicable)
- f. Quality Assurance

- (1) Reference toxicant utilized and source
- (2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.
- (3) Dilution water utilized in reference toxicant test
- (4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship and evaluate test sensitivity
- (5) Physical and chemical methods utilized

g. Results

- (1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
- (2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)
- (3) Indicate statistical methods used to calculate endpoints
- (4) Provide all physical and chemical data required by method
- (5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

- (1) Relationship between test endpoints and permit limits
- (2) Actions to be taken

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION

NPDES INDIVIDUAL PERMIT RATIONALE

Company Name: Centennial Natural Resources, LLC
Facility Name: No. 5 Mine
County: Walker
Permit Number: AL0079936
Prepared by: Ketera Wright (Addendum by Michael T. Bergh on February 26, 2018)
Date: August 21, 2017
Receiving Waters: Mulberry Fork of the Black Warrior River, Unnamed Tributary to Mulberry Fork of the Black Warrior River
Permit Coverage: New Source Coal Mine and Associated Areas
SIC Code: 1221

The Department has made a tentative determination that the available information is adequate to support reissuance of this permit.

This proposed permit covers a new source coal mine, dry preparation, transportation and storage, and associated areas.

This proposed permit authorizes treated discharges into stream segments, other State waters, or local watersheds that currently have a water quality use classification of Public Water Supply (PWS) and Fish & Wildlife (F&W) (ADEM Admin. Code ch. 335-6-11). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the PWS or F&W classifications.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS) for the receiving streams.

The active discharge limitations for the daily maximum (at Outfalls 003-1 through 012-1, 015-1, 016-1, and 019-1 through 022-1 only) and minimum of pH, and the monthly average and daily maximum of Total Suspended Solids (TSS), Total Iron as Fe, and Total Manganese as Mn are based on the New Source Performance Standards (NSPS) Effluent Limit Guidelines (ELGs) found in 40 CFR Part 434.35 for acid or ferruginous mine drainage.

However, the Permittee may submit documentation that discharges from the site are alkaline mine drainage (*i.e.*, the drainage prior to treatment has a pH equal to or more than 6.0 s.u. and a Total Fe concentration of less than 10.0 mg/L). Part IV.E. of the proposed permit provides that limitations and monitoring requirements for Total Manganese as Mn do not apply if the Permittee has provided the documentation of alkaline mine drainage. In such a case, the active mining discharge limitations for the daily maximum and minimum of pH and Total Iron as Fe are based on the NSPS ELGs found in 40 CFR Part 434.45 for alkaline mine drainage.

The instream water quality standards for pH in streams classified as F&W are 6.0 – 8.5 s.u. per ADEM Admin. Code r. 335-6-10-.09. However, a daily maximum pH limit of 9.0 s.u. is allowed by the Department for discharges that have a low discharge/stream flow ratio. Information provided in the Permittee's application shows that discharges from all outfalls may occur during low flow conditions in the receiving stream when the discharge/stream flow ratio may be high. Therefore, due to the lack of adequate background dilution from the receiving stream for Outfalls 001-1, 002-1, 013-1, 014-1, 017-1, 018-1, and 023-1 the daily maximum pH limitation will be 8.5 s.u. Conversely, Outfalls 003-1 through 012-1, 015-1, 016-1, and 019-1 through 022-1 discharge directly to

Mulberry Fork. It is the opinion of the Department that the background flow from Mulberry Fork will provide enough dilution to allow for a daily maximum pH of 9.0 s.u. Regardless, the discharges shall not cause the in-stream pH to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u. nor greater than 8.5 s.u.

The ELGs of 40 CFR Part 434.62 allow the pH level in the final discharge to exceed 9.0 s.u. when neutralization and sedimentation treatment technology results in the Permittee's inability to comply with the applicable total manganese limitations. The acidity and metals composition of each discharge is unique and sometimes a pH value of 10.5 is necessary for the removal of manganese. However, the discharge shall not cause the in-stream pH to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u. in accordance with ADEM Admin. Code r. 335-6-10-.09.

Post-mining discharge limitations are included in addition to the active mining and precipitation event discharge limitations. The post-mining discharge limitations are based on 40 CFR Part 434, Subpart E. This permit is more restrictive than the BAT Guidelines in that the Permittee, in order to qualify for the post-mining discharge limitations, must have received a Phase II Bond Release from the Alabama Surface Mining Commission for all areas mined in the drainage basin(s) associated with the discharge. The reason a Phase II Bond Release is required for post-mining limitations rather than a Phase I Bond Release is that topsoil replacement and the commencement of revegetation are frequently important factors in controlling the effluent quality from a coal mine. The Department has determined that tying the post-mining discharge limitations to the Phase II Bond Release will effectively protect water quality in Alabama as it relates to coal mining.

