dep

**west virginia** department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304-926-0490
Fax: 304-926-0496

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

**WEST VIRGINIA**
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**
**WATER POLLUTION CONTROL PERMIT**

**NPDES PERMIT NO.:** WV1025074

**ISSUE DATE:** FEB 07 2013

**ASSOCIATED PERMITS:** O500711(SMA)

**EXPIRE DATE:** FEB 07 2018

**SUBJECT:** Coal Refuse Disposal Area

**SUPERSEDES/ EFFECTIVE DATE:** N/A

**HEALTH CERTIFICATE:**

| **LOCATION:** | Costa | Boone | Group B | Coal River |
|---|---|---|---|---|
| | **(City)** | **(County)** | **(Hydrologic)** | **(Drainage Basin)** |

**TO WHOM IT MAY CONCERN:**

**This is to certify that:** COAL RIVER MINING, LLC
PO BOX 58370
CHARLESTON, WV 25358

**is hereby granted a West Virginia NPDES Water Pollution Control Permit to:**

Coal River Mining, LLC proposes the Preparation Plant Utility Area Refuse Facility, a slurry impoundment using the downstream construction technique. The impoundment will be receiving refuse from the No. 2 Gas, Stockton, & Coalburg coal seams. It is located in River Fork of Fork Creek of the Big Coal River and is 3.5 miles northwest of Costa, WV in Boone County.

**This permit is subject to the following terms and conditions:**

**--The effluent limitations, monitoring requirements and other conditions set forth in Section A, B, C and D.**

**By:**

**Thomas L. Clarke**
**Director**

A. **DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge from Outlet Number(s) listed below:

2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

| Outlet Number | Effluent Type | Latitude Longitude | Elevation In Feet | EFFLUENT CHARACTERISTICS | Begins | Ends | Quan/ Conc | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Min. Daily | Avg. Monthly | Max. Daily | Units | Measurement Freq. | Sample Type |
| 001 | L | 38°11'52" 81°45'36" | 790 | Flow | 02/07/2013 | | Quan | Report Only | Report Only | Report Only | GPM | Semi-monthly | Estimated |
| | | | | Specific Conductance | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | UMHO/CM | Semi-monthly | Grab |
| | | | | pH | 02/07/2013 | | Conc | 6.00 | N/A | 9.00 | Std Units | Semi-monthly | Grab |
| | | | | Alkalinity, Total | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Total Suspended Solids | 02/07/2013 | | Conc | Report Only | 35.00 | 70.00 | MG/L | Semi-monthly | Grab |
| | | | | Settleable Solids | 02/07/2013 | | Conc | Report Only | Report Only | 0.50 | ML/L* | See Section A of Permit | Grab |
| | | | | Calcium, Total (as Ca) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Magnesium,Tot (as Mg) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Sodium,Total (as Na) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Potassium, Total (as K) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Total Sulfates (as S04) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Selenium, Total Recoverable | 02/07/2013 | | Conc | Report Only | 4.70 | 8.20 | UG/L | Semi-monthly | Grab |
| | | | | Iron, Total (as Fe) | 02/07/2013 | | Conc | Report Only | 1.42 | 2.46 | MG/L | Semi-monthly | Grab |
| | | | | Manganese, Total (as Mn) | 02/07/2013 | | Conc | Report Only | 2.00 | 3.47 | MG/L | Semi-monthly | Grab |
| | | | | Aluminum, Total (as Al) | 02/07/2013 | | Conc | Report Only | 0.96 | 1.67 | MG/L | Semi-monthly | Grab |
| | | | | Aluminum, Diss. (as Al) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | | | Chronic Tox-Ceriodaphnia Dubia | 02/07/2013 | | Conc | Report Only | 0.82 | 1.64 | TUc | Quarterly | Grab |
| | | | | Total Dissolved Solids (TDS) | 02/07/2013 | | Conc | Report Only | Report Only | Report Only | MG/L | Semi-monthly | Grab |
| | | (See 3, 4) | | | | | | | | | | | |

2014-00657204381

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

* Instantaneous maximum limitation not to be exceeded at any time.

3. COMPLIANCE POINT: Samples taken for compliance with the above monitoring requirements shall be taken at the following locations: Outlet sites

4. ALTERNATE EFFLUENT LIMITATIONS: If alternate effluent limits are chosen, the following monitoring scheme applies:
   (a) Table I Alternate Storm Limitations applies to any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period.

   (b) Analyze the required parameters, which are determined by effluent type (listed in A.1.) and rainfall event, listed in Table I Alternate Storm Limitations.

   (c) The permittee shall have the burden of proof that the discharge or increase in discharge was caused by the applicable rainfall event. This shall be verified by the use of a rainfall gauge located within three miles of the discharge point and last emptied no more than twenty-four hours prior to the time the sample was taken. Automated rain gauges may also be utilized. The sampling date and amount of rainfall measured by the gauge shall be reported on the Discharge Monitoring Report(DMR).

