



PUBLIC JUSTICE

Environmental Litigation

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Gina McCarthy
Administrator
U.S. Environmental Protection Agency
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Washington, D.C. 20460

EPA, REGION III
OFFICE OF REGIONAL ADMINISTRATOR

Shawn Garvin
Region III Administrator
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Re: 60-Day Notice of Intent to File a Citizen Suit for EPA's Failure to Perform Its Non-Discretionary Duty under Section 303(c) of the Clean Water Act

Dear Administrator McCarthy and Regional Administrator Garvin:

The Sierra Club, West Virginia Highlands Conservancy, and Ohio Valley Environmental Coalition (collectively "Citizen Groups"), in accordance with Section 505 of the Clean Water Act ("CWA"), 33 U.S.C. § 1365 and 40 C.F.R. Part 135, hereby notify the U.S. Environmental Protection Agency ("EPA") that it has failed to perform its nondiscretionary duty pursuant to Section 303(c) of the CWA. If EPA does not remedy this failure within the next sixty days, the Citizen Groups intend to file a citizen suit to enforce that duty.

The CWA authorizes a citizen to bring a suit against the EPA "where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary." 33 U.S.C. § 1365(a)(2). The EPA has a nondiscretionary duty under § 303(c) of the CWA to review all new and revised water quality standards within a set time. "Whenever the State revises or adopts a new [water quality] standard, such revised or new standard shall be submitted to the Administrator," and the Administrator must approve the standard "within sixty days after the date of submission of the revised or new standard." 33 U.S.C. §§ 1313(c)(2)(A), (c)(3). If, instead, the Administrator finds the standard inconsistent with the Act, "he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements." *Id.*, § 1313(c)(3).

As we explain below, West Virginia has revised its narrative water quality standard for biological integrity to make it inapplicable to discharges from "substantially complete" outlets at coal mines in the state. West Virginia has never submitted that revision to EPA for approval, yet is applying it as a permitting protocol for NPDES mining permits. EPA therefore has a nondiscretionary duty under § 303(c) to review and to approve or disapprove that revision.

WVDEP's federally-enforceable narrative water quality standards prohibit permittees from causing, or materially contributing to, conditions in which there are "[m]aterials in concentrations which are harmful . . . to . . . aquatic life" or conditions that result in "significant adverse impacts to the chemical . . . or biological components of aquatic ecosystems." 47 C.S.R. §§ 2-3.2.e & 2-3.2.i. West Virginia's biennial list of impaired streams under § 303(d) of the CWA includes scores of streams that violate this prohibition against biological impairment. That impairment is caused, in large part, by the ionic pollution – in the form of dissolved salts measured as conductivity – that is discharged from coal mine valley fills.

In 2011, EPA finalized a guidance document (approved by its Scientific Advisory Board) identifying ionic pollution from coal mines as a major source of harm to aquatic life in streams across Central Appalachia, and recommending a benchmark limit for conductivity. EPA, *A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams* (2011). EPA's Benchmark establishes that when instream conductivity exceeds a level of 300 microSiemens per centimeter ($\mu\text{S}/\text{cm}$), there is a 59 percent likelihood of biological impairment in violation of the narrative water quality standard, and at 500 $\mu\text{S}/\text{cm}$, there is a 72 percent likelihood of biological impairment. Benchmark at A-36. The level of conductivity in discharges from outlets below valley fills is often in the range of 2,000 to 4,000 $\mu\text{S}/\text{cm}$.

In three recent CWA citizen suits, a West Virginia federal court has held that the discharges of high levels of ionic chemicals from five mines have caused biological impairment of five streams in violation of West Virginia's narrative water quality standards. *OVEC v. Elk Run Coal Co.*, 24 F. Supp. 3d 532 (S.D.W.Va. 2014); *OVEC v. Fola Coal Co.*, 82 F. Supp. 3d 673 (S.D.W.Va. 2015); *OVEC v. Fola Coal Co.*, 120 F. Supp. 3d 509 (S.D.W.Va. 2015). In each case, the court applied the same standard of impairment (a West Virginia Stream Condition Index Score below 68) that EPA used in 2013 to restore streams to West Virginia's 303(d) list. 24 F. Supp. 3d at 556; 82 F. Supp. 3d at 679-81; 120 F. Supp. 3d at 539, 542. In addition, in each case, the court deferred to EPA and applied EPA's Benchmark levels for protecting stream life from harmful levels of conductivity. 24 F. Supp. 3d at 559; 82 F. Supp. 3d at 684; 120 F. Supp. 3d at 518.

Rather than follow EPA's Benchmark, WVDEP has issued its own permitting protocol to address the scope of protection afforded by West Virginia's narrative standards. "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards" ("Permitting Guidance") (attached). That guidance was first issued on August 12, 2010 and was revised on May 11, 2012. WVDEP determined that the way to ensure that discharges do not violate the State's narrative water quality standards is to "identif[y] specific pollutants that can be managed through the inclusion of appropriate whole effluent toxicity ("WET") monitoring and/or limits and best management practices ("BMPs") in NPDES permits, where there is reasonable potential to cause or contribute to excursions from water quality criteria." Permitting Guidance at 2. If the permit applicant cannot demonstrate through chemical and biological monitoring and control measures that it does not have reasonable potential to cause or contribute to an excursion above the narrative criteria, WVDEP has instructed the permit writer to include WET limits in the permit. *Id.* at 1. Thus, even though WVDEP has not fol-

lowed EPA's Benchmark, it has found that, at a minimum, the application of WET limits is necessary to protect West Virginia's narrative water quality standard for biological integrity.

However, WVDEP's Permitting Guidance, and its requirement to include WET limits in permits, "does not apply to outlets that are primarily precipitation induced, or for which the activities associated with those outlets have been substantially completed," which is defined to mean "that the operation is past the point when measures that could be undertaken under either an AEPP [Aquatic Ecosystem Protection Plan] or an AMP [Adaptive Management Plan] could be effective in reducing the operation's impact on the aquatic ecosystem." *Id.* at 1 & n.3. For example, WVDEP has applied this exemption to Fola Coal Company, LLC's NPDES Permit No. WV1014005 for its Surface Mine No. 3. On January 20, 2015, WVDEP reissued that permit but refused to apply WET limits to Outlets 024, 027, 029 and 035 at that mine because they were "substantially complete." WVDEP has also applied the same exemption to Fola Coal Company, LLC's NPDES Permit No. WV1018001 for its Surface Mine No. 6. On April 20, 2015, WVDEP refused to apply WET limits to Outlets 013, 015 and 017 because the valley fills and mineral removal activities at that mine were complete and "[t]he areas behind each outlet are past the point where additional control measures could be implemented to reduce the impact on the aquatic ecosystem." Rationale Page, pp. 6-7. As a result, WVDEP has exempted Fola, and other mining permittees with "substantially complete" outlets, from the narrative water quality standard for biological integrity. Those outlets are not subject to a reasonable potential analysis under 40 C.F.R. § 122.44(d), and will not be assigned WET limits, even if there is in fact a reasonable potential, or even a certainty, that they are causing a violation of narrative water quality standards.

WVDEP's exemption policy is directly affecting and harming Citizen Groups' members. Citizen Groups' members use Twentymile Creek downstream from Fola's Outlets 024 and 029 for recreational activities. Citizen Groups have successfully sued Fola for discharging high conductivity from Outlets 024 and 029 at its Surface Mine No. 3 and Outlets 013, 015 and 017 at its Surface Mine No. 6 in violation of the narrative standard for biological integrity. Outlet 029 (which discharges into Stillhouse Branch) and Outlets 013, 015, and 017 (which discharge into Cogar Hollow) were all adjudicated to be in violation of that standard. Outlet 029 is subject to an injunction requiring compliance. *OVEC v. Fola Coal Co., LLC*, 82 F. Supp. 3d at 697-98; December 8, 2015 Order Specifying Relief, Docket No. 183. Outlet 024 (which discharges into Boardtree Branch) is subject to a federal consent decree requiring Fola to comply with WET limits and a passing WVSCI score for biological integrity. *Sierra Club v. Fola Coal Co., LLC*, Civil No. 2:10-1199 (S.D.W.Va), Docket No. 66, February 12, 2012 Consent Decree at 9, para. 38. A trial on relief for the other three outlets at Surface Mine No. 6 will be held in May 2016. Consequently, even though these five outlets are in fact causing violations of narrative standards, and therefore should, at a minimum, be subject to WET limits, the current NPDES permits for those outlets do not require WET limits because WVDEP's Permitting Guidance has exempted them from WET compliance.

