

# Fact Sheet



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

Permit Number: **R30-04900019-2008**  
Application Received: **December 19, 2007**  
Plant Identification Number: **04900019**  
Permittee: **Consolidation Coal Company**  
Facility Name: **Loveridge Preparation Plant**  
Mailing Address: **P. O. Box 100, Osage, WV 26543**

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Physical Location: Fairview, Marion County, West Virginia  
UTM Coordinates: 561.6 km Easting • 4,383.9 km Northing • Zone 17  
Directions: Approximately 1 mile NW of Fairview on State Route 17. Turn left on Sugar Run Road.

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## **Facility Description**

Consolidation Coal Company's Loveridge Preparation Plant consists of a coal mining operation and a preparation plant with a thermal dryer.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2006 Actual Emissions</b>
Carbon Monoxide (CO)	172.8	101.17
Nitrogen Oxides (NO <sub>x</sub> )	190.8	124.51
Particulate Matter (PM <sub>2.5</sub> )	62.78	39.26
Particulate Matter (PM <sub>10</sub> )	202.27	66.59
Total Particulate Matter (TSP)	423.86	92.33
Sulfur Dioxide (SO <sub>2</sub> )	586.0	448.76
Volatile Organic Compounds (VOC)	502.17	227.79

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2006 Actual Emissions</b>
HF	1.0	0.52
HCl	3.0	1.83
Arsenic	<0.01	0.00012
Chromium (III)	<0.01	0.0018
Chromium (IV)	<0.01	0.00053
Manganese	<0.01	0.0033
Nickel	<0.01	0.0019

*Some of the above HAPs may be counted as PM or VOCs.*

### Title V Program Applicability Basis

This facility has the potential to emit 172.8 tons per year of CO, 190.8 tons per year of NO<sub>x</sub>, 202.27 tons per year of PM<sub>10</sub>, 586.0 tons per year of SO<sub>2</sub>, and 502.17 tons per year of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Consolidation Coal Company 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  45CSR6 45CSR10 45CSR11 45CSR13 45CSR16  WV Code § 22-5-4 (a) (14)  45CSR30 40 C.F.R. 60, Subpart Y  40 C.F.R. Part 61 40 C.F.R. Part 82, Subpart F	Control of Particulate Emissions from Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas Open burning prohibited. Sulfur dioxide limits. Standby plans for emergency episodes. Preconstruction permits for minor sources. Emission Standards for New Stationary Sources Pursuant to 40 C.F.R. Part 60. The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. New Source Performance Standards for Coal Preparation Plants Asbestos inspection and removal Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft 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, 45CSR15, 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> )
R13-0760D	May 12, 2008	NA

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 B," which may be downloaded from DAQ's website.

**Determinations and Justifications**

*Changes since Initial Title V Permit Issuance*

The initial Title V Permit, R30-04900019-2003 was issued on June 30, 2003. Since the issuance of the initial Title V Permit, the following 45CSR13 Class II administrative amendments, 45CSR13 permit modifications, Title V significant modification, and Title V minor modification have been submitted:

- 1) **R13-0760A, R13-0760B, R13-0760C, and R30-04900019-2003-SM01.** Class II administrative update R13-0760A was issued on September 15, 2006. The changes approved under R13-0670A included the following: 1) Addition of Raw Coal Conveyor 21 (emission unit 052); 2) Addition of a second stacking tube at the Raw Coal Stock Pile 1; 3) Addition of the Raw Coal Reclaim Conveyor 22 (emission unit 053); 4) Increase in the capacity of Raw Coal Stockpile 1 (emission unit 003A) from 300,000 tons to 450,000 without changing the 9.55 acre base area. R13-0760B was a Class II administrative update, approved on September 20, 2006, which allowed for the following changes: 1) Addition of the Clean Coal Conveyor 7A (emission unit 030A); 2) Addition of the Clean Coal Silo 3 (emission unit 044A); 3) Addition of Reclaim Conveyor 13A (emission unit 031A); 4) Upgrading of the Railroad Loadout Conveyors 8 and 9 (emission units 018 and 032, respectively) from 60 inch belts to 72 inch belts while maintaining the maximum throughput rates at 3,000 TPH and 18,000,000 TPY. Permit modification R13-0760C was approved on December 8, 2006 for the revision of the NO<sub>x</sub>, CO, and VOC emission limits for the Thermal Dryer (emission unit 045A/045C) in accordance with the outstanding conditions of Consent Order CO-R13, 14-96-22. R30-04900019-2003-SM01 was approved on May 22, 2007 and incorporated changes from R13-0760A, R13-0760B, and R13-0760C.
  
