

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:

CONSOL Mining Company LLC	:	Coal Refuse Disposal Permit No. 30733707 & NPDES Permit No. PA0215830
1000 CONSOL Energy Drive	:	Robena Coal Refuse Disposal Area
Canonsburg, PA 15317	:	Alternative Financial Assurance Mechanism

ROBENA POST-MINING DISCHARGE TREATMENT TRUST
CONSENT ORDER AND AGREEMENT

This Robena Treatment Trust Consent Order and Agreement (Robena Treatment Trust CO&A) is entered this 27 day of June, 2018, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department"), and CONSOL Mining Company LLC ("CMC").

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. §§ 1396.1-1396.19a ("Surface Mining Act"); the Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, P.L. 31, 52 P.S. §§ 1406.1-1406.21 ("Mine Subsidence Act"); the Coal Refuse Disposal Control Act, Act of September 24, 1968, P.L. 1040, 52 P.S. §§ 30.51-30.206 ("Coal Refuse Disposal Act"); The Clean Streams Law, Act of June 22, 1937, P.L. 1987, 35 P.S. §§ 691.1-691.1001("The 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 Section 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 water treatment trust being established as required by this Consent Order and Agreement through the accompanying Trust document constitutes an alternative financial assurance mechanism authorized by Section 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 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; and Section 9 of the Mine 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. CMC is a Delaware limited liability company with a business address of 1000 CONSOL Energy Drive, Canonsburg, PA 15317. CMC does not currently operate active producing coal mines in Pennsylvania however it owns active mining operations in Pennsylvania and West Virginia.

D. CMC is the permittee of the following coal refuse disposal area ("CRDA") which is associated with post-mining discharge liability:

NAME	PERMIT NO.	TOWNSHIP	COUNTY
Robena CRDA	30733707	Monongahela	Greene

Robena CRDA

E. The Robena CRDA is located in Monongahela Township, Greene County. CMC operated the CRDA between 1983 and 2003. Active coal refuse disposal ceased in 2003. The CRDA includes a coarse refuse pile, four sedimentation ponds, two slurry impoundments and two treatment systems. Slurry Pond 6 is currently being leased to re-mine and process coal fines, as well as to complete reclamation of Pond 6. The mining activity was completed in 2013 and the lease will remain active until 2021.

F. The Robena CRDA is associated with the Robena deep mine and the Robena Preparation Plant.

G. The Robena deep mine and Preparation Plant were operated pursuant to Coal Mining Activity Permit ("CMP") No. 30841601. The Robena deep mine was closed prior to CMC purchasing the property and associated permit. The Preparation Plant was removed, and the site was reclaimed in 2007. The remaining River Loading structures were demolished in 2017.

H. CMC operates and maintains two mine drainage treatment systems for treatment of discharges from the Robena deep mine and from the coal refuse disposal area pursuant to CRDA Permit No. 30733707 and NPDES Permit No. PA0215830. Four outfalls are authorized under the NPDES Permit No. PA0215830.

Colvin AMD Treatment System.

I. The Colvin AMD Treatment system treats water from the Robena deep mine. CMC pumps the Robena mine pool in order to maintain a mine pool level sufficient to prevent a surface discharge utilizing a vertical turbine pump. The water is treated with hydrated lime and discharged to an unnamed tributary of Whitely Creek at NPDES outfall 002.

Robena AMD Treatment Plant

J. The Robena AMD treatment plant treats the AMD runoff from the Robena coarse refuse pile, and Slurry Ponds 4, 5, and 6.

K. Runoff from the CRDA coarse refuse pile is collected in Sediment Pond No. 1 and pumped to the Robena AMD treatment plant utilizing a Vertical Turbine. Runoff from the southern outcrops and surrounding areas of Slurry Pond No. 4 is collected in Sediment Pond No. 2 and pumped to the Robena AMD Treatment Plant utilizing a submersible pump to prevent a discharge from Sediment Pond No. 2 at NPDES outfall 004.