To attempt to remedy its non-compliant discharges into Boardtree Branch and Stillhouse Creek, Fola is proposing to divert the underdrain water from its valley fills away from those impaired tributaries and to pipe this water directly into Twentymile Creek. The underdrain water, which has infiltrated through the valley fills, has higher conductivity than the surface runoff. By separating and diverting the higher contributing source of conductivity, Fola hopes that the lower conductivity surface runoff will result in compliance with the

narrative standard. But, according to Fola’s own engineering expert, Al Meek, the level of conductivity in the diverted water piped into Twentymile Creek could be 3600 $\mu\text{S}/\text{cm}$ or higher—twelve times higher than the EPA Benchmark of 300 $\mu\text{S}/\text{cm}$. Fola’s past WET tests for its discharges into Boardtree Branch have consistently failed the chronic toxicity standard of 1.0 chronic toxicity units (TU_c) (using non-native species like *C. dubia*) when the conductivity exceeds 3000 $\mu\text{S}/\text{cm}$, as shown in the following table:¹

Initial Date of sampling	TU_c	Conductivity ($\mu\text{S}/\text{cm}$)	Sulfate (mg/L)
7/10/2012	2	3410	1690
9/24/2012	2	3220	2090
10/28/2013	4	2750-3720	1700-2480
5/5/2014	2	3410-3430	1920-2060
5/5/2014	4	3290-3340	1940-2010
11/5/2014	2	3181-3343	1727-1932
11/5/2014	2	3068-3240	1717-1828
11/5/2014	2	3270-3410	2060-2460
11/5/2014	4	3130-3290	1960-2270
11/5/2014	2	3200-3370	2100-2500
11/5/2014	2	3100-3300	2100-2400
2/24/2015	<1	2633-2726	1108-1685
3/30/2015	<1	2907-2943	1703-1948
3/30/2015	<1	2625-2832	1632-1740
3/30/2015	<1	2576-2831	1638-1719

If EPA approved the use of WET tests using native mayfly species, the WET test failure would occur at much lower levels of conductivity. Kunz found that Boardtree water was toxic to a native mayfly species at 800 to 1300 $\mu\text{S}/\text{cm}$. Kunz et al., Use of Reconstituted Waters to Evaluate Effects of Elevated Major Ions Associated with Mountaintop Coal Mining on Freshwater Invertebrates, Environ. Tox. & Chem. 32(12): 2826-35 (2013), at 2834. Consequently, the likely net result of Fola’s attempted corrective action would be to transfer the most polluted water from the smaller tributaries (Boardtree Branch and Stillhouse Creek) to a larger one (Twentymile Creek) without any treatment or pollution reduction, and to cause a violation of the narrative standard for aquatic toxicity in Twentymile Creek.

Fola will need WVDEP’s approval of a major modification of its NPDES permit to discharge from the new diversion pipes. But WVDEP will likely determine that, under

¹ Source: Fola Coal Company, LLC’s Analysis of the Chemical, Biological, and Toxicological Monitoring Data Collected at Boardtree Branch, Appendix C, dated October 20, 2015.

its Permitting Guidance, those outlets are “substantially complete” because mining at Fola’s Surface Mine No. 3 has been completed. If so, then the new pipe outlets would not be subject to any WET limits. Thus, the Permitting Guidance would exempt violations of the narrative standards in Twentymile Creek.

Although WVDEP’s policy is expressed as “guidance,” it is in full force as binding state law. The relevant West Virginia statute provides that “all authority to promulgate and implement water quality standards is vested in [WVDEP].” W. Va. Code § 22-11-7b(a). In its December 28, 2012 reply brief in *Clarke v. Sierra Club*, Civil No. 12-AA-102 (Cir. Ct., Kanawha Cty), WVDEP stated that “[t]he Permitting Guidance represents WVDEP’s *implementation* of the biological component of the State’s narrative water quality standards.” Reply Brief at 4 (emphasis in original). WVDEP further stated that “[p]ursuant to the Legislature’s 2005 amendment to § 22-11-7b(a), only WVDEP, and not the [Environmental Quality Board], possesses such implementation authority.” *Id.* Thus, WVDEP regards its Permitting Guidance as binding state law, and is applying it to existing NPDES mining permits in a way that has immediate and direct effects. EPA has stated that “policies generally affecting the[] application and implementation” of water quality standards “are subject to EPA review and approval.” 40 C.F.R. § 131.13.

WVDEP’s exemption of NPDES mining permits with “substantially complete” outlets from West Virginia’s narrative water quality standards for biological integrity is a revision to, and weakening of, those standards. That revision has been in effect as state law since August 2010, triggering EPA’s nondiscretionary duty to review and approve or disapprove it. By failing to do so, EPA has violated its nondiscretionary duty under § 303(c).

If EPA exercises that duty, it should disapprove WVDEP’s “substantially complete” exemption policy. It is simply not true that mining companies can do nothing to control conductivity after mining is complete. EPA’s 2011 consent decree with Consol Energy (Fola’s parent) required it to install a reverse osmosis treatment plant that can eliminate 99% of the ionic pollution from its discharges from a mine into Dunkard Creek in West Virginia. EPA Information Sheet, Consol Energy Clean Water Act Settlement, available at: <http://www.epa.gov/enforcement/consol-energy-clean-water-act-settlement>; *United States v. Consol Energy*, Civil No. 1:11-cv-00028 (N.D. W.Va.). In any event, when it comes to achieving water quality standards, “economic and technological restraints are not a valid consideration” in crafting NPDES permits. *Ackels v. EPA*, 7 F.3d 862, 865-66 (9th Cir. 1993). The permit issuing agency “is under a specific obligation to require that level of effluent control which is needed to implement existing water quality standards without regard to the limits of practicability.” *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1163, *amended on other grds.*, 197 F.3d 1035 (9th Cir. 1999). Technological infeasibility and the cost or difficulty of achieving compliance are not defenses to a CWA violation. *U.S. v. CPS Chem. Co., Inc.*, 779 F. Supp. 437, 453 (E.D. Ark. 1991); *U.S. v. City of Hoboken*, 675 F. Supp. 189, 197-98 (D.N.J. 1987); *OVEC v. Apogee Coal Co., LLC*, 555 F. Supp. 2d 640, 649 (S.D.W.Va. 2008). WVDEP’s policy therefore violates the CWA and cannot be approved.

If EPA continues to fail to perform its nondiscretionary duty after sixty (60) days from the postmark of this letter, the Citizen Groups intend to file a citizen’s suit under section 505(a)(2) of the CWA to compel EPA to perform its nondiscretionary duty. The Citizen

Groups would, however, be happy to meet with EPA to attempt to resolve the issue within the 60-day notice period. Please do not hesitate to contact us.

Sincerely,

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west virginia department of environmental protection

**Permitting Guidance for Surface Coal Mining Operations to Protect
West Virginia's Narrative Water Quality Standards,
47 C.S.R. 2 §§ 3.2.e and 3.2.i**

INTRODUCTION

The purpose of this Permitting Guidance (“Guidance”) is to assist West Virginia Department of Environmental Protection (“DEP”) permit writers in developing site-specific National Pollutant Discharge Elimination System (“NPDES”) permit conditions for surface coal mining operations using a holistic watershed management approach through the use of biological and chemical monitoring, whole effluent toxicity (“WET”) testing, and the development of Aquatic Ecosystem Protection Plans (“AEPP”) and, where necessary, Adaptive Management Plans (“AMP”) to protect the State’s narrative water quality standards. These standards are found in West Virginia’s *Code of State Rules*, which states, in pertinent part, “No significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed.”¹ These procedures shall take effect immediately.²

This Guidance does not apply to outlets that are primarily precipitation induced, or for which the activities associated with those outlets have been substantially completed.³

REASONABLE POTENTIAL ANALYSIS

In deciding which permit conditions to include in a permit, the first thing a permit writer must do is perform a reasonable potential analysis and document the same in the Statement of Basis for the permit. If the applicant cannot demonstrate, by means of its chemical and biological monitoring and the control measures outlined in its AEPP, that it does not have reasonable potential (“RP”) to cause or contribute to an excursion above the narrative criteria, the permit writer should treat new or expanded discharges as if they have RP and include WET limits in the permit, in accordance with 40 C.F.R. § 122.44(d)(1)(v).

At permit reissuance, DEP will use all valid and representative data to determine, on a case-by-case basis, whether an existing discharge causes, has the reasonable potential to cause, or contributes to an excursion from the narrative water quality criteria. Where DEP concludes that an existing outlet has RP, the permit will include WET limits. In cases where insufficient data is available to make a determination of RP upon permit reissuance, the permit writer will place WET monitoring requirements and triggers in the permit in order to determine RP (or lack of

¹ 47 C.S.R. 2 § 3.2.i

² In light of the changing nature of the policy concerns addressed herein, this document is intended to be dynamic and will likely be modified in the future as technology and best management practices develop and improve.

³ The term “substantially complete” shall mean that the operation is past the point when measures that could be undertaken under either an AEPP or an AMP could be effective in reducing the operation’s impact on the aquatic ecosystem.

RP). If the monitoring shows RP, the permit writer will reopen the permit to include WET limits.

PERMIT CONDITIONS

If the applicant has RP, the permit writer should use best professional judgment to establish permit terms and conditions and determine whether the proposed control measures are sufficient to protect the narrative water quality standards. The permit writer should, depending on the type of permit being issued, establish the following conditions in the permit, each of which is discussed more completely below:

New and Expanded Discharge Permits

- WET Limits
- Chemical Monitoring
- In-Stream Biological Monitoring
- Aquatic Ecosystem Protection Plan (AEPP)
- Adaptive Management Plan (AMP), if necessary
- Reopener Clause

Permits at Reissuance

- WET Monitoring
- Chemical Monitoring
- In-Stream Biological Monitoring
- Aquatic Ecosystem Protection Plan (AEPP)
- Adaptive Management Plan (AMP), if necessary
- Reopener Clause

NEW AND EXPANDED DISCHARGE PERMITS

This Guidance does not apply to outlets that are primarily precipitation induced.

WET Limits

If the applicant cannot demonstrate, by means of its chemical and biological monitoring and the control measures outlined in its AEPP, that it does not have RP, the permit writer should treat new and expanded mining discharges as if they have RP and include WET limits in the permit, as prescribed by 40 C.S.R. § 122.44(d)(1)(v).