The precipitation event discharge limitations for the daily minimum and maximum for pH and the daily maximums for Total Iron as Fe and Settleable Solids are afforded under certain conditions and do not apply automatically. These alternative technology based limits are based on the ELGs for precipitation events found in 40 CFR Part 434.63.

Additional effluent monitoring for Specific Conductance, Sulfate as S, Total Dissolved Solids (TDS), and Acute and Chronic (for Outfalls 001-1, 002-1, 013-1, 014-1, 017-1, 018-1, and 023-1 only) Whole Effluent Toxicity (WET) testing is required so that future determinations can be made as to whether or not a reasonable potential to cause or contribute to an excursion of numeric or narrative WQS exists from this and similar discharges.

The applicant has, in accordance with 40 CFR Part 122.21 and their NPDES permit application, submitted representative effluent and background stream data for metals, cyanide, and total phenols as part of the application. The representative effluent data was obtained from Outfall 001-1 at the nearby Burton Mine (AL0068888) on March 15, 2017. The stream data was obtained in Mulberry Fork on March 15, 2017. The Department has acknowledged that the other Part A, B, and C pollutants listed in EPA Form 2C and 2D are not believed to be present in the waste stream due to the processes involved in the mining activity. Therefore, testing for the other Part A, B, and C pollutants listed in EPA Form 2C and 2D is not required. The Department has reviewed available data in ALAWADR, ADEM's water quality database, and found nothing to contradict the data submitted by the applicant.

The Department completed a reasonable potential analysis (RPA) of the discharges based on the laboratory data provided in the application and Hydrologic Monitoring Reports previously submitted to ASMC. The RPA indicates whether or not pollutants in treated effluent have the potential to contribute to excursions of Alabama's in-stream WQS. Based on the analytical data submitted by the Permittee, the RPA indicates that there was no reasonable potential for instream WQS to be exceeded.

Because the representative laboratory data submitted by the Applicant and used by the Department in completing the RPA came from a different mining operation, Part II.C.3. of the proposed permit requires the submittal of effluent data for metals, cyanide, and total phenols from No. 5 Mine within six months of the effective date of the permit. If no discharges occur within the first six months, the data is required to be submitted within six months of the first discharge. The permit may be reopened if necessary to address any new information resulting from the submittal of the new discharge data.

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) this permit requires the Permittee to design and implement a Spill Prevention Control and Countermeasures (SPCC) plan for all stored chemicals, fuels and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill.

In accordance with ADEM Admin. Code r. 335-6-3-.07 the design professional engineer (PE), as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the Permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's WQS, when such treatment facilities are properly operated.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a PE registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State WQS. By Memorandum of Understanding with the Alabama Surface Mining Commission (ASMC) the PAP for coal operations is reviewed/approved by ASMC. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State WQS.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State WQS above numeric or narrative criteria, 40 CFR § 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State WQS.

The applicant is not proposing discharges into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is not proposing discharges of pollutant(s) to a water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is not proposing discharges of pollutant(s) to an ADEM identified Tier I water.

The proposed permit does not authorize new or increased discharges of pollutants to a Tier II water; therefore, the Antidegradation Policy, ADEM Admin Code 335-6-10.04 does not apply.

Addendum:

The Department has revised language in Part II.C.3 of the Permit to require analysis of all pollutants listed in EPA Form 2C within 6 months of the first discharge. The Permit shall be reopened, if required, to address any new information resulting from submittal of the analyses.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES/SID NON-COMPLIANCE NOTIFICATION FORM**

Instructions: This form should be used to notify the Department of non-compliance with permit requirements in accordance with ADEM Admin. Code r. 335-6-6-.12(1)6.(iii) [NPDES permits] or 335-6-5-.15(1)2.(f)2. (SID permits) and should be submitted with the Discharge Monitoring Reports (DMR) for the respective monitoring period. A new form should be used for each monitoring period.

