COMMONWEALTH OF VIRGINIA
Department of Mines, Minerals and Energy
Division of Mined Land Reclamation

NPDES Permit Number: 0081981
Associated CSMO Permit Number: 1101981
Permit Application Number: 1008465

Permit Original Issue Date: 04/23/1998
Application Approval Date: 10/23/2015
Expiration Date: 04/23/2018

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND
THE VIRGINIA STATE WATER CONTROL LAW

Pursuant to Authority under Section 45.1 -254 of the Code of Virginia, as amended, and the Virginia Pollutant Discharge Elimination System (VPDES) Regulation, Part X - Delegation of Authority to the Department of Mines, Minerals and Energy for Coal Surface Mining Operations (9VAC25-31-940), the following owner is authorized to discharge from the facility listed below in compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto and in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A, B, C, and D of this permit and the plans and requirements found in joint CSMO/NPDES permit number 1101981/0081981 and any and all subsequent approved permitting actions. For the purpose of this permit, NPDES and VPDES permits are synonymous.

Owner:	TWIN STAR MINING, INC.
Facility Name:	SYCAMORE STRIP
County:	BUCHANAN
Facility Location:	3 MILES NE OF HURLEY ON UPPER ELK CREEK

The owner is authorized to discharge to the following receiving streams:

Stream Name	Stream Basin	Stream Subbasin	Stream Tier
KERSHAW BRANCH	BIG SANDY	TUG FORK - KNOX CK	Tier I
SYCAMORE FORK	BIG SANDY	TUG FORK - KNOX CK	Tier I
UPPER ELK CREEK	BIG SANDY	TUG FORK - KNOX CK	Tier I
PUMPKIN BRANCH	BIG SANDY	TUG FORK - KNOX CK	Tier I

Randy R. Carey
Director, Division of Mined Land Reclamation

11/30/15
Date

Permit Contents

The complete joint CSMO/NPDES permit consists of the following:

I. The approved CSMO/NPDES Permit Application, and any and all subsequent approved permit revisions, renewals, midterms, anniversary reports, completion reports, and DMLR administrative actions.

II. The CSMO/NPDES Permit Document, including
Permit Signature Page
Section A – Effluent Limitations and Monitoring Requirements
Section B – Schedule of Compliance (if applicable)
Section C – Standard Terms and Conditions
Section D – Other Requirements

Facility Information

Permittee Name: TWIN STAR MINING, INC.
Address: P. O. BOX 40
City: WHARNCLIFFE **State:** WV **Zip:** 25651
Facility: SYCAMORE STRIP
Total permit acres: 473.49,(BUCHANAN)

Application Information:

Application Type: RENEWAL C/N

Application Description: CSMO/NPDES Permit Renewal which also changes the location of the rain gauge. (EP on EF)

NPDES Outfall Description:

NPDES outfalls associated with this permit result from the control of surface water runoff resulting from precipitation and/or groundwater discharges from coal mining activities associated with mining. Treatment facilities may include sedimentation structures, chemical treatment such as the addition of neutralizing agents or flocculants, or no treatment (in the case of direct discharge of underground mine drainage when treatment is not required to meet applicable effluent limitations). The following details describe the treatment facility or source associated with each approved outfall. Specific information regarding each outfall and facility is found in Section V and Section XII of the CSMO/NPDES permit.

Section A
Permit Requirements

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall	*Chron WET Monthly Avg*	*Chron WET AEL*	*Chron WET Sample Interval*	*Chron WET Sample Rate*
001-SB-1 (RWETMR)	NL TUc	NA	Quarter	1
SC-13-SC-13	NA	NA	Quarter	1
SC-14-SC-14	NA	NA	Quarter	1
SC-16-SC-16 (RMR)	NA	NA	Quarter	1
SC-17-SC-17	NA	NA	Quarter	1
SC-18-SC-18	NA	NA	Quarter	1
SC-19-SC-19	NA	NA	Quarter	1
SC-20-SC-20	NA	NA	Quarter	1
SC-21-SC-21	NA	NA	Quarter	1
SC-22-SC-22	NA	NA	Quarter	1
004-SB-4	NA	NA	Quarter	1
SC-9-SC-9	NA	NA	Quarter	1
SC-10-SC-10	NA	NA	Quarter	1
002-SB-2	NA	NA	Quarter	1

Outfall	*Selenium Monthly Avg*	*Selenium Max*	*Selenium AEL*	*Acute WET Monthly Avg*	*Acute WET AEL*	*Acute WET Sample Interval*	*Acute WET Sample Rate*
001-SB-1 (RWETMR)	NL ug/L	NL ug/L	NA	NL TUa	NA	Quarter	1
SC-13-SC-13	NA	NA	NA	NA	NA	Quarter	1
SC-14-SC-14	NA	NA	NA	NA	NA	Quarter	1
SC-16-SC-16 (RMR)	RMR ug/L	NA	NA	NA	NA	Quarter	1
SC-17-SC-17	NA	NA	NA	NA	NA	Quarter	1
SC-18-SC-18	NA	NA	NA	NA	NA	Quarter	1
SC-19-SC-19	NA	NA	NA	NA	NA	Quarter	1
SC-20-SC-20	NA	NA	NA	NA	NA	Quarter	1
SC-21-SC-21	NA	NA	NA	NA	NA	Quarter	1
SC-22-SC-22	NA	NA	NA	NA	NA	Quarter	1
004-SB-4	NL ug/L	NL ug/L	NA	NA	NA	Quarter	1
SC-9-SC-9	NA	NA	NA	NA	NA	Quarter	1
SC-10-SC-10	NA	NA	NA	NA	NA	Quarter	1
002-SB-2	NL ug/L	NL ug/L	NA	NA	NA	Quarter	1