L. The runoff from the coarse refuse pile and the southern outcrops and surrounding areas of Slurry Pond No. 4 is treated at the Robena AMD Treatment Plant with hydrated lime and discharged into the northern section of Slurry Pond 4. Treated effluent from the Robena AMD Treatment system is combined with surface water runoff collected in Slurry Ponds Nos. 5 and 6 and is discharged to Whitely Creek at NPDES outfall 001.

M. Runoff from the northern outcrops of Slurry Pond 4 is collected in Sediment Pond No. 1 for CMAP No. 30733707, where it settles and discharges to Whitely Creek at an average rate of 50 GPM through approved outfall 003.

N. Surface reclamation, sealing of boreholes, and structure demolition have not been completed at the Robena CRDA. Reclamation activities will likely alter the quality and quantity of the AMD required for treatment at the Robena AMD Treatment Plant. Additionally, the Robena surface AMD Treatment Plant may need to be relocated before final reclamation at Robena can be completed.

O. A summary of the reclamation bonds currently posted for the Robena CRDA is as follows:

PERMIT NO.	BOND TYPE	FINANCIAL GUARANTOR	BOND INSTRUMENT NO.	BOND STATUS	BOND AMOUNT
30733707	Surety	Fidelity and Deposit Company of Maryland	09110247	Active	\$5,738,500.18
30733707	Surety	Fidelity and Deposit Company of Maryland	09169276	Active	\$2,651,805.82

Post-Mining Discharges – NPDES Outfalls 001 and 002

P. A topographic map depicting the locations of outfalls 001 and 002 is attached as Exhibit A. The latitude and longitude coordinates for 001 and 002 are as follows: 001 - latitude 39° 49' 56" and longitude 79° 56' 34"; 002 - latitude 39° 49' 26" and longitude 79° 58' 24."

Q. Comprehensive raw water quality of the 001 discharge cannot be obtained due to various sources entering the treatment system at different locations. No feasible sample point currently exists.

R. The raw water quality of the 002 discharge, as compiled by CMC on February 1, 2018 from analytical sampling results for the period from March 2014 through January 2018 for the Colvin AMD Treatment Plant is set forth in Exhibit B.

S. The required effluent limits that are currently applicable for outfall 001 and 002 are as follows. The applicable effluent limits may be revised in subsequent renewals of NPDES Permit No. PA0215830:

Effluent Limits for 001

Parameter	30-Day Average	Daily Maximum	Instantaneous Maximum
Flow (mgd)			
Iron (total)	3.0 mg/l	6.0 mg/l	7.0 mg/l
Manganese (total)	2.0 mg/l	4.0 mg/l	5.0 mg/l
Suspended solids	35 mg/l	70 mg/l	90 mg/l
Aluminum			
Sulfates			
Specific conductance (umho)			
pH ¹		greater than 6.0; less than 9.0	
Alkalinity greater than acidity ¹			

¹The parameter is applicable at all times.

Effluent Limits for 002

<u>Parameter</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Flow (mgd)			
Iron (total)	3.0 mg/l	4.0 mg/l	4.0 mg/l*
	3.0 mg/l	6.0 mg/l	7.0 mg/l **
Manganese (total)	2.0 mg/l	4.0 mg/l	5.0 mg/l
Suspended solids	35 mg/l	70 mg/l	90 mg/l
Aluminum			
Sulfates			
Specific Conductance (umho)			
pH ¹		greater than 6.0; less than 9.0	
Alkalinity greater than acidity ¹			

¹The parameter is applicable at all times.

* June 1 through October 31 ** November 1 through May 31

T. Outfalls 003 and 004 discharge water from sedimentation ponds as described in Paragraphs K and M, above. The effluent limits are as follows:

Effluent Limits for 003

Parameter	30-Day Average	Daily Maximum	Instantaneous Maximum
Flow (mgd)			
Iron (total)	- mg/l	7.0 mg/l	- mg/l*
Settleable Solids	-	0.5 mg/l	
Manganese (total)	-	-	-
Aluminum	-	-	-
Specific Conductance (umho)	-	-	REPORT
pH ¹		greater than 6.0; less than 9.0	
Alkalinity greater than acidity ¹			

¹The parameter is applicable at all times.

