

**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In the Matter of:

Shade Mining Company	:	SMP No. 4173SM6 (Shaulis Strip)
P.O. Box 130	:	SMP No. 56813050 (Shade No. 3 Mine)
118 Runway Rd	:	Shade, Stonycreek and
Friedens, PA 15541	:	Quemahoning Townships
	:	Somerset County
	:	Alternative Financial Assurance Mechanism
	:	CO&A

**POSTMINING TREATMENT TRUST CONSENT ORDER AND AGREEMENT**

This Consent Order and Agreement is entered into this 3<sup>rd</sup> day of September, 2015, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection (Department), and Shade Mining Company ("Shade").

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce the Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1198, 52 P.S. §§ 1396.1 *et seq.* (Surface Mining Act); the Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, P.L. 31, 52 P.S. §§ 1406.1 *et seq.* (Subsidence Act); the Coal Refuse Disposal Control Act, Act of September 24, 1968, P.L. 1040, 52 P.S. §§ 30.51 *et seq.* (Coal Refuse Disposal Act); the Clean Streams Law, Act of June 22, 1937, P.L. 1987, 35 P.S. §§ 691.1 *et seq.* (Clean Streams Law); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, 71 P.S. § 510-17 (Administrative Code) and the regulations promulgated thereunder.

B. Pursuant to § 4(d.2) of the Surface Mining Act, 52 P.S. § 1396.4(d.2), the Department may establish alternative financial assurance mechanisms which shall achieve the objectives and purposes of the bonding program. These mechanisms include the establishment of a site-specific trust fund funded by a mine operator for the treatment of post-mining discharges of mine drainage. The post-mining treatment trust being established as required by this Consent Order and Agreement through the accompanying Post-Mining Discharge Treatment Trust Agreement constitutes an alternative financial assurance mechanism authorized by § 4(d.2) of the Surface Mining

Act. Pursuant to Sections 5, 315 and 610 of the Clean Streams Law, 35 P.S. §§ 691.5, 691.315 and 691.610, Section 4.3 of SMCRA, 52 P.S. § 1396.4c, Sections 3.1 and 9 of the Coal Refuse Disposal Act, 52. P.S. §§ 30.53a and 30.59, and Section 9 of the Subsidence Act, 52 P.S. § 1406.9, the Department has authority to issue such orders as are necessary to aid in the enforcement of the provisions of these acts, including orders compelling an operator to establish a post-mining discharge treatment trust as an alternative financial assurance mechanism.

C. Shade is a Pennsylvania corporation with a business address of P.O. Box 130, 118 Runway Road, Friedens, PA 15441. Shade's business includes the surface mining of coal in the Commonwealth of Pennsylvania pursuant to Surface Mining License No. 1306. Donald R. Hoffman is the owner and President of Shade, and is responsible for the company's day to day operations.

D. Shade operates two surface coal mines in Pennsylvania pursuant to permits issued by the Department:

<b>NAME</b>	<b>SMP</b>	<b>TOWNSHIP</b>	<b>COUNTY</b>
Shaulis Strip	4173SM6	Shade	Somerset
Shade No. 3 mine	<b>SMP</b> 56813050	Shade, Stonycreek and Quemahoning	Somerset

E. A summary of the reclamation bonds currently posted for the mine sites listed in Paragraph D, above is attached as Exhibit 1.

**SHAULIS STRIP (4173SM6)**

F. Surface Mine Permit No. 4173SM6 was first issued to Brant Coal Co., Inc. on November 20, 1973. The permit was later transferred to Shade on March 25, 1976.

G. Shade completed coal removal at the Shaulis Strip on or about July 1984, and completed backfilling, grading and revegetation of the mine site on or about May 1986.

H. On or about May 1984, the Department determined that Shade had degraded a spring at the Shaulis Strip known as SP-5. The SP-5 Discharge is depicted on the map attached hereto as Exhibit 2.1. The location of SP-5 is at approximately Latitude N40° 10' 32" Longitude W78° 51' 48".

I. The raw water quality of the SP-5 Discharge is characterized by depressed pH, acidity greater than alkalinity, and elevated metal concentrations that exceed the effluent limitations in 25 Pa. Code § 87.102. The raw water characteristics are more fully described in the document attached hereto as Exhibit 3.

J. Shade has the legal responsibility to treat or abate the SP-5 Discharge pursuant to, inter alia, the Surface Mining Act and Clean Streams Law. Shade agrees it has the legal responsibility, pursuant inter alia to the Surface Mining Act and the Clean Streams Law, to properly treat or abate the discharge identified in Paragraph H above.

K. On or about January 16, 1986, Shade entered into a Consent Order & Agreement (“CO&A”) that required the SP-5 Discharge to be collected, diverted into the 001 Treatment Pond, and treated prior to its discharge to an unnamed tributary of Shade Creek, a water of the Commonwealth. The discharge is located on the permit and is hydrologically connected to the permit.