The permit writer shall establish WET limits using all applicable rules and guidance, including the EPA's 1991 *Technical Support Document for Water Quality-based Toxics Control* ("TSD").⁴ To develop the WET limits, the permit writer shall consider the in-stream waste concentration of the effluent in the immediate receiving stream and calculate it so as to result in no greater than 1.0 chronic toxicity unit (TU_c) and 0.3 acute toxicity unit (TU_a) at the edge of the appropriate mixing zones, where applicable.

⁴ EPA/505/2-90-001 PB91-127415

The permittee is required to perform WET testing quarterly. The TSD requires use of the most sensitive available surrogate organism (*ceriodaphnia dubia*) for chronic toxicity testing of effluents. DEP requires TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in WET testing.

If WET testing shows noncompliance with the specified limitations prescribed in the permit, the permittee shall resample and test the effluent within 30 days. If the second test shows compliance, the permittee shall continue WET testing in accordance with the permit requirements. However, if the second test shows noncompliance, the permittee must, within 60 days, submit an AMP (as more fully described below) identifying actions it will take to achieve compliance with the WET discharge limitations. If WET testing shows noncompliance with the specified limitations prescribed in the permit, but the aquatic ecosystem remains healthy (as evidenced by acceptable data retrieved at the biological monitoring stations), the DEP shall reevaluate the WET limits placed in the permit to assure that such limits take into consideration the appropriate dilution factors, mixing, and the effects of the discharge on the downstream monitoring stations.

Chemical Monitoring

In addition to what is required for monitoring associated with the protection of numeric standards, the permit will require twice-per-month effluent monitoring for TDS, specific conductance, sulfate, alkalinity, pH, calcium, magnesium, sodium, and potassium upon commencing the permitted activity. The permittee shall monitor the same sampling suite quarterly, taking samples at approximately the same time as the collection of any biologic sample(s). The results of concurrent monitoring of WET, dissolved ions, and biological conditions will provide a wealth of information to guide future decisions and possible refinements of this Guidance.

In-Stream Biological Monitoring

The permit will require the maintenance of acceptable ecosystem health in waters of the State. Biological monitoring will be required prior to, and then regularly over the life of, the permitted activity. An applicant must submit a monitoring plan for agency approval that proposes in-stream BAS that allow a holistic assessment of the aquatic ecosystem and a determination of the impacts of the permitted activity.

The applicant should work with the permit writer and the DEP biologist to establish a monitoring strategy with the most appropriate monitoring locations for a holistic evaluation of the aquatic ecosystem. All biologic sampling shall be done in accordance with the West Virginia Division of Natural Resources' scientific collection permit and DEP's West Virginia Stream Condition Index ("WVSCI") protocol. The applicant shall submit to DEP for approval a monitoring plan that is consistent with WVDEP's Watershed Assessment Branch 2009 Standard Operating Procedures, Chapter 4,⁵ which must include the following:

⁵ <http://www.dep.wv.gov/WWE/watershed/wqmonitoring/Documents/SOP%20Doc/WAB%20SOP.pdf>

- BASs shall be located at the first appropriate riffle/run habitat downstream of new outlets in a perennial stream segment. Ideally, the BAS will be located such that future impacts to the stream are attributable solely to the permitted activity. Where there are a number of outlets in a small geographic area, it is not necessary to establish a BAS downstream of each outlet, so long as a sufficient number of BASs are established to allow for a holistic assessment of the aquatic ecosystem.
- Additional BASs should be situated on a site-specific basis, but generally should be located upstream and downstream of the confluence of the immediate receiving stream and the stream into which it drains, which allows the aquatic ecosystem's health to be assessed in its entirety. In establishing these stations, the permittee should avoid a multiplicity of stations in a short stream segment. Instead, there should be a sufficient number of these additional stations to allow for a holistic assessment of the aquatic ecosystem.
- If the first available location for a BAS is potentially influenced by other watershed activities and stressors, then a clear link between the permit controls and biological conditions at the station may not be possible. Those scenarios will require baseline documentation of the other potential stressors and tracking of watershed activities over time. The applicant will also have to submit a monitoring plan in accordance with the provisions set forth in "Chemical Monitoring" above.
- Additional monitoring stations may be designated further upstream or downstream at points that are useful in determining the entire aquatic ecosystem's health. Such stations may be beneficial in identifying actions the applicant can take to improve the overall health of the aquatic ecosystem.
- The plan should include chemical and biological monitoring at the BAS prior to the start of the permitted activity.

If the agency finds the condition of the aquatic ecosystem at the assessment stations prior to initiation of the permitted activity to be satisfactory, taking into account all potentially applicable criteria, then the acceptable future biological condition is a WVSCI score greater than or equal to the WVSCI value representing the 5th percentile of reference (currently 68.0). If the agency finds the condition of the aquatic ecosystem at the assessment stations is less than satisfactory, taking into account all potentially applicable criteria, then the applicant shall identify existing conditions within the watershed that may be contributing to the problem. If a TMDL addressing biological impairment for ionic stress is not in effect, a WVSCI score greater than or equal to the baseline value would represent an acceptable future condition.

However, permit writers should be aware that a single point in a stream may not represent the overall health of the aquatic ecosystem. WVSCI is a tool to be used as a primary indicator of stream health, but not the sole criteria; if the WVSCI score suggests a potential problem, DEP shall conduct an assessment of the health of the aquatic ecosystem as a whole. In determining whether a lower WVSCI score represents an unacceptable condition, the DEP will utilize best professional judgment in a manner comparable to the discretion it exercises in listing streams as biologically impaired pursuant to § 303(d) of the Clean Water Act, including a holistic examination of the health of the aquatic ecosystem.

Aquatic Ecosystem Protection Plan (AEPP)

New and expanded discharge permit applications shall include an AEPP for agency review and approval, and the permit writer shall use the control measures outlined therein as part of his or her RP analysis, as outlined more fully above. The permittee shall use the measures outlined in its AEPP as a means of maintaining the health of the aquatic ecosystem and complying with the State's narrative water quality standards.

An AEPP describes control measures the applicant will implement to achieve WET limitations and minimize adverse biological impacts to the aquatic ecosystem surrounding the permitted activity. The plan should also include controls designed to lower the magnitude of pollutant loading associated with mining activities. If the agency cannot conclude that the proposed measures are reasonably expected to result in compliance, then the permit will not be issued. The applicant should consider all appropriate options when selecting and implementing control measures. Where an initial AEPP fails to achieve WET compliance and acceptable ecosystem conditions, the applicant must amend its AEPP to include additional measures that enable it to comply with WET limits.

The applicant can implement any of a number of controls in an attempt to protect the aquatic ecosystem and to reduce or minimize the ionic strength in the stream. Some examples of control measures that may be included in the AEPP include, but are not limited to, the following:

- Test overburden to determine the material that contains sulfur or other ionic strength-bearing material, so it can be isolated through material handling;
- Minimize the amount of area disturbed at one time;
- Minimize stormwater contact with pulverized material;
- Increase stream buffer zones;
- Minimize fill areas;
- Mine down-dip instead of up-dip;
- Cap fills and spoil so as to minimize pass-through of rain water;
- Re-vegetate any disturbed areas to minimize runoff;
- Develop a plan to reduce or prevent ionic stress;
- If necessary, conduct TRE/TRI pursuant to EPA's TSD;
- Segregate weathered rock and return to surface;
- Expedite reclamation;
- Enhance riparian plantings;
- Limit the number of active fills;
- Restore natural streams.

Because many of the controls outlined in the AEPP are related to onsite best management practices, they onsite controls will need to be addressed in the mining permit issued pursuant to the *West Virginia Surface Coal Mining & Reclamation Act* ("Article 3 permit"). The entire AEPP must be included as an attachment to the NPDES permit application to allow for agency review and evaluation.

Adaptive Management Plan (AMP)

A “new and expanded discharge” permittee shall submit an AMP to DEP within 60 days of failing two WET tests in a 30-day period. An AMP is more than merely monitoring activities and occasionally changing them; it involves exploring alternative ways to meet environmental objectives, predicting the outcomes of alternatives based on the current state of knowledge, implementing one or more of these alternatives, monitoring to learn about the impacts of management actions, and then using the results to update knowledge and adjust management actions.⁶ For purposes of this Guidance, the AMP outlines the measures the permittee will take to achieve the chronic toxicity permit limitations (1.0 TU_c). This plan shall include, at a minimum, a thorough review of the AEPP to determine what, if any, changes can be made to the control measures outlined therein that will bring the permittee back into compliance with its WET limits.

The permittee may also implement a Toxicity Reduction Evaluation (TRE)/Toxicity Identification Evaluation (TIE)⁷ plan to obtain compliance with final effluent limits or triggers for chronic toxicity. The purpose of a TRE is to investigate the causes and to identify corrective actions for difficult effluent toxicity problems.⁸ A TRE is a site-specific study conducted in a stepwise process to narrow the search for effective control measures for effluent toxicity. TREs are designed to identify the causative agents of effluent toxicity, isolate the sources of the toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity. The ultimate objective of a TRE is for the permittee to achieve the limits or requirements for effluent toxicity contained in the permit and thereby attain the water quality standards for the receiving waters.⁹

A TIE is a set of procedures to identify the specific chemicals responsible for effluent toxicity, and TIE methods are an integral part of the protocols for TREs. TIE procedures are performed in three phases: characterization, identification, and confirmation. In each phase, the permittee shall use aquatic organism toxicity tests to track toxicity at each step of the procedure. In most cases, these are abbreviated or shortened toxicity tests.