5. The rainfall gauge shall be located within three miles of the discharge point and last emptied not more than 24 hours prior to the time the sample was taken. Automated rain gauges may also be utilized. The sampling date and amount of rainfall measured for the 24-hour period of the sample being collected shall be reported on the Discharge Monitoring Report(DMR) for each DMR reported.

6. SUBMISSION OF DISCHARGE MONITORING REPORTS (DMRs):
   (a) Permittee shall submit each quarter, according to the enclosed format, a Discharge Monitoring Report (DMR) indicating the values of the constituents listed in Part A, to be in the discharge measured at the specific compliance points. All analyses must be determined by methods required in 40 CFR Part 136.

   (b) The required quarterly reports shall be postmarked no later than twenty (20) days following the end of the reporting period and shall be sent to:

   **West Virginia Department of Environmental Protection**
   **Division of Mining & Reclamation / HPU / NPDES Section**
   **601 57th Street SE**
   **Charleston, West Virginia 25304**

   (c) Enter reported average and maximum values under Quantity and Concentration in the units specified for each parameter, as appropriate.

   (d) Specify the number of analyzed samples that exceed the allowable permit conditions in the columns labeled N.E. (i.e. number exceeding).

   (e) Specify frequency of analysis of each parameter as number of analyses/specified period (e.g. 3/month is equivalent to 3 analyses performed every calendar month). If continuous enter Cont. The frequency listed on format is the minimum required. Notwithstanding the frequency of sampling/analyses, there must be at least 10 calendars days between two of the sampling/analyses.

   (f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic means unless otherwise specified in the permit. "No discharge" or "no flow" cannot count as a sample collected for calculating the arithmetic average when reporting the monthly average limit or averaging of measurement for reporting purposes.

7. Any "not detected (ND)" results by the permittee must be "ND" at the method detection limit (MDL) for the test method used for that parameter and must be reported as less than the MDL used. The permittee may not report the result as zero, "ND", or report the result as less than a minimum level (ML), reporting limit (RL), or practical quantitation limit (PQL).

   When averaging values of analytical results for DMR reporting purposes for monthly averages, the permittee should use actual analytical results when these results are greater than or equal to the MDL and should use zero (0) when these results are less than the MDL. If all analytical results are non-detect at the MDL (<MDL), then the permittee should use the actual MDL in the calculation for averaging and report the results as less than the average calculation.

8. In incidences where a specific test method is not defined, the permittee shall utilize an EPA approved method with a method detection limit (MDL) sensitive enough to confirm compliance with the permit effluent limit for that parameter. If a MDL is not sensitive enough to comfirm compliance, the most sensitive approved method must be used. If a more sensitive EPA approved method becomes available, that method shall be used. Should the current and/or new method not be sensitive enough to confirm compliance with the permitted effluent limit, analytical results reported as "not detected" at the MDL of the most sensitive method available will be deemed compliant for purposes of permit compliance. Results shall be reported on the Discharge Monitoring Reports as a numeric value less than the MDL.

## TABLE 1
## ALTERNATE STORM LIMITATIONS

| EFFLUENT TYPES | DRY WEATHER | DCP* | 1 YEAR - 24 HOUR | 2 YEAR - 24 HOUR | 10 YEAR - 24 HOUR |
|---|---|---|---|---|---|
| **ACID OR FERRUGINOUS CATEGORIES** | | | | | |
| a. Discharges from underground workings of underground mines not commingled | TSS pH Iron Flow Manganese WQBEL*** | (NO ALTERNATE LIMITATIONS) | | | |
| b. Discharges from underground workings of underground mines commingled | TSS pH Iron Flow Manganese WQBEL*** | | | | Flow pH WQBEL*** |
| c. Controlled surface mine drainage (except steep slope and mountaintop removal) | TSS pH Iron Flow Manganese WQBEL*** | | | | Flow pH WQBEL*** |
| d. Non-controlled surface mine drainage (except steep slope and mountaintop removal) | TSS Iron Flow pH Manganese WQBEL*** | SS** pH Iron Flow Manganese WQBEL*** | | SS** pH Flow WQBEL*** | Flow pH WQBEL*** |
| e. Discharges from coal refuse disposal areas | TSS pH Iron Flow Manganese WQBEL*** | | Flow SS** pH WQBEL*** | | Flow pH WQBEL*** |
| f. Discharges from steep slope and mountaintop removal areas | TSS Iron Flow pH Manganese WQBEL*** | Flow SS** pH WQBEL*** | | | Flow pH WQBEL*** |
| g. Discharges from preparation plants and preparation plant associated areas (excluding coal refuse piles) | TSS Iron Flow pH Manganese WQBEL*** | Flow SS** pH WQBEL*** | | | Flow pH WQBEL*** |
| h. Discharges from reclamation areas | Flow SS** pH WQBEL*** | | | | Flow pH WQBEL*** |
| **ALKALINE CATEGORY** | | | | | |
| i. Discharges from underground workings of underground mines not commingled | TSS ph Iron Flow WQBEL*** | (NO ALTERNATE LIMITATIONS) | | | |
| j. Alkaline Mine Discharges | TSS Iron Flow pH WQBEL*** | Flow SS** pH WQBEL*** | | | Flow pH WQBEL*** |
| k. Reclamation areas | Flow SS** pH WQBEL*** | | | | Flow pH WQBEL*** |
| **WATER QUALITY BASED LIMITS** | | | | | |
| l. Water quality based effluent limits | TSS Flow pH WQBEL*** | SS** pH Flow WQBEL*** | | | |
| m. Bathhouse & Sewage | (NO ALTERNATE LIMITATIONS) | | | | |