Permittee Name: _____ Permit No: _____

Facility Name: _____ County: _____

DMR Monitoring Period: _____

1. Description of non-compliance associated with an outfall(s) (attach additional pages if necessary):

Effluent Violations (if applicable)			
Outfall Number(s)	Noncompliant Parameters(s)	Result Reported (include units)	Permit Limit (include units)
Monitoring / Reporting Violations (if applicable)			
Outfall Number(s)	Noncompliant Parameter(s)	Description of Monitoring / Reporting Violation	

2. Description of non-compliance that is not associated with an outfall (i.e. not suitable to be reported in Item 1.):

3. Cause of non-compliance (attach additional pages if necessary):

4. Period of noncompliance [include exact date(s) and time(s) or, if not corrected, the anticipated duration of the noncompliance]:

5. Description of steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence (attach additional pages if necessary):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Signature

Date Signed

Responsible Official Printed Name and Title

WATER DIVISION
MINING AND NATURAL RESOURCES SECTION
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**POLLUTION ABATEMENT/TREATMENT MEASURES AND SEDIMENT CONTROL STRUCTURES
CERTIFICATION REPORT**

Please type or print in ink. Use one form per outfall. Please complete all questions. Use "N/A" where appropriate.
Incorrect/Incomplete Forms will be returned and may delay approval.

Name of Permittee: _____

Postal Address of Permittee: _____

Facility Name: _____

NPDES Permit Number: _____

Point Source (Outfall) Number: _____

Location of Outfall:

County: _____ Township: _____ Range: _____ Section: _____

Latitude: _____ Longitude: _____ (In degrees, minutes, & seconds)

Consulting Firm Name & Address: _____

Consulting Firm Phone: (____) _____ Fax: (____) _____ Email Address: _____

Based upon the post-construction inspection of the above-referenced facility on (date) _____

which I or personnel under my supervision (Print name: _____) conducted, I certify that all pollution abatement/treatment structures/measures, including each basin and its associated structures, have been designed and properly constructed according to good engineering practices, and in accordance with the requirements of the above-referenced NPDES permit and: (check one)

ASMC PERMITTED OR BONDED FACILITIES

In accordance with ASMC Administrative Code 880-X-8F and 880-X-10C and/or the detailed design plans approved by ASMC.

NON-ASMC PERMITTED OR BONDED FACILITIES

ADEM Administrative Code r. 335-6-9, including Appendix A and B, and applicable sections of Chapters 335-6-3, 335-6-6, and are built:

In accordance with good engineering practices, and in strict agreement with the above-referenced NPDES permit, ADEM regulations, and the construction plans or revision accepted for the above-referenced NPDES permit application.

In accordance with good engineering practices, and in strict agreement with the above-referenced NPDES permit, ADEM regulations, and substantial agreement with the construction plans or revision accepted for the above-referenced NPDES permit application with minor exceptions. Detail these minor exceptions below or on back of form and submit revised construction plans if necessary. Document all reasons for exceptions.

PE Name (Please Type or Print)

Signature

Date

PE Registration # and Affix Seal

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
REQUEST FOR NPDES PERMIT POST-MINING DISCHARGE LIMITATIONS (COAL MINING OPERATIONS)**

Instructions: Your NPDES permit requires that certain information be provided in writing to ADEM in order to obtain approval for post-mining discharge limitations for a permitted outfall and its associated drainage area. Use one form per outfall. Please complete all questions. Use "N/A" where appropriate. Incorrect/incomplete forms will be returned and may delay approval. Please attach a detailed explanation for any "No" responses or as necessary to explain any unusual circumstances. Please type or print legibly in blue or black ink.

You are advised that you must continue monitoring and reporting using standard limitations until the Department grants approval of your request in writing. Mail the completed form to: ADEM-Water Division, Stormwater Management Branch, P O Box 301463, Montgomery, AL 36130-1463.

1. Name of Permittee: _____
2. Postal Address of Permittee: _____
3. Facility Name: _____
4. NPDES Permit Number: _____
5. ASMC Permit Number(s): _____
6. Phone:() _____ Fax:() _____ Email Address: _____
7. Point Source (Outfall) Number: _____
8. Location of Outfall:
County: _____ Township: _____ Range: _____ Section: _____

9. Yes No The Permittee has received a Phase II bond release from the Alabama Surface Mining Commission (ASMC) for all areas disturbed in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall. Please ensure that a copy(s) of the applicable ASMC release(s) is attached.
10. Yes No All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted, controlled, or regularly monitored to prevent unpermitted and unauthorized mining, processing, transportation, or associated operations/activity.
11. Yes No All surface effects of the mining activity such as fuel or chemical tanks/containers, wet preparation equipment (washers), old tools or equipment, junk, garbage, debris, fuel/chemical spills, contaminated soils, etc. have been removed/remediated and disposed of according to applicable State and federal regulations.
12. Yes No Additional information is attached to 1) further support this request, 2) provide pertinent additional information, as required by the permit, that is not requested on this form that may impact the Department's determination regarding this request, or 3) explain a "no" response on this form, or 4) provide an explanation for circumstances which may potentially result in delay or non-approval of this request.
13. Print or type the name and title of the principal executive officer or authorized agent whose signature appears below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I understand that it is the Permittee's responsibility to ensure and verify receipt of this request by the Department and that the Permittee is required to immediately notify the Department in writing should conditions or information provided in this request, upon which approval may be granted, change."