If the TRE/TIE identifies toxic pollutants that can be regulated through the use of numeric limits, the permit writer shall put a numeric limit for those pollutants in the permit, in accordance with 47 C.S.R. 2 § 9 and 40 C.F.R. § 122.44(d)(1)(vi)(A). If the TRE/TIE does not identify toxic pollutants that can be regulated through the use of numeric limits, the WET limits shall remain in the permit.

Reopener Clause

The permit will contain an explicit reopener clause allowing DEP to modify or revoke the permit if prescribed controls do not attain and maintain applicable water quality standards. The permittee may also request that the permit be reopened if, after a

⁶ See, U.S. Department of the Interior’s *Technical Guide: Adaptive Management*

⁷ Although TRE/TIE is briefly outlined in this document, permit writers and permittees shall refer to EPA’s TSD and the guidance documents listed therein for specific direction on how to conduct these evaluations.

⁸ EPA’s TSD, p. 114

⁹ Id.

sufficient amount of data has been collected, the agency determines that RP does not exist, and the permittee can request an adjustment to its monitoring activities through a modification of the permit.

PERMITS AT REISSUANCE

These permit conditions do not apply to outlets that are primarily precipitation induced or for which the activities associated with the outlets are substantially complete at the time of reissuance. If the agency determines at the time of reissuance that permitted outlets have not been constructed, the requirements outlined in “New and Expanded Discharge Permits” above will apply. Otherwise, DEP will establish the following permit conditions:

Wet Monitoring and Limits

Where there is not sufficient WET, chemical, and/or biological assessment data to perform a reasonable potential analysis at permit reissuance, the permit writer will assign WET monitoring to determine reasonable potential to cause or contribute to an excursion above the narrative criteria, as prescribed by 40 C.F.R. § 122.44(d)(1)(ii).

The permit writer will establish WET monitoring triggers using all applicable rules and guidance, including EPA’s TSD. In developing the WET trigger, the permit writer will consider the in-stream waste concentration of the effluent in the immediate receiving stream and calculate it so as to result in no greater than 1.0 chronic toxicity unit (TU_c) and 0.3 acute toxicity unit (TU_a) at the edge of the appropriate mixing zones, where applicable.

The permittee is required to perform WET monitoring quarterly. The TSD requires use of the most sensitive available surrogate organism (*ceriodaphnia dubia*) for chronic toxicity testing of effluents. DEP requires TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in WET testing.

If WET monitoring shows an exceedance of the specified triggers prescribed in the permit, the permittee shall resample and test the effluent within 30 days. If the second test shows compliance, the permittee shall continue WET monitoring in accordance with the permit requirements. However, if the second test shows an exceedance, the permittee must, within 60 days, submit an AMP identifying actions it will take to achieve compliance with the WET triggers. The permittee must also submit a permit modification to place WET limits in the permit.

Chemical Monitoring

The permit will require enhanced effluent and receiving water monitoring of dissolved ions for permits upon reissuance.

The permit will require twice-per-month effluent monitoring for TDS, specific conductance, sulfate, alkalinity, pH, calcium, magnesium, sodium, and potassium. The same sampling suite is required for all established stream monitoring stations. The results of concurrent monitoring of WET and dissolved ions testing at the discharge and

in-stream monitoring locations will provide a wealth of information to guide future decisions and possible refinements to this protocol.

In-Stream Biological Monitoring

The permit will require the maintenance of acceptable ecosystem health in waters of the State. DEP will require in-stream biological monitoring regularly over the remaining life of the permitted activity. The permittee must submit a monitoring plan for agency approval that proposes in-stream BAS that allow a holistic assessment of the aquatic ecosystem and a determination of the impacts of the permitted activity. To that end, biological monitoring as discussed above may be applied as appropriate.

Adaptive Management Plan (AMP)

A permittee with a reissued permit shall submit an AMP to DEP within 60 days of exceeding two WET triggers in a 30-day period. The AMP shall include appropriate control measures as outlined in “Aquatic Ecosystem Protection Plan” above that are designed to obtain compliance with WET triggers, maintain the health of the aquatic ecosystem, and comply with the State’s narrative water quality standards. If the WET testing results continue to exceed the established permit trigger(s), then the permittee has exhibited a reasonable potential to cause or contribute to an excursion above West Virginia’s narrative water quality standards (specifically, 47 C.S.R. 2 §§ 3.2.e and 3.2.i), and the permit writer will reopen the permit to impose WET limits. Alternatively, the AMP may allow the permittee to conduct TRE/TIE (as outlined above), in an effort to identify toxic pollutants that can be regulated through the imposition of numeric limits in the permit.

Reopener Clause

The permit will contain an explicit reopener clause allowing DEP to modify or revoke the permit if prescribed controls do not attain and maintain applicable water quality standards. The permittee may also request that the permit be reopened if, after a sufficient amount of data has been collected, the agency determines that RP does not exist, and the permittee can request an adjustment to its monitoring activities through a modification of the permit.

REFERENCES

EPA’s *Policy on the Use of Biological Assessments and Criteria in the Water Quality Program* (May 1991)

EPA’s *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001 (March 1991)

EPA’s *NPDES Permit Writers’ Manual*, EPA-833-B-96-003



Reissue
se limits R/Norm.
CD. Not working

west virginia department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

January 20, 2015

Francisco Cruz
NPDES Permits Branch
Water Protection Division
U. S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Re: **WVNPDES No. WV1014005**
Re: Permit Reissuance #4 – Fola Mining Company, LLC – Surface Mine No. 3

Dear Mr. Cruz:

Pursuant to Section 402 of the Clean Water Act, 40 CFR parts 123.74 and 123.75, *Memorandum of Agreement Regarding the Administration and Enforcement of the National Pollutant Discharge Elimination System in West Virginia* (1982) (MOA) please find enclosed our response and the approved permit and associated rationale pursuant to your comments on the draft permit for the above referenced facility.

The first comment stated, “The draft permit contains a schedule of compliance for selenium at outfalls 024, 027, 029, and 035. The time between the commencement and completion of the construction milestone is 16 months. The Schedule of Compliance regulation, 40 CFR 122.47(a)(3)(i), indicates that the time between interim milestone shall not exceed one year.”

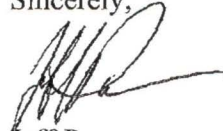
The schedule of compliance for selenium at outfalls 024, 027, 029, and 035 has been revised so that no milestones are more than 12 months apart. The revised schedule of compliance has been added to the permit.

The second comment questions whether or not water quality based effluent limits are necessary for total dissolved solids, specific conductance, and sulfates and whether the permit is in conformance with the WV Narrative Water Quality Standards Guidance. The permit requires that the permittee sample each outfall and stream station for Specific Conductance, TDS, and Sulfates twice a month in order to better characterize discharges from mining operations, but no water quality standards exist for total dissolved solids, specific conductance, and sulfates for the State of West Virginia; therefore, no effluent limitations were assigned. As previously addressed in the rationale, outfalls 024, 027, 029 and 035 were deemed substantially complete as per the “*Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia’s Narrative*

Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i". Therefore, no whole effluent toxicity testing or bio-monitoring requirements were added to this permit.

If you have any questions or comments, please contact me at (304) 926-0499 Extension 1564 or by mail at 601 57th Street SE, Charleston, WV 25304.

Sincerely,

A handwritten signature in black ink, appearing to read "JP", with a long horizontal flourish extending to the right.

Jeff Parsons
DMR/HPU

cc: Fola Coal Company, LLC

RATIONALE PAGE

NPDES Number: WV1014005 (NPR-4-Major) County: Nicholas
Company Name: FOLA COAL COMPANY LLC
Facility Name: Surface Mine 3
SMA/Permit No.: S200995
Other Apps:
Date of Draft: 01/31/2014 Revised 1/12/2015
Permit Writer: Heather Browning
Region: Philippi

- 1. New or expanded discharge? NO
- 2. Facility eligible for General Permit? NO
- 3. Basis for effluent limitation:

A. Determine uses of each receiving stream.

<u>Stream Uses</u>	<u>Stream Name</u>
1	BOARDTREE BR
1	STILLHOUSE BR/TWENTYMILE CK
1	TWENTYMILE CK
1	UT Peachorchard Branch
1	UT Twentymile Creek

B. Parameters of concern: YES pH YES Fe YES Mn
YES Al (D) YES Al (T) YES Others

Specify Others: Selenium

C. Justification Review: Fola Coal Company has submitted an application for the reissuance of an existing NPDES permit to maintain, monitor, and operate a Refuse Area, Haulroad, Highwall Miner, and Surface Mine in the Lower Freeport, Upper Kittanning, Middle Kittanning, Five Block, Clarion, Stockton A, Stockton, Coalburg, and Lower Coalburg seams of coal. The operation discharges Treated Water and Storm Water into an Unnamed Tributary of/and Peachorchard Branch, Boardtree Branch, Stillhouse Branch, and an Unnamed Tributary of/and Twentymile Creek of the Gauley River. The facility is located 3.18 miles Southeast of Bickmore in Henry District of Clay County and Jefferson and Grant Districts of Nicholas County in West Virginia.

