



**CAMDEN COMPRESSOR STATION
DOMINION TRANSMISSION INC.
APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-04100010-2006**

Dominion Transmission, Inc.
Camden Compressor Station
Route 2
Camden, WV 26338

Prepared for:

Dominion Transmission, Inc.
445 West Main Street
Clarksburg, WV 26301

Prepared by:

AMEC Earth & Environmental
2200 Gateway Centre Blvd, Suite 205
Morrisville, NC 27560

DECEMBER 2010



TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	PROCESS DESCRIPTION	2
3.0	REGULATORY DISCUSSION	5
4.0	POTENTIAL TO EMIT.....	8
5.0	PROPOSED MODIFICATIONS	9

APPENDICES:

Appendix A	Air Permit Application Forms
Appendix B	Plot Plans
Appendix C	Process Flow Diagrams
Appendix D	Equipment Table
Appendix E	Emission Unit Forms
Appendix F	P.E. Certification
Appendix G	Air Pollution Control Device Forms
Appendix H	CAM Forms



1.0 INTRODUCTION

Camden Station is a natural gas compressor station used to compress natural gas for Dominion Transmission, Inc.'s pipeline system in West Virginia. Camden Station is located in Camden, Lewis County, West Virginia.

Camden Station has the potential to emit in excess of 100 tons per year of nitrogen oxides (NO_x) and 100 tons per year of volatile organic compounds (VOCs), and is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and under the West Virginia Department of Environmental Protection (WVDEP) Regulation (45 CSR Part 30).

Camden Station was issued a Title V Operating Permit (Permit No: R30-04100010-2006) in 2006, with an expiration date of August 25, 2011. The Title V Operating Permit is for the operation of five (5) reciprocating engines (EN01 – EN05, each being rated at 660 hp), one (1) 1.0 MMBtu/hr reboiler (RBR01), one (1) 10.0 MMBtu/hr dehydration unit still column (DEHY01) with flare (F1), one (1) air compressor and seven (7) aboveground storage tanks of various sizes.

In 2009, Dominion Transmission, Inc. installed a 475 hp emergency generator to supply power to the Camden Station. This emergency generator is regulated by General Permit (Permit No: G60-C014) and is subject to 40 CFR Part 60 Subpart JJJJ.



2.0 PROCESS DESCRIPTION

Camden Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 – EN05) at the facility receive natural gas flowing through a valve on the pipeline and recompress the natural gas in order to further transport the natural gas through the pipeline system. Prior to exiting the facility through the pipeline, the compressed natural gas is processed by the dehydration unit (DEHY01). The dehydration unit removes moisture and impurities from the gas stream. Emergency backup power is supplied by emergency generator (EG01).

The dehydration process begins with the compressed natural gas entering the unit and then being passed through a triethylene glycol dehydration system consisting of a contactor bed, a reboiler (RBR01), and associated equipment. As a result of this process, the natural gas is stripped of moisture and impurities, along with a small amount of hydrocarbons. The wet gas enters the contactor where moisture and some hydrocarbons are absorbed into the lean glycol. The glycol, which has become rich with absorbed moisture and hydrocarbons, is regenerated in the still column (DEHY01) using the heat generated from the natural gas-fired reboiler (RBR01) to liberate the moisture and hydrocarbon vapors. The regenerator vapors are vented to the flare (F1) to combust the hydrocarbons, thereby, reducing overall emissions and odor. The flare is permitted with a destruction efficiency of 95%. The compressed, dehydrated gas then enters the pipeline.

Listed below is a description of the equipment located at the Camden Station.

Compressor Engines

Cooper GMXE-8 660-hp natural gas-fired Reciprocating Engine

- Emission point EN01
- Emission unit EN01

Cooper GMXE-8 660-hp natural gas-fired Reciprocating Engine

- Emission point EN02
- Emission unit EN02

Cooper GMXE-8 660-hp natural gas-fired Reciprocating Engine

- Emission point EN03
- Emission unit EN03

Cooper GMXE-8 660-hp natural gas-fired Reciprocating Engine

- Emission point EN04
- Emission unit EN04



Cooper GMXE-8 660-hp natural gas-fired Reciprocating Engine

- Emission point EN05
- Emission unit EN05

NATCO Dehydration Unit Reboiler 1.0 MMBtu/hr natural gas-fired reboiler

- Emission point RBR01
- Emission unit RBR01

Dehydration Unit/Still Column 27.6 MMscf/day

- Emission point DEHY01
- Emission unit DEHY01

Wisconsin 15-hp air compressor

- Emission point CPR01
- Emission unit CPR01

Cummins GTA 19 GS2 475-hp emergency generator

- Emission point EG01
- Emission unit EG01

Vertical Tri-ethylene Glycol 2,730-gallon aboveground storage tank

- Emission point TK01
- Emission unit TK01

Vertical Used Oil 2,730-gallon aboveground storage tank

- Emission point TK02
- Emission unit TK02

Vertical Ethylene Glycol 4,200-gallon aboveground storage tank

- Emission point TK03
- Emission unit TK03



Vertical Ethylene Glycol 2,100-gallon aboveground storage tank

- Emission point TK04
- Emission unit TK04

Horizontal Process Fluids 2,000-gallon aboveground storage tank

- Emission point TK05
- Emission unit TK05

Vertical Wastewater 2,730-gallon aboveground storage tank

- Emission point TK06
- Emission unit TK06

Vertical Lube Oil 7,000-gallon aboveground storage tank

- Emission point TK07
- Emission unit TK07



3.0 REGULATORY DISCUSSION

The Camden Station is located near Camden, Lewis County, West Virginia. The area is classified as attainment with respect to the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

Prevention of Significant Deterioration (PSD)

West Virginia's PSD regulations are found in 45 CSR 14. The PSD program is based on a new source review process to ensure that any new sources of air pollution will not cause a significant deterioration of local ambient air quality. The PSD regulations only apply to "major" new sources or "major" modifications of existing sources. A "major" stationary source being defined as a source being classified in any one of the 28 source categories identified in 40 CFR 52.21 which has the potential to emit 100 tons or more per year of any regulated pollutant, or any other stationary source which has the potential to emit 250 tons or more per year of a regulated pollutant.