Effluent Limits for 004

Parameter	30-Day Average	Daily Maximum	Instantaneous Maximum
Flow (mgd)			
Iron (total)	- mg/l	7.0 mg/l	- mg/l*
Settleable Solids	-	0.5 mg/l	
Manganese (total)	-	-	-
Aluminum	-	-	-
Specific Conductance (umho)	-	-	REPORT
pH ¹		greater than 6.0; less than 9.0	
Alkalinity greater than acidity ¹			

¹The parameter is applicable at all times.

U. CMC agrees it has the legal responsibility, pursuant *inter alia* to the Surface Mining Act, the Coal Refuse Disposal Act, the Mine Subsidence Act, and The Clean Streams Law, to properly treat or abate the discharge(s) identified in Paragraphs H–M, above.

Post-Mining Treatment Trust

V. The Colvin Treatment Plant consists of a pre-aeration basin, hydrated lime treatment plant, mixing basin, clarifier, settling pond, and a finishing pond.

W. The Robena AMD Treatment Plant consists of a hydrated lime treatment plant, and two slurry ponds which are used as a settling pond and finishing pond.

X. The Colvin and Robena AMD Treatment Plants (together, “Treatment Systems”) are situated on land owned by CMC. A copy of the deed [and associated surface access agreements]¹ for these properties is included in Exhibit C (such properties, the “CMC Sites”).

Y. The estimated capital cost was calculated by estimating the replacement life of existing treatment plant equipment, spreading these costs out over 75 years, then taking the net present value. This includes cost to replace vertical turbine pumps every 20 years at \$650,000, floating aerator every 5 years at \$25,000, two fixed aerators every 15 years at \$50,000, three lime feeder systems every 20 years at \$20,000, electrics every 20 years at \$40,000, underflow pump system every 10 years at \$10,000, and surface pumps every 10 years at \$30,000.

Z. In order to calculate the amount necessary to fully fund the trust, the Department and CMC have agreed to use actual operation and maintenance costs from past operations of the Treatment Systems, or AMDTreat cost estimates where insufficient operation and maintenance cost data exist. A summary of current annual operation and maintenance costs for the Treatment Systems is shown in attached Exhibit D.

AA. Based on actual operation and maintenance costs from past operations as shown in Exhibit D, the current five-year average annual cost of operating and maintaining the Treatment Systems is \$493,845.

BB. In order to calculate the amount of bond necessary to fully fund the trust, the Department and CMC have agreed to use recapitalization and demolition cost data generated by the Department's AMDTreat software tool. According to CMC's calculations using the AMDTreat software tool, the present value of recapitalization costs for the Colvin and Robena Treatment Systems is \$1,243,709. Attached as Exhibit E is the AMDTreat Recapitalization Cost schedule for the Treatment Systems.

CC. CMC is willing to establish a post-mining treatment trust through a Participation Agreement with Clean Streams Foundation Inc. as an alternative financial assurance mechanism, (and a financially-backed enforceable contract), in order to assure the long-term treatment of post-mining discharges and secure the release of reclamation bonds upon completion of all other reclamation requirements. CMC agrees to establish the Robena Treatment Trust ("CMC Robena Treatment Trust") by executing a Participation Agreement with Clean Streams Foundation, Inc. The Participation Agreement is attached as Exhibit F hereto.

DD. The parties have discussed the need to obtain accurate and timely information on the costs of operating and maintaining the Treatment Systems in order to maintain the proper amount of financial assurance.

EE. The parties have agreed to use the formulas set forth below to calculate the present value of the CMC Robena Treatment Trust. A spreadsheet detailing the Present Value of these treatment costs is shown in Exhibit G, and a detailed breakdown of the equations utilized is shown in Exhibit H.