This permit is located within the Gauley River Watershed. Outlets 020 and 021 are located on an Unnamed Tributary of Peachorchard Branch of Twentymile Creek in SWS 541. There are no new impairments listed for Peachorchard Branch in either the 2012 303(d) or the draft 2014 303(d) lists. WLAs for iron were assigned to these outlets in the TMDL approved in 2008 and those limits will be retained in this reissuance unless otherwise noted. Outlets 022, 023, 024, and 025 are located on Boardtree Branch of Twentymile Creek in SWS 543. There are no new impairments listed for Boardtree Branch in either the 2012 303(d) or the draft 2014 303(d) lists. WLAs for iron were assigned to these outlets in the TMDL approved in 2008 and those limits will be retained in this reissuance unless otherwise noted. Outlets 026 and 027 are located on Twentymile Creek in SWS 544. Outlets 031, 032, 033, 034, and 035 are located on Twentymile Creek in SWS 552. Twentymile Creek is included in the 2012 303(d) list as being impaired for selenium however an approved TMDL has not been developed at this time. Twentymile Creek is not included in the draft 2014 303(d) list as being impaired for any new parameters. WLAs for iron were assigned to these outlets in the TMDL approved in 2008 and those limits will be retained in this reissuance unless otherwise noted. Outlets 028, 029, and 030 are located on Stillhouse Branch of Twentymile Creek in SWS 547. There are no new impairments listed for Stillhouse Branch in either the 2012 303(d) or the draft 2014 303(d) lists. WLAs for iron were assigned to these outlets in the TMDL approved in 2008 and those limits will be retained in this reissuance unless otherwise noted. None of the receiving streams associated with this permit are considered trout streams.

In this reissuance, the applicant is requesting post-mining effluent limits for Outlet 020. A review of DMRs for this outlet show that it has not had flow in the past two years and the inspector confirmed that this outlet has not discharged in the past two

years. The drainage area contributing to Outlet 020 is completely reclaimed and meets the definition of a reclamation area as per 40 CFR 434.11(1); therefore post-mining effluent limits will be applied to Outlet 020 in this reissuance. The applicant is also requesting that manganese be removed as a parameter of concern from the constructed outlets (021, 024, 027, 029, 034, and 035) in accordance with ECGs listed in 40 CFR 434.55. Effluent limits for manganese at these outlets are currently capped at tech based because the facility is located more than 25 miles upstream from a known public water intake. Since the drainage areas contributing to these outlets are reclaimed and re-vegetated, they are considered post mining areas and manganese is being removed as a parameter of concern in this reissuance. Additionally, a review of the DMR data for the most downstream monitoring station (DSTM) showed that the concentration of manganese in the receiving stream does not exceed 1 mg/L.

EFFLUENT LIMITATIONS-

This permit is subject to new source performance standards (NSPS) 40CFR434.35 unless previously noted as subject to 40CFR 434.55 for reclamation areas. As such, pH and total suspended solids (TSS) are in accordance with NSPS. The water quality effluent limitations assigned for iron, manganese, and aluminum are as or more stringent than would be required by NSPS ELGs. The proposed site is located well outside of the 5-mile zone upstream of a known water supply; therefore manganese human health criterion does not apply.

A previously mentioned, post-mining effluent limits are being applied to Outlet 020 in this reissuance.

Effluent limits for iron were previously set in accordance with the approved TMDL at Outlets 021, 022, 023, 025, 026, 027, 028, 030, 031, 032, 033, and 034 and will remain the same in this reissuance. Effluent limits for iron at Outlets 024, 029, and 035 were previously capped at water quality because they are in-stream outlets and will remain the same in this reissuance.

Effluent limits for manganese were previously capped at tech based for all outlets associated with this permit and will remain the same unless otherwise noted. Manganese is being removed as a parameter concern from Outlets 021, 024, 027, 029, 034, and 035 because the drainage areas contributing to these outlets are reclaimed and the facility is located well outside of the 5-mile zone upstream of a public water intake. A review of the DMRs for the most downstream monitoring station (DSTM) shows that manganese is always below 1 mg/L.

Effluent limits for total aluminum were previously capped at water quality for warm water at all outlets associated with this permit and will remain the same in this reissuance.

Selenium - The selenium concentrations provided in Tables 2-IV-C for Outlets 024, 027, 029, and 035 were below the approved water quality criteria. The selenium data provided in the last reissuance of this permit in Table 2-IV-C was below the water quality criteria. Twentymile Creek is included in the 2012 303(d) list as being impaired for selenium. A TMDL for selenium for Twentymile Creek has not been developed to date; therefore there are no WLAs for this facility. Since selenium has never been added to this permit as a parameter of concern, there is no DMR data for review. There are numerous operations adjacent to this permit. Selenium monitoring and selenium limits have been added to several of these adjacent facilities. Since adjacent operations show selenium issues and this facility discharges into the section of Twentymile Creek that is impaired for selenium, selenium limits are being added to each outlet associated with this permit in this reissuance. The applicant has requested a compliance schedule for the outlets that flow regularly (024, 027, 029, and 035). Selenium is being assigned to these outlets as report only for 36 months after reissuance of this permit and the final effluent limits will become effective in the 37th month after reissuance of this permit. Effluent limits for selenium will be effective immediately at outlets that do not show consistent flows or are not constructed (021, 022, 023, 025, 026, 028, 030, 031, 032, 033, and 034) upon issuance of this permit. Selenium limits are not being added to Outlet 020 because this outlet is being granted post-mining effluent limits and has not flowed in the past two years according to DMRs. Selenium monitoring is being added to the in-stream monitoring stations associated with this permit.

No additional parameters of concern were identified from the effluent characterization data provided in Tables 2-IV-A, B, and C. The water quality data provided for Outlet 027 is considered representative of Outlets 020, 021, 022, 023, 025, 026, 030, 031, 032, 033, and 034 (Please see the attached POC Workbooks).

Total dissolved solids (TDS), sulfate, and specific conductance are being added as report only to each outlet and the associated in-stream monitoring stations (DSPO, DSRF-1, DSTM, DSTM-1, USPO, and USTC) in order to further characterize mining related discharges. TDS, sulfate, and specific conductance are not being added to Outlet 020 because it is being granted post-mining effluent limits in this reissuance.

The following effluent limits and report only parameters apply to Outlet 020.

Report Only parameters = Flow (gpm)

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

SS= maximum daily limit of 0.5mL/L

The following effluent limits and report only parameters apply to Outlet 021.

Report only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 3.00 mg/L average monthly and 5.26 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

Se = 4.7 ug/L average monthly and 8.2 ug/L maximum daily

The following effluent limits and report only parameters apply to Outlets 022, 023, 025, 028, and 030.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 1.42 mg/L average monthly and 2.46 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 mg/L maximum daily

Se = 4.7 ug/L average monthly and 8.2 ug/L maximum daily

The following effluent limits and report only parameters apply to Outlet 026.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 3.00 mg/L average monthly and 5.26 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 mg/L maximum daily

Se = 4.7 ug/L average monthly and 8.2 ug/L maximum daily

The following effluent limits and report only parameters apply to Outlets 031, 032, and 033.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 1.99 mg/L average monthly and 3.45 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 mg/L maximum daily

Se = 4.7 ug/L average monthly and 8.2 ug/L maximum daily

The following effluent limits and report only parameters apply to Outlet 034.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 1.99 mg/L average monthly and 3.45 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

Se = 4.7 ug/L average monthly and 8.2 ug/L maximum daily

The following effluent limits and report only parameters apply to Outlets 024, 029, and 035.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, Specific Conductance, and Hardness

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 1.42 mg/L average monthly and 2.46 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

Se = Report Only for 36 Months

Limits of 4.7 ug/L average monthly and 8.2 ug/L maximum daily effective in 37th month

The following effluent limits and report only parameters apply to Outlet 027.

Report Only parameters = Flow (gpm), Dissolved Aluminum, TDS, Sulfates, and Specific Conductance

pH= 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS= 35mg/L monthly average and maximum daily limit of 70mg/L

SS= maximum daily limit of 0.5mL/L

T. Fe= 3.00 mg/L average monthly and 5.26 mg/L maximum daily

T. Al= 0.43 mg/L average monthly and 0.75 mg/L maximum daily

Se = Report Only for 36 months

Limits of 4.7 ug/L average monthly and 8.2 ug/L maximum daily effective in 37th month

NARRATIVE WATER QUALITY STANDARDS -

According to the "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" issued August 12, 2010 and revised August 18, 2012, precipitation induced discharges are unlikely to cause or contribute to violations of West Virginia's narrative water quality standards. Precipitation induced discharges (stormwater) flow only in response to precipitation and do not have residence time with un-weathered rock and therefore would not be expected to have elevated mineralization/ions in the discharge.

Precipitation-induced outlets (i.e. associated with on-bench sediment structures that discharge in direct response to precipitation only) only flow at times when the receiving streams have the greatest assimilative capacity (dilution). Outlets 020, 021, and 034 are on-bench structures that do not flow and are considered primarily precipitation induced. Since these outlets are considered primarily precipitation induced, the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to these outlets.

Outlets 022, 023, 025, 026, 028, 030, 031, 032, and 033 are not constructed. Outlets 022 and 023 were never constructed because no mining ever occurred within the associated drainage areas. Outlets 025 and 026, and 028 were never constructed because the drainage areas are undisturbed. Outlets 030, 031, 032, and 033 were not constructed during mining because the slopes were too steep. All drainage was rerouted to a sky pond using diversion ditches. All mineral removal activities are complete and no further disturbances are proposed in any of the drainage areas associated with these outlets. If any of these outlets are constructed in the future, they will be on-bench structures located outside of all jurisdictional waters and would be primarily precipitation induced. Since these outlets would be considered primarily precipitation induced, the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to these outlets.