Outfall	*TDS Monthly Avg*	*TDS Max*	*TDS AEL*	*Iron Monthly Avg*	*Iron Max*	*Iron AEL*	*Manganese Monthly Avg*	*Manganese Max*	*Manganese AEL*
001-SB-1 (RWETMR)	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-13-SC-13	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-14-SC-14	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-16-SC-16 (RMR)	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-17-SC-17	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-18-SC-18	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-19-SC-19	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-20-SC-20	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-21-SC-21	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-22-SC-22	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
004-SB-4	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-9-SC-9	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
SC-10-SC-10	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In
002-SB-2	NL mg/L	NL mg/L	NA	3.00 mg/L	6.00 mg/L	0.2 In	2.00 mg/L	4.00 mg/L	0.2 In

Outfall	*Flow Monthly Avg*	*pH Monthly Avg*	*pH Min*	*pH Max*	*pH AEL*	*TSS Monthly Avg*	*TSS Max*	*TSS AEL*
001-SB-1 (RWETMR)	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-13-SC-13	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-14-SC-14	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-16-SC-16 (RMR)	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-17-SC-17	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-18-SC-18	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-19-SC-19	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-20-SC-20	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-21-SC-21	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-22-SC-22	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
004-SB-4	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-9-SC-9	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
SC-10-SC-10	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In
002-SB-2	NL GPM	NL Std	6.00 Std	9.00 Std	NA	35.00 mg/L	70.00 mg/L	0.2 In

The following guidance and definitions apply to all approved effluent limitations, unless specifically overridden in the tables above.
A) The collection method is to be a grab sample for all measurements except for flow, which is to be a measurement or estimation.
B) The sampling frequency for all measurements except WET measurements is to be two samples collected per calendar month, collected at least seven days apart. The sampling frequency for WET measurements is to be once per calendar quarter.
C) Monthly Avg is to be the arithmetic mean of all samples collected in a calendar month. Max is to be a daily maximum and min is to be daily minimum for all measured

parameters except for pH, which is to be measured as an instantaneous maximum and instantaneous minimum. All limits are followed by the units in which they are to be measured.

D) NL indicates monitoring is required with no limitations (No Limit). NA indicates the parameter does not apply to the particular outfall (Not Applicable).

E) The AEL (Alternate Effluent Limit) is the minimum rainfall event necessary for alternate effluent limitations to apply to the specified parameter for the given outfall.

F) RMR stands for Representative Monitoring Required. RWETMR stands for Representative Whole Effluent Toxicity Monitoring Required.

B. OTHER REQUIREMENTS

The term Department refers to the Virginia Department of Mines, Minerals, and Energy

1. This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard, limitation or prohibition for a pollutant which is promulgated or approved under Section 307(a)(2) of the Clean Water Act, if the effluent standard, limitation, or prohibition so promulgated or approved:

    a. Is more stringent than any effluent limitation on the pollutant already in the permit; or

    b. Controls any pollutant not limited in the permit.

2. This permit shall be modified or alternatively revoked and reissued if any approved waste load allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the permit requirements.

3. This permit may be modified or alternatively revoked and reissued to incorporate appropriate limits in the event effluent monitoring indicates the need for any water quality-based limits.

4. The permittee shall notify the Department as soon as they know or have reason to believe:
    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
        (1) One hundred micrograms per liter;
        (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
        (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
        (4) The level established by the Board.
    b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
        (1) Five hundred micrograms per liter;
        (2) One milligram per liter for antimony;
        (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
        (4) The level established by the Board.

5. Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner and consistent with Best Management Practices, so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

6. The permittee shall monitor the effluent that is representative of outfall(s) 001, SC-16 for the substances noted in Part II, Section A.E.2, Table 1 according to the indicated analysis

number, quantification level, sample type and frequency. The outfalls listed above may be representative of a group of substantially similar outfalls on this mining operation.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

All permittees with existing operations that have been assigned representative monitoring locations, either prior to or during the NPDES permit renewal/ modification process that have not submitted the effluent characterization data for those representative monitoring locations to the Division, must submit the monitoring data required in this section within sixty days of the issue date for the NPDES permit.

Sampling and analysis of the representative outfalls is also required at permit renewal.

The data shall be submitted with the discharge monitoring report for the final month of the calendar quarter in which the sampled discharge occurred. The data shall also be submitted with the materials required for permit reissuance.

Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The Department will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Part II, Section A.E.3, Table 1.