FF. The parties agree that pursuant to Paragraph 5, below, and subject to annual adjustments resulting from review pursuant to Paragraph 12, below, CMC shall fully fund the CMC Robena Treatment Trust with surety bonds totaling \$12,405,478 by making four annual submissions of bond in the amount of \$3,101,370 each year, beginning on June 1, 2018 and continuing each year to June 1, 2021. This total bond value of \$12,405,478 constitutes the current present value of the estimated future operation and maintenance costs for the Treatment Systems, and the current present value of the estimated future recapitalization costs for the Treatment Systems. The parties have also agreed to use the information and figures which will be provided by the Accounting required by Paragraph 4, below, to recalculate and adjust the amount of the CMC Robena Treatment Trust as described in Paragraphs 6-9, below. CMC, upon written approval by the Department, may replace the surety bonds initially posted to establish the trust with equivalent surety bonds, a letter of credit, or with cash to maintain the funding level required by this Consent Order as described in Paragraph 5.e., below.

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 CMC 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 Mine Subsidence Act, 52 P.S. § 1409.9; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17. The failure of CMC to comply with any term or condition of this Consent Order and Agreement shall subject

CMC to all penalties and remedies provided by those statutes for failing to comply with an order of the Department.

2. Findings.

a. CMC agrees that the findings in Paragraphs A through FF are true and correct and, in any matter or proceeding involving CMC and the Department, CMC 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 five consecutive years of the costs and expenses of treatment, calculated by using the Accountings for those five years.

c. Annual Anniversary Date. Thirty (30) days after the last day of CMC fiscal year or thirty (30) days after the last day of any fiscal year which CMC 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:

$$\begin{aligned} \text{PV} &= (A/[E-I]) + A \\ \text{where: PV} &= \text{Present Value of the O\&M Costs} \\ A &= \text{Current Actual Treatment Cost} \\ E &= \text{Expected annual earnings/Interest Rate (assumed to be} \\ &\text{8.51\% or .0851)*} \\ I &= \text{Inflation Rate (assumed to be 3.1\% or .031)} \end{aligned}$$

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% 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 bonds currently held by the Trust in the Primary Trust Account.

4. Annual Treatment Costs; Records; Factors; Accounting.

a. CMC 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. CMC shall keep separate records for each of the following Treatment Systems: Colvin AMD Plant and Robena Surface AMD Plant.

c. CMC shall provide an annual accounting of the costs and expenses of annual treatment to the Department on or before the 90th 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 1st and continuing through December 31st of each year, or other fiscal year as CMC 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 CMC and by the President of CMC attesting to the completeness and accuracy of the records of the costs and expenses of annual treatment as reported in the Accounting.

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

e. In the event of a dispute about the costs and expenses of treatment incurred by CMC, CMC 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 CMC, prepared by an independent licensed public or certified public accountant, shall satisfy CMC's burden of proof as to any of these matters.

5. Treatment Trust.

a. CMC shall establish an irrevocable trust to be known as the CMC Robena Treatment Trust by executing a Participation Agreement with the Clean Streams Foundation. The Participation Agreement is attached as Exhibit F. The CMC Robena Treatment Trust shall

secure CMC's obligation to treat the discharges described in Paragraphs H-M, above, of this Consent Order and Agreement, including its legal obligation to operate and maintain the Treatment Systems in perpetuity or until the Department determines that water treatment is no longer necessary. The CMC Robena Treatment Trust shall also secure the CMC'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 CMC becomes unable or unwilling to meet these obligations. The CMC Robena Treatment Trust shall provide for the demolition of treatment facilities and reclamation of the treatment site should treatment no longer be needed.

b. CMC shall establish within the CMC Robena Treatment 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. In order to guarantee CMC's obligation to treat or abate the discharges described in Paragraphs H-M of this Consent Order and Agreement, CMC shall fully fund the CMC Robena Treatment Trust with surety bonds totaling \$12,405,478 by delivering to the Trustee four surety bonds totaling \$12,405,478 in value. Funding shall be accomplished in four annual submissions of bond in the amount of \$3,101,370 beginning on June 1, 2018 and continuing each year to June 1, 2021, subject to any annual adjustments resulting from review pursuant to Paragraph 12. By June 1, 2021, the CMC Robena Treatment Trust will be fully funded

d. CMC shall initially deliver to the Trustee a surety bond in the amount of \$3,101,370 on or before June 1, 2018. The initial bond and the value of the three additional bonds constitute 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(s) and the current amount needed to finance anticipated and periodic capital expenditures for the Treatment Systems.