DCP* -- Discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period
SS** -- Settleable Solids
WQBEL*** -- All Parameters with calculated Water Quality Based Effluent Limits

County: Boone 1-Year 02.38 2-Year 02.72 10-Year 03.96

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the following interim requirements with the discharge limitations specified in this permit in accordance with the following schedule:

| Interim Requirement | Completion Date |
|---|---|
| Effective date of this permit | |

2. Reports of compliance or non-compliance with, and progress reports on the interim and final requirements contained in the above compliance schedule shall be submitted no later than fourteen (14) days following each schedule date.

N/A

C. TERMS AND CONDITIONS INCORPORATED BY REFERENCE TO THE WV NPDES REGULATIONS FOR COAL MINING AND FACILITIES, TITLE 47, SERIES 30.

5.1 Duty to Comply, Penalties

5.2 Duty to Reapply

5.3 Duty to Halt or Reduce Activity

5.4 Duty to Mitigate

5.5 Proper Operation and Maintenance

5.6 Permit Actions

5.7 Transfer

5.8 Property Rights

5.9 Duty to Provide Information

5.10 Inspection and Entry

5.11 Monitoring and Records

5.12 Signatory Requirements

5.13 Reporting Requirements

5.14 Bypass

5.15 Upset

5.16 Reopener Clause

5.17 Removed Substances

5.18 New Sources (if applicable)

5.19 Definitions

D. OTHER REQUIREMENTS

1. REPORTING SPILLS AND ACCIDENTAL DISCHARGES

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 established pursuant to Series 3, Section 1 of the Environmental Quality Boards regulations.

Attached is a copy of the West Virginia Spill Alert System for use in complying with Series 3, Section 1 of the regulations as they pertain to the reporting of spills and accidental discharges.

2. HAULAGEWAYS AND ACCESS ROADS

Haulageways and access roads shall be constructed and maintained in accordance with best management practices including, but not limited to, the performance standards contained in Title 38, Series 2, Section 4 of the West Virginia Surface Mining Reclamation Regulations.

3. RECEIVING STREAMS

The receiving streams shall be monitored by grab samples as required at the stream sampling points listed below, and the samples shall be analyzed for the parameters listed below. The flow of the stream shall also be estimated at the time of monitoring. Monitoring shall be done approximately at the same time as the discharge points are monitored as required under Section A of this permit. A quarterly report of the stream monitoring and flow shall be sent to the NPDES section in Charleston, on the enclosed forms along with the reports required under Section A. Based upon the stream monitoring flow data, water quality standards or other information, the Department may at any time modify the effluent limits in Section A of this permit for any of the discharge points if necessary, to insure compliance with water quality standards.

| STREAM STATION | LATITUDE | LONGITUDE | ELEV. |
|---|---|---|---|
| DRF | 38° 12' 13.0000" | 81° 45' 54.0000" | 730 |
| | Parameters: Flow/ Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS) | | |
| RF-BAS-1 | 38° 11' 53.6300" | 81° 45' 38.5100" | 788 |
| | Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Alkalinity, Total/ Total Suspended Solids/ Calcium, Total (as Ca)/ Magnesium,Tot (as Mg)/ Sodium,Total (as Na)/ Potassium, Total (as K)/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS) | | |
| RF-BAS-2 | 38° 11' 50.8100" | 81° 45' 39.0200" | 810 |
| | Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Alkalinity, Total/ Calcium, Total (as Ca)/ Magnesium,Tot (as Mg)/ Sodium,Total (as Na)/ Potassium, Total (as K)/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS) | | |

4. SURFACE MINES

If the coal mining operation has been granted Phase II revegetation release and all discharge points have been eliminated during the period this permit is in effect, the discharge limitations and monitoring requirements in Section A and Section D.3 stream monitoring shall not apply. The coal mining operation shall be maintained in accordance with best management practices including, but not limited to the applicable performance standards contained in Title 38, Series 2, West Virginia Mining Reclamation Regulation until the associated performance bond has been final released.