The Camden Station is currently operating with the potential to emit (PTE) 127 tons per year of Carbon Monoxide, 647 tons per year of Nitrogen Oxides (NOx), 222 tons per year of Volatile Organic Compounds, therefore the station is considered to be a 'major' source under the PSD regulations.

Non-Attainment

Lewis County, West Virginia is currently classified as attainment with respect to the NAAQS for all criteria pollutants. Article 9 of the non-attainment regulations is not applicable to this permit renewal application.

West Virginia Permitting Requirements

The requirement for renewal applications for Title V Operating Permits is provided in 45 CSR 30 (Permits for Construction, Modification, Relocation, and operation of Stationary Sources of Air Pollutants) – Regulation 30. This application is being submitted to satisfy the requirements of 45 CSR 30.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Section 112 of the Clean Air Act provides the EPA with a means of developing standards for potentially hazardous air pollutants (HAPs) for specific source categories. The regulations have been developed and implemented under Section 112(b) and are presented in 40 CFR 63 (National Emissions Standards for Hazardous Air Pollutants). Emission limits or control requirements developed to implement Section 112 of the CAA are applicable to both new and existing sources. Sources located at a facility with PTE of 10 tons per year (tpy) of a single HAP or 25 tpy total for combined HAPs are potentially subject to NESHAP regulations.



In 1999, the USEPA issued the NESHAP for Natural Gas Production Facilities (Subpart HH). These rules, also known as Maximum Achievable Control Technology (MACT) rules, contain air pollution emission control and monitoring requirements for new and existing glycol dehydration units.

Camden Station has one dehydration unit, equipped with a flare. The flare is permitted and required to maintain a destruction efficiency of 95%. Using the Federally enforceable destruction efficiency of the flare, Camden Station's potential to emit Hazardous Air Pollutants (HAPs) is below the major levels specified in the NESHAP. Condition 3.1.10 of the Camden Station's Title V Permit, limit the station to operating below the major source level for HAPs. The facility will then be a minor source of HAPs and subject to the potentially applicable MACT standards listed below:

- **Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines (RICE) NESHAP**
40 C.F.R. Part 63 Subpart ZZZZ applies to Camden Compressor Station's Cummins Model GTA 19 GS2 Emergency Generator (EG01). EG01 is a new stationary RICE, per 40 C.F.R. § 63.6590 (a) (2) (iii), since it commenced construction on or after June 12, 2006. For a new stationary RICE located at an area source of HAPs with a site rating of less than or equal to 500 brake HP, 40 C.F.R. § 63.6590 (c) states that the compliance with the requirements of 40 C.F.R. Part 63 Subpart ZZZZ shall meet the requirements of 40 C.F.R. Part 60 Subpart JJJJ and that no further requirements under 40 C.F.R. Part 63 Subpart ZZZZ apply. Since EG01 must only meet the requirements of 40 C.F.R. Part 60 Subpart JJJJ, no additional requirements from 40 C.F.R. Part 63 Subpart ZZZZ were included in the permit.
- **Compliance Assurance Monitoring (CAM)**
40 C.F.R. 64 applies to the dehydration unit that has pre-controlled potential emissions that exceed major source thresholds for VOCs and is equipped with a flare that is used to comply with federally-enforceable emission limits (R13-2792, 5.1.2) associated with the dehydration operation. Therefore, the dehydration unit represents a pollutant specific emission unit for VOCs. Since the flare is determined to be a control device for this emission units, compliance with this standard shall be required under Section 5 of the Title V Operating Permit.
- **Subpart HH, Natural Gas Production Facility NESHAP**
Camden Compressor Station is subject to Subpart HH as applies to area sources of HAPs. The recent addition of a Tri-ethylene Glycol dehydration unit meets the applicability criteria set forth in 40 C.F.R. 63.760(b)(2) and is subject to the applicable requirements of 40 C.F.R. 63 Subpart HH.

New Source Performance Standards (NSPS)

NSPS Subpart JJJJ became effective on March 18, 2008 and applies to new, modified, and reconstructed stationary spark ignition (SI) internal combustion engines (ICE), regardless of size



and combustion any fuel. Emissions are controlled to levels achievable by Best Demonstrated Technology (BDT). The regulated pollutants are NO_x, CO, and VOC.

Camden Compressor Station's Cummins Model GTA 19 GS2 Emergency Generator (EG01) shall comply with 40 C.F.R. Part 60 Subpart JJJJ. EG01 is rated at 475 HP and combusts natural gas. Applicable emissions limitations are found in Table 1 of 40 C.F.R. Part 60 Subpart JJJJ as specified in 40 C.F.R. § 60.4248. Comparing the applicable emissions limitations from Table 1 of 40 C.F.R. § 60.4248 for maximum horsepower of ≥ 130 Hp with the emission limits in Section 6.1.1 of the Title V Permit/G60-C014 shows that the maximum controlled emissions from Camden's natural gas fired emergency generators (EG01) shall not exceed the requirements in 40 C.F.R. § 60.4248 Table 1 [40 C.F.R. Part 60 Subpart JJJJ] (see Section 6.1.2.).



