

Application Type Renewal
Facility Type Non-Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0253715
APS ID 805107
Authorization ID 1272147

Applicant and Facility Information

Applicant Name	<u>PBS Coals Inc.</u>	Facility Name	<u>Cambria Fuel Prep Plant</u>
Applicant Address	<u>PO Box 260</u> <u>Friedens, PA 15541-0260</u>	Facility Address	<u>182 Coal Road</u> <u>Berlin, PA 15530</u>
Applicant Contact	<u>Matthew Wichell</u>	Facility Contact	<u></u>
Applicant Phone	<u>(814) 443-4668</u>	Facility Phone	<u>(814) 443-4668</u>
Client ID	<u>233</u>	Site ID	<u>693739</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Stonycreek Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Somerset</u>
Date Application Received	<u>April 29, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>May 6, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal application to discharge treated sewage</u>		

Summary of Review

This review is in response to a renewal application received on April 29, 2019. PBS Coals Inc. owns and operates the Cambria Fuel Prep Plant in Stonycreek Township, Somerset County. Sewage from the prep plant is treated with a septic tank, sand filtration and chlorination.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		<i>James Vanek</i> James Vanek, P.E. / Environmental Engineer	December 16, 2020
X		<i>Donald J. Leone</i> Donald J. Leone, P.E. / Environmental Engineer Manager	January 22, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.003</u>
Latitude	<u>39° 59' 58.58"</u>	Longitude	<u>-78° 57' 9.73"</u>
Quad Name	<u>Berlin</u>	Quad Code	<u>1914</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Schrock Run (CWF)</u>	Stream Code	<u>45729</u>
NHD Com ID	<u>123713668</u>	RMI	<u>2.76</u>
Drainage Area	<u>1.1</u>	Yield (cfs/mi ²)	<u>0.04</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.044</u>	Q ₇₋₁₀ Basis	<u>Previous fact sheet</u>
Elevation (ft)	<u>2320</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>18-E</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u>none</u>	Exceptions to Criteria	<u>none</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>METALS</u>		
Source(s) of Impairment	<u>ACID MINE DRAINAGE</u>		
TMDL Status	<u>Final</u>	Name	<u>Kiskiminetas-Conemaugh River Watersheds TMDL</u>
Background/Ambient Data		Data Source	
pH (SU)	<u></u>		<u></u>
Temperature (°F)	<u></u>		<u></u>
Hardness (mg/L)	<u></u>		<u></u>
Other:	<u></u>		<u></u>
Nearest Downstream Public Water Supply Intake	<u>Hooversville MA</u>		
PWS Waters	<u></u>	Flow at Intake (cfs)	<u>9</u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u>11.5</u>

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary				
Treatment Facility Name: Cambria Fuel Prep Plant				
WQM Permit No.		Issuance Date		
5608404		February 25, 2009		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Septic Tank Sand Filter	Hypochlorite	0.003
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.003	5	Not Overloaded		Other stp

Changes Since Last Permit Issuance: none

Other Comments:

Compliance History

DMR Data for Outfall 001 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
Flow (MGD) Average Monthly	0.25	0.00004	0.00004	0.00040 3	0.00021 6	0.002	0.0086	0.0001	0.0034	0.00006	0.0009	0.0004
pH (S.U.) Minimum	6.7	7.1	7.00	6.0	7.1	6.0	6.8	6.0	6.0	6.0	6.0	6.0
pH (S.U.) Maximum	7.3	7.4	7.23	7.2	7.4	7.7	7.5	7.2	7.4	7.5	7.3	7.4
DO (mg/L) Minimum	4.4	4.1	3.6	5.92	5.88	7.53	6.84	8.2	7.2	8.1	8.0	6.9
TRC (mg/L) Average Monthly	0.45	0.49	0.47	0.3	0.02	0.01	0.1	< 0.1	0.01	0.01	0.4	0.46
TRC (mg/L) Instantaneous Maximum	0.48	0.6	0.48	0.5	0.09	0.01	0.1	< 0.1	0.01	0.01	0.5	0.5
CBOD5 (mg/L) Average Monthly	< 2	< 2	< 2.0	< 2	< 2	< 2	< 2	< 2	9.5	< 2.5	< 2	< 2
CBOD5 (mg/L) Instantaneous Maximum	< 2	2	< 2.0	< 2	2	< 2	< 2	2	17	3	< 2	< 2
TSS (mg/L) Average Monthly	< 6	< 8	< 2.0	< 7	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 3
TSS (mg/L) Instantaneous Maximum	10	13	< 2.0	9	< 2	< 2	< 2	< 2	< 2	< 4	< 2	< 4
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	< 1	< 1.0	< 2	< 1	< 1	< 1	< 1	< 1	< 1.76	< 1	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 1	< 1	< 1.0	3.1	< 1	< 1	< 1	< 1	< 1	3.1	< 1	< 1
Total Nitrogen (mg/L) Daily Maximum											26.8	
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.23	< 0.1	< 0.1	< 0.1	0.79	< 0.46	< 0.1	< 0.1	< 0.1	< 0.1