e. Alternative Funding of the Primary Trust Account. CMC, with the Department's approval, may replace the initially posted surety bonds with substantially equivalent surety bonds, letter of credit or with cash to maintain the funding level required by this Consent Order. Before effecting a change in security, CMC must provide the Department sixty (60) days written notice of its proposed change and await the Department's approval, which the Department shall not unreasonably withhold. Any change in funding shall be accomplished in a manner that assures that the CMC Robena Treatment Trust remains continuously funded in compliance with this Consent Order and Agreement.

6. 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 CMC in the form of a surety bond reduction of the surety bonds identified in Paragraph 5.e. Such surety bond reduction shall be in an amount determined by the following formula:

$$BR = ((1 + RoR) (TR - B) + B) - (1.03(TV))$$

Where:

BR	=	surety bond reduction
B	=	surety bond amount
RoR	=	assumed net rate of return or effective rate of return
TV	=	Primary Target Valuation
TR	=	Primary Trust Valuation

If the Primary Trust is fully funded with cash rather than surety bonds, a Distribution Payment shall be made in an amount equal to the difference between the Primary Trust Valuation and the Primary Target Valuation, or equal to the Calculated Treatment Cost, whichever is less.

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 there shall be no change in the Primary Trust account.

d. If the Primary Trust Valuation is less than the Primary Basis Valuation, then CMC shall increase the amount of bond or cash in 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. This provision does not apply until CMC has fulfilled its obligations under Paragraph 5.c.

7. 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% or less than or equal to 90% 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% of the new Primary Basis Valuation.

8. Distribution Payments for Adjustments to the Primary Target Valuation.

a. If the Primary Trust Valuation does not include the value of pledged surety bonds, then Distribution Payments shall be made according to Paragraph 8.c. Otherwise, Distribution Payments shall be made according to Paragraph 8.d.

b. If the newly calculated Primary Target Valuation which has been adjusted under Paragraph 7, above, is greater than the Primary Trust Valuation, no distribution payment shall be made under this Paragraph.

c. If the newly calculated Primary Target Valuation which has been adjusted under Paragraph 7, 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 CMC. 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

d. If the newly calculated Primary Target Valuation which has been adjusted under Paragraph 7, above is based on 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 CMC in the form of a surety bond reduction. Such bond reduction shall be in an amount determined by the following formula:

$$BR = ((1 + \text{RoR}) (TR - B) + B) - (1.03(\text{TV}))$$

Where: BR = surety bond reduction
RoR = assumed net rate of return or effective rate of return
TV = Primary Target Valuation
TR = Primary Trust Valuation
B = surety bond amount

e. In the year the final surety bond is released, if the Primary Trust Valuation after the final surety bond release remains greater than the newly calculated Primary Target Valuation, then an additional Distribution Payment shall be made under Paragraph 8.c.

9. Capital Improvement Account.

a. The amount required for this account is included in the Primary Trust Account but will be accounted for and reported separately as if a 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 6.0%, the initial bond 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 shown in Exhibit E -AMDTreat Recapitalization Cost schedule for the Treatment Systems is made a part of this agreement. The required balance in the Capital Improvement Account may be recalculated on an annual basis. As a part of the annual review pursuant to Paragraph 12 below, the Department shall compare the sum of both the Primary Target Valuation and the Capital Target Valuation to the sum of both the Primary Trust Valuation and Capital Trust Valuation. If, during the annual review, the Primary Trust Valuation plus the Capital Trust Valuation is less than the sum of both the Primary Target

Valuation and the Capital Target Valuation, the Department may require CMC to adjust the amount of the bonds held in the Trust, within thirty (30) days, to an amount sufficient to raise the combined value of the Primary Trust Valuation and the Capital Trust Valuation to equal the sum of the combined value of the Primary Target Valuation and the Capital Target Valuation. Such recalculation and/or adjustment shall be deemed an amendment to Exhibit E and this Consent Order and Agreement, and shall be used in making all future calculations involving the Capital Improvement Account.