4.0 POTENTIAL TO EMIT

Camden Station is a major source of nitrogen oxides under 45 CSR Part 30 of the West Virginia Code of State Regulations. Camden Station is currently operating at the following potential emission rates:

Process Control Equipment	Potential Emissions, Tons Per Year (tpy)		
	Carbon Monoxide	Nitrogen Oxides	Volatile Organic Compounds
Current Potential-to-Emit	127.49	647.74	222.40
Fugitive Emissions	--	--	127.05
Engines (EN01 – EN05)	96.14	645.83	72.27
Emergency Generator	1.05	0.52	0.26
Reboiler	0.39	0.44	0.04
Dehydration System	1.10	0.22	21.29
Air Compressor	28.82	0.74	1.45

The Dehydration Unit Still Column and Flare emissions are combined.

The Flare is regulated for 95% destruction efficiency by Permit, thus the facility is not classified as a major source of HAPs.

The aboveground storage tanks are considered insignificant sources and are not included.



5.0 PROPOSED MODIFICATIONS

Dominion does not propose any new modifications under this application.



APPENDIX A
AIR PERMIT FORMS



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.wvdep.org/daq

TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No. (FEIN), 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the..., 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: 445 West Main Street		
City: Clarksburg	State: WV	Zip: 26301
Telephone Number: (304) 627-3225	Fax Number: (304) 627-3222	

12. Facility Location		
Street: Route 2	City: Camden	County: Lewis
UTM Easting: 534.85 km	UTM Northing: 4323.27 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: From Interstate 79 North, take the Weston Exit. Turn left on Route 33 West through Weston. Turn left onto Smith Run Road and travel 1.5 miles. Turn left onto gravel road and proceed 0.3 miles to station on the left.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Pennsylvania	
Is facility located within 100 km of a Class I Area ¹ ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the area(s). Dolly Sobs Wilderness Area Otter Creek Wilderness Area	
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Jeffrey L. Barger		Title: Vice President, Pipeline Operations
Street or P.O. Box: 445 West Main Street		
City: Clarksburg	State: WV	Zip: 26301
Telephone Number: (304) 627-3910	Fax Number: (304) 627-3323	
E-mail address: Jeffry.L.Barger@dom.com		
Environmental Contact: Richard B. Gangle		Title: Environmental Specialist III
Street or P.O. Box: 445 West Main Street		
City: Clarksburg	State: WV	Zip: 26301
Telephone Number: (304) 627-3325	Fax Number: (304) 627-3222	
E-mail address: Richard.B.Gangle@dom.com		
Application Preparer: Jody B. Lambert		Title: Environmental Scientist
Company: AMEC Earth & Environmental, Inc.		
Street or P.O. Box: 2200 Gateway Centre Blvd, Suite 205		
City: Morrisville	State: NC	Zip: 27560
Telephone Number: (919) 447-2750	Fax Number: (919) 447-2751	
E-mail address: jody.lambert@amec.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Natural Gas Compressor Station	N/A	48612	4922

Provide a general description of operations.

Camden Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 – EN05) at the facility receive natural gas flowing through a valve on the pipeline and recompresses the natural gas in order to further transport the natural gas through the pipeline system. Prior to exiting the facility through the pipeline, the compressed natural gas is processed by the dehydration unit (DEHY01). The dehydration unit removes moisture and impurities from the gas stream.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to “Plot Plan - Guidelines.”

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS (Subpart JJJJ- RICE)	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)

19. Non Applicability Determinations
<p>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</p>
<input type="checkbox"/> Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

- 45 CSR 6-3.1 – Open Burning prohibited (TV 3.1.1)
- 45 CSR 6-3.2 – Open Burning exemption (TV 3.1.2)
- 40 CFR Part 61 – Asbestos inspection and removal (TV 3.1.3)
- 45 CSR 34 – Asbestos inspection and removal (TV 3.1.3)
- State Only: 45 CSR 4-3.1 – No Objectionable odors (TV 3.1.4)
- 45 CSR 11-5.2 – Standby plans for emergency episodes (TV 3.1.5)
- WV Code 22-5-4 (a) (14) – The Annual emission inventory reporting (TV 3.1.6)
- 40 CFR Part 82 Subpart F – Ozone depleting substances (TV 3.1.7)
- 40 CFR Part 68 – Risk Management Plan (TV 3.1.8)
- State Only: 45 CSR 17-3.1 – Fugitive Particulate Matter (TV 3.1.9)
- 45 CSR 13 – Testing Requirements (TV 3.3.1, WV Code 22-5-4 (a) (15))

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- 45 CSR 6-3.1 – The permittee shall prohibit open burning (TV 3.1.1)
- 45 CSR 6-3.2 – The permittee shall notify if open burning occurs (TV 3.1.2)
- 40 CFR Part 61 – Prior to demolition/construction buildings will be inspected for asbestos (TV 3.1.3)
- 45 CSR 15 – Prior to demolition/construction buildings will be inspected for asbestos (TV 3.1.3)
- 45 CSR 4 – Permittee shall maintain records of all odor complaints received (TV 3.1.4)
- 45 CSR 11 – Upon request by the Secretary, the permittee shall prepare a standby plan (TV 3.1.5)
- WV 22-5-4 – The permittee shall submit annual emission inventory reports (TV 3.1.6)
- 40 CFR Part 82 Subpart F – The permittee will prohibit maintenance, service, or repair of appliances containing Ozone depleting substances (TV 3.1.7)
- 40 CFR Part 68 – Should the permittee become subject to 40 CFR Part 68, a RMP shall be submitted (TV 3.1.8)
- 45 CSR 17 – The permittee will limit fugitive emissions from the facility by burning only pipeline quality natural gas (TV 3.1.9)
- 45 CSR 30 – Recordkeeping Requirements (TV 3.4)
- 45 CSR 30 – Recordkeeping Requirements (TV 3.5)