Name and Title of Responsible Corporate Official or Authorized Agent

Signature

Date

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
REQUEST FOR RELEASE FROM NPDES PERMIT MONITORING AND REPORTING REQUIREMENTS
(MINING OPERATIONS)

Instructions: Your NPDES permit requires that certain information be provided in writing to ADEM in order to obtain approval to terminate monitoring and reporting requirements for a permitted outfall and its associated drainage area. Use one form per outfall. Please complete all questions. Use "N/A" where appropriate. Incorrect/Incomplete forms will be returned and may delay approval. Please attach a detailed explanation for any "No" responses or as necessary to explain any unusual circumstances. Please type or print legibly in blue or black ink.

You are advised that you must continue monitoring and reporting until the Department grants approval of your request in writing. Mail the completed form to: ADEM-Water Division, Stormwater Management Branch, P O Box 301463, Montgomery, AL 36130-1463

1. Name of Permittee: _____
2. Postal Address of Permittee: _____
3. Facility Name: _____
4. NPDES/SID Permit Number: _____
5. ASMC/ADOL Permit Number(s): _____ (if applicable)
6. Phone: (____) _____ Fax: (____) _____ Email Address: _____
7. Point Source (Outfall) Number: _____
8. Location of Outfall:
County: _____ Township: _____ Range: _____ Section: _____

ASMC PERMITTED OR BONDED FACILITIES

9. Yes No The Permittee has received a Phase III bond release from the Alabama Surface Mining Commission (ASMC) for all areas disturbed in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall. Please ensure that a copy(s) of the applicable ASMC bond release(s) is attached.
10. Yes No The Permittee has received approval from ASMC to remove and mine through the outfall(s), and the drainage previously treated by the mined-through outfall(s) is routed and properly controlled/treated by another permitted and properly certified existing outfall. List approved/certified outfall receiving drainage: _____

NON-ASMC PERMITTED OR BONDED FACILITIES

11. Yes No The Permittee has received a 100% bond release from the Alabama Department of Labor (ADOL) for all areas disturbed in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall. Please ensure that a copy(s) of the applicable ADOL reclamation release(s) is attached.
12. Yes No Unless waived by the Department, the Permittee, in order to expedite review/approval of this request, has attached inspection reports prepared and certified by 1) a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction, or 2) a Certified Professional in Sediment And Erosion Control (CPESC), which certify that the facility has been fully reclaimed or that water quality remediation has been achieved. The first inspection should be conducted approximately one year prior to and the second inspection should be conducted within thirty days of the Permittee's request for termination of monitoring and reporting requirements. Permanent, perennial vegetation has been re-established on all areas mined or disturbed for at least one year since mining has ceased in the drainage basin(s) associated with the surface discharge, or all areas have been permanently graded such that all drainage is directed back into the mined pit to preclude any surface discharges. Responding "No" may significantly delay approval until an inspection can be performed by Department personnel.

ALL FACILITIES

13. Yes No All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted, controlled, or regularly monitored to prevent unpermitted and unauthorized mining, processing, transportation, or associated operations/activity.
14. Yes No The outfall is a pumped discharge and, (1) the pump has been removed and piping has been removed or effectively closed/sealed to prevent future discharge, or (2) the pump has been removed and the pumped drainage previously treated by the outfall(s) is routed and properly controlled/treated by another permitted and properly certified existing outfall. List approved/certified outfall receiving drainage: _____