5. STORM WATER DISCHARGES

Such discharges shall comply with the applicable Water Quality Standards in 47 CSR 2. Activities consisting of discharges of storm water runoff or snow melt composed entirely of flows which are from conveyances used for collecting and conveying precipitation runoff, in accordance with 47 CSR 30, Section 3.1.a.6 and are authorized under Chapter 22, Article 3, are authorized by this permit. Such storm water discharges shall not involve any mineral removal, pumping of storm water, or storm water runoff commingled with mine drainage, refuse drainage, coal stockpile areas, preparation plant areas, loading areas or unloading areas. The activities shall be constructed and maintained in accordance with the issued Article 3 Permit Revision including incidental boundary revisions and with the best management practices and performance standards contained in 38 CSR 2 and Chapter 22, Article 3. These storm water discharges are authorized under this Condition upon issuance of the associated Article 3 application for the life of this permit. Updated NPDES permit application information will be submitted in the next reissuance application for activities covered under this Condition. The Director reserves the right to require any permittee to submit a NPDES modification when the Director determines that such receiving stream will be better protected by an individual NPDES modification.

6. SPECIAL EFFLUENT CHARACTERIZATION CONDITION

The permittee must perform Table 2-IV-A, B, C analyses within two (2) years of commencement of a new discharge. The permittee is also required to identify and analyze any potential pollutants not covered under 2-IV-A, B, C analyses which may be present due to use, manufacturing or byproduct. Representive outlets are acceptable for discharges which receive drainage from similar mining activities and are of the same outlet type. Two (2) copies of the Table 2-IV-A, B and C analyses and any additional potential pollutant analyses must be submitted to the regional office Permit Supervisor and Inspector Supervisor within two (2) years of commencement of discharge.

7. REOPENER CLAUSE

This permit may be reopened and modified, suspended, revoked and reissued or revoked at any time if information becomes available and demonstrates that the established controls do not attain and maintain the narrative water quality criteria at 47 CSR 3.2.e and 47 CSR 3.2.i.

8. BIO-MONITORING

The permittee shall conduct annual benthic survey(s) at the location of each biological monitoring station listed below. The benthic survey(s) shall be conducted between the dates of April 15th to October 15th. All biological survey(s) should be conducted as close to the anniversary date of the original survey as possible. The benthic survey shall be in accordance with the established and accepted protocols for the collection, analysis, documentation and presentation of biological data from Standard Conditions for Environment Assessments on Wadable Streams provided with the WVDNR Scientific Collection Permit and WVDEP's West Virginia Stream Condition Index ("WVSCI") protocol.

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 (currently 68), 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.

Biological Monitoring Stations:

| Station | Latitude | Longitude |
|---|---|---|
| x | | |
| RF-BAS-1 | 38° 11' 53.6300" | 81° 45' 38.5100" |
| RF-BAS-2 | 38° 11' 50.8100" | 81° 45' 39.0200" |

Within 90 days after conducting the benthic survey the permittee shall provide:

a. The West Virginia Stream Condition Index (WVSCI) benthic score (0 to 100 basis) and supporting metrics necessary for its calculation.

b. The corresponding stream habitat assessment scores RBP Visual-Based Habitat Assessment (0 to 200 basis) for the benthic stations.

c. Concurrent in-stream samples for specific conductivty, total dissolved solids (TDS), pH, sulfate, alkalinity, calcium, magnesium, sodium and potassium must be taken at the same locations along with the benthic samples.

d. Representative legible photography of the survey sites.

e. A narrative Executive Summary / Abstract stream characterization utilizing the benthic and habitat scores, water quality, photos, field work and other applicable information such as tier level, warm-water class, stream order, major/minor basins, pre-law mining impacts, logging activites, other land uses, etc.

(f) Benthic macroinvertebrate data. Data shall be entered into the Access database (Contractv3.4 or 3.5) provided to holders of WV Scientific Collection Permits. Data shall be submitted via the export queries built into the database. Minimum data to be provided: WVSCI score and associated metrics; raw data (identifications and count); and number of grids picked in order to get 200 organism subsample. Also, habitat and water quality data must be submitted via the export queries into the database.
All information to be provided shall be sent to the issuing WVDEP Regional Office - NPDES Supervisor and Environmental Resources Analyst and to WVDEP Headquarters (Address: West Virginia Department of Environmental Protection, DMR - NPDES Environmental Resources Analyst, 601 57th Street S. E. , Charleston,
WV 25304).

