

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-10900006-2017**
Application Received: **May 25, 2016**
Plant Identification Number: **03-054-10900006**
Permittee: **Pinnacle Mining Company, LLC**
Facility Name: **Pinnacle Preparation Plant**
Mailing Address: **P.O. Box 338, Pineville, West Virginia 24874**

Revised: N/A

Physical Location: Pineville, Wyoming County, West Virginia
UTM Coordinates: 456.10 km Easting • 4,155.40 km Northing • Zone 17
Directions: At Pineville take Route 10 South approximately one mile, turn right onto Route 16 South, travel approximately one mile before turning left onto Pinnacle Creek Road.

Facility Description

The facility is a coal preparation plant which processes raw coal from an associated underground bituminous coal mine plus other raw coal sources. The preparation involves separating the higher ash reject and pyrite from the rest of the material, leaving a low ash and low sulfur coal. Operations at the plant include breaking, crushing, handling, screening, washing, and drying. The facility is characterized by SIC code 1222.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2015 Actual Emissions ¹
Carbon Monoxide (CO)	178	114.43
Nitrogen Oxides (NO _x)	333	213.88
Particulate Matter (PM _{2.5})	168	46.23
Particulate Matter (PM ₁₀) ²	355	88.57
Total Particulate Matter (TSP) ²	744	116.6
Sulfur Dioxide (SO ₂)	178	73.22
Volatile Organic Compounds (VOC)	186	99.07
Hazardous Air Pollutants	Potential Emissions	2015 Actual Emissions ¹
Benzene	2.33	0.0354
Hexane	4.66	0.0945
Hydrochloric acid	8.01	3.49
Aggregate HAPs ³	17.62	4.1

¹ The 2015 actual emissions are from the State and Local Emissions Inventory System (SLEIS).

² The Fact Sheet for the 2012 Title V permit indicates that potential emissions of PM₁₀ and TSP are 288 and 414 tons per year, respectively. However, the renewal application states that the PTEs are 355 and 744 tpy, and no physical or operational change occurred during the current permit term, and thus no permit modifications have occurred during the current permit term. According to 12/2/2016 technical correspondence received from the permittee, the difference is due to the use of an incorrect emission factor equation for paved roads in the 2012 application. U.S. EPA revised the paved road emission factor equation in 2011 from $E = k (sL/2)^{0.65} (W/3)^{1.05}$ to $E = k (sL)^{0.91} (W)^{1.02}$ (cf. Equation (1) in AP-42 Section 13.2.1.3., <https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf> accessed on 12/5/2016). The divisors 2 and 3 contained in the first equation do not appear in the second emission factor equation. This detail was missed during the 2012 application preparation resulting in the lower PTEs for the paved road emissions than those calculated for this renewal application using the correct equation.

³ The actual aggregate HAPs is the sum of the specific HAPs listed in the 2015 SLEIS report.

Title V Program Applicability Basis

This facility has the potential to emit 178 tpy of CO, 333 tpy of NO_x, 355 tpy of PM₁₀, 178 tpy of SO₂, and 186 tpy of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Pinnacle Mining Company, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR5	Coal Preparation and Handling Operations
	45CSR6	Open burning prohibited.

	45CSR10	Emission of Sulfur Oxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction/Modification
	45CSR16	NSPS pursuant to 40 C.F.R. Part 60
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 60, Subpart Y	Coal Preparation Plants
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 64	Compliance Assurance Monitoring
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2183K	April 28, 2008	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

1. **40 C.F.R. Part 64 – Compliance Assurance Monitoring (CAM).** A Compliance Assurance Monitoring (CAM) Plan was submitted with the Title V renewal application in 2006 and incorporated into the current Title V permit. According to Attachment H of the application, no modifications have been made to the operation of the devices subject to this CAM Plan that would require the plan to be updated. Pinnacle Mining will continue to operate under the current CAM Plan. However, during the technical review for this renewal the writer noticed that several CAM permit conditions do not cite 45CSR30. Each CAM requirement is to be accompanied by a State counterpart citation of authority. For CAM requirements in all Title V permits, the practice is to include the general monitoring citation “45CSR§30-5.1.c.” Therefore, this has been added to the citation of authority for all CAM requirements that do not already cite 45CSR30, which are: 4.2.8. through 4.2.11., 4.4.3., and 4.5.1. It has been noted that CAM conditions 4.2.1. through 4.2.5. already include a citation of 45CSR§30-12.7., thereby making the CAM monitoring state-enforceable; consequently, 45CSR§30-5.1.c. has not been added to the citations for those conditions.