- 2) **R13-0760D and R30-04900019-2003-MM01.** On December 21, 2007, Consolidation Coal submitted a combined NSR and Title V permit minor modification application for an increase in the maximum sulfur content of the coal combusted in the thermal dryer furnace from a “field average” of 2.5% to an instantaneous maximum of 3.4%. The Title V minor modification was assigned permit number R30-04900019-2003-MM01. Since a Title V renewal permit application had been received only two days prior to the submittal of the Title V minor modification permit application, a determination was made that the changes requested in the NSR and Title V minor modification permit application for R13-0760D and R30-04900019-2003-MM01 would simply be incorporated into the Title V renewal permit application, R30-04900019-2008. R13-0760D was approved on May 12, 2008. The substantive changes approved under R13-0760D are as follows: 1) A decrease in the potential of SO<sub>2</sub> from the thermal dryer exhaust from 208 lb/hr and 620 TPY to 195 lb/hr and 586 TPY; 2) Revision of the parametric monitoring of the thermal dryer from an hours of operation basis to a fuel limitation basis; 3) An increase in the allowable sulfur content of the feedstock coal from a “field average” of 2.5% to an instantaneous maximum of 3.4%; 4) Codification of the proposed operational procedures of the thermal dryer into specific requirements; 5) Addition of methane usage monitoring on the thermal dryer; 6) Daily composite fuel sampling requirement to show compliance with the coal sulfur content requirement; 7) Addition of heat input monitoring on the thermal dryer; 8) Requirement to test the effectiveness of the thermal dryer operating procedures relative to the SO<sub>2</sub> emission; and 9) Addition of 40 C.F.R. 60, Subpart Y monitoring requirements.

**Results of Testing Conducted During the Initial Title V Permit Term**

Stack testing was conducted on October 17, 2006. The results of the testing are as follows:

Pollutant	Limit	Maximum	Average
PM	40 lb/hr 0.031 gr/dscf	11.5 lb/hr 0.009 gr/dscf	10.3 lb/hr 0.008 gr/dscf
NO <sub>x</sub>	63.6	63.2	60.5
CO	57.6	46.3	37.7
SO <sub>2</sub>	195.0	140	132
nmVOC	135.6	51.8	46.1
Visible Emissions	20 % Opacity	15 % Opacity	NA

**Compliance Assurance Monitoring (CAM)**

A review of the applicability to 40 C.F.R. 64 – “Compliance Assurance Monitoring” (CAM) was required since this is the first renewal. According to 40 C.F.R. §64.2(a), CAM applies to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria: 1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under 40 C.F.R. §64.2(b)(1); 2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and 3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Since the Horizontal Venturi Scrubber (SCR1) controls emissions of particulate matter and SO<sub>2</sub> from the Thermal Dryer (045A/045C), and the Thermal Dryer (045A/045C) is subject to particulate matter and SO<sub>2</sub> emission limits with the pre-control device emissions for each pollutant greater than 100 tons per year, the Horizontal Venturi Scrubber (SCR1) is subject to the CAM requirements of 40 C.F.R. 64. Monitoring per the CAM Plan for particulate matter emissions and SO<sub>2</sub> from the Horizontal Venturi Scrubber (SCR1) will be as follows:

SO<sub>2</sub>

Horizontal Venturi Scrubber (SCR1)	Indicator No. 1 <sup>1</sup>	Indicator No. 2 <sup>1</sup>
<b>I. Indicator</b>	pH of the scrubber effluent <i>(4.2.4)</i>	Coal sulfur content
<b>Measurement Approach</b>	pH monitor <i>(4.2.4)</i>	Coal is sampled daily. <i>(4.2.2)</i>
<b>II. Indicator Range</b>	Established through stack testing. <i>(4.2.4 and 4.3.1)</i>	≤ 3.4 % sulfur <i>(4.1.2.c)</i>
<b>III. Performance Criteria</b>		
<b>A. Data Representativeness</b>	pH will be measured at the influent and effluent of the scrubber. <i>(4.2.4)</i>	A composite sample of coal to be combusted in the thermal dryer furnace shall be obtained according to the appropriate test methods as approved in a protocol submitted pursuant to 3.3.1.c . <i>(4.2.2)</i>
<b>B. Verification of Operational Status</b>	<i>N/A</i>	<i>N/A</i>
<b>C. QA/QC Practices and Criteria</b>	Recalibration is conducted quarterly per manufacturer’s recommendations. <i>(4.2.4)</i>	Sample preparation done according to the approved protocol submitted pursuant to 3.3.1.c. <i>(4.2.2)</i>
<b>D. Monitoring Frequency</b>	Continuously monitored. <i>(4.2.4)</i>	Daily samples <i>(4.2.2)</i>
<b>Data Collection Procedures</b>	Continuously recorded by chart recorder and manually recorded at least once every 12 hours. <i>(4.4.8)</i>	A composite sample is obtained according to the approved protocol submitted pursuant to 3.3.1.c. <i>(4.2.2)</i>
<b>Averaging Period</b>	None.	Daily <i>(4.2.2)</i>