9. WHOLE EFFLUENT TOXICITY LIMITS

The permittee shall quarterly perform chronic toxicity tests as described below, on the effluent from Outlet(s) 001

a. Such testing will determine if an appropriate dilute effluent sample affects the survival or reproduction of the test species. Grab samples of the effluent, as prescribed in Section A, shall be collected for testing. The first day of sampling must be limited to when there has been less than 0.3 inches of rain in the three days prior to sampling and less than 0.1 inches of rain in the 24 hours prior to sampling (this only applies to the first grab sample of the test). An appropriate statistical test shall be used to determine whether differences in control and effluent data are significant.

The permittee shall conduct a three brood (6-8 days) Ceriodaphnia Dubia survival and reproduction toxicity test on the final effluent diluted by appropriate control water. Toxicity will be demonstrated if there is a statistically significant difference at the 95 percent confident level in survival or reproduction between Ceriodaphnia Dubia exposed to an appropriate control water and the final effluent. All test solutions shall be renewed using an approved renewal schedule. DEP requires TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in WET testing. If, in any control, more than 20% of the test organisms die, or less than 60% of surviving females in controls produced their third brood, that test shall be repeated.

b. Results shall be reported in terms of chronic toxic units (TUc) and shall be submitted with the corresponding monthly Discharge Monitoring Report (DMR).

TUc = 100/NOEC or NOEL

Where NOEC (or NOEL) is No Observed Effect Concentration (or Level), which is expressed as Percent (volume) effluent in dilution water. For Example, if NOEC is 10%, TUc= 100/10=10

When the effluent demonstrates no toxicity at 100% effluent (no observed effect), the permittee may report zero TUc.

c. The monitoring required, herein, shall be conducted in accordance with the sample collection, preservation, and analytical procedures specified in 40 CFR 136.

d. In addition to the monitoring data reporting requirements of 40 CFR 136, the exact age of the test organisms at the initiation of the test shall be reported. The range of the Ceriodaphnia Dubia used must be reported as a range in hours. All Ceriodaphnia Dubia used in the test must be less than 24 hours of age at test commencement. The age difference between the youngest and oldest Ceriodaphnia Dubia used in the test must not exceed eight(8) hours.

e. The chronic toxicity testing shall be performed on a quarterly (1/quarter) basis with at least thirty (30) days between tests. The first chronic toxicity testing shall be carried out within 3 months from the construction of the above specified Outlet(s).

f. If chronic effluent toxicity testing shows noncompliance with the specified limitations prescribed in Section A, the permittee shall immediately resample and test the effluent. This shall be performed within 30 days of the initial demonstration of noncompliance with the whole effluent toxicity discharge limitations prescribed herein. Copies of the retesting results shall be provided to the Director immediately upon completion of the test.

g. If the second test shows compliance, chronic effluent toxicity testing shall continue in accordance with the requirements, as prescribed herein. However, if the second test shows noncompliance, the permittee must, within 60 days, submit an adaptive management plan (AMP) identifying actions it will take to achieve compliance with the WET discharge limitations.

h. The Director may impose further requirements should the chronic effluent toxicity testing results demonstrate noncompliance.

All information to be provided shall be sent to the issuing WVDEP Regional Office - NPDES Supervisor and Environmental Resources Analyst and to WVDEP Headquarters (Address: West Virginia Department of Environmental Protection, DMR - NPDES Program Manager, 601 57th Street S. E. , Charleston, WV 25304).

The herein-described activity is to be extended, modified, added to, made, enlarged, acquired, constructed or installed, and operated, used and maintained strictly in accordance with the terms and conditions of this permit; the plans and specifications submitted with Permit Application No. WV1025074, completed the 01 day of October 2012; the information submitted with the application for Reissuance No. N/A completed the N/A day of N/A N/A, with the plan of maintenance and method of operation thereof submitted with such application(s) with the WVNPDES Regulations, Series 30 and with any applicable rules and regulations promulgated by the State Environmental Quality Board.

Failure to comply with the terms and conditions of this permit, with the plans and specifications submitted with Permit Application No. WV1025074, completed the 01 day of October, 2012, with the information submitted with Application No. for Reissuance No. N/A completed the N/A day of N/A, N/A and with the plan of maintenance and method of operation thereof submitted with such application(s) shall constitute grounds for the revocation or suspension of this permit and for the invocation of all the enforcement procedures set forth in Article 11, Chapter 22 of the code of West Virginia.

This permit is issued in accordance with the provisions of Article 11, Chapter 22 of the Code of West Virginia and is transferable under the terms of WVNPDES Regulations, Series 30, Subsection 3.5.c.

## RIGHT TO APPEAL

Notice is hereby given of your right to appeal the terms and conditions of this agency action as provided under West Virginia Code § 22-11-21. Pursuant to the provisions of § 22B-1-7(c), a person subject to this action (permittee) may file an appeal to the Environmental Quality Board (EQB) within 30 days of being served notice of such agency action. For other parties (citizens) adversely affected or aggrieved by this action, an appeal may be filed to the EQB within 30 days after the date upon which service was complete to the subject person "(permittee)". Such Notice of Appeal shall be sent to the EQB on the form prescribed by the Board.