2. **Particulate Matter Stack Testing of Thermal Dryer.** Condition 4.3.5. of the current Title V permit requires PM stack testing of the thermal dryer TD1 no later than September 25, 2012. Previous testing was performed in 2007, and based upon those results, testing was not required again until 2012. The permittee submitted a copy of the most recent test results to the writer in 12/2/2016 and 12/6/2016 technical correspondence. The testing was performed on September 26, 2012, and all PM test results were below the 0.083 gr/dscf permit limitation in condition 4.1.8. with concurrent opacity readings meeting the 20% limit in condition 4.1.5. Therefore, the testing verified that the TD1 emission limitation was met while operating within the indicator ranges established in the CAM plan. The test results below were provided by the permittee in e-mail technical correspondence dated 12/6/2016.

Sampling Location	Run No.	Concentration (gr/dscf) ^a	Measured (lbs/h) ^b	Particulate Emissions	
				Allowable (gr/dscf) ^a	(lbs/h) ^c
Upstream stack outlet	1	0.010	7.56	0.083	77.0
	2	0.013	9.58		
	3	0.015	10.11		
	4	0.004	3.13		
	Averages	0.011	7.60		
Downstream stack outlet	1	0.012	9.32	0.083	77.0
	2	0.018	14.15		
	3	0.019	15.45		
	4	0.006	4.92		
	Averages	0.014	10.96		

^a gr/dscf = Grains per dry standard cubic foot at standard conditions 68°F and 29.92 in.Hg.
^b lb/h = Pounds per hour.
^c lb/h = Allowable Pounds per hour combined total from both sources.

Since all of the 9/26/2012 test results were less than 50% of the 0.083 gr/dscf limit in condition 4.1.8., the testing frequency remains once every 5 years. Consequently, the date in the first sentence of condition 4.3.5. has been changed to September 26, 2017, and the years in the italicized footnote at the end of the condition are changed to 2012 and 2017.

3. **Permit Determination No. PD15-042.** On May 12, 2015, WVDAQ received a permit determination request from the permittee for three existing rock dust bins and an existing gasoline dispensing facility (GDF), which are under the control of the underground mining operation manager, not the Pinnacle Preparation Plant manager. Based upon their utilization and location, the rock bins and GDF are considered to be part of the Mining Operation rather than the Pinnacle Preparation Plant. As such, these units are not required to be in permit R13-2183K or incorporated into the Title V permit. On May 22, 2015, DAQ responded to the request stating that a permit will not be required based upon the information provided by the permittee in the request. For this reason, the GDF and three rock bins have not been incorporated into the renewal Title V permit.

4. **45CSR10 – To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.** The thermal dryer TD1 is subject to the 2,000 ppmv standard for a manufacturing process source operations provided in this rule (permit condition 4.1.4.). The testing and monitoring provisions in 45CSR§§10-8.1.a., 8.1.b., 8.2.a., and 8.2.b. are included in the current operating permit (conditions 4.3.1. through 4.3.4.). The applicable monitoring plan provisions of 45CSR§10-8.2.c. are not currently specified in the operating permit. With a September 5, 2001 letter, the permittee submitted to DAQ its Sulfur Dioxide Monitoring Plan for 45CSR10. In a subsequent letter dated September 26, 2001, the permittee supplemented the SO₂ monitoring plan with the following statement.

U.S. Steel Mining Company, LLC will monitor the sulfur content of the coal feed to the thermal dryer as required in its Regulation 13 permit. Demonstration of compliance with the Regulation 13 sulfur dioxide limit will demonstrate compliance with the less stringent Regulation 10 limit.

DAQ approved the amended monitoring plan in its letter dated May 1, 2002. As such, condition A.3. in permit R13-2183K, which requires the permittee to monitor the dryer fuel coal sulfur content, fulfills the monitoring plan requirement in 45CSR§10-8.2.c. Therefore, 45CSR§10-8.2.c. has been added to the citation of authority in permit condition 4.2.4.