**NPDES Permit Fact Sheet
Cambria Fuel Prep Plant**

NPDES Permit No. PA0253715

Ammonia (mg/L) Instantaneous Maximum	< 0.1	< 0.1	< 0.36	0.1	< 0.1	< 0.1	1	0.83	< 0.1	< 0.1	< 0.1	< 0.1
Total Phosphorus (mg/L) Daily Maximum											0.09	
Total Aluminum (mg/L) Daily Maximum		< 0.1			< 0.1			< 0.1			< 0.1	
Total Iron (mg/L) Daily Maximum		0.06			< 0.05			0.1			< 0.05	
Total Manganese (mg/L) Daily Maximum		< 0.01			< 0.01			< 0.01			< 0.01	

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>.003</u>
Latitude <u>39° 59' 58.50"</u>	Longitude <u>-78° 57' 10.40"</u>
Wastewater Description: <u>Sewage Effluent</u>	

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

Since there have been no changes in water quality standards, discharge quality or stream quality, water quality modeling was not performed for this permit review.

Best Professional Judgment (BPJ) Limitations

The limits for dissolved oxygen will remain at 3.0 mg/l as an instantaneous minimum and the monitoring frequency will remain at 2/month. A review of the last 12 months of DMR data show one instance where the dissolved oxygen fell below the typical 4.0 mg/l instantaneous minimum normally issued for all sewage plants.

Anti-Backsliding

Anti-backsliding was not used for this permit renewal.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	3.0 Inst Min	XXX	XXX	XXX	2/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Manganese	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab

Compliance Sampling Location: at outfall 001

WQM Modeling from Previous Permit

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18E	45729	SCHROCK RUN	2.460	2320.00	1.10	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.040	0.00	0.00	0.000	0.000	10.0	5.00	0.50	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
PBS Coals	PA0253715	0.0030	0.0030	0.0030	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18E	45729	SCHROCK RUN	1.000	2185.40	3.20	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	Tributary pH	Stream Temp	Stream pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)	
Q7-10	0.040	0.00	0.00	0.000	0.000	10.0	5.00	0.50	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data							
Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data				
Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>				<u>Stream Name</u>						
18E		45729				SCHROCK RUN						
RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
2.460	0.04	0.00	0.04	.0046	0.01746	.5	5	10	0.02	4.586	20.48	7.00
Q1-10 Flow												
2.460	0.03	0.00	0.03	.0046	0.01746	NA	NA	NA	0.01	6.800	20.71	7.00
Q30-10 Flow												
2.460	0.06	0.00	0.06	.0046	0.01746	NA	NA	NA	0.03	3.459	20.36	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	6		

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	6		

WQM 7.0 Wasteload Allocations

SWP Basin Stream Code Stream Name
18E 45729 SCHROCK RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
	2.460 PBS Coals	9.19	50	9.19	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
	2.460 PBS Coals	1.87	25	1.87	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
	2.46 PBS Coals	25	25	25	25	3	3	0	0

WQM 7.0 D.O. Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>	
18E	45729	SCHROCK RUN	
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>
2.460	0.003	20.477	7.000
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>
5.000	0.500	10.000	0.019
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>
4.19	0.158	2.39	0.726
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>
7.743	5.649	Owens	6
<u>Reach Travel Time (days)</u>	<u>Subreach Results</u>		
4.586	<u>TravTime (days)</u>	<u>CBOD5 (mg/L)</u>	<u>NH3-N (mg/L)</u>
			<u>D.O. (mg/L)</u>
	0.459	3.90	1.71
	0.917	3.62	1.23
	1.376	3.36	0.88
	1.834	3.12	0.63
	2.293	2.90	0.45
	2.751	2.69	0.32
	3.210	2.50	0.23
	3.669	2.32	0.17
	4.127	2.15	0.12
	4.586	2.00	0.09

WQM 7.0 Effluent Limits

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
18E	45729	SCHROCK RUN					
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
2.460	PBS Coals	PA0253715	0.003	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3