7. The permittee shall comply with the following reporting requirements for all Section A monitoring:

a. The quantification levels (QL) shall be less than or equal to the following concentrations:

Effluent Parameter	Quantification Level
TSS	1.0 mg/l
TDS	1.0 mg/l
Iron	1.0 mg/l
Manganese	1.0 mg/l
Selenium	2.5 µg/l

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance and quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained with

the required precision. The permittee shall use any method in accordance with Part II Section C of this permit. The permittee shall use a VELAP certified analytical laboratory for all submitted analyses.

b. **Monthly Average** -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part II Section A of this permit condition shall be determined as follows: All concentration data below the QL given in Part II Section B.7.a will be treated as zero. All concentration data equal to or above the QL used for the analysis should be treated as reported. An arithmetic average is to be calculated using all reported data for the month, including the defined zeros. This arithmetic average must be reported on the Discharge Monitoring Report (DMR). If all measured values are below the QL used for the analysis, then the arithmetic average is to be defaulted to ½ of the QL. If a quantified report is required on the DMR and the reported monthly average concentration is less than the QL, the monthly average is to be recorded as ½ of the QL value. If a quantified report is required on the DMR and the reported monthly average is greater than the QL, the actual reported data including defined zeroes is to be used along with flow data for each sample day to determine the daily averages. The monthly average is then to be reported as the arithmetic mean of the daily averages.

Daily Maximum -- Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part II Section A of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as reported. An arithmetic mean shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part II Section B.7.a), the maximum value of the daily averages shall be reported numerically as ½ of the QL. If a quantified measurement is required on the DMR and the reported daily maximum is less than the QL, the daily maximum for the measured parameter is to be reported as ½ of the given QL. In all other cases, the reported daily average concentrations (including the defined zeros) and corresponding daily flows are to be used in daily mean calculations.

Single Datum - Any single datum required shall be reported numerically as ½ of the QL if it is less than the QL used in the analysis (QL must be less than or equal to the QL listed in Part II Section A.B.7.a. above). Otherwise the numerical value shall be reported.

c. **Significant Digits --** The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

C. WHOLE EFFLUENT TOXICITY TESTING:

1. Acute Monitoring: Outfall(s) None

a. The permittee shall monitor effluent that is representative of Outfall(s) None within 6 months of approval of this NPDES permit for acute toxicity tests until there are a minimum of 4 for each test required. The permittee shall perform these tests quarterly.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

The acute tests to use are:

48 Hour Static Acute test with *Ceriodaphnia dubia* (EPA Method 2002)
48 Hour Static Acute test with *Pimephales promelas* (EPA Method 2000)

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR. The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable.

b. The test dilutions should be able to determine compliance with the following endpoint:

NOAEC = 100%

c. The permittee shall submit the following information with the results of the toxicity tests:

(1) An estimate of the total volume discharged and the duration of the discharge.
(2) The time at which the discharge was initiated.
(3) The time at which sampling was initiated.

d. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

e. The assembled data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if such evaluation is requested by the permittee or if toxicity has been demonstrated over the course of sampling.

Should evaluation of the data indicate that a limit is needed, WET limits and associated compliance schedules will be imposed and the permittee may cease the toxicity tests outlined in Part II Section C.1.a.

f. If evaluation of the assembled data results in the conclusion that no limit is needed, the permittee shall perform an acute WET test for each species of each representative outfall at permit renewal as defined on the reporting schedule contained in Part II Section C.3. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

g. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

2. Acute and Chronic Monitoring: Outfalls 001

a. The permittee shall monitor effluent that is representative of Outfalls 001 within 6 months of approval of this NPDES permit for acute and chronic toxicity tests until there are a minimum of 4 for each test required. The permittee shall perform these tests quarterly.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

The acute tests to use are:

48 Hour Static Acute test with *Ceriodaphnia dubia* (EPA Method 2002)
48 Hour Static Acute test with *Pimephales promelas* (EPA Method 2000)

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR. The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable. The chronic tests to use are:

Chronic 3-Brood Survival and Reproduction Static Renewal Test with C*eriodaphnia dubia* (EPA Method 1002)

Chronic 7-Day Survival and Growth Static Renewal Test with *Pimephales promelas* (EPA Method 1000)

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results

which cannot be quantified (i.e., a “less than” NOEC value) are not acceptable, and a retest will have to be performed. A retest of a non-acceptable test must be performed within 30 days of the test it is replacing. Express the test NOEC as TUc (Chronic Toxic Units), by dividing 100/NOEC for DMR reporting. Report the LC50 at 48 hours and the IC25 with the NOEC’s in the test report.

b. The test dilutions should be able to determine compliance with the following endpoint:

Acute NOAEC = 100%
Chronic NOEC of 69% equivalent to a TU_C of 1.44

c. The permittee shall submit the following information with the results of the toxicity tests:

(1). Estimate of the total volume discharged and the duration of the discharge.
(2). Time at which the discharge was initiated.
(3). Time at which sampling was initiated.

d. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

e The test data will be evaluated statistically for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of Part II Section C.2.a may be discontinued.

f. If after evaluating the data, it is determined that no limit is needed, the permittee shall continue acute and chronic toxicity testing (both species) of each representative outfall at renewal, as on the reporting schedule contained in Part II Section C.3. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

g. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

3. Reporting Schedule:

The permittee shall report the results of the toxicity tests on the appropriate DMR or other methods prescribed by the Department and supply one copy of the toxicity test reports specified in this Whole Effluent Toxicity Program. This data is to be provided within 30 days following the end of the calendar quarter in which the analysis was completed.

D. EVALUATION OF TMDL COMPLIANCE:

To be consistent with the assumptions and requirements of the applicable Total Maximum Daily Load (TMDL) and any mining waste load allocations contained in the TMDL, the permittee shall implement best management practices (BMPs) as established in any compliance schedule included in the permit for this facility.