15. Yes No All surface effects of the mining activity such as fuel or chemical tanks/containers, wet preparation equipment (washers), old tools or equipment, junk, garbage, debris, fuel/chemical spills, contaminated soils, etc. have been removed/remediated and disposed of according to applicable State and federal regulations.
16. Yes No The Permittee's request for termination of monitoring and reporting requirements contained in this permit is supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying climatological conditions. Please attach copies of the last twelve (12) months of DMRs previously submitted to the Department to expedite the review/approval process.
17. Yes No The Permittee hereby certifies that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all permit terms and conditions respecting analytical methods and procedures.
18. Yes No The Permittee hereby certifies that during at least the previous twelve (12) months prior to this request, there was no chemical treatment in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall.
19. Yes No Additional information is attached to 1) further support this request, 2) provide pertinent additional information, as required by the permit, that is not requested on this form that may impact the Department's determination regarding this request, or 3) explain a "no" response on this form, or 4) provide an explanation for circumstances which may potentially result in delay or non-approval of this request.
20. Print or type the name and title of the principal executive officer or authorized agent whose signature appears below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

"I understand that it is the Permittee's responsibility to ensure and verify receipt of this request by the Department and that the Permittee is required to immediately notify the Department in writing should conditions or information provided in this request, upon which approval may be granted, change."

Name and Title of Responsible Corporate Official or Authorized Agent

Signature

Date

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
REQUEST TO REMOVE SUBSURFACE WITHDRAWAL FROM DISCHARGE STRUCTURE
(NPDES-PERMITTED MINING OPERATIONS)

Instructions: Part II.A.2. of NPDES permits for mining operations requires an existing outfall to be constructed with effective subsurface withdrawal. Certain information must be provided in writing to ADEM in order to obtain approval to remove subsurface withdrawal from an existing treatment basin/pond or other approved discharge structure for a permitted outfall and its associated drainage area. Use one form per outfall. Please complete all questions. Use "N/A" where appropriate. Incorrect/Incomplete forms will be returned and may delay approval. Please attach a detailed explanation for any "No" responses or as necessary to explain any unusual circumstances. Please type or print legibly in blue or black ink.

Mail the completed request form to ADEM-Water Division, Stormwater Management Branch, P O Box 301463, Montgomery, AL 36130-1463.

1. Name of Permittee: _____
2. Postal Address of Permittee: _____
3. Facility Name: _____
4. NPDES/SID Permit Number: _____
5. ASMC/ADOL Permit Number(s): _____ (if applicable)
6. Phone:(_____) _____ Fax:(_____) _____ Email Address: _____
7. Point Source (Outfall) Number: _____
8. Location of Outfall:
County: _____ Township: _____ Range: _____ Section: _____

ASMC PERMITTED OR BONDED FACILITIES

9. Yes No The Permittee has received a Phase II bond release from the Alabama Surface Mining Commission (ASMC) for all areas disturbed in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall. Please ensure that a copy(s) of the applicable ASMC bond release(s) is attached.
10. Yes No Vegetative cover has been established and/or disturbed areas have been otherwise stabilized, and potential sources of floating solids have been covered or removed, and there are no active mining areas as defined by 40 CFR 434.11(b) draining to the outfall.

NON-ASMC PERMITTED OR BONDED FACILITIES

11. Yes No The Permittee, in order to expedite review/approval of this request, has attached inspection report(s) prepared and certified by 1) a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction, or 2) a Certified Professional in Sediment And Erosion Control (CPESC), which certifies that the facility has been fully regraded and vegetative cover has been established.

ALL FACILITIES

12. Yes No All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted, controlled, or regularly monitored to prevent unpermitted and unauthorized mining, processing, transportation, or associated operations/activity.
13. Yes No All surface effects of the mining activity such as fuel or chemical tanks/containers, wet preparation equipment (washers), old tools or equipment, junk, garbage, debris, fuel/chemical spills, contaminated soils, etc. have been removed/remediated and disposed of according to applicable State and federal regulations.
14. Yes No Additional information is attached to 1) further support this request, 2) provide pertinent additional information, as required by the permit, that is not requested on this form that may impact the Department's determination regarding this request, or 3) explain a "no" response on this form, or 4) provide an explanation for circumstances which may potentially result in delay or non-approval of this request.

15. Print or type the name and title of the principal executive officer or authorized agent whose signature appears below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

"I understand that subsurface withdrawal cannot be removed from the treatment structure until the Department grants approval of this request in writing.

"I understand that if after removal of subsurface withdrawal from the treatment structure, effluent quality cannot be maintained within permit limits or significant levels of floating pollutants that could be prevented by subsurface withdrawal still occur, reconstruction of subsurface withdrawal may be required.

"I understand that it is the Permittee's responsibility to ensure and verify receipt of this request by the Department and that the Permittee is required to immediately notify the Department in writing should conditions or information provided in this request, upon which approval may be granted, change."