Outlets 024, 027, 029, and 035 shows consistent flow and are considered non-precipitation induced. Outlet 027 is an on-bench outlet. The drainage area contributing to this outlet has been reclaimed and re-vegetated (Please see attach Photographs). This outlet is past the point where additional control measures could be implemented to reduce the impact on the aquatic ecosystem, thus the operations contributing to this outlet are considered substantially complete. Therefore, WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to Outlet 027. Outlets 024, 029, and 035 are in-stream outlets associated with valley fills. All of the valley fills have been constructed, no additional fill material will be placed in any of these valley fills, and they have been re-vegetated (Please see attached Photographs). Therefore, no additional control measures could be implemented to reduce the impact on the aquatic ecosystem, thus the operations contributing to these outlets are considered substantially complete. Therefore, WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to these outlets.

Special Sampling Condition -

This Special sampling condition is being added to the permit to verify the presumption that discharges from on-bench outlets which flow only in response to precipitation would not be expected to have reasonable potential to cause or contribute to a violation of the narrative water quality standards. The sampling is also intended to document relationship between discharges from on-bench outlets (precip-induced) and stream quality and to verify that discharges from these outlets only flow when streams have the greatest assimilative capacity. Sample site criteria are being specified to direct sampling to the outlet(s) which are most likely to discharge during any given sampling event in response to precipitation. The sample locations will change in response to the progress of mining. This condition is located in section D.6 of this permit.

Reopener Clause -

A reopener clause has been added to this permit and is located in section D.7 of this permit.

4. Types of effluent limitations:

Technology Based Outlets (1): 020

Water Quality Based Outlets (15): 021, 022, 023, 024, 025, 026, 027, 028, 029, 030,

031, 032, 033, 034, 035

Best Professional Judgement Based Outlets (0):

Special Outlets (0):

Ammonia Outlets (0):

Sewage Outlets (0):

Additional Comments: None

5. **Special Conditions or other monitoring requirements:**

Stream Monitoring: DSPO, DSRF-1, DSTM, DSTM-1, USPO, USTC

Groundwater Monitoring:

6. **Does the application contain:**

Valley fills/refuse?

N/A

In Ephemeral Streams?

N/A

In Intermittent/Perennial Streams?

N/A



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

April 2, 2015

Mr. Jeffrey Parsons
West Virginia Department of Environmental Protection
Division of Mining & Reclamation
601 57th Street SE
Charleston, WV 25304

Re: WV NPDES No. WV1018001 – NPR-3-Major
FOLA Coal Company, LLC
Surface Mine 6
SMCRA No. S201199
EPA Receipt Date – March 3, 2015

Dear Mr. Parsons:

Pursuant to Section 402 of the Clean Water Act, 40 C.F.R. § 123.44, and the *Memorandum of Agreement Regarding the Administration and Enforcement of the National Pollutant Discharge Elimination System (NPDES) in West Virginia (1982) (MOA)*, the U.S. Environmental Protection Agency (EPA) Region III received the above referenced draft permit.

FOLA Coal Company, LLC proposes to maintain and monitor the reclaimed and substantially complete Surface Mine 6. The operation has ceased mining and is reclaimed. There are five (5) valleys fills associated with the operation and all have been deemed to be substantially complete. The other discharges on the operation are precipitation induced with the exception of Outlet 007. Outlet 007 is associated with an underground operation and will receive pumped water. For this reason Outlet 007 must meet Narrative Water Quality Standards Policy. Based on our limited review, we will not be providing comments.

Please forward a copy of the final permit when issued. Feel free to contact me at (215) 814-5497.

Sincerely,
Brian Hamilton
Office of NPDES Permits & Enforcement
Water Protection Division





west virginia department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304-2345
Phone: (304) 926-0490
Fax: (304) 926-0456

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

APR 20 2015

FOLA COAL COMPANY LLC
PO BOX 180
2112 LEATHERWOOD RD
BICKMORE, WV 25019

Gentlemen:

Enclosed is your WVNPDES Permit No. WV1018001 for your Surface Mine located near Gilboa in Clay, Nicholas County, West Virginia.

We suggest that this permit or a copy of it be kept in the office nearest the discharge point.

If you have any questions, please contact me at (304) 457-3219 or by mail at:

Department of Environmental Protection
47 School Street, Suite 301
Philippi, WV 26416-1150
Attention: Heather Browning

Sincerely,


Heather Browning
Permit Writer

cc: Environmental Protection Agency
Environmental Inspector
DEP Regional Office File
Headquarters NPDES File

RATIONALE PAGE

NPDES Number: **WV1018001 (NPR-3-Major)** County: Clay, Nicholas

Company Name: FOLA COAL COMPANY LLC

Facility Name: Surface Mine 6

SMA/Permit No.: S201199

Other Apps:

Date of Draft: 01/26/2015 **REVISED 4/14/2015 PHD**

Permit Writer: Heather Browning

Region: Philippi

- 1. New or expanded discharge? **NO**
- 2. Facility eligible for General Permit? **NO**
- 3. Basis for effluent limitation:

A. Determine uses of each receiving stream.

<u>Stream Uses</u>	<u>Stream Name</u>
1	LEATHERWOOD CK
1	TWENTYMILE CK
1	UT Leatherwood Creek
1	UT Twentymile Creek
1	UT2 Leatherwood Creek

B. Parameters of concern: **YES** pH **YES** Fe **NO** Mn
YES Al (D) **YES** Al (T) **YES** Others

Specify Others: Selenium

C. Justification Review: Fola Coal Company, LLC. has submitted an application for the reissuance of an existing NPDES permit to maintain, monitor, and operate a Haul Road, High Wall Miner, Refuse Area, and Surface Mine in the Lower Freeport, Middle Kittanning, No. 5 Block, Clarion, Stockton, and Coalburg seams of coal. The operation discharges Treated Water and Storm Water into Unnamed Tributaries of/and Twentymile Creek of the Gauley River and Unnamed Tributaries of/and Leatherwood Creek of Elk River. The operation is located 5.0 miles Southeast of Bickmore in Grant District of Nicholas County in West Virginia.

This permit is located in both the Gauley River and Elk River Watersheds. Outlets 001, 002, 003, 004, 005, 006, 007, and 008 are located in the Gauley River Watershed on Twentymile Creek. Twentymile Creek is included in the 2012 303(d) list as being impaired for selenium. Twentymile Creek is not listed as impaired for any new parameters in the draft 2014 303(d) list. A TMDL for selenium has not been completed at this time. The Gauley River TMDL, approved in 2008, assigns Waste Load Allocations (WLAs) for iron for this facility. Outlet 001 is located in SWS 556 and is assigned a WLA of 1.9 mg/L for iron. Outlets 002, 003, 004, 005, and 006 are located in SWS 554 and are assigned a WLA of 3.2 mg/L for iron. Outlet 007 is located in SWS 553 and is assigned a WLA of 1.5 mg/L for iron. Outlet 008 is located in SWS 552 and is assigned

a WLA of 2.1 mg/L for iron. Effluent limits for iron are being set in accordance with the approved TMDL for Outlets 001, 002, 003, 004, 005, 006, 007, and 008 in this reissuance. Based on a review of the Discharge Monitoring Reports (DMRs) for these outlets, compliance with the new effluent limits for iron should not be an issue at these outlets.

Outlets 009, 010, 011, 013, 014, 015, 016, 017, 018, 019, 021, 022, and 024 are located in the Elk River Watershed on Leatherwood Creek. Leatherwood Creek is included in the 2012 303(d) list as being impaired for iron and selenium. Leatherwood Creek is not included in the draft 2014 303(d) list as being impaired for any new parameters. The approved Elk River TMDL assigns WLAs for iron and selenium for this facility. Outlet 009 is located in SWS 20433. The WLA for iron is 1.5 mg/L and the WLA for selenium is 12 ug/L for Outlet 009. Outlets 010, 011, 013, 014, 015, 016, 017, 018, 019, 021, 022, and 024 are located in SWS 20434. The WLA for iron is 1.5 mg/L and the WLA for selenium is 5 ug/L. Effluent limits for iron and selenium are being set in accordance with the approved TMDL in this reissuance for the outlets discharging into Leatherwood Creek. Based on a review of the DMRs for these outlets, compliance with the new effluent limits for iron should not be an issue at these outlets.

In this reissuance the applicant is requesting to delete Outlets 012, 020, and 023. These outlets were never constructed and are no longer needed because mining is complete, no further disturbance is proposed, the drainage areas are controlled by existing outlets (011, 021, and 022) and the drainage areas have been reclaimed. The applicant is also requesting to add pumped deep mine water from Article 3 Permit No. U-2007-97. An internal monitoring point (Outlet 107) is being added to the permit in this reissuance and will monitor the deep mine discharge prior to it discharging through Outlet 007; if the deep mine is ever activated. This deep mine water was originally permitted to discharge from Outlet 006 of NPDES Permit Number WV1013866.

EFFLUENT LIMITATIONS-

This permit is subject to new source performance standards (NSPS) 40CFR434.35. As such, pH and total suspended solids (TSS) are in accordance with NSPS. The water quality effluent limitations assigned for iron, manganese, and aluminum are as or more stringent than would be required by NSPS ELGs. The site is located well outside of the 5-mile zone upstream of a known water supply; therefore manganese human health criterion does not apply.

All existing effluent limits will remain the same at all outlets for manganese and aluminum in this reissuance and as otherwise noted below for iron.