West Virginia Environmental Quality Board
601 57th Street, SE
Charleston, West Virginia 25304

# RATIONALE PAGE

NPDES Number: WV1025074 (NPD-1) County: Boone

Company Name: COAL RIVER MINING, LLC

Facility Name: Preparation Plant Utility Area

SMA/Permit No.: 0500711(SMA)

Other Apps:

Date of Draft: 10/01/2012

Permit Writer: Melissa Johnson

Region: Logan

1. New or expanded discharge? **YES**

2. Facility eligible for General Permit? **NO**

3. Basis for effluent limitation:

A. Determine uses of each receiving stream.

| Stream Uses | Stream Name |
|---|---|
| 1 | RIVER FK |

B. Parameters of concern:

| | | | | | |
|---|---|---|---|---|---|
| **YES** | pH | **YES** | Fe | **YES** | Mn |
| **YES** | Al (D) | **YES** | Al (T) | **YES** | Others |

Specify Others: Se

C. Justification Review: Coal River Mining, LLC proposes the Preparation Plant Utility Area Refuse Facility, a slurry impoundment using the downstream construction technique. The impoundment will be receiving refuse from the No. 2 Gas, Stockton, & Coalburg coal seams. It is located in River Fork of Fork Creek of the Big Coal River and is 3.5 miles northwest of Costa, WV in Boone County.

Currently Coal River Mining operates both surface and deep mine operations which require processing. Coal River Mining's approved Cherry Tree Impoundment has been in operation and has a remaining capacity to accept fine refuse for approximately 48 months or less. This additional coal refuse facility will be necessary for Coal River Mining to continue its mining operation and mine plan for the next 15 to 20 years currently employing 400 + employees.
The project will include one instream outlet (001) to monitor any discharges from the disturbed area. Baseline water quality (BWQ) was established in the stream that would receive drainage from this proposed operation for the purpose of conducting an anti-degradation review. The location of the BWQ station was selected using WCMS (Watershed Characterization Modeling System) in Arc GIS. WCMS is a major tool developed for WVDEP through West Virginia University. Stream segments are designated as HUC 14 +2 reachsheds. One BWQ station was established for the proposed one (001) outlet discharging effluent into its respective reachshed. Water samples were collected over at least a six month period utilizing precipitation induced collection procedures in accordance with West Virginia's Anti-degradation Implementation Procedures and Guidance. All BWQ samples were collected and analyzed by a state certified lab for pH, Iron, Manganese, Total Aluminum, Dissolved Aluminum, and Selenium. These parameters were selected as parameters of concern by the following reasons. Since this is a new coal mining operation, the NPDES limits must be established in accordance with the New Source Effluent Limitation Guidelines (ELGs) as mandated in 40 CFR 434. Flow, pH, Iron, Manganese, TSS and settleable solids are the minimum required parameters established under the ELGs established under 40 CFR 434. Aluminum was considered a parameter of concern for coal mining discharges in the middle to late 1990's and has been included in WV NPDES permits since 2002. Both total and dissolved aluminum are required in the BWQ collection. Since the State's standard for aluminum is in the dissolved form, it must be converted (translated) into total, as required by EPA under the NPDES monitoring and reporting programs. Selenium was considered a "suspected" parameter of concern primarily due to the coal seams being in the Upper Kanawha Formation, namely between the Winifrede and the Upper 5-Block. Selenium was considered a suspected parameter of concern primarily due to the coal seams being in the Upper Kanawha Formation, namely between the Winifrede and the Upper 5-Block.

BWQ LORF-1 is assigned to Reachshed Id. 05050009001004-50 in River Fork and was used as 3rd Permit In for in-stream outlet 001.
Total Iron Limits - 1.42 mg/L (AML) & 2.46 mg/L (MDL)

Total Manganese Limits - 2.00 mg/l (AML) & 3.47 mg/L (MDL)

Total Aluminum Limits - 0.96 mg/L (AML) & 1.66 mg/L (MDL)

Total Selenium Limits - 4.7 µg/L (AML) & 8.2 µg/L (MDL)

APPLICABILITY OF WV NARRATIVE WATER QUALITY STANDARDS
In accordance with the Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standard, and to satisfy EPA's related concerns and objections to other similar permitting actions, this permit contains a Special Effluent Characterization Condition, Bio-Monitoring, Whole Effluent Toxicity Limits and a Reopener Clause.