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R13-2792	03/04/2009	N/A
G60-C014	12/04/2009	N/A
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	127.49
Nitrogen Oxides (NO _x)	647.74
Lead (Pb)	N/A
Particulate Matter (PM _{2.5}) ¹	0.04
Particulate Matter (PM ₁₀) ¹	1.31
Total Particulate Matter (TSP)	1.31
Sulfur Dioxide (SO ₂)	0.10
Volatile Organic Compounds (VOC)	222.40
Hazardous Air Pollutants ²	Potential Emissions
Formaldehyde	4.55
Acrolein	0.64
Acetaldehyde	0.64
Benzene	2.11
Ethylbenzene	0.32
Hexane	0.38
Toluene	0.98
Xylene	1.58
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Jeffrey L. Barger	Title: Vice President, Pipeline Operations
-------------------------	--

Responsible official's signature:

Signature: _____ Signature Date: _____
 (Must be signed and dated in blue ink)

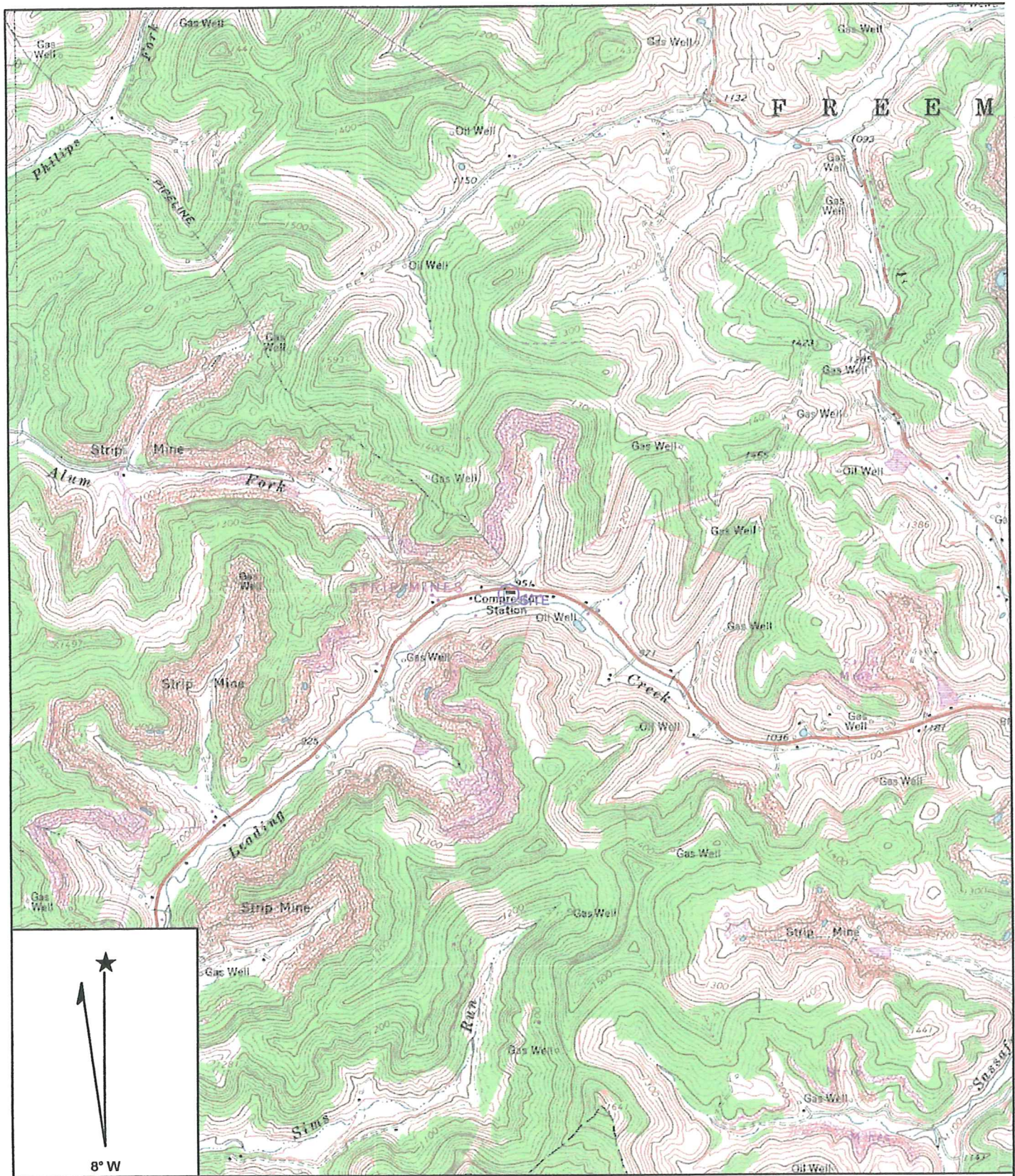
Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.wvdeq.org/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