The BMPs and other requirements of the compliance schedule shall serve as water quality-based effluent limitations for this facility.

TMDL Reopener Clause

This permit is subject to a TMDL Reopener Clause as described in Part II Section D TMDL Special Conditions (a).

E. STREAM MONITORING CONDITIONS:

1. To ensure protection of aquatic species and evaluate compliance with the narrative water quality standards, biological surveys are to be completed once annually during the fall collection season to determine the benthic health of Sycamore Fork at location(s) Bas-1 and Upper Elk Creek at location(s) Bas-3, Bas-4 and Pumpkin Branch at location(s) Bas-2 as outlined in the joint CSMO/NPDES permit (Part I, Sections 8.3 and 21.2). DEQ's Virginia Stream Condition Index (VASCI) will be utilized to determine a score for each monitoring location. The Department may also consider applicable VASCI scores generated by DEQ. The stream habitat scores and chemical data will also be collected at these locations. All biologic sampling shall be done in accordance with applicable protocols as described below. Biological survey results will need to be submitted by March 1st of the next calendar year following the date the survey was conducted.

   The Department, in consultation with the applicant, will establish baseline VASCI scores for each monitoring location based on the results of biological monitoring required prior to initiation of the permitted activity. The applicant may utilize more than one same season survey collected at the designated BASs prior to the initiation of the permitted activity to establish baseline. If the aquatic ecosystem at the BASs listed above, prior to initiation of the permitted activity, is not impaired based on the VASCI score, and taking into account all potentially applicable criteria, then the acceptable future biological condition will be a VASCI score greater than or equal to 60. If the aquatic ecosystem at the assessment stations, prior to initiation of the permitted activity, is impaired based on VASCI scores, then the applicant will need to identify existing conditions within the watershed that may be contributing to the problem. A VASCI score greater than or equal to the baseline value would represent an acceptable future condition.

   In determining whether a lower VASCI score represents an unacceptable condition, the DMLR will utilize best professional judgment, including a consideration of the inherent variability of the VASCI scores. In any case, the permittee is required to engage in adaptive management to improve the biological condition of the receiving streams if the VASCI falls below the established baseline conditions listed in the Biological Monitoring Report contained in Part I, Section 8.3 of the joint permit for two consecutive same season surveys. In order to prevent biological conditions at the BASs from reaching unacceptable biological condition, the following plan will be implemented as appropriate.

   - Disturbing the smallest area at any one time during the mining operation through progressive backfilling, grading, and prompt revegetation.
   - Stabilizing the backfill material to promote a reduction in the rate and volume of runoff.
   - Diverting runoff away from disturbed areas.
   - Directing water and runoff with protected channels.
   - Using straw, mulches, vegetative filters, and other measures to reduce overland flow.
   - Reclaiming all lands disturbed by mining as contemporaneously as practicable.
   - Enhanced riparian plantings.
   - Stream restoration/enhancement as appropriate. In-stream enhancement measures may be taken such as step pools, eddy rocks, and aquatic habitat structures, if appropriate for the applicable stream reach.
   - Test overburden to determine the material that contains any constituents determined to be of concern from a receiving water quality perspective, so it can be isolated through material handling or other methods;
   - Increase stream buffer zones;

- Minimize fill areas;
- Construct fills so as to minimize infiltration from precipitation events
- Conduct Toxicity Identification and/or Reduction Evaluation pursuant to EPA's TSD2
- Segregate weathered rock and return to surface;
- Expedite reclamation;
- Use natural stream restoration techniques.
- Any other measures that are identified at the time of implementation.

The benthic surveys shall be conducted annually each year in the fall season period determined by DEQ, avoiding to the maximum extent practicable times when the sample location is influenced by abnormal conditions, including drought and/or scouring flood. All biological surveys should be conducted as close to the anniversary date of the original surveys as possible. In addition, all biologic sampling shall be done in accordance with the Virginia Department of Game and Inland Fisheries scientific collection permit and DEQ's Virginia Stream Condition Index (VASCI) protocol. The DEQ has developed the following procedure.

- Conduct benthic sampling using Virginia benthic protocols including time of year restrictions for sample collection.
- Collect organisms, laboratory subsample to 300 organisms in a gridded pan.
- Identify organisms to genus level, excluding chironomids (midges)
- Collapse data to family level
- Statistically rarify data to 100 organisms; computer subsampling programs available.
- Calculate the VASCI score
- Provide raw 300 count genus-level data in electronic spreadsheet format.

2. To ensure protection of sensitive species and to evaluate compliance with the numeric water quality standards, the permittee shall conduct chemical surface water monitoring at instream locations BAS-1,BAS-2,BAS-3,BAS-4 as described in Section 8.3 of the joint CSMO/NPDES permit and shown on the applicable map (Attachment 21.2.E) for the parameters listed in Table 1 of this section. This monitoring is to be conducted concurrent with the biological surveys required under item Part II Section A.E.1. Fall chemical monitoring will need to be submitted by March 1st of the next calendar year following the fall collection date. The permittee has the option of conducting metals analyses for total metals only even though instream water quality standards are based on dissolved metal concentrations. If total metal analyses concentrations exceed instream standards, the permittee may collect dissolved metal samples for those metals exceeding instream standards to confirm whether or not the instream standard has been met. Otherwise the total metals concentration will be used to determine compliance with the instream standard.