Bio-Monitoring - The permit contains bio-monitoring at two Biological Assessment Stations (BAS) upstream and down-stream of the impoundment location. Benthic surveys shall be conducted annually between the dates of April 15th and October 15th as close to the anniversary date of the original survey as possible. The benthic survey shall be in accordance with the established and accepted protocols for the collection, analysis, documentation and presentation of biological data from Standard Conditions for Environment Assessments on Wadable Streams provided with the WVDNR Scientific Collection Permit and WVDEP's West Virginia Stream Condition Index ("WVSCI") protocol. 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 (currently 68.0), 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 affect, a WVSCI score greater than or equal to the baseline value would represent an acceptable future condition.

Whole Effluent Toxicity (WET) Limits- In accordance with 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", in-stream outlet 001 in this permit has been presumed to have reasonable potential. WET limits have been assigned to these outlets in this permit, as prescribed by 40 C.F.R. § 122.44(d)(1)(v). The permittee shall quarterly perform chronic toxicity on the effluent from Outlet 001. The USEPA's Technical Support Document (TSD) as well as West Virginia's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards" requires use of the most sensitive available surrogate organism (ceriodaphnia dubia) for chronic toxicity testing of effluents. In addition, TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in the WET testing have been required.

Reopener Clause - This permit may be reopened and modified, suspended, revoked and reissued and revoked at any time if information becomes available and demonstrates that the established controls do not attain and maintain the narrative water quality criteria at 47 CSR 3.2.e and 47 CSR 3.2.i.

4. Types of effluent limitations:

**Technology** Based Outlets (0):

**Water Quality** Based Outlets (1): 001

**Best Professional Judgement** Based Outlets (0):

**Special** Outlets (2): RF-BAS-1, RF-BAS-2

**Ammonia** Outlets (0):

**Sewage** Outlets (0):

Additional Comments: /

5. Special Conditions or other monitoring requirements:

**Stream** Monitoring: DRF, RF-BAS-1, RF-BAS-2

**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

NOV 14 2012

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

Re: NPDES Permit No.WV1025074 – New
Coal River Mining, LLC
Preparation Plant Utility Area
SMCRA No. O500711
EPA Receipt Date – October 15, 2012

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 draft permit cited above.

Coal River Mining, LLC proposes to construct and operate the Preparation Plant Utility Area Refuse Facility. The project includes one (1) in-stream outlet. The West Virginia Department of Environmental Protection (WVDEP) presumes in the draft permit that the discharge from the not-constructed slurry impoundment outfall will have reasonable potential to cause or contribute to violations of narrative water quality criteria. The draft permit proposes to address the reasonable potential to cause or contribute to excursions from the narrative water quality criteria at these outfalls primarily by including Whole Effluent Toxicity (WET) monitoring and limits using the organism *Ceriodaphnia dubia (C. dubia),* monitoring for conductivity, total dissolved solids, and sulfates, and a narrative condition based on instream biology.

Baseline West Virginia Stream Condition Index (WVSCI) scores reported for this permit ranged from 77.47 to 78.49, indicating high quality receiving streams. Note that as required by 40 C.F.R. 122.44(d)(1), all permits must include limitations sufficient to achieve narrative and numeric water quality standards. Part D.8 of the draft permit defines a threshold at which biological conditions are considered acceptable (see below for our comments regarding how the acceptable biological condition is defined). As such, the condition should be constructed to protect instream water quality as measured by the biological score. Failure to maintain the

defined acceptable biological condition does not appear to constitute a permit violation. As drafted, in the event that the defined acceptable biological condition is not maintained, the permittee is required only to assess sources in the watershed. We recommend that the permit language be revised to clarify that failure to maintain the defined acceptable biological condition is a violation of the permit.

Additionally, we recommend the following:

- Please include a permit condition that requires that the permittee submit quarterly reports to the West Virginia Department of Environmental Protection (WVDEP) on the adequacy of the performance of the AEPP and whether revisions are needed.

- Biological monitoring should be conducted twice per year and reports will be submitted within 90 days of data collection, as an addendum to Section D.8 of the permit.

Please consider these comments prior to issuance of the permit. If you have any questions, please do not hesitate to contact me at 215/814-5717.

Sincerely,

Evelyn S. MacKnight

Evelyn S. MacKnight, Chief
NPDES Permits Branch (3WP41)
Water Protection Division

*Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.*
*Customer Service Hotline: 1-800-438-2474*

west virginia department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304
Phone: (304)-926-0499

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

February 6, 2013

Evelyn S. MacKnight, Chief
NPDES Permits Branch (3WP41)
Water Protection Division
U. S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

**Re: WVNPDES No. WV1025074 – NEW**
**Coal River Mining, LLC**
**Preparation Plant Utility Area**
**SMCRA No. O-5007-11**

Dear Ms. MacKnight:

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 our response to your comments received from you on November 14, 2012 and a copy of the final issued permit.

