

# Fact Sheet



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

Permit Number: R30-10900017-2007  
Application Received: January 3, 2005  
Plant Identification Number: 10900017  
Permittee: Cabot Oil and Gas Corporation  
Facility Name: Bradley Station  
Mailing Address: 900 Lee Street, Suite 500  
Charleston, WV 25301-1774  
Issued: November 27, 2007

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Physical Location: Fanrock, Wyoming County, West Virginia  
UTM Coordinates: 443.55 km Easting • 4,155.3 km Northing • Zone 17  
Directions: From the town of Pineville, travel west on WV State Route 97 for approximately 14 miles and then turn south (left) onto Brier Creek Road. Once on Brier Creek Road, travel 4 miles to the compressor station on the right.

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### **Facility Description**

Bradley Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate twenty-four (24) hours per day, seven (7) days per week and fifty-two (52) weeks per year. The station consists of one (1) dehydrator with a reboiler, one (1) 515 HP natural gas compressor engine, one (1) 1100 HP natural gas compressor engine, one (1) 1150 HP natural gas compressor engine, and seven (7) storage tanks of various sizes.

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>	<b>2005 Actual Emissions</b>
Carbon Monoxide (CO)	103.89	88.76
Nitrogen Oxides (NO <sub>x</sub> )	60.66	52.49
Particulate Matter (PM <sub>10</sub> )	1.45	0.5781
Total Particulate Matter (TSP)	1.45	0.5781
Sulfur Dioxide (SO <sub>2</sub> )	0.09	0.0264
Volatile Organic Compounds (VOC)	32.95	25.66

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

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2005 Actual Emissions</b>
Formaldehyde	7.37	2.03
Total HAPs	13.8	3.13

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

**Title V Program Applicability Basis**

This facility has the potential to emit 103.89 Tons per Year of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Cabot Oil and Gas Corporation 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:	45CSR2	Opacity requirement for dehydrators
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur Oxides emissions
	45CSR11	Standby plans for emergency episodes.
	45CSR13	New Source Permit
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
State Only:	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	45CSR4	No objectionable odors.
	45CSR17	Particulate fugitive

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> )
R13-2127E	August 07, 2007	

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

According to the following calculation, compliance with FERC (Federal Energy Regulatory Commission) limit for total sulfur of 20 grains/100 cu.ft will assure compliance with 45CSR10 limit of 2000 ppm SO<sub>2</sub>:  
(20grains of S/100 cu.ft of gas) x (1lb/7000 grains) x (1lbmol S/32 lb S) x (1lbmol SO<sub>2</sub>/1lbmol S) x (385.1 cu.ft of gas/1lbmol gas) x 10<sup>6</sup> = 343 ppm of SO<sub>2</sub>.

Compliance with FERC limit for H<sub>2</sub>S of 0.25 grains/100 cu.ft will assure compliance with 45CSR10 limit of 50 grains/100 cu.ft. Pipeline quality natural gas has very low H<sub>2</sub>S content and total sulfur includes H<sub>2</sub>S. Hence H<sub>2</sub>S is not required to be tested at the inlet gas stream.

According to 45 CSR §2-11, Dehydrator Reboiler (001-04) is exempt from MRR (Monitoring, recordkeeping and reporting) requirements because Dehydrator Reboiler's heat input is less than ten (10) million B.T.U's per hour.

Since the last modification of this permit WVDEP has determined that 45CSR10 is not applicable to the engines. Engines are not subject to 45CSR10 requirements listed in the R13-2127E permit.

45CSR13 criteria pollutant limits and HAP limits were derived based on amount of natural gas used and dry natural gas processed by the Dehy. Hence meeting the limits set by 45CSR13 permit for natural gas used and dry natural gas processed by the Dehy shall show compliance with 45CSR13 criteria pollutant limits and HAP limits.

R13-2127E issued on August 7, 2007 has obsolete condition 4.1.5 stating that two superior engines shall be permanently removed and replaced by a new Caterpillar engine. Superior engines had been removed and replaced by a new Caterpillar engine in year 2005. Hence, R13-2127E condition 4.1.5 is not in this Title V permit.

### **Non-Applicability Determinations**

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

40 CFR 64 – None of the emission units at this facility have add-on controls; Hence CAM is not applicable to any of the emission units.

There are no applicable requirements for tanks because there are no tanks with a volume equal to or greater than 75 m<sup>3</sup>.

According to Dehy tests performed in early 2006 this facility is not a major source of HAPs. Also the facility has 45CSR13 limit of less than 1 ton of Benzene emissions per year. Due to less than 1 ton of benzene emission per year the facility is exempt from Natural Gas Area Source MACT. The facility shall show compliance with benzene limit according to Section 5.1.7 of the permit.

The facility is not a major source of HAPs, hence the engines are not subject to 40 C.F.R 63 Subpart ZZZZ.

### **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: October 10, 2007  
Ending Date: November 9, 2007

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

U.K.Bachhawat  
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**

U.K.Bachhawat  
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. 1256 • Fax: 304/926-0478

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

Not applicable.