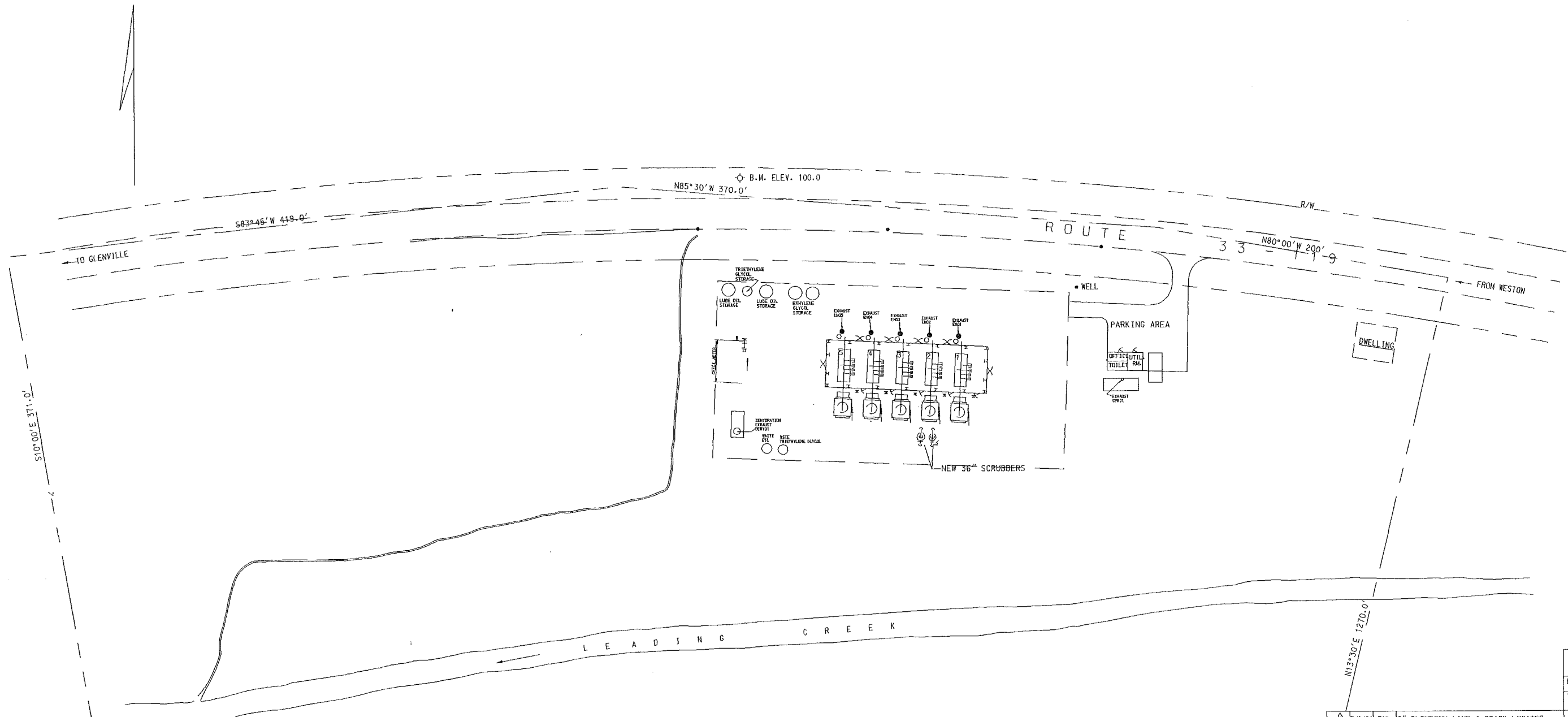


APPENDIX B
PLOT PLANS



Name: CAMDEN
 Date: 1/16/2002
 Scale: 1 inch equals 2000 feet

Location: 039° 03' 35.2" N 080° 35' 50.1" W
 Caption: CAMDEN STATION
 SITE LOCATION
 DOMINION TRANSMISSION CORP.



REVISION NOTE:
 POTESTA & ASSOCIATES, INC., CHANGED THE OWNER
 NAME FROM HOPE NATURAL GAS CO., CLARKSBURG W.V.
 TO DOMINION TRANSMISSION CORP., PITTSBURGH, PA.
 ON JANUARY 15, 2002. PROJECT NO. 01-0383-002.

DOMINION TRANSMISSION CORP. PITTSBURGH, PA			
FOR: CAMDEN STATION		SCALE: 1"=40'	
TITLE: TITLE V SITE PLAN		DATE: 2/28/64	BUDGET: P-12A W.00-4760-400
		DEPARTMENT: STATION	
5/8/64	RNL	6" BLOWDOWN LINE & STACK LOCATED	
		MAIN LINE TERMINATING POINTS	
		CHANGED	
		GATE NO. ASSIGNED TO NEW GATE	
		ON TI-234	
9/3/64	RNL	AFTER CONSTRUCTION	CHECKED:
1/28/67	RNL	LOCATION NUMBER & LETTERS	ENGINEER:
11/3/95	PWB	SCANNED DWG. AND UPDATED PROPERTY LINE	APPROVED: PR
SYM.	DATE	BY	REVISION DESCRIPTION
			APPROVED:
			DWG. NO. Y4154
			REV. 4

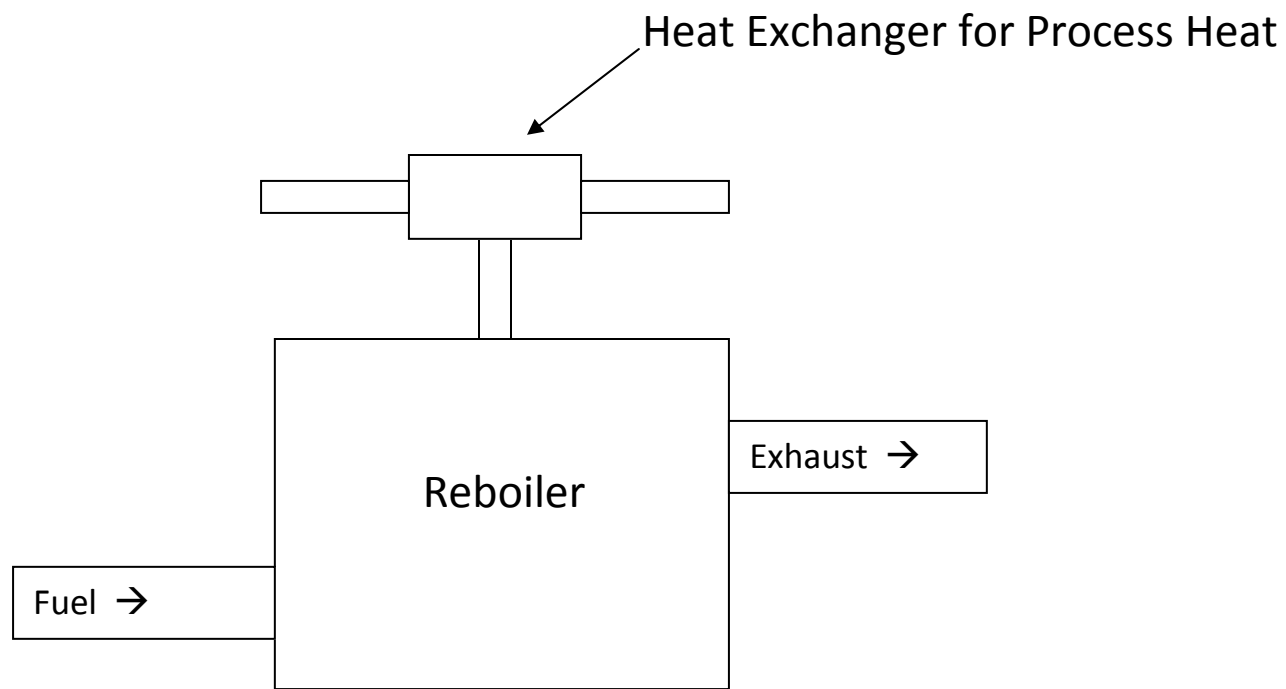
R:\01-0383-HNTB\010383-06.dgn Jan. 22, 2002 17:14:58