Outlet 007 is being permitted to receive pumped deep mine water from Article 3 Permit Number U-2007-97. This deep mine water was originally approved to discharge through Outlet 006 of NPDES Permit Number WV1013866 at a pump rate of 50 GPM. The effluent limits for Outlet 006 of NPDES Permit WV1013866 were capped at tech based. The receiving stream is the same for Outlet 007 of this permit (Twentymile Creek) and the pump rate is the same (50 GPM); therefore the effluent limits applied to Outlet 007 in this reissuance will be more stringent than those previously approved for Outlet 006 of permit WV1013866. This is not an expanded discharge. Effluent limits for manganese are being added back to Outlet 007 in this reissuance because this outlet will receive pumped deep mine water from internal monitoring point 107. Outlet 007 is located well outside of the 5-mile zone upstream of a known water supply; therefore manganese human health criterion does not apply and effluent limits for manganese at this outlet are 2.00 mg/L average monthly and 4.00 mg/L daily maximum.

Effluent limits for iron at on-bench Outlets 001, 002, 003, 004, 005, 006, and 008 were previously capped at tech based limits. As previously mentioned, effluent limits for iron at outlets 001, 002, 003, 004, 005, 006, and 008 are being set in accordance with the approved TMDL in this reissuance. The WLA for Outlet 001 is 1.9 mg/L giving effluent limits of 1.80 mg/L monthly average and 3.12 mg/L daily maximum. The WLA for Outlets 002, 003, 004, 005, and 006 is 3.2 mg/L giving effluent limits of 3.00 mg/L monthly average and 5.26 mg/L daily maximum. The WLA for Outlet 008 is 2.1 mg/L giving effluent limits of 1.99 mg/L average monthly and 3.45 mg/L daily maximum. (Please see attached WLA Workbooks). Effluent limits for iron at in-stream Outlet 007 were previously capped at water quality and will remain the same in this reissuance because the limits are the same that would be assigned by the approved TMDL and WLA of 1.5 mg/L.

Effluent limits for iron at on-bench outlets 009, 010, 011, 014, 016, 018, 019, 021, and 022 were previously capped at tech based. Effluent limits for Iron are being set in accordance with the approved TMDL for these outlets in this reissuance. Outlet 009 is located in SWS 20433 and has a WLA for iron of 1.5 mg/L which gives effluent limits of 1.42 mg/L monthly average and 2.46 mg/L daily maximum. (Please see attached WLA Worksheet). Outlets 010, 011, 014, 016, 018, 019, 021, and 022 are located in SWS 20434 which has a WLA for iron of 1.5 mg/L giving effluent limits of 1.42 mg/L monthly average and 2.46 mg/L daily maximum. (Please see attached WLA Worksheet). Effluent limits for iron at in-stream Outlets 013, 015, 017, and 024 were previously capped at water quality and will remain the same in this reissuance because they are the same limits that would be assigned by the WLA provided in the approved TMDL.

Total dissolved solids (TDS), sulfates, and specific conductance are being added as report only to all outlets and in-stream monitoring stations in order to further characterize mining related discharge.

Selenium - This permit is located in the Elk River and Gauley River Watersheds. Outlets 001, 002, 003, 004, 005, 006, 007, and 008 are located in the Gauley River Watershed on Twentymile Creek. Twentymile Creek is included in both the 2012 303(d) and draft 2014 303(d) lists as being impaired for selenium. The approved TMDL does not assign WLAs for selenium for Outlets 001, 002, 003, 004, 005, 006, 007, and 008 of this permit. The selenium concentration reported in Table 2-IV-C for Outlet 007 (and representing Outlets 001, 002, 003, 004, 005, 006, and 008) is below the minimum detection limit and well below the approved water quality criteria. A review of Tables 2-IV-C for previous reissuances of the permit show selenium concentrations below the minimum detection limits. Selenium has never been added as a parameter of concern to any of these outlets, therefore there is no DMR data for selenium. There are several operations adjacent to these permits that are also included in the approved TMDL with WLAs for selenium. Since Twentymile Creek is listed as impaired for selenium, it is being added as a parameter of concern to each outlet and stream monitoring station associated with this permit and located in the Twentymile Creek Watershed. Since Outlets 001, 002, 003, 004, 005, 006, and 008 are located on-bench and have not discharged in the past five years, effluent limits for selenium will be report only for 12 months after reissuance of this permit, to allow for assessment of compliance. Effluent limits for selenium will become effective in the 13th month after reissuance of this permit. The effluent limits for selenium at these outlets are 4.7 ug/L average monthly and 8.2 ug/L daily maximum. Outlet 007 is located in-stream and shows consistent flows. The permittee has requested a selenium compliance schedule for this outlet. Selenium will be report only at Outlet 007 for a maximum of thirty-six (36) months after reissuance of this permit to allow for selenium monitoring and construction of a selenium treatment facility. Effluent limits for selenium will become effective in the 37th month after reissuance of this permit and will be 4.7 ug/L monthly average and 8.2 ug/L daily maximum. (Please see the Selenium Compliance Schedule included in Section B of this permit). Selenium is being added as report only to the stream monitoring stations associated with these outlets [DTC (FD-4) and TMUSR].

Outlets 009, 010, 011, 013, 014, 015, 016, 017, 018, 019, 021, 022, and 024 are located in the Elk River Watershed on Leatherwood Creek. Leatherwood Creek is included in the both the 2012 303(d) and draft 2014 303(d) lists as being impaired for selenium. The approved TMDL does assign WLAs for selenium for this facility. The selenium concentration provided in Tables 2-IV-C for Outlets 013, 015, and 017 were well below the approved water quality criteria, however the selenium concentrations provided in Table 2-IV-C for Outlet 024 did exceed the approved water quality criteria. Selenium has never been added to any of these outlets as a parameter of concern and there is no DMR data for selenium. There are several operations adjacent to this facility. A review of the Table 2-IV-C analyses for the adjacent operations show selenium levels typically below the minimum detection limits and usually below the approved water quality criteria. Some of the adjacent operations are listed in the approved TMDL and have been assigned WLAs for selenium. Outlet 009 is located on-bench in SWS 20433 which has a WLA of 12 ug/L for selenium. This assigns effluent limits for selenium of 11.0 ug/L monthly average and 19.0 ug/L daily maximum. (Please see attached WLA Worksheet). Selenium is being added to Outlet 009 as report only for twelve months after approval of this reissuance. Selenium limits at Outlet 009 will become effective in the thirteenth month after reissuance. A compliance schedule has not been requested for this outlet since the effluent limits for selenium likely will be attainable, but the permittee needs a short period of time to assess compliance at this outlet. Outlets 010, 011, 013, 014, 015, 016, 017, 018, 019, 021, 022, and 024

are located in SWS 20434 which has a WLA for selenium of 5 ug/L. This assigns effluent limits for selenium of 4.7 ug/L monthly average and 8.2 ug/L daily maximum. (Please see attached WLA Worksheet). Outlets 014, 016, 018, 021, and 022 are located on-bench and have not had flow in the past five years. Selenium is being added to these outlets as report only for 12 months after reissuance of this permit, in order to assess compliance at these outlets. Effluent limits for selenium will become effective at Outlets 014, 016, 018, 021, and 022 in the 13th month after reissuance of this permit. Outlets 010, 011, 013, 015, 017, 019, and 024 show consistent flows. The permittee has requested a selenium compliance schedule for these outlets in order to assess compliance and to address expected necessary treatment. Selenium will be report only at Outlet 010, 011, 013, 015, 017, 019, and 024 for a maximum of thirty-six (36) months after reissuance of this permit to allow for selenium monitoring and construction of a selenium treatment facility. Effluent limits for selenium will become effective in the 37th month after reissuance of this permit and will be 4.7 ug/L monthly average and 8.2 ug/L daily maximum. Selenium is being added as report only to the stream monitoring stations associated with these outlets (DLC and ULC). (Please see the Selenium Compliance Schedule included in Section B of this permit).

As stated earlier, Outlets 012, 020, and 023 are being deleted in this reissuance because the drainage areas are covered by Outlets 010, 011, 021, and 022.

The following limits and report only parameters apply to the outlets as they are listed below.

Outlet 001

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L

SS = maximum daily limit of 0.5 mL/L

T. Fe = 1.80 mg/L average monthly and 3.12 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 daily maximum

T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Se = Report Only 12 months

Limits effective in 13th month 4.7 ug/L average monthly and 8.2 ug/L daily maximum

Outlets 002, 003, 004, 005, and 006

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L

SS = maximum daily limit of 0.5 mL/L

T. Fe = 3.00 mg/L average monthly and 5.26 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 daily maximum

T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Se = Report Only 12 months

Limits effective in 13th month 4.7 ug/L average monthly and 8.2 ug/L daily maximum

Outlet 007

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, specific conductance, alkalinity, calcium, magnesium, sodium, and potassium

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU

TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L

SS = maximum daily limit of 0.5 mL/L

T. Fe = 1.42 mg/L average monthly and 2.46 mg/L maximum daily

T. Mn = 2.00 mg/L average monthly and 4.00 mg/L daily maximum

T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily

T. Se = Report Only 36 months

Limits effective in 37th month 4.7 ug/L average monthly and 8.2 ug/L daily maximum

WET Limits = 0.82 TUC average monthly and 1.64 TUC daily maximum

Outlet 107 (Internal Monitoring Point)

Report only parameters = alkalinity, calcium, magnesium, sodium, and potassium

WET Limits = 0.82 TUC average monthly and 1.64 TUC daily maximum

Outlet 008

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU
TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L
SS = maximum daily limit of 0.5 mL/L
T. Fe = 1.99 mg/L average monthly and 3.45 mg/L maximum daily
T. Mn = 2.00 mg/L average monthly and 4.00 daily maximum
T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily
T. Se = Report Only 12 months
Limits effective in 13th month 4.7 ug/L average monthly and 8.2 ug/L daily maximum