Name and Title of Responsible Corporate Official or Authorized Agent

Signature

Date

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
REQUEST TO REMOVE TREATMENT BASIN/POND OR OTHER TREATMENT STRUCTURE
(NPDES-PERMITTED MINING OPERATIONS)**

Instructions: Certain information must be provided in writing to ADEM in order to obtain approval to remove an existing treatment basin/pond or other approved discharge structure for a permitted outfall and its associated drainage area. Use one form per outfall. Please complete all questions. Use "N/A" where appropriate. Incorrect/Incomplete forms will be returned and may delay approval. Please attach a detailed explanation for any "No" responses or as necessary to explain any unusual circumstances. Please type or print legibly in blue or black ink. In lieu of this form, ASMC permitted facilities may submit written approval from ASMC to remove the treatment structure.

Mail the completed request form or written approval from ASMC (if applicable) to: ADEM-Water Division, Stormwater Management Branch, P O Box 301463, Montgomery, AL 36130-1463.

1. Name of Permittee: _____
2. Postal Address of Permittee: _____
3. Facility Name: _____
4. NPDES/SID Permit Number: _____
5. ASMC/ADOL Permit Number(s): _____ (if applicable)
6. Phone:() _____ Fax:() _____ Email Address: _____
7. Point Source (Outfall) Number: _____
8. Location of Outfall:
County: _____ Township: _____ Range: _____ Section: _____

ASMC PERMITTED OR BONDED FACILITIES

9. Yes No The Permittee has received a Phase II bond release from the Alabama Surface Mining Commission (ASMC) for all areas disturbed in the drainage area(s), including the treatment basin (if a Phase II release from ASMC for the treatment pond(s) cannot be obtained prior to removal of the treatment pond(s), the Permittee must attach a copy of their pond removal/reclamation plan to this request), associated with the discharge from the permitted outfall. Please ensure that a copy(s) of the applicable ASMC release(s) is attached.

NON-ASMC PERMITTED OR BONDED FACILITIES

10. Yes No The Permittee, in order to expedite review/approval of this request, has attached inspection report(s) prepared and certified by 1) a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction, or 2) a Certified Professional in Sediment And Erosion Control (CPESC), which certifies that the facility has been fully regraded and perennial vegetative cover has been planted and established.

ALL FACILITIES

11. Yes No All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted, controlled, or regularly monitored to prevent unpermitted and unauthorized mining, processing, transportation, or associated operations/activity.
12. Yes No All surface effects of the mining activity such as fuel or chemical tanks/containers, wet preparation equipment (washers), old tools or equipment, junk, garbage, debris, fuel/chemical spills, contaminated soils, etc. have been removed/remediated and disposed of according to applicable State and federal regulations.
13. Yes No The Permittee's request for removal of the treatment structure is supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying climatological conditions. Please attach copies of the last twelve (12) months of DMRs previously submitted to the Department to expedite the review/approval process.
14. Yes No The Permittee hereby certifies that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for treatment structure removal are representative of the discharge and were collected in accordance with all permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all permit terms and conditions respecting analytical methods and procedures.

15. Yes No The Permittee hereby certifies that during at least the previous twelve (12) months prior to this request, there was no chemical treatment in the drainage area(s), including the treatment basin, associated with the discharge from the permitted outfall.

16. Yes No Additional information is attached to 1) further support this request, 2) provide pertinent additional information, as required by the permit, that is not requested on this form that may impact the Department's determination regarding this request, or 3) explain a "no" response on this form, or 4) provide an explanation for circumstances which may potentially result in delay or non-approval of this request.

17. Attach a copy of the pond removal plan which details the procedures and Best Management Practices (BMPs) that will be implemented and maintained during and after removal to ensure protection of water quality.

18. Print or type the name and title of the principal executive officer or authorized agent whose signature appears below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

"I understand that the treatment structure cannot be removed until the Department grants approval of this request in writing. I understand that pursuant to requirements of the permit, monitoring and reporting of discharges must continue after the structure is removed. Representative samples will be taken at the end of the ditch, channel, swale, etc. or other acceptable discharge conveyance which remains after removal of the treatment structure.

"I understand that if effluent quality cannot be maintained within permit limits after removal of the treatment structure, reconstruction of the treatment structure may be required.

"I understand that it is the Permittee's responsibility to ensure and verify receipt of this request by the Department and that the Permittee is required to immediately notify the Department in writing should conditions or information provided in this request, upon which approval may be granted, change."

Name and Title of Responsible Corporate Official or Authorized Agent

Signature

Date