TABLE 1 - Parameters

Parameter
Flow (gpm)
Temperature (^{o}c)
pH (std units)
TSS (mg/L)
Specific Conductance (µS/cm)
TDS (mg/L)
Sulfates (mg/L)
Bromide (mg/L)
Chlorides (mg/L)
Aluminum (mg/L)
Iron (mg/L)
Manganese (mg/L)
Magnesium (mg/L)
Total Acidity (mg/L)
Total Alkalinity (mg/L CaCO3)
Bicarbonate Alkalinity (mg/L)
Carbonate Alkalinity (mg/L)
Hardness (mg/L CaCO3)
Total Zinc (µg /L)
Total Antimony (µg /L)
Total Arsenic (µg /L)
Total Beryllium (µg /L)
Total Cadmium (µg /L)
Total Chromium (µg /L)
Total Copper (µg /L)
Total Lead (µg /L)
Total Mercury (µg/L)
Total Nickel (µg /L)
Total Selenium (µg/L)
Total Silver (µg /L)
Total Thallium (µg /L)
Total Barium (µg/L)
Total Boron (µg/L)
Total Cobalt (µg/L)
Total Cyanide (µg/L)
Total Phenols (µg/L)
Nitrate (mg/L)
Nitrite (mg/L)
Dissolved Organic Carbon (mg/L)
Hydrogen Sulfide (mg/L)[1]

3. The data provided to satisfy Part II Section A, at a minimum, will be evaluated upon each major modification and permit renewal to determine whether permit modifications are necessary for compliance with the narrative and numeric water quality standards. Should any of the data indicate that the discharges from this operation have the potential to cause or contribute to a violation of either a numeric or narrative water quality standard, additional pollutant specific limits or whole effluent toxicity limits shall be imposed.

[1] This parameter need only be analyzed for underground mine discharges.

Section B
Schedule of Compliance

Schedule of Compliance for TMDL waste loads

The permittee shall be considered in compliance with the TDS waste loads if it implements and completes the following schedule:

1. **Submit Progress Reports -** Semiannually, beginning within six months of the effective date of this permit. Semi-annual reports are due by January 10th and July 10th of each year through the life of this compliance schedule
2. **Investigate sources of TDS, waste load offsets, and BMPs -** In the first year from effective date of permit. Investigate: TDS sources, TDS reduction offsets and BMPs. Report identified TDS sources, selected offsets, and BMPs in July 10, 2016 report.
3. **Implement/construct selected BMPs and/or offsets -** Beginning as soon as possible, but no later than January 2017, construct and implement selected offset projects and/or BMPs. Monitor effectiveness of offsets/BMPs after six months.
4. **Evaluate BMPs and/or offsets -** If the results of the BMPs/offsets fail to achieve the targeted TDS waste loads reductions, submit additional offsets and/or BMPs to meet the reductions for TDS with the January 10, 2018 semi-annual report.
5. **Meet permit TMDL waste load reduction schedule -** Meet permit conditions by the due date of the January 10, 2018 semi-annual report, which is the final compliance date for this schedule.

No later than 14 calendar days following the final compliance date identified in the above schedule of compliance, the permittee shall submit to DMME, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance with this schedule. In the case of noncompliance, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

Section C
Standard NPDES Permit Terms and Conditions

The term Department refers to the Virginia Department of Mines, Minerals, and Energy.

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, excluding records of monitoring information required by this permit related to sewage sludge use and disposal activities, which shall be retained for a period of at least five years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than 30 days following the quarter in which monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

   Virginia Department of Mines, Minerals, and Energy
   Attn: Water Quality Section
   P.O. Drawer 900
   Big Stone Gap, VA 24219

2. Monitoring results shall be reported on forms provided, approved or specified by the Department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting format specified by the Department, including electronic submittal.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Department may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Department, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II Section C (F); or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II Section C (F); shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;

2. The cause of the discharge;

3. The date on which the discharge occurred;

4. The length of time that the discharge continued;

5. The volume of the discharge;

6. If the discharge is continuing, how long it is expected to continue;

7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident (details of any adverse effects on aquatic life and the known number of fish killed must also be reported to DEQ). The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Section C.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service some or all of the treatment works; and

4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Department may waive the written report on a case-by-case basis for reports of noncompliance under Part II Section C.I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II Section I.1 or Part II Section I.2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II Section I.2.

NOTE: The immediate (within 24 hours) reports required in Part II Section C (**G, H and I) may be made to the Department's Big Stone Gap Office Enforcement Section at (276) 523-8199 (voice). For emergencies the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.**

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
   a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
      (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
      (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
   c. The alteration or addition results in a significant change in sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Applications. All permit applications shall be signed as follows:
   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where

authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Department shall be signed by a person described in Part II Section C.K.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part II Section C.K.1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part II Section C.K.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II Section C.K.2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part II Section C.K.1 or 2 shall make the following certification:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Coal Surface Mining Operation permit, State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations

that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" Part II Section C. U, and "upset" (Part II Section C.V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludge

Solids, sludge or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II Section C.U.2 and 3.