APPENDIX C

PROCESS FLOW DIAGRAMS

Natural Gas Compression Station Process Flow Diagram - Reboiler

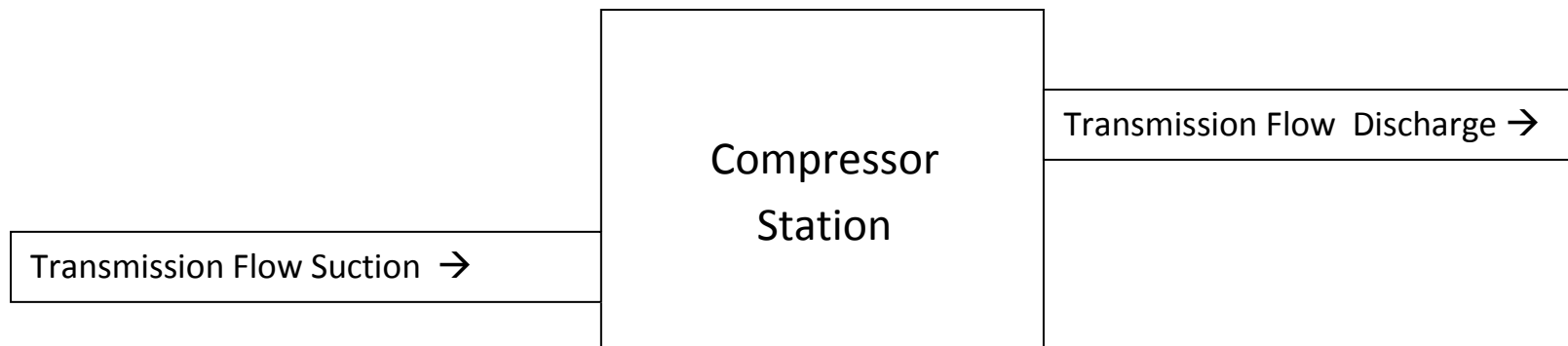


Camden Station
Stack ID Number: RBR01

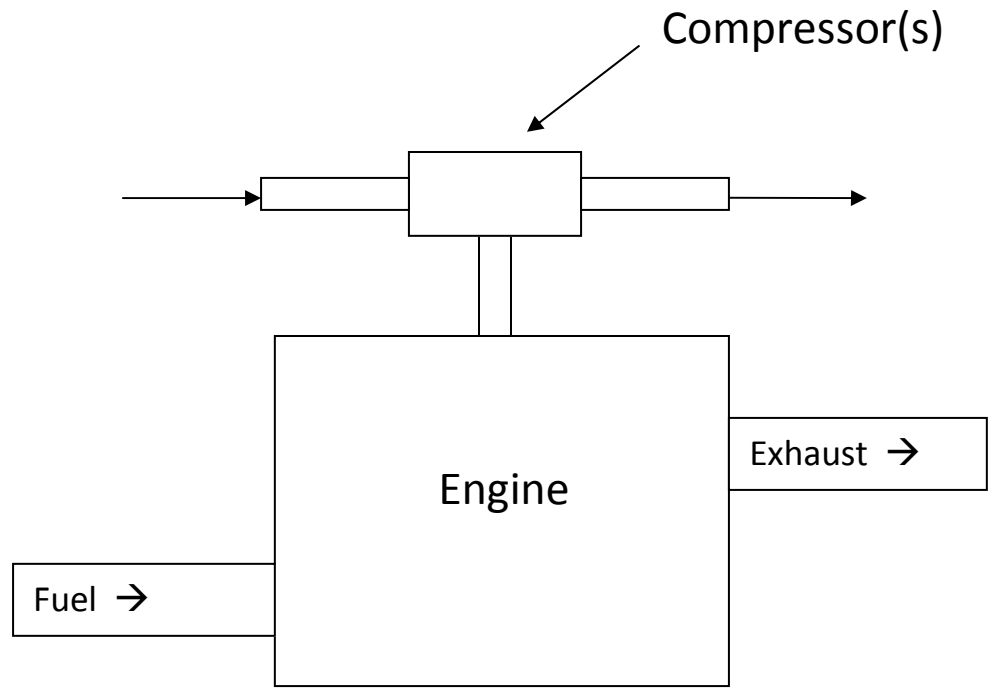
Natural Gas Compression Station Process Flow Diagram Camden Station

Fugitive sources are described in application.

Fugitive sources are for the entire facility.