L. Shade constructed a passive treatment system for the SP-5 Discharge that consists of an anoxic limestone drain (ALD), two aerobic wetlands, two manganese removal beds, and several settling ponds. The SP-5 Treatment System is depicted on the map attached hereto as Exhibit 2.1. The Treatment System is situated on land owned by James H. Kaufman. Pursuant to the requirements of Paragraph 14.c., below, Shade will be executing and submitting to the Department and the Trustee a properly executed Consent to Right of Entry which grants the Department and the Trustee access to the Treatment system. A copy of the Consent to Right of Entry form is attached as Exhibit 5.

M. The required effluent limits applicable for Shaulis Strip discharges are found in Exhibit 4.

N. The effluent from the 001 Treatment System, which treats the SP-5 Discharge, discharges to an unnamed tributary of Shade Creek under authority of NPDES Permit No. PA0249980. This permit was renewed on April 18, 2012, and is renewed every five years pursuant to the authority in 25 Pa.Code Chapter 92a. The effluent limits may change at the time of renewal.

O. Other than treatment or abatement of the SP-5 Discharge and reclamation of the areas occupied by the Treatment System, surface reclamation at the Shaulis Strip has been completed.

**SHADE NO. 3 MINE (56813050)**

P. Surface Mining Permit No. 56813050 was issued to Shade on July 16, 1984. Shade has

represented that there were pre-existing discharges on the permit area which did not meet effluent standards. As part of the negotiation process in obtaining the permit between Shade, its representatives, and the Department; Shade has represented that it was assured by Department officials, at that time, that as long as Shade's mining activities did not further degrade the discharges, Shade would not be held responsible for them. The initial bonding increment for the Shade Permit included the area north, to just south of the township road. When Shade made application to expand the mining area to include the balance of the permit, Shade was advised that it would be held responsible for the pit water and associated discharges. In order to issue bonding increment #4, the Department requested a Special Handling Plan. As submitted and approved this Plan included the installation of highwall drains to collect degraded pit water for treatment. In 1990, (after the Department determined that an overburden special handling plan and alkaline addition plan was necessary for mineral extraction at the Shade No. 3 Mine) Shade Mining implemented these plans and installed anoxic limestone drains at the base of each final highwall to direct the reclaimed site's subsurface pit water through the backfill to Pond 2 at the west end of permit. This highwall drain discharge point is identified as S-2, and is depicted on the map attached hereto as Exhibit 2.2. The location of S-2 is at approximately Latitude N40° 05' 05" Longitude W78° 54' 42".

Q. The raw water quality of the S-2 Discharge is characterized by elevated metal concentrations that exceed the effluent limitations in 25 Pa. Code § 87.102. The raw water characteristics are more fully described in the document attached hereto as Exhibit 3.

R. Shade has the legal responsibility to treat or abate the S-2 Discharge pursuant to, inter alia, the Surface Mining Act and Clean Streams Law. Shade agrees it has the legal responsibility, pursuant inter alia to the Surface Mining Act and the Clean Streams Law, to properly treat or abate the discharge(s) identified in Paragraph P above. Under the current OSM AVS system, in order to maintain Shade's and its related companies' permits in a current and compliant basis, Shade must treat the S-2 discharge to meet the effluent limits in the current permit.

S. By January 15, 1997, Shade completed coal extraction and all backfilling, grading and revegetation on the mine site.

T. On or about January 15, 1997, the Department issued an Order to Shade because the S-2 Discharge exceeded applicable effluent limitations. Shade commenced treatment of the S-2 Discharge with caustic soda. The discharge is located on the permit and is hydrologically connected to the permit.

U. Shade constructed a Treatment System for the S-2 Discharge (known as the 003 Outfall) that consists of: (1) a collection pond; (2) an electric, centrifugal pump that pumps the collected discharge to a stainless steel aeration trough for aeration (or use of hydrogen peroxide as a treatment oxidizer); (3) three settling basins; (4) a combination limestone Mn-bed and aerobic wetland; and (5) a supplemental caustic soda treatment with two settling basins prior to final discharge to Oven Run, a water of the Commonwealth. The S-2 Treatment System is depicted on the map attached hereto as Exhibit 2.2. The Treatment System is situated on land owned by Noah J. and Dorothy Fyock. Pursuant to the requirements of Paragraph 14.c., below, Shade will be obtaining and submitting to the Department and the Trustee a properly executed Consent to Right of Entry from Noah J. and Dorothy Fyock granting Shade, the Department and the Trustee access to the Treatment System. A copy of the Consent to Right of Entry is attached as Exhibit 5.