Outlet 009

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU
TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L
SS = maximum daily limit of 0.5 mL/L
T. Fe = 1.42 mg/L average monthly and 2.46 mg/L maximum daily
T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily
T. Se = Report only 12 months

Limits effective in 13th month 11.0 ug/L monthly average and 19.0 ug/L daily maximum

Outlets 010, 011, 013, 015, 017, 019, and 024

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU
TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L
SS = maximum daily limit of 0.5 mL/L
T. Fe = 1.42 mg/L average monthly and 2.46 mg/L maximum daily
T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily
T. Se = Report only 36 months

Limits effective in 37th month 4.70 ug/L monthly average and 8.20 ug/L daily maximum

Outlet 014, 016, 018, 021, and 022

Report only parameters = flow (gpm), dissolved aluminum, TDS, sulfates, and specific conductance

pH = 6.0 STU minimum daily and maximum daily limit of 9.0 STU
TSS = 35 mg/L monthly average and maximum daily limit of 70 mg/L
SS = maximum daily limit of 0.5 mL/L
T. Fe = 1.42 mg/L average monthly and 2.46 mg/L maximum daily
T. Al = 0.43 mg/L average monthly and 0.75 mg/L maximum daily
T. Se = Report Only 12 months

Limits effective in 13th month 4.7 ug/L average monthly and 8.2 ug/L daily maximum

NARRATIVE WATER QUALITY STANDARDS -

According to the "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" issued August 12, 2010 and revised August 18, 2010, facilities with primarily precipitation induced discharges are unlikely to cause or contribute to violations of West Virginia's narrative water quality standards. Precipitation induced discharges (stormwater) flow only in response to precipitation and do not have residence time with unweathered rock and therefore would not be expected to have elevated mineralization/ions in the discharge. Precipitation-induced outlets only flow at times when the receiving streams have the greatest assimilative capacity (dilution). These are designed to not discharge during critical low flow conditions of the receiving stream, and therefore do not have a reasonable potential to adversely impact the aquatic ecosystem. Outlets 001, 002, 003, 004, 005, 006, 008, 014, 016, 018, 021, and 022 have not had flow in the past five years and are considered primarily precipitation induced. Since these outlets are considered primarily precipitation induced, the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to these outlets.

Outlets 013, 015, 017, and 024 are in-stream outlets associated with valley fills. These outlets show consistent flows and are considered non-precipitation induced. The ponds associated with these outlets have been constructed since 2000. Construction of the valley fills was completed in 2003. All of the valley fills have been completely reclaimed and re-vegetated since 2006. All mineral removal activities are complete

and no further disturbances are planned in the drainage areas contributing to these outlets. The areas behind each outlet are past the point where additional control measures could be implemented to reduce the impact on the aquatic ecosystem. The operations contributing to these outlets are considered substantially complete, therefore the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to Outlets 013, 015, 017, and 024.

Outlets 009, 010, 011, and 019 show fairly consistent flows and is considered non-precipitation induced. These outlets are located on-bench. All mineral removal activities associated with these outlets has ceased and the drainage areas contributing to these outlets have been reclaimed and re-vegetated since 2005. The areas behind these outlets are past the point where additional control measures could be implemented to reduce the impact on the aquatic ecosystem. The operations contributing to these outlets are considered substantially complete, therefore the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to Outlets 009, 010, 011, and 019.

Outlet 007 is an in-stream outlet associated with Valley Fill #4. All mineral removal activities associated with this outlet has ceased and the drainage area contributing to this outlet have been reclaimed and re-vegetated since 2005. Valley Fill #4 has been constructed, reclaimed, and revegetated and no additional material will be placed on this fill. The area behind this outlet is past the point where additional control measures could be implemented to reduce the impact on the aquatic ecosystem. The operations contributing to this outlet are considered substantially complete, therefore the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does not apply to Outlet 007.

The applicant is proposing to pump water from Article 3 Permit #U-2007-97 (NPDES Permit #WV1013866) and discharge this water through Outlet 007 of this permit. Since the operations behind Outlet 007 are substantially complete, an internal monitoring point (Outlet 107) is being added to this permit in this reissuance. If the deep mine is ever activated, Outlet 107 will be constructed and will monitor the deep mine water prior to it being discharged through Outlet 007. Since Outlet 107 will be monitoring the not started deep mine discharge, it cannot be considered substantially complete, thus the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2 Sections 3.2.e and 3.2.i" does apply to Outlet 107.

Since Outlet 107 is subject to the NWQS guidance, WET testing and biological monitoring are required. The deep mine associated with Article 3 Permit #U-2007-97 is not started and pumping of deep mine water has not commenced. Since Outlet 107 is not constructed and the deep mine discharge has not commenced, WET Limits are being assigned to this outlet. Three Biological Assessment Stations (BAS) have been established. Station BASD-UT7 is located downstream of Outlet 107 on an Unnamed Tributary of Twentymile Creek. Station BASD-TMC is located downstream of Outlet 107 on Twentymile Creek. Station BASU-TMC is located upstream of Outlet 107 on Twentymile Creek.

As previously mentioned, Outlets 012, 020, and 023 were never constructed and are being deleted from this permit in this reissuance.

Special Sampling Condition -

This Special sampling condition is being added to the permit to verify the presumption that discharges from on-bench outlets which flow only in response to precipitation would not be expected to have reasonable potential to cause or contribute to a violation of the narrative water quality standards. The sampling is also intended to document the relationship between discharges from on-bench outlets (precip-induced) and stream quality and to verify that discharges from these outlets only flow when streams have the greatest assimilative capacity. Sample site criteria are being specified to direct sampling to the outlet(s) which are most likely to discharge during any given sampling event in response to precipitation. The sample locations will change in response to the progress of mining. This condition is located in section D.6 of this permit.

Reopener Clause -

A reopener clause has been added to this permit and is located in section D.7 of this

permit.

Biological Monitoring-

Annual benthic surveys are required at each established Biological Assessment Station (BAS). Outlet 107 will discharge into an Unnamed Tributary of Twentymile Creek of the Gauley River of the Kanawha River. A total of three Biological Assessment Stations (BAS) have been established for this permit. One BAS is located downstream of Outlet 107 in an Unnamed Tributary of Twentymile Creek (BASD-UT7). The second BAS is located upstream of Outlet 107 on Twentymile Creek (BASU-TMC) and the third BAS is located downstream of Outlet 107 on Twentymile Creek (BASD-TMC). This condition is contained in Section D.8 of this permit.

Whole Effluent Toxicity -

In accordance with the WVDEP's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 CSR 2, Sections 3.2.e and 3.2.i" issued August 12, 2010 and revised May 11, 2012", Outlet 107 will require whole effluent toxicity testing (WET) as a condition of the permit for non-precipitation induced discharge. WET limitations have been applied to Outlet 107, as prescribed by 40 C.F.R. § 122.44(d)(1)(ii). The permittee shall quarterly perform chronic toxicity on the effluent from Outlet 107. The Technical Support Document for water quality-based toxics control (TSD) requires use of the most sensitive available surrogate organism (ceriodaphnia dubia) for chronic toxicity testing of effluents. In addition Total Dissolved Solids (TDS), specific conductance, sulfate and bicarbonate analyses for each aliquot used in the WET testing has been required. WET limitations of 0.82 TUC Monthly Average and 1.64 TUC Daily Maximum has been determined using the predicted In-stream Waste Concentration (IWC) from this discharge. The IWC represents the portion of the immediate receiving stream volume comprised of effluent during a 7Q10 condition. For Outlet 107, the whole effluent chronic toxicity limitations are based upon the IWC of 100% effluent flow at 7Q10 stream flow. (See the attached WET Limits worksheet for more information). This condition is contained in Section D.9 of this permit.

Biological Assessment Stations - Chemical Monitoring Requirements

Please note, for all parameters on BASD-UT7, BASU-TMC, and BASD-TMC the sampling and reporting frequency is quarterly. This condition is contained in Section D.10 of this permit.

Accepting Discharge from another NPDES Permit -

This NPDES Permit is approved to accept discharge from NPDES Permit WV1013866 and Module 1R is included in this reissuance application. The discharge from Permit Number WV1013866 was originally permitted to discharge pumped deep mine water from Article 3 Permit Number U-2007-97 through Outlet 006 of Permit WV1013866. The deep mine associated with permit number U-2007-97 is not started. If the deep mine is started, pumped deep mine water will be pumped to and monitored at Outlet 107 (internal monitoring point) before discharging from Outlet 007 of NPDES Permit WV1018001. This condition is located in Section D.11 of this permit.

4. Types of effluent limitations:

Technology Based Outlets (0):

Water Quality Based Outlets (22): 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 013, 014, 015, 016, 017, 018, 019, 021, 022, 024, 107

Best Professional Judgement Based Outlets (0):

Special Outlets (3): BASD-TMC, BASD-UT7, BASU-TMC

Ammonia Outlets (0):

Sewage Outlets (0):

Additional Comments: None

5. Special Conditions or other monitoring requirements:

Stream Monitoring: BASD-TMC, BASD-UT7, BASU-TMC, DLC, DTC (FD-4), TMUSR, ULC

Groundwater Monitoring:

6. Does the application contain:

Valley fills/refuse?

N/A

In Ephemeral Streams?

N/A

In Intermittent/Perennial Streams?

N/A