10. Real and Personal Property. Contemporaneous with the execution of this Consent Order and Agreement, CMC has entered into a Right-of-Entry Agreement (attached as Exhibit I) which grants unto the Trustee an irrevocable right of entry or its equivalent to enter upon the CMC Sites to perform all maintenance and operations necessary to treat the long-term discharges which are the subject of the Consent Order and Agreement. Additionally, CMC has entered into an irrevocable Option Agreement (attached as Exhibit J) which allows the Trustee to purchase all of the equipment, structures and machinery used to treat the discharges in the Treatment Systems for the purchase price of one dollar (\$1.00) which may be exercised only if CMC enters bankruptcy or will cease to exist.

11. Public Liability Insurance.

a. CMC 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 Treatment Trust Agreement as part of the trust principal. CMC shall also maintain its existing liability insurance policy No. BOG 9377215-12 and its fire insurance policies. The Trustee and the Commonwealth of Pennsylvania shall be added as additional insureds on the policy.

b. In addition to the requirements of Paragraph 11.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 or cancellation of the policy. Proof of insurance shall consist of a certificate of insurance filed annually with the Department which certifies CMC has a public liability insurance policy in force meeting the requirements of this Paragraph.

12. 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 CMC Robena Treatment Trust; (iv) to calculate, recalculate or adjust the size of the Primary Target Valuation, the Calculated Treatment Cost, and distribution payments from or additional bond into the CMC Robena Treatment Trust; and (v) to address any other issues that may concern this Consent Order and Agreement or its implementation. As part of each annual review, CMC shall provide the Department with a recalculation of the Primary Target Valuation to reflect any updated cost estimate, using the Present Value formula in Paragraph 3.g. and projecting the cost for a 75 year period from the date of the review. Further, as a part of each annual review, CMC shall provide the Department with a recalculation of the Capital Target Valuation to reflect any updated cost estimate, life cycle change or activity, and project the costs for the same 75 year period. At the conclusion of each annual review, the Department

may require CMC to adjust the amount of bonds held in the Trust to an amount sufficient to raise the combined value of the Primary Trust Valuation and the Capital Trust Valuation to be equal to the Primary Target Valuation and Capital Target Valuation.

b. The Operator 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).

13. CMC's Continuing Obligation. Neither CMC's agreement to fund the CMC Robena Treatment Trust, nor the full or partial funding of the CMC Robena Treatment Trust, nor the exhaustion of the CMC Robena Treatment Trust, shall in any way limit CMC'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 S and T, above. Furthermore, exhaustion of the CMC Robena Treatment Trust shall not excuse CMC from its obligation to adequately treat or to abate the discharges.

14. Stipulated Penalties.

a. In the event CMC fails to comply in a timely manner with any term or provision of this Consent Order and Agreement, CMC 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:

California District Mining Office
25 Technology Drive
California Technology Park
Coal Center, PA 15423

c. Any payment under this Paragraph shall neither waive CMC's duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel CMC's compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only CMC'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.

15. Enforcement & Additional Remedies.

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

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.

16. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. CMC reserves the right to challenge any action which the Department may take to require those measures.

17. Liability of CMC. CMC 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. CMC also shall be liable for any violation of this Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

18. Transfer of Sites.

a. CMC's 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 CMC Sites, the Treatment Systems or any part thereof.

b. If CMC intends to transfer any legal or equitable interest in the CMC Sites, the Treatment Systems or any part thereof, CMC shall provide a copy of this Consent Order and Agreement to the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Director, District Mining Operations and the District Mining Manager identified in Paragraph 19 of such intent.

c. The Department in its sole discretion may agree to modify or terminate CMC's duties and obligations under this Consent Order and Agreement upon transfer of the CMC Sites, the Treatment Systems or any part thereof. CMC waives any right that it may have to challenge the Department's decision in this regard.