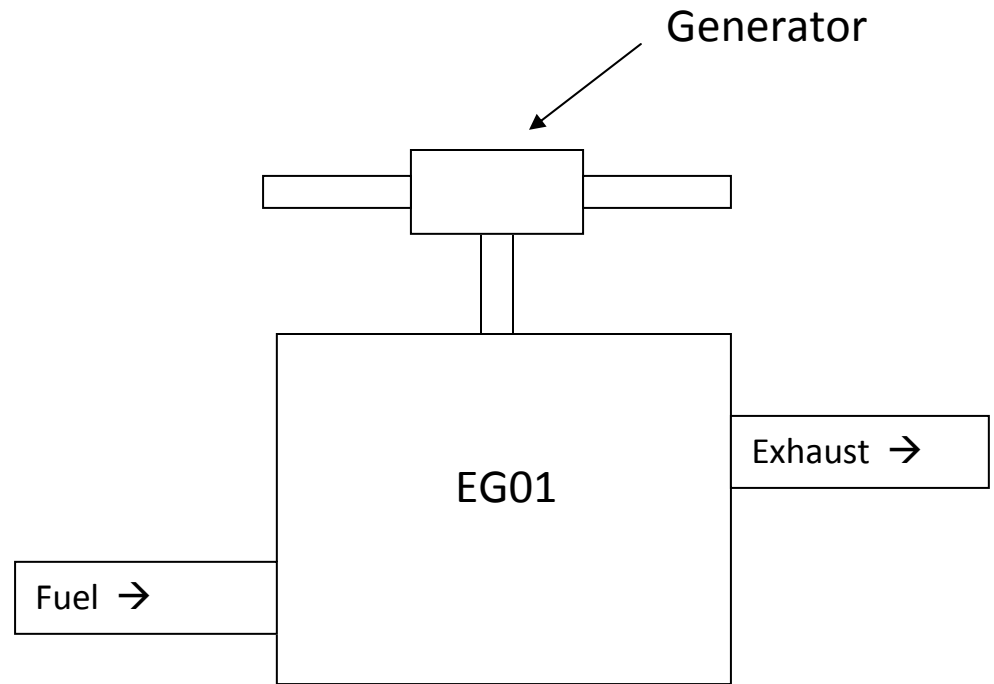


Natural Gas Compression Station Process Flow Diagram - Engine



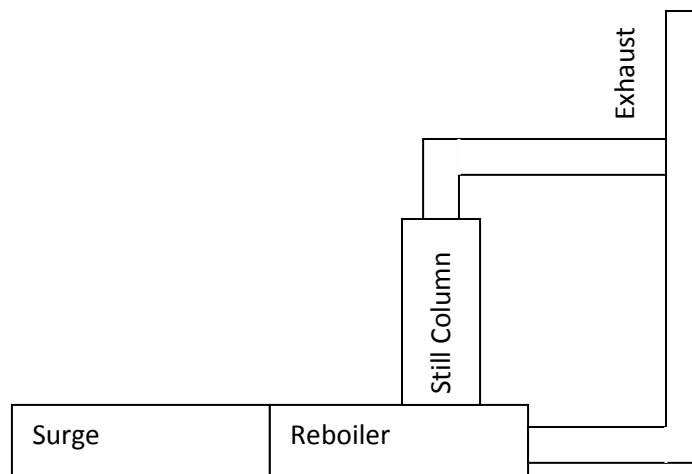
Camden Station
Stack ID Number: EN01, EN02,
EN03