V. The required effluent limits applicable for Shade No. 3 Mine discharges are found in Exhibit 4.

W. The effluent from the 003 Treatment System (which treats seep S-2) discharges to Oven Run, a water of the Commonwealth under authority of NPDES Permit No. PA0605891. This permit was renewed on October 22, 2014 and is renewed every five years pursuant to the authority in 25 Pa.Code Chapter 92a. The effluent limits may change at the time of renewal.

X. Other than treatment or abatement of S-2 Discharge, and reclamation of the areas occupied by the Treatment System, surface reclamation at Shade No. 3 Mine has been completed.

#### **TMDLs and PERMIT RENEWALS**

Y. All of the discharges which are the subject of this Consent Order and Agreement drain to Shade Creek or Oven Run which are waters of the Commonwealth, and are part of the Kiskiminetas-Conemaugh Watershed. A TMDL for the Kiskiminetas-Conemaugh River Watershed was prepared by the United States Environmental Protection Agency on January 29, 2010.

Z. Federal and state law requires the Department to establish effluent limits that are consistent with TMDLs. As noted in Paragraphs N and W, above, the effluent limits in all existing permits are subject to change when each permit is renewed. These changes may require treatment system upgrades or changes and/or may increase operating maintenance costs which may result in an increase in the cost of the treatment trust set forth in Paragraph FF below.

## POST-MINING TREATMENT TRUST

AA. The estimated capital cost to rehabilitate the two treatment systems was calculated using AMDTreat software at a total of \$62,608.00 (\$15,834 for the Shaulis Site and \$46,774 for the Shade No. 3 Site). (See Exhibit 6).

BB. In order to calculate the amount necessary to fully fund the trust, the Department and Shade have agreed to use actual operation and maintenance costs from past operations of the two treatment systems, and/or the AMDTreat cost estimates. A summary of current annual operation and maintenance costs for each treatment system is attached as Exhibit 7. Based on actual operation and maintenance costs from the year 2014 and cost estimates from the AMDTreat software, the current annual cost of operating and maintaining the two treatment systems is \$23,767.00 (\$1,683.00 for the Shaulis Site and \$22,084.00.00 for the Shade No. 3 Mine). (See Exhibit 7).

CC. In order to calculate the amount necessary to fully fund the trust, the Department and Shade have agreed to use recapitalization and demolition cost data generated by the Department's AMDTreat software tool. According to the AMDTreat software tool, the present value of recapitalization costs for the combined sites is \$26,788.00 (No. 3 Mine \$19,784.00 and Shaulis Strip \$7,004.00). Attached as Exhibit 6 is the AMDTreat Recapitalization Cost schedule for the Shade Mine No. 3 Treatment System.

DD. Shade has established an irrevocable post-mining treatment trust with the Somerset Trust Company as an alternative financial assurance mechanism, in order to provide for the long-term treatment of post-mining discharges and secure the release of reclamation bonds upon completion of all other reclamation requirements. On \_\_\_\_\_, Shade established the trust by executing a Post-Mining Treatment Trust Agreement with Somerset Trust Company which conforms with the Department's model trust agreement ("Trust").

EE. The parties have discussed the need to obtain accurate and timely information on the costs of operating and maintaining the two treatment systems in order to maintain the proper amount of financial assurance.

FF. The parties have agreed to use, in part, the formulas set forth below in Paragraph 3.g. to calculate the present value of the Trust. As set forth in Exhibit 8, the parties agree that the present value of the fully-funded Trust for the discharges covered by this Consent Order and Agreement is \$573,739.93. This sum constitutes the current present value of the estimated future operation and maintenance costs for the two treatment systems, the



current present value of the estimated future recapitalization costs for the two treatment systems, and the cost of all required insurance. The parties have also agreed to use the information and figures which will be provided by the accounting required by Paragraph 4 to recalculate and adjust the amount of the Trust as described in Paragraphs 8 and 10 below. The parties have agreed to a payment schedule as outlined in Paragraph 6.

## **ORDER**

After full and complete negotiation of all matters set forth in this Consent Order and Agreement and upon mutual exchange of covenants contained herein, the parties intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Shade as follows:

1. This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Sections 5 and 610 of the Clean Streams Law, 35 P.S. §§ 691.5 and 691.610; Section 4.3 of the Surface Mining Act, 52 P.S. § 1396.4c; Sections 3.1 and 9 of the Coal Refuse Disposal Act, 52 P.S. §§ 30.53a and 30.59; Section 9 of the Subsidence Act, 52 P.S. § 1409.9, and Section 1917-A of the Administrative Code, 71 P.S. § 510-17. The failure of Shade to comply with any term or condition of this Consent Order and Agreement shall subject Shade to all penalties and remedies provided by those statutes for failing to comply with an order of the Department.