2. Notice
   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II Section C.I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
      (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      (3) The permittee submitted notices as required under Part II Section C.U.2.
   b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part II Section C.U.3.a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II Section C.V.2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   a. An upset occurred and that the permittee can identify the cause(s) of the upset;
   b. The permitted facility was at the time being properly operated;
   c. The permittee submitted notice of the upset as required in Part II Section C.I; and
   d. The permittee complied with any remedial measures required under Part II Section C.S.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

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

1. Enter upon the permitted premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Coal Surface Mining Operation permit, Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

Permits are not transferable to any person except after approval of a succession application by the Department.

Z. Severability.

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

AA. Water Quality Criteria Reopener

This permit may be modified or alternatively revoked and reissued to incorporate appropriate limits provided regular or conditional effluent monitoring indicates the need for any water quality-based limitations.

NPDES Permit Definitions

(A) The term “acid or ferruginous mine drainage” means mine drainage which, before any treatment, either has a pH of less than 6.0 or a total iron concentration equal to or more than 10 mg/l.

(B) The term “active mine drainage’ means the area actively being used or disturbed for the extraction, removal, or recovery of coal from its natural deposits. This excludes areas where reclamation and revegetation has been completed.

(C) The term “alkaline mine drainage” means mine drainage which, before any treatment, has a pH equal to or more than 6.0 and a total iron concentration less than 10 mg/l.

(D) "Application" means the EPA standard national forms for applying for a permit, including any additions or modifications to the forms; or forms approved by EPA for use in approved States, including any approve additions or modifications.

(E) "Approved program or approved State" means a State administered NPDES program which has been approved or authorized by EPA under 40 CFR Part 123.

(F) "Best management practices" (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(G) "Coal preparation plant" means a facility where coal is crushed, screened, sized, cleaned, dried, or otherwise prepared and loaded for transit to a consuming facility. "Coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities. "Coal preparation plant water circuit means all pipes, channels, basins, tanks, and all other structures and equipment that convey, contain, treat, or process any water that is used in coal preparation processes within a coal preparation plant.

(H) The term "commingled discharge" means discharges of drainage from underground workings that are mixed or commingled with surface mine drainage.

(I) "Composite sample" means a combination of individual samples of wastewater taken at 1 hour intervals, for eight (8) hours (or for the duration of discharge, whichever is less), to minimize the effect of variability of the individual samples. Individual samples must be of equal volume. (Example: one (1) liter per hour.)

(J) The term "controlled discharge" means any surface mine drainage that is pumped or siphoned from the active mining area.

(K) "CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500 as amended by Public Law 95-217, and Public Law 95-576, 33 U.S.C. 1251 et seq.

(L) The "daily maximum" discharge means the total mass of a pollutant discharged during the calendar day. Where the pollutant is limited in terms other than mass, the daily maximum shall mean the average concentration or other measurement specified during the calendar day or other specified sampling day.

(M) The "instantaneous maximum" means the level not to be exceeded at any time in any grab sample.

(N) "Discharge (of a pollutant)" means any addition of any pollutant or combination of pollutants to waters of the United States from any point source; or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

(O) "Existing source or existing discharger (in the NPDES program)" means any source which is not a new source or new discharger.

(P) "Effluent limitation" means any restriction imposed by the Director on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources into waters of the United States, the waters of the contiguous zone, or the ocean.

(Q) "Effluent limitation guideline" means a regulation published by the Administration under Section 304(b) of the CWA to adopt or revise effluent limitations.

(R) "Environmental Protection Agency (EPA)" means the United States Environmental Protection Agency.

(S) "Estimate" means to be based on technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

(T) "Grab sample" means an individual sample collected in less than 15 minutes.

(U) "Measured Flow" means any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practices, or for which a relationship to absolute volume has been obtained.

(V) "Mine drainage" means any drainage, and any water pumped or siphoned, from an active mining area or a post-mining area. The abbreviation "ml/l" means milliliters per liter.

(W) The "monthly average" discharge means the total mass (and concentration if appropriate) of all daily discharges sampled and/or measured properly during a calendar month divided by the number of daily discharges sampled and/or measured properly during such month.

(X) The "monthly average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.

(Y) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of CWA. The term includes an approved program.

(Z) "New discharger" means any building, structure, facility, or installation: (A) From which there is or may be a new or additional discharge of pollutants at a site at which on October 18, 1972, it had never discharged pollutants; (B) Which has never received a finally effective NPDES permit for discharges at that site; and (C) Which is not a "new source". This definition includes an indirect discharger, which commences discharging into waters of the United States. It also includes any existing mobile point source, such as an offshore oil drilling rig, seafood processing vessel, or aggregate plant that begins discharging at a location for which it does not have an existing permit.

(AA) "NA" means effluent limitations and monitoring requirements not required.

(BB) "NL" means no limitation on the affected parameters, however monitoring is required.

(CC) "Outfall" means a point source.

(DD) "Permit" means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR Parts 122, 123, and 124.

(EE) "Point source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(FF) "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials [except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2011 et seq.)], heat wrecked or discarded equipment, rocks, sand, cellar dirt and industrial, municipal, and agriculture waste discharged into water.

(GG) The term "post-mining area" means: (1) A reclamation area or (2) the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

(HH) The term “10-year, 24-hour precipitation event” means the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather service and Technical Paper No. 40, “Rainfall Frequency Atlas of the U.S.,” May 1961, or equivalent regional or rainfall probability information developed there from.