<sup>1</sup>Note: The corresponding permit conditions are italicized in parentheses.

Particulate Matter

Horizontal Venturi Scrubber (SCR1)	Indicator No. 1 <sup>1</sup>	Indicator No. 2 <sup>1</sup>	Indicator No. 3 <sup>1</sup>
<b>I. Indicator</b>	Temperature of the gas stream at the exit of the thermal dryer <i>(4.2.7.a)</i>	Pressure Drop Across Scrubber <i>(4.2.7.b.1)</i>	Water Pressure to Scrubber <i>(4.2.7.b.2)</i>
<b>Measurement Approach</b>	Gauges are monitored by operator during periods of normal operation.	Gauges are monitored by operator during periods of normal operation.	Gauges are monitored by operator during periods of normal operation.
<b>II. Indicator Range</b>	120 – 220 °F <i>(4.2.7.a)</i>	26 – 40 inches of H <sub>2</sub> O <i>(4.2.7.b.1)</i>	15 - 25 psi <i>(4.2.7.b.2)</i>
<b>III. Performance Criteria</b>			
<b>A. Data Representativeness</b>	Monitored at the exit of the thermal dryer. <i>(4.2.7.a)</i>	Pressure drop will be measured at the inlet of the scrubber and at the outlet of the scrubber <i>(4.2.7.b.1)</i>	Water pressure sensor is located close to the water discharge point <i>(4.2.7.b.2)</i>
<b>B. Verification of Operational Status</b>	N/A	N/A	N/A
<b>C. QA/QC Practices and Criteria</b>	Recalibration is conducted annually in accordance with procedures in 40 C.F.R. §60.13(b). <i>(4.2.8)</i>	Recalibration is conducted annually in accordance with procedures in 40 C.F.R. §60.13(b). <i>(4.2.8)</i>	Recalibration is conducted annually in accordance with procedures in 40 C.F.R. §60.13(b). <i>(4.2.8)</i>
<b>D. Monitoring Frequency</b>	Continuously monitored. <i>(4.2.7.a)</i>	Continuously monitored. <i>(4.2.7.b.1)</i>	Continuously monitored. <i>(4.2.7.b.2)</i>
<b>Data Collection Procedures</b>	Continuously recorded by chart recorder and manually recorded at least once every 12 hours. <i>(4.4.5)</i>	Continuously recorded by chart recorder and manually recorded at least once every 12 hours. <i>(4.4.6)</i>	Continuously recorded by chart recorder and manually recorded at least once every 12 hours. <i>(4.4.7)</i>
<b>Averaging Period</b>	None.	None.	None.

<sup>1</sup>Note: The corresponding permit conditions are italicized in parentheses.

**Proposed Changes to 40 C.F.R. 60, Subpart Y**

EPA has proposed changes to 40 C.F.R. 60, Subpart Y. The deadline for comment for the proposed changes is July 14, 2008. The proposed changes mainly involve the addition of tighter controls and additional particulate matter (PM) emission limits for sources constructed after April 28, 2008. Since the Loveridge plant was constructed prior to April 28, 2008, there are no proposed changes to its 40 C.F.R. 60, Subpart Y applicable requirements except for slight changes to the rule citations such as 40 C.F.R. §60.252(a) would become §60.252(a)(1) and 40 C.F.R. §60.252(c) would become §60.252(c)(1).

**Non-Applicability Determinations**

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

None.

**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: August 14, 2008  
 Ending Date: September 15, 2008

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

Carrie McCumbers  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

**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.

**Point of Contact**

Carrie McCumbers  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1226 • Fax: 304/926-0478

**Response to Comments (Statement of Basis)**

No comments were received.