2. Findings

a. Shade agrees that the findings in Paragraphs A through FF are true and correct and, in any matter or proceeding involving Shade and the Department, Shade shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

3. Definitions

a. Accounting. The accounting required by Paragraph 4 of this Agreement.

b. Actual Treatment Cost. The average of three consecutive years of the costs and expenses of treatment, calculated by using the Accountings for those three years.

c. Annual Anniversary Date. Thirty (30) days after the last day of Shade's fiscal year or

thirty (30) days after the last day of any fiscal year which Shade may adopt in the future.

d. Calculated Treatment Cost. The projected future annual cost of treatment, based on the Actual Treatment Cost, compounded at three and one tenth percent (3.1%) annually.

e. Capital Improvement Account. The sub-account within the Trust that is primarily used to finance anticipated and periodic capital expenditures for the Treatment Systems.

f. Distribution Payment. The Trustee's disbursement of money from the Trust made at the written direction of the Department to a person and in an amount specified by the Department and as provided by this Consent Order and Agreement.

g. Formula. The equation used to calculate the Present Value of the future operation and maintenance ("O&M") of the Treatment Systems. The equation is:

	PV	=	$(A/[E-I]) + A$
where:	PV	=	Present Value of the O&M Costs
	A	=	Current Actual Treatment Cost
	E	=	Expected annual earnings/Interest Rate (assumed to be 8.43% or .0843)*
	I	=	Inflation Rate (assumed to be 3.1% or .031)

\* {The expected annual earnings of the trust will depend on the trust's investment parameters, including the amount of the trustee's fee. The Department will consider a fairly aggressive investment strategy consisting of up to 80% stocks and 20% bonds, however a more conservative investment strategy can be selected. The trustee's fee schedule must be negotiated by the operator.}

h. Primary Basis Valuation. 100% of the present value of the future cost of treatment as determined by the Formula.

i. Primary Target Valuation. 116% percent of the present value of the future cost of treatment as determined by the Formula.

j. Primary Trust Account. The sub-account within the Trust that is primarily used to finance annual operating and maintenance costs of the Treatment Systems.

k. Primary Trust Valuation. The cash, cash equivalents, investments at market value of investments and the face amount of surety bond currently held by the Trust in the Primary Trust Account.

4. Annual Treatment Costs; Records; Factors; Accounting

a. Shade shall keep accurate financial records of all the costs and expenses of annual treatment for each year. The various cost factors fall into several general categories, including, but not limited to:



Reagent; Polymer; Electrical; Sludge Removal; Labor, including benefits; Maintenance; Sampling; Overhead; and Miscellaneous. The individual item shall be tracked and reported for each general category.

b. Shade shall keep separate records for each of the treatment systems at the Shaulis Strip and Shade Mine No. 3 Sites (collectively "Treatment Systems").

c. Shade shall provide an annual accounting of the costs and expenses of annual treatment to the Department on or before the 90<sup>th</sup> day following the last day of the fiscal year for which the Accounting is being provided. The Accounting shall cover the period beginning on January 1 and continuing through December 31 of each year, or other fiscal year as Shade may adopt for its corporate finances in the future, and shall be in accordance with Generally Accepted Accounting Principles. The Accounting shall be accompanied by an affidavit of the treasurer or other corporate officer responsible for the financial affairs of Shade and by the President of Shade attesting to the completeness and accuracy of the records of the costs and expenses of annual treatment as reported in the Accounting.

d. Shade's obligation to keep records and provide the Accounting shall continue for the period during which Shade is operating the Treatment Systems.

e. In the event of a dispute about the costs and expenses of treatment incurred by Shade, Shade shall bear the burden of proving the accuracy and completeness of the Accounting and the records upon which the Accounting is based. A Special Report prepared under Generally Accepted Accounting Principles as to the treatment costs incurred by Shade, prepared by an independent licensed public or certified public accountant, shall satisfy Shade's burden of proof as to any of these matters.

#### 5. Treatment Trust

a. Shade has established an irrevocable trust to be known as the Shade Treatment Trust by executing a Post-Mining Treatment Trust Agreement with Somerset Trust Company. The Trust shall secure Shade's obligation to treat the discharges S-2 and SP-5 covered by the COA, including its legal obligation to operate and maintain the Treatment Systems in perpetuity or until water treatment is no longer necessary. The Trust shall also secure Shade's obligation to provide financial resources to the Department and the citizens of the Commonwealth sufficient to operate and maintain the Treatment Systems and to treat the mine drainage in perpetuity in the event Shade becomes unable or unwilling to meet these obligations. The Trust shall provide for the demolition of

treatment facilities and reclamation of the treatment site should treatment no longer be needed. The agreement establishing the Trust is attached as Exhibit 9.

b. Shade shall establish within the Trust two sub-accounts: (i) a sub-account designated as the Primary Trust Account; and, (ii) a sub-account designated as the Capital Improvement Account.

c. Upon 30 days prior notice to the Department, Shade may post an appropriate bond or bonds with the Department, in the amount determined by the Department in accordance with applicable bonding requirements, in order to guarantee Shade obligation to treat or abate the SP-5 and S-2 discharges covered by this COA, and Shade may subsequently petition the Department to terminate the Trust. Upon termination of the Trust following the posting of sufficient bonds to guarantee Shade's obligations, the Department shall direct the Trustee to distribute any residuum, less final trust administration expenses of the Trustee, to the Settlor in accordance with Articles 4 and 12 of the Post-Mining Discharge Treatment Trust Agreement attached as Exhibit 9.