(II) The term “qualifying rainfall event” means the rainfall amounts as defined; active mine areas = 0.2”/24 hours, refuse areas = 2.5”/24 hours, controlled and commingled = 4.4”/24 hour.

(JJ) The term “reclamation area” means the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically seeding or planting) work has commenced. The term “pre-reclamation area” means the surface area of a coal mine prior to reclamation.

(KK) The term “settleable solids” is that matter measured by the volumetric method that is determined by the following procedure: (a) fill an Imhoff cone to the one-liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. The method detection limit for coal mining point sources is 0.4 ml/l.

(LL) The terms “treatment facility” and “treatment system” means all structures which contain, convey, and as necessary, physically or chemically treat coal mine drainage, coal preparation process water, surface runoff from disturbed areas, or drainage from coal preparation plant associated areas, which remove pollutants regulated by the Part from such waters. This includes all pipes, channels, ponds, basins, tanks, and all other equipment serving such structures.

(MM) The terms “underground mine drainage or discharge” mean discharges from the underground workings of underground mines until SMCRA bond release.

(NN) The “weekly average” discharge means the total concentration and mass of all daily discharges sampled and/or measured during a calendar week divided by the number of daily discharges sampled and/or measured during such week.

(OO) The term “coal refuse disposal pile” means any coal refuse deposited on the earth and intended as permanent disposal or long term storage (greater than 180 days) of such material, but does not include coal refuse deposited within the active mining area or coal refuse never removed from the active mining area.

Section D
Other Permit Requirements

NPDES Permit Special Conditions

(AA) Water Quality Monitoring

The Department may require every owner to furnish such plans, specifications, or other pertinent information as may be necessary to determine the effect of the discharge on the water quality or such information as may be necessary to accomplish the purposes of the CWA, including but not limited to chemical and biological testing. The permittee shall obtain and record such information on the receiving waters as requested by the Department. The information shall be subject to inspection by authorized State and Federal representatives and shall be submitted with such frequency and in such detail as requested by the Department.

(BB) Management Requirements

1. All discharges authorized by this NPDES permit shall be made in accordance with the terms and conditions of the permit. The Department must be notified at least thirty (30) days prior to all expansions, production increases, or process modifications that will result in new or increased discharge(s) of pollutant(s). Notification should be by submission of a new or revised CSMO/NPDES application, or, if such discharge(s) does not violate effluent limitations specified in the permit, by submission to the Department of notice of such new or increased discharge of pollutant(s). All expansions, production increases, or process modifications that will result in new or increased discharge(s) of pollutant(s) must be approved by the Department prior to implementation.

2. The discharge of any pollutant limited in the permit more frequently than, or at a level greater than that identified and authorized by this permit, shall constitute a violation of the terms and conditions of this permit.

3. The discharge of any pollutant(s) from this facility that enters into a water body with an existing and approved Total Maximum Daily Load (TMDL) must be made in compliance with the TMDL and any applicable TMDL implementation plan as established in the compliance schedule included in this permit. If the discharge enters into a water body included on the state's current 303(d) list not having an existing and approved TMDL, the discharge of any pollutant(s) from this facility cannot be the cause of the stream's impairment and 303(d) listing.

(CC) Availability of Reports

Except for data determined to be confidential under Section 308 of the Clean Water Act (CWA), all reports prepared in accordance with the terms and conditions of this permit will be available for public inspection at the Department office. As required by the Act, effluent data will not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and in Section 62.1-44.32 of the Code of Virginia.

(DD) Permit Modification and Reissuance

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Section 301(b)(2)(C) and (D), 304 (b)(2), and 307 (a)(2) of the CWA, if the effluent standard or limitations so issued or approved:

(i) Contain different conditions or is otherwise more stringent than any effluent limitation in the permit; or

(ii) Control any pollutant not limited in the permit; or

(iii) The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act as applicable.

(iv) Immediately after EPA's promulgation of applicable standards or limitations, a draft permit incorporating the new requirements shall be sent to the permittee.

(EE) State Law

1. Compliance with this permit during its term constitutes compliance with the Virginia State Law and CWA except for any standard imposed under Section 307 of the CWA for a toxic pollutant injurious to human health.

2. State water quality standards contain an antidegradation policy that is applicable to this permit, facility, and discharge(s). Effluent limitations assigned to this permit require the operator to utilize the best available technology to treat all discharges and to protect water quality. As a condition of this permit, the permittee must take appropriate measures to comply with the antidegradation policy.

3. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other State law or regulation or under authority preserved by Section 510 of the CWA.

(FF) Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revoked and reissued or modified in accordance with the toxic effluent standard or prohibition. Any effluent standard or prohibition established under Section 307(a) for a toxic pollutant injurious to human health is effective and enforceable by the time set forth in the promulgated standard, even absent permit modification.

(GG) Chemical Treatment

Chemical treatment is not permitted unless specified in Part I Section 5.15 of the CSMO/NPDES permit application or otherwise specifically authorized by the Department. Treatment chemicals will be utilized in accordance with manufacturer's specifications and in quantities not harmful to aquatic life.

(HH) Alternate effluent limitations applicable to precipitation events

The permit includes a condition which provides an exclusion of the TSS, total iron and total manganese concentration limitations during periods of runoff from a qualifying precipitation event as referenced in 40 CFR 434. However, TSS is required to be collected and reported for discharges utilizing the alternate effluent limit. The reported TSS analyses will be utilized by DMLR for waste load calculation only.