19. 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
California District Mining Office
25 Technology Drive
California Technology Park
Coal Center, PA 15423

20. Correspondence with CMC.

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

Brian Bogden
CONSOL Energy, Inc.
1000 CONSOL Energy Drive
Canonsburg, PA 15317

b. CMC 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.

21. Force Majeure.

a. In the event that CMC 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 CMC's control and which CMC, by the exercise of all reasonable diligence, is unable to prevent, then CMC 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 CMC's control. CMC'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. CMC 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 CMC 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. CMC'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 CMC and other information available to the Department. In any subsequent litigation, CMC 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.

22. 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.

23. 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.

24. 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.

25. Modifications. Except as provided in Paragraph 9, 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.

26. 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.

27. 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 CMC may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

28. Successors.

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

b. CMC 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.

29. Request for Release.

a. Upon completion of all reclamation of the Robena CRDA and the Department's release of Stage III reclamation bond for the Robena CRDA, CMC may request that its obligations to provide financial assurance for the treatment of its post-mining discharges associated with the Robena CRDA established under the terms of this Consent Order and Agreement be terminated based on a demonstration either that all post-mining discharges associated with the Robena CRDA have been abated or that the raw water discharges from the Robena CRDA no longer require treatment in order to meet the applicable effluent limits for the outfalls associated with the Robena CRDA in NPDES Permit No. PA0215830 and any amendments to NPDES Permit No. PA 0215830 and to prevent pollution of the waters of the commonwealth.

b. The Department agrees to consider CMC's request but its agreement to consider the request does not constitute a duty or obligation to consent to CMC's request. Nor does CMC's request under this Paragraph relieve CMC of its obligation to comply with The Clean Streams Law, Mine Subsidence Act, Coal Refuse Disposal Act and other applicable environmental laws.


c. The Department and CMC agree that a decision to deny CMC's request under Paragraph 29 is not a final action that may be appealed to the Environmental Hearing

Board and CMC waives any right that it may have to challenge the Department's decision made under Paragraph 29.

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

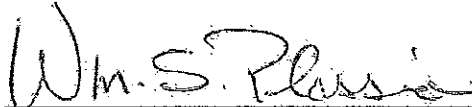
IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of CMC certify under penalty of law, as provided by 18 Pa.C.S. § 4904, that they are authorized to execute this Consent Order and Agreement on behalf of CMC; that CMC consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that CMC 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 CMC's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR CONSOL MINING
COMPANY LLC:

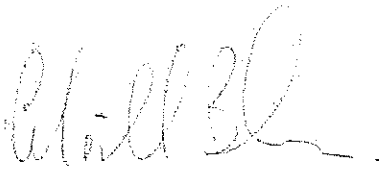


Manager: CONSOL Mining Holding
Company LLC
Name: Martha Wiegand
Vice President

FOR THE COMMONWEALTH OF
PENNSYLVANIA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION:



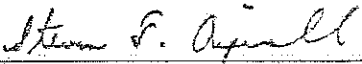
William S. Plassio
Director, Bureau of District Mining
Operations



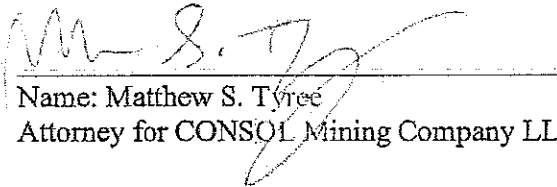
Name: Michael Baker
Secretary



Barbara Grabowski
Assistant Counsel
Southwest Region OCC



Name: Steve Aspinall
Treasurer



Name: Matthew S. Tyree
Attorney for CONSOL Mining Company LLC



Name: Brian Bogden
Attorney-in-fact for CONSOL Mining Company LLC