6. Funding of the Primary Trust Account

a. Shade shall make four (4) deposits into the Primary Trust Account to cover a sum that is currently calculated to be Five Hundred Seventy Three Thousand, Seven Hundred Thirty Nine Dollars and Ninety-Three Cents (\$573,739.93); which sum constitutes the current present value of the amount necessary to fully fund the Treatment Trust, and includes the current present value of the future operation and maintenance of the Treatment System, the current present value of the estimated future recapitalization costs for the two treatment systems, and the cost of all required insurance.

i. Initial Payment to the Primary Trust Account: Upon its execution of this Consent Order and Agreement, Shade shall within 30 days submit to the Department a completion report for the release of reclamation liability from SMP Permit No. 56813050. Upon review and approval by the Department, Shade shall deposit an amount of \$187,200.00 into the Primary Trust Account in the following manner. Within 30 days of the Departments approval of the completion report, the Department and Shade shall execute a memorandum to the Somerset Trust Company advising the bank of the agreement between the parties and directing the bank to liquidate the certificates of deposit identified as Certificates of Deposit No.'s 200989787 and 2002989779 and transfer the face amount of the certificates, \$187,200.00, into the Primary Trust Account of the Shade Treatment Trust; and forward any remaining interest to Shade Mining Company.

ii. Ongoing Payments to the Primary Trust Account: Shade shall make three (3) additional payments of One Hundred Nineteen Thousand Six Hundred Seventy Dollars (\$119,670.00) into the Primary Trust Account. These payments will be made annually over the next three (3) years on or before the anniversary date of this Consent Order and Agreement. These annual payments and annual amounts shall be initiated at the discretion of the Department so as to complete full funding of the Trust in an timely manner. The final payment may need to be adjusted to correspond with the performance of the Trust Fund and with changes in the treatment costs as depicted in Exhibit 14. Payments will be required without notice.

iii. Release of Collateral Bonds: Once the trust fund has been fully funded by Shade and the mine drainage treatment facilities on the mine sites are adequately treating the discharges, Shade can apply for the release of the collateral bonds under the Department's normal bond release procedures. In the event that Shade is unable to complete the funding of the treatment trust fund, Shade agrees that the letters of credit and certificates of deposit listed under Exhibit 1 can be cashed by the Department, as per the assignment in attached Exhibit 10, and the funds deposited in the trust fund pursuant to the Department's direction to the issuing bank up to an amount which fully funds the Trust.

7. Annual Distribution or Contribution Payments – Primary Trust Account

a. All calculations under this Paragraph shall be based on values as determined on the Annual Anniversary Date.

b. If, at the end of any year, the Primary Trust Valuation is greater than the Primary Target Valuation, then a Distribution Payment shall be made to Shade. The amount of such Distribution Payment will be equal to the difference between the Primary Trust Valuation and the Primary Target Valuation, or equal to the Calculated Treatment Cost, whichever is less. This amount is depicted graphically at Point 1, 2 and 3 on Exhibit 11.

c. If the Primary Trust Valuation is less than or equal to the Primary Target Valuation, but greater than or equal to the Primary Basis Valuation, then no Distribution Payment shall be made and no additional contribution shall be required. This provision is depicted graphically as Point 4 on Exhibit 11.

d. If the Primary Trust Valuation is less than the Primary Basis Valuation, then Shade shall make an additional contribution into the Primary Trust Account in an amount equal to the difference between the

Primary Basis Valuation and the Primary Trust Valuation, or in an amount equal to the Calculated Treatment Cost, whichever is less except as provided in Paragraph 13.a. This amount is depicted graphically as points 5 & 6 on Exhibit 11. This provision does not apply until Shade has fulfilled its obligations to make ongoing payments under Paragraph 6.

8. Adjustments to the Primary Target Valuation for Deviations Between Actual Treatment Cost and Calculated Treatment Cost

a. All calculations under this paragraph shall be based on values as determined on the Annual Anniversary Date and before any Distribution Payment.

b. If the Actual Treatment Cost for any year is greater than or equal to 110% percent or less than or equal to 90% percent of the Calculated Treatment Cost, the Department will calculate a new Primary Basis Valuation using the Formula and the newly determined Actual Treatment Cost. A new Primary Target Valuation will then be determined by calculating 116% percent of the new Primary Basis Valuation. Exhibit 12 is a graphical depiction of the adjustment.