5. **Miscellaneous Revisions.** Except for the first three items, the following changes were due to comments received from the permittee based upon their review of the pre-draft permit.
- a. Example Data Form Attachments. The Title V permit number suffix has been updated from 2011 to 2017 in Attachments A through D.
 - b. In conditions 3.2.1. and 4.2.6. the parenthetical language “but no less than one (1) minute” has been added after the current language “sufficient time interval”.
 - c. In conditions 4.2.1. through 4.2.5., the language in the last sentence “under the proposed 40 C.F.R. 64 plan” has been changed to “under the 40 C.F.R. 64 plan” since the CAM plan is no longer proposed.
 - d. In section 1.1., under Raw Coal Handling System, for equipment ID S10, the “A” location designation across from T120 has been deleted.
 - e. In section 1.1., under Trucked Coal and Coal Fines Circuit, for equipment IDs C120, C121, and C122, the design capacities have been added.
 - f. In condition 3.1.11., the language “Subpart Y affected facilities listed in Section 5.0” has been revised for clarity to be “Subpart Y affected facilities, which are those listed in Section 5.0.”
 - g. In the heading of section 5.0, the following revisions have been made:
 - i. The language “Transfer Points” has been further described by changing it to “Transfer Points Subject to 40 C.F.R. 60, Subpart Y”.
 - ii. Corrected the endloader transfers to include the endloader transfer to railcar T113.
 - iii. Corrected the endloader transfer to ST-10 as T105, not T4-8.
 - iv. Relocated the DH-3 discharge transfer T95 from the line below following ST-6 to be with the endloader transfer DH-3 (T94).
 - v. Added the DHRC-4 discharge transfer T125 to the endloader to DHRC-4 transfer (T124).

- h. In the table in condition 5.1.1., in the fourth row, the typographical error in the word “from” has been corrected.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

Regulation	Rationale
45CSR10	To Prevent and Control Air Pollution from the Emission of Sulfur Oxides. The thermal dryer is not part of a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted. Therefore, 45CSR§10-5.1 does not apply to the thermal dryer.
40 C.F.R. Part 60, Subpart Y	Standards of Performance for Coal Preparation and Processing Plants. Several units (Thermal dryer, C11-1, C11-2, Rotary Breakers 13-1 &13-2, ST-3, ST-4, C37, C45, Rock Bin, Rock Crusher #6, C8, C125, C128-1, C128-2, C100, Horizontal Axis Mixer No. 120, and C119) were installed prior to October 27, 1974. Therefore, this subpart does not apply to these units per 40 C.F.R. §60.250(b). Also, this subpart does not apply to all coal, refuse, and fines open storage piles because they were installed prior to May 27, 2009.
40 C.F.R. Part 64	<p>This is the third permit renewal for this facility. At the time of the first renewal, a CAM applicability review was conducted, and CAM requirements were added. No changes have been made at this facility since the second renewal that would require additional CAM permit conditions.</p> <p>The prior CAM review is as follows:</p> <p>Cyclones (001-01A & 001-01B) – These two cyclones pre-clean the thermal dryer exhaust gas before it enters the exhaust fan that pushes it through two (2) parallel venturi scrubbers (Control Device IDs 001-02A, 001-02B). Finer dried coal from the thermal dryer exhaust is removed by the cyclones. This dried coal reporting to the cyclones is used as fuel in the thermal dryer furnace because it is finer and thus requires less processing by the pulverized coal feed system. Because the cyclones are a critical part of the product recovery and furnace fuel system, they are deemed <i>inherent process equipment</i> in accordance with the definition in 40 C.F.R. §64.1, and therefore the cyclones do not require a CAM Plan.</p> <p>Mixer Scrubber (004) – This scrubber controls PM emissions from transfer points T16 (horizontal axis mixer), T17, and T18. According to the permittee’s calculations in the application, the aggregate pre-control PTE for these three transfer points is 785 lb/yr + 7,513 lb/yr + 7,513 lb/yr = 15,811 lb/yr = 7.91 ton/yr. This is less than 100 ton/yr, and therefore is not a pre-control “major source”. Therefore, the Mixer Scrubber 004 is not subject to 40 C.F.R. 64.</p> <p>Clean Coal Scrubber (0011) – This scrubber controls PM emissions from transfer points T20 and T21. According to the permittee’s calculations in the application, the aggregate pre-control PTE for this transfer point is 2,254 lb/yr. This is less than 100 ton/yr, and therefore is not a pre-control “major source”. Therefore, the Clean Coal Scrubber 0011 is not subject to 40 C.F.R. 64.</p>

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: January 18, 2017
Ending Date: February 17, 2017

Point of Contact

All written comments should be addressed to the following individual and office:

Denton B. McDerment, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478
denton.b.mcderment@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Public Comments

No comments were received from the public, which includes the permittee.

U.S. EPA Comments

In an e-mail dated March 1, 2017, Mr. Paul Wentworth stated that he thoroughly reviewed this permit and found no reason to object to its issuance.

Other Changes

The content of permit conditions 3.5.3., 3.5.5., and 3.5.6. has been modified to include new instructions and e-mail addresses for electronic submittal of information specified in the conditions.