For discharges to TMDL watersheds with TSS identified as a stressor, the permit shall also comply with the applicable TMDL consistent with its assumptions and requirements. Best management practices requirements and/or offsets will be used to establish any necessary reductions to meet the

transient/aggregate waste load allocation as established in the compliance schedule included in this permit. This requirement is in addition to the technology-based effluent limitations of 40 CFR 434.

CSMO Permit Special Conditions:

(a) Disposal of non-coal waste onsite is prohibited.

(b) Water from sediment control ponds may be used on site for the purpose of dust suppression. Dust suppression shall be carried out as a best management practice provided that ponding or direct runoff from the site does not occur during or immediately following its application. Dust suppression shall not be employed as a wastewater disposal method

(c) No disturbance is allowed within any jurisdictional waters, whether water of the United States or waters of the Commonwealth of Virginia (including jurisdictional isolated waters), without first obtaining a Section 404 of the Clean Water Act (CWA) permit from the U.S. Army Corps of Engineers and / or a Section 401 of the CWA Certification from the Virginia Department of Environmental Quality.

(d) Prior to disturbing any area not included in the approved permit an application for a permit revision / amendment must be submitted to the Department of Mines, Minerals and Energy (DMME) / Division of Mined Land Reclamation (DMLR) and the application must be approved with appropriate fees and bond submitted to DMLR.

(e) The Department shall conduct reviews of the approved permit pursuant to 4VAC25-130-774.11. Based upon the Department review DMLR may order the revision of the permit pursuant to 4VAC25-130-774.11(b) and (c).

(f) Biological surveys will be conducted in accordance with the language in Part II Section A.E Stream Monitoring Conditions of the NPDES permit.

(g) To ensure continuing decrease in TDS for the Cumulative Impact Area, best management practices (BMPs), verified offsets, and/or mitigation activities proposed in Part II Section A.D of the NPDES permit should be completed prior to or concurrent with commencement of mining on the proposed permit.

TMDL Special Conditions:

(a) TMDL Reopener Clause

This permit shall be modified or alternately revoked and reissued if any approved waste load allocation procedure, pursuant to Section 303(d) of the CWA, imposes waste load allocations, limits or other conditions on the facility that are not consistent with the requirements of this permit.

(b) Numeric Effluent Limitation - Annual Wasteloads

The permittee shall ensure that discharges from permitted point sources comply with the concentration based numeric effluent limitations assigned in Part II Section A of the joint CSMO/NPDES Permit and that permitted point source discharges shall not exceed the numeric waste loads of pollution defined in this permit.

1. Tracking of mining waste loads, waste load offsets, calculations of mining waste loads, and comparisons of mining waste loads to allocations will be performed by the Department's TMDL system. Discharges resulting in a total waste load which exceeds TMDL limits will be determined as described in the factsheet associated with this permit.

2. If the Department determines that waste loads from the permitted point sources have resulted in or will result in a waste load in excess of the TMDL WLAs, the Department will require the permittee to conduct additional monitoring according to a schedule established by the Department. Based upon the monitoring results, the Department will confer with the permittee to develop reduction actions that may include revised and additional BMPs, as well as flow measurements and other monitoring. If within 90 days of receipt of the final required monitoring results the Department and the permittee cannot come to agreement on the necessary reduction actions and a schedule for their implementation, then the Department may modify or revoke and reissue the NPDES permit to assign permit-specific reduction actions and an implementation schedule. Failure by the permittee to comply with any such permit requirements will constitute grounds for enforcement.

(c) Waste load Offset Credit

The Department will use its existing TMDL database and software to maintain the accounting of load reduction credit tracking.

(d) NPDES Discharge Monitoring Plan

Referenced in Part II Section A

(e) Offset Monitoring Plan (if applicable)

The offset ratio for this permit is sufficient to assure that adequate pollution reductions will be accomplished without additional monitoring requirements beyond those previously identified in this joint permit.

The offset ratio is found in the TMDL Addendum in Part I Section 6.1 of the joint CSMO/NPDES permit. The minimum offset ratio is 2:1.

(f) Unanticipated Failure of Offset (if applicable)

Prior to the release of any performance bond on this permit, the Department shall determine if the permittee has completed offset requirements. The offset completion timing is outlined in Part I Section 6.1 of the joint CSMO/NPDES permit. If the permittee fails to complete the required offset, an alternative offset project must be approved by the Department and implemented prior to the release of any performance bond on this permit.

(g) Responsibility to Achieve All Effluent Limitations in Permit

The permittee shall be responsible for achieving all concentration and loading based effluent limitations assigned by this permit. The permittee shall be responsible for implementing all best management practices and/or TMDL Waste load Reduction Actions required by this permit.

(h) Best Management Practices

The permittee shall be responsible for implementing applicable BMPs as noted in DMLR Guidance Memorandum 14-05 and/or BMPs included in Sections 5.15 and 6.1 of the joint permit application.

Total Maximum Daily Load (TMDL) Compliance and Documentation:

The Department finds that the permit will comply with the approved TMDL and the TMDL Waste Load Allocation (WLA). The permit is consistent with the TMDL WLA pursuant to 40 CFR 122.44 (d)(1)(viii)(B).