9. Distribution Payments for Adjustments to the Primary Target Valuation

a. If the newly calculated Primary Target Valuation which has been adjusted under Paragraph 8 above is greater than the Primary Trust Valuation, no distribution payment shall be made under this paragraph.

b. If the newly calculated Primary Target Valuation which has been adjusted under Paragraph 8 above is based on a reduced Actual Treatment Cost, and the Primary Trust Valuation is greater than the newly calculated Primary Target Valuation, then a Distribution Payment shall be made to Shade. The amount of such Distribution Payment will be equal to the percent change in Actual Treatment Cost times the Primary Trust Valuation, or in an amount equal to the difference between the Primary Trust Valuation and the newly calculated Primary Target Valuation, whichever is less. The amount of such Distribution Payment shall be determined by the following formulas:

$$DP = TR (1 - (\text{new ATC} / \text{prior ATC}))$$

Or

$$DP = TR - \text{new TV}$$

Where: DP = Distribution Payment  
TR = Primary Trust Valuation  
TV = Primary Target Valuation  
ATC = Actual Treatment Cost

10. Capital Improvement Account

a. Assets of the Capital Improvement Account may be commingled with assets of the Primary Trust Account for purposes of investment, but must be accounted for and reported separately as if they are assets of a separate and distinct fund.

b. The required balance in the Capital Improvement Account has been determined by use of the AMDTreat Recapitalization tool based on the following methodology: For each planned capital replacement activity, the current cost and the projected year of replacement are determined. The future cost of each replacement activity is calculated by compounding the present cost at a rate of 3.1% annually. The year in which each replacement activity will be needed is projected based on typical component life cycles. Assuming a net rate of return on investment of 8.43 %, the initial amount of the Capital Improvement Account must be sufficient to cover all anticipated expenditures for capital replacement activities for a 75-year period.

c. A schedule for the Capital Improvement Account balance and projected capital expenditures is made a part of this agreement as Exhibit 6. The required balance in the Capital Improvement Account may be recalculated on an annual basis or each time a Distribution Payment is contemplated under Paragraph 12. Such recalculation shall be deemed an amendment to Exhibit 6 and this Consent Order and Agreement, and shall be used in making all future calculations involving the Capital Improvement Account.

11. Transfer of Funds to the Capital Improvement Account

If the Primary Trust Valuation after any Distribution Payment under Paragraph 7 above is greater than the Primary Target Valuation, then a transfer of funds to the Capital Improvement Account shall be made if the current balance in the Capital Improvement Account is less than the required balance for the current year as indicated on Exhibit 13. The amount of such transfer will be equal to the difference between the required balance and the current balance, or in an amount equal to the difference between the Primary Trust Valuation and the Primary Target Valuation, whichever is less.

12. Distribution Payments from the Capital Improvement Account

a. A distribution payment shall be made to Shade any time a planned capital replacement is made as indicated on Exhibit 6. The capital replacement and maintenance activities shall be made as needed, which

may be sooner or later than the projected time. The amount of the Distribution Payment shall be equal to the calculated cost of the Capital Improvement as indicated on Exhibit 6, or in an amount equal to the difference between the current balance in the Capital Improvement Account and the required balance after the capital improvement Distribution Payment, whichever is less.

b. Each time a Distribution Payment from the Capital Improvement Account is contemplated under this Paragraph or Paragraph 13 below, the required balance in the Capital Improvement Account must be recalculated to determine the required balance after the proposed Distribution Payment, and to determine the appropriate Distribution Payment.

13. Miscellaneous Distribution Payments from the Primary Trust Account and the Capital Improvement Account

If the Primary Trust Valuation exceeds the Primary Target Valuation in the Primary Trust Account, or if the balance in the Capital Improvement Account exceeds the required balance as indicated on Exhibit 6, then such surplus funds may be used for the following purposes:

a. Surplus funds in the Capital Improvement Account shall be transferred to the Primary Trust Account to reduce or completely satisfy Shade's obligation to make a contribution payment under Paragraph 7.d. This amount is depicted graphically at Point 5 on Exhibit 11. However, the amount of surplus funds transferred to the Primary Trust Account may exceed Shade's obligation under Paragraph 7.d. if additional funds are needed so that the Primary Trust Valuation equals the Primary Basis Valuation. This amount is depicted graphically at Point 6 on Exhibit 11.

b. Surplus funds in the Capital Improvement Account or the Primary Trust Account may be used by Shade to pay for unanticipated capital expenditures, or anticipated capital expenditures that exceed the calculated cost of the capital improvement as indicated on Exhibit 6.

c. Surplus funds in the Capital Improvement Account or the Primary Trust Account may be used by Shade to finance implementation of a new treatment technology, provided the application of such treatment technology is first approved by the Department.

d. Surplus funds in the Capital Improvement Account or the Primary Trust Account may be used by Shade to implement remediation or abatement activities to reduce or eliminate the discharge, or to improve the quality of the discharge, provided the Department first approves such activities.