**Biological Condition Language** –

**Comment:**

> "*Part D.8 of the draft permit defines a threshold at which biological conditions are considered acceptable (see below for our comments regarding how the acceptable biological condition is defined). As such, the condition should be constructed to protect instream water quality as measured by the biological score. Failure to maintain the defined acceptable condition does not appear to constitute a permit violation. As drafted, in the event the defined acceptable biological condition is not maintained, the permittee is required only to assess sources in the watershed. We recommend that the permit language be revised to clarify that failure to maintain the defined acceptable biological condition is a violation of the permit*".

**Response:**

The permit includes whole effluent toxicity limitations to protect the narrative standard, in addition to the biological condition. In applying the biological condition, permit writers are cautioned to be aware that a single point in the stream may not represent the overall health of the aquatic ecosystem. The Permitting Guidance Document states that:

> *"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.".*

With this stated, to make a number (WVSCI score) other than what is defined as an "acceptable future biological condition" being a violation of the permit is not how West Virginia has interpreted its' narrative water quality standards in the State's Permitting guidance Document. Upon discovery of a condition in the stream that does not meet the requirements of "acceptable future biological condition" WVDEP will follow this permitting guidance and utilize it's best professional judgment in making the "holistic" determination whether an unacceptable condition or violation of the permit exists.

WVDEP believes this is correct and not only in accordance with the Permitting Guidance Document but also follows the intent of the West Virginia Legislature as outlined in Senate Bill No. 562 enacted by the Legislature of West Virginia.

> *"(f) The secretary shall propose rules measuring compliance with the biologic component of West Virginia's narrative water quality standard requires evaluation of the holistic health of the aquatic ecosystem and a determination that the stream: (i) Supports a balanced aquatic community that is diverse in species composition; (ii) contains appropriate trophic levels of fish, in streams that have flows sufficient to support fish populations; and (iii) the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities within the assessed reach, or, if the assessed reach has insufficient flows to support a fish community, in those downstream reaches where fish are present. The secretary shall propose rules for legislative approval in accordance with the provisions of article three, chapter twenty-nine-a of this code that implement the provisions of this subsection. Rules promulgated pursuant to this subsection may not establish measurements for biologic components of West Virginia's narrative water quality standards that would establish standards less protective than requirements that exist at the time of enactment of the amendments to this subsection by the Legislature during the 2012 regular session."*

Additionally, this permit includes a "Reopener Clause" which states "*This permit, in accordance with 47 CSR 30.5.16, may be reopened and modified, suspended, revoked and reissued or revoked at any time if information becomes available and demonstrates that the established controls do not attain and maintain the narrative water quality criteria at 47 CSR 2.3.2.e and 47 CSR 2. 3.2.i.*". If at any time the permit does not protect the narrative water quality standards as intended, the reopener gives WVDEP the right to reopen and place any controls deemed necessary to protect West Virginia's narrative water quality standards.

**Comment:**

> *"Biological monitoring should be conducted twice per year and reports will be submitted within 90 days of data collection , as an addendum to Section D.* of the permit."*

**Response:**

This permit is written in accordance with 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*" and no

changes are required. The permit requires annual biological monitoring and report submittal within 90 days after conducting the benthic survey.

**AEPP-**

**Comment:**

*"Please include a permit condition that requires that the permittee submit quarterly reports to the West Virginia Department of Environmental Protection (WVDEP) on the adequacy of the performance of the AEPP and whether revisions are needed."*

**Response:**

As an alternative to the reporting EPA suggests, the WVDEP uses a combination of its inspection and enforcement function and other perit conditions to assure the control measures described in the AEPP are working as anticipated.

BMP's - Many of the control measures outlined in the AEPP are related to onsite best management practices and these onsite controls are addressed in the mining permit issued pursuant to the West Virginia Surface Coal Mining & Reclamation Act ("Article 3 permit"). The BMP's are included in the AEPP for reference of the NPDES review. These BMP's are monitored by the inspection and enforcement staff throughout the life of the permit with on-site inspections conducted at least on a monthly basis.

Whole Effluent Toxicity – Outlet 001 in this permit requires whole effluent toxicity (WET) testing and compliance with final effluent limitations. This testing is to be conducted quarterly and discharge monitoring reporting (DMR) of the results quarterly.

Chemical Monitoring – This permit has numeric effluent limitations assigned to outlet 001. The permit requires semi-monthly sampling and quarterly DMR reporting.

Biological Monitoring – as stated previously, this permit requires annual biological monitoring and report submittal within 90 days after conducting the benthic survey

As outlined above, there are multiple items with required reporting and/or inspection at the frequency you suggest in this permit and to require an additional report on the same information would be redundant and unnecessary. Therefore, no additional reporting was required for this permit.

If you have any questions or comments, please do not hesitate to contact me at (304) 926-0499 Extension 1564 or by mail at 601 57th Street SE, Charleston, WV 25304.

Sincerely,

Jeff Parsons
DMR/HPU

cc: Coal River Mining, LLC
NPDES Permit Supervisor – Logan Regional Office