14. Real and Personal Property

a. Shade has created an inventory of all the equipment, facilities, and other personal property used for the treatment of the mine discharges described above in Paragraphs F through X (“Personal Property”). The list of inventory is attached as Exhibit B to the Post-Mining Discharge Treatment Trust Agreement which is attached hereto as Exhibit 9. Shade has transferred and conveyed to the Trustee, without reservation, all Personal Property including, but not limited to, the equipment and other property listed in the inventory in order to ensure continued treatment of the discharges in the event Shade enters bankruptcy, ceases to exist, or is unable or unwilling to continue treatment. Said transfer and conveyance has been made in substantially the same form as the Bill of Sale and License Agreement attached hereto as Exhibit 13.

b. The provisions of Paragraph 14.a. notwithstanding, for so long as Shade is continuing treatment, Shade shall be responsible for maintaining and replacing/upgrading, as appropriate, the Personal Property used for the treatment of the mine discharges described above in Paragraphs F through X. Shade’s replacement/upgrade of any of the Personal Property previously conveyed as set forth in Paragraph 14.a. to the Trustee shall only be done with the express written consent of the Trustee and the Department. All parts, additional equipment, replacements, and upgrades to the Personal Property shall immediately and automatically become the property of the Somerset Trust Company as Trustee of the Shade Trust.

c. Within 180 days of the effective date of this Consent Order and agreement, Shade shall submit to the Department and the Trustee all Rights of Entry needed by the Department and the Trustee to gain legal access to the real property containing the equipment and facilities for the treatment of the mine discharges described above in Paragraphs F through X. These rights of Entry are more fully described in Paragraphs L and U above. Each right of Entry shall be substantially in the same form as the Right of Entry attached hereto as Exhibit 5. If any portion of a property subject to a Right of Entry is sold, Shade shall obtain a properly executed Consent to Right of Entry form from the new owner and submit it to the Department and the Trustee.

15. Public Liability Insurance

a. Shade shall maintain in effect public liability insurance coverage for the operation, maintenance, improvement and all other activities associated with the Treatment Systems and the real and personal property which is identified in the Post Mining Treatment Trust Agreement as part of the trust principal. Shade shall



also provide fire damage insurance in the amount of \$1,000,000.00. The Trustee and the Commonwealth of Pennsylvania shall be listed as additional insureds on the policy.

b. In addition to the requirements of Paragraph 15.a., the public liability insurance shall be written on an occurrence basis and shall provide bodily injury and property damage coverage in the minimum amounts of \$500,000 per person and \$1,000,000 per occurrence. The insurance shall include a rider requiring the insurer to notify the Department thirty days prior to substantive changes being made to the policy or prior to termination or failure to renew. Proof of insurance shall consist of a certificate of insurance filed annually with the Department which certifies Shade has a public liability insurance policy in force meeting the requirements of this Paragraph.

16. Annual Requirements

a. The parties will meet on or before the thirtieth day following delivery to the Department of the Accounting of each year: (i) to review and discuss the Accounting for the then completed fiscal year; (ii) to review the effectiveness of the Treatment Systems and any change in the fiscal year; (iii) to resolve any issues which arise as a result of that change or the performance of the Trust; (iv) to calculate, recalculate or adjust the size of the Primary Target Valuation, the Calculated Treatment Cost, and distribution payments from or additional payments into the Trust; and, (v) to address any other issues that may concern this Consent Order and Agreement or its implementation.

b. Shade shall provide annually to the Department, on forms furnished by the Department, the information required by 25 Pa. Code § 86.62(b) and (c) (relating to identification of interests).

17. Shade's Continuing Obligation

Neither Shade's agreement to fund the Trust nor the full or partial funding of the Trust, nor the exhaustion of the Trust shall in any way limit Shade's obligation to operate the Treatment Systems and to treat the discharge(s) covered by this Consent Order and Agreement in a manner which meets the effluent limitations described in Paragraphs M and V above. Furthermore, exhaustion of the Trust shall not excuse Shade from Shade's obligation to adequately treat or to abate the discharges.

18. Stipulated Civil Penalties

a. In the event Shade fails to comply in a timely manner with any term or provision of this

Consent Order and Agreement, Shade shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount of \$100.00 per day for each violation.

b. Stipulated civil penalty payments shall be payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded to:

District Mining Manager  
Department of Environmental Protection  
Cambria District Mining Office  
286 Industrial Park Rd  
Ebensburg, PA 15931

c. Any payment under this paragraph shall neither waive Shade's duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel Shade's compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only Shade's liability for civil penalties arising from the violation of this Consent Order and Agreement for which the payment is made.

d. Stipulated civil penalties shall be due automatically and without notice.

19. Additional Remedies

a. In the event Shade fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

b. In the event Shade defaults on the obligations of this Consent Order and Agreement Shade will be subject to a permit block on the Department's compliance tracking system and the federal Applicant Violator System and the Department will, in addition to any other remedy or penalty prescribed herein, list Shade as a violator on the Department's compliance tracking system and on the federal Applicant Violator System.

c. The remedies provided by this Consent Order and Agreement are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated civil penalty is paid.

20. Reservation of Rights

The Department reserves the right to require additional measures to achieve compliance with applicable

law. Shade reserves the right to challenge any action which the Department may take to require those measures.

21. Liability of Shade

Shade shall be liable for any violations of the Consent Order and Agreement, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. Shade also shall be liable for any violation of this Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

22. Transfer of Sites

a. The duties and obligations under this Consent Order and Agreement shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Shade Sites or any part thereof.

b. If Shade intends to transfer any legal or equitable interest in the Shade sites which is affected by this Consent Order and Agreement, Shade shall serve a copy of this Consent Order and Agreement upon the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Department's Director of District Mining Operations identified in Paragraph 23 of such intent.

c. The Department in its sole discretion may agree to modify or terminate Shade's duties and obligations under this Consent Order and Agreement upon transfer of the Shade Sites. Shade waives any right that it may have to challenge the Department's decision in this regard.<sup>23</sup> Correspondence with Department

All correspondence with the Department concerning this Consent Order and Agreement shall be addressed to:

District Mining Manager  
Department of Environmental Protection  
Cambria District Mining Office  
286 Industrial Park Rd  
Ebensburg, PA 15931

24. Correspondence with Shade

a. All correspondence with Shade concerning this Consent Order and Agreement shall be addressed to:

Donald R. Hoffman, President  
P.O. Box 130  
118 Runway Rd  
Friedens, PA 15541

b. Shade shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this Consent Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address.

25. Force Majeure

a. In the event that Shade is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstances beyond Shade's control and which Shade, by the exercise of all reasonable diligence, is unable to prevent, then Shade may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond Shade's control. Shade's economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.

b. Shade shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by Shade to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten (10) working days of its submission. Shade's failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Shade and other information available to the Department. In any subsequent litigation, Shade shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

26. Severability

The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

27. Entire Agreement

This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

28. Attorney Fees

The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement

29. Modifications

Except as provided in Paragraph 10, no changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

30. Titles

A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling.

31. Decisions under Consent Order

Any decision which the Department makes under the provisions of this Consent Order and Agreement is intended to be neither a final action under 25 Pa. Code §1021.2, nor an adjudication under 2 Pa. C.S. § 101. Any objection which Shade may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

32. Successors

This Consent Order and Agreement shall be fully and completely binding upon any successor of Shade. For purposes of this Paragraph, successor shall mean any corporation or entity: 1) Shade consolidates with or merges into or permits to merge with it and Shade is not the surviving corporation or entity; or 2) which acquires, by purchase or otherwise, all or substantially all of Shade's properties or assets which include, but is not limited to, voting stock of Shade. Successor does not include any corporation or other entity to which Shade transfers or assigns all or substantially all of its financial or non-financial liabilities.

Shade shall notify the Department, without delay, of any successor as defined herein and shall provide such successor with a copy of this Consent Order and Agreement.

33. Counterpart Signatures

The parties agree that this Consent Order and Agreement may be executed by counterpart signatures transmitted via electronic means.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Shade certify under penalty of law, as provided by 18 Pa.C.S. § 4904, that they are authorized to execute this Consent Order and Agreement on behalf of Shade; that Shade consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that Shade hereby knowingly waives its rights to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, the Act of July 13, 1988, P.L. 530, No 1988-94, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa.C.S. § 103(a) and Chapters 5A and 7A; or any other provision of law. Signature by Shade's attorney certifies only that the agreement has been signed after consulting with counsel.

**FOR SHADE MINIG COMPANY:**



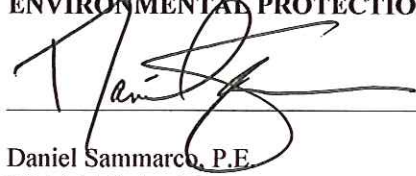
\_\_\_\_\_  
President or Vice President

\_\_\_\_\_  
Secretary or Treasurer

*Russell L. Wear*  
\_\_\_\_\_

*Witness*  
Attorney for Shade

**FOR THE COMMONWEALTH OF  
PENNSYLVANIA, DEPARTMENT OF  
ENVIRONMENTAL PROTECTION:**



\_\_\_\_\_  
Daniel Sammarco, P.E.  
District Mining Manager



\_\_\_\_\_  
Nels Taber  
Regional Counsel