Natural Gas Compression Station Process Flow Diagram – Emergency Generator



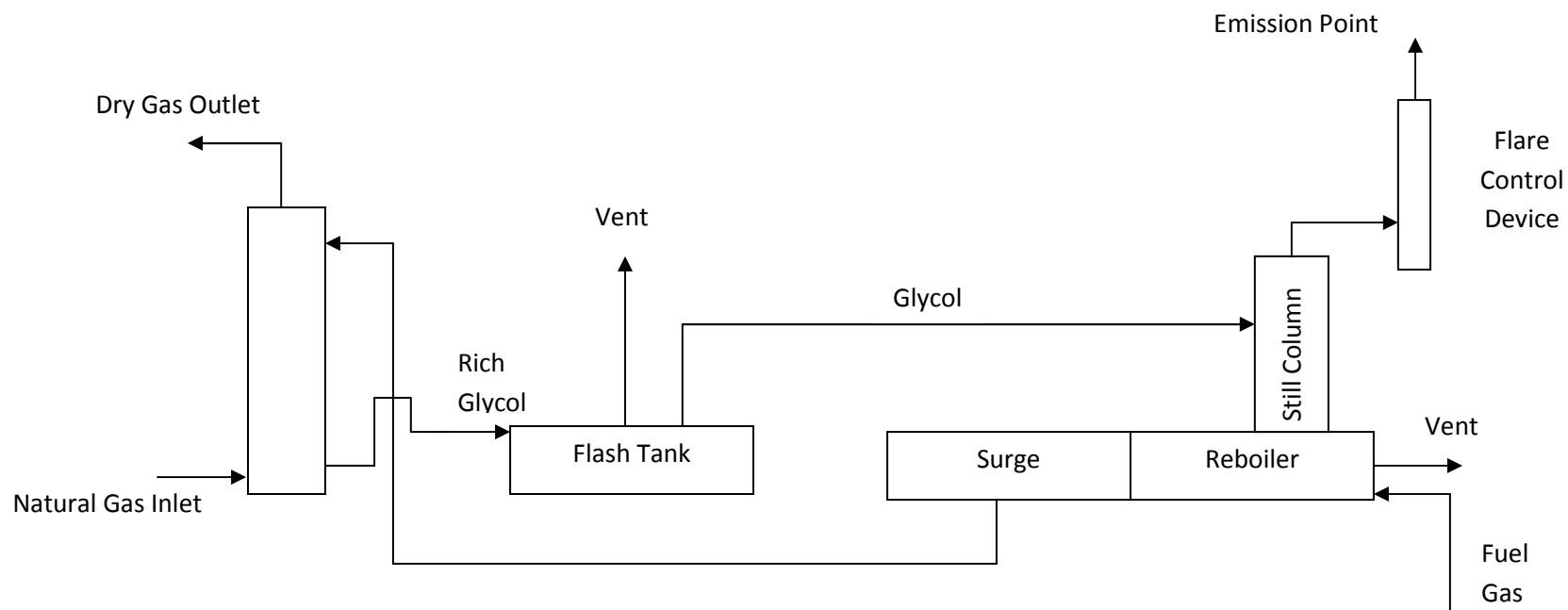
Camden Station
Stack ID Number: EG01

Natural Gas Compression Station Process Flow Diagram – Glycol Dehydration Unit



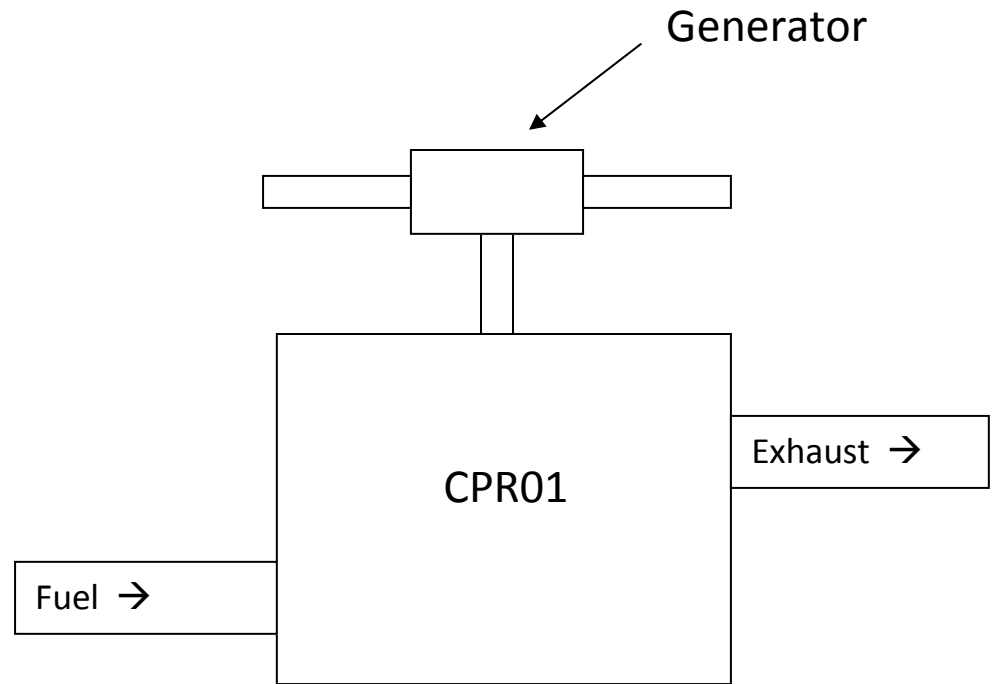
Camden Station
Stack ID Number: DEHY01

Natural Gas Compressor Station Process Flow Diagram – Glycol Dehydration Unit



Camden Station
Stack ID Number: DEHY01

Natural Gas Compression Station Process Flow Diagram – Air Compressor



Camden Station
Stack ID Number: CPR01



APPENDIX D
EQUIPMENT TABLE

ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
EN01	EN01	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1962	660 HP	N/A
EN02	EN02	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1962	660 HP	N/A
EN03	EN03	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1964	660 HP	N/A
EN04	EN04	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1964	660 HP	N/A
EN05	EN05	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1964	660 HP	N/A
RBR01	RBR01	Glycol Dehydration Unit Reboiler	2009	1.0 MMBtu/hr	F1
DEHY01	DEHY01	Glycol Dehydration Unit Still Column	2009	27.6 mmscf/day	N/A
F1	F1	Glycol Dehydration Unit Flare	2009	10 MM Btu/hr	F1
CPR01	CPR01	Air Compressor; Wisconsin	1972	15 HP	N/A
EG01	EG1	Emergency Generator – Cummins GTA 19 GS2	2009	475 HP / 1800 RPM	N/A
TK01	TK01	Vertical Aboveground Storage Tank – Triethylene Glycol	1991	2,730-gallon	N/A
TK02	TK02	Vertical Aboveground Storage Tank – Used Oil	1991	2,730-gallon	N/A
TK03	TK03	Vertical Aboveground Storage Tank – Ethylene Glycol	1991	4,200-gallon	N/A
TK04	TK04	Vertical Aboveground Storage Tank – Ethylene Glycol	1962	2,100-gallon	N/A
TK05	TK05	Horizontal Aboveground Storage Tank – Process Fluids	2003	2,000-gallon	N/A
TK06	TK06	Vertical Aboveground Storage Tank – Wastewater	1962	2,730-gallon	N/A
TK07	TK07	Vertical Aboveground Storage Tank – Lube Oil	2003	7,000-gallon	N/A

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.



APPENDIX E
EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: RBR01	Emission unit name: Glycol Dehydration Unit Reboiler	List any control devices associated with this emission unit: N/A
--	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Reboiler – 1.0 MMBtu/hr

Manufacturer: Natco	Model number: 450/750	Serial number:
Construction date: 2009	Installation date: 2009	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.0 MMBtu/hr

Maximum Hourly Throughput: 1.0 MMBtu/hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 1.0 MMBtu/hr	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 1.0 MMBtu/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.09	0.39
Nitrogen Oxides (NO _x)	0.1	0.44
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	0.01
Particulate Matter (PM ₁₀)	0.01	0.04
Total Particulate Matter (TSP)	0.01	0.04
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.01	0.04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	<0.01	<0.01
Benzene	<0.01	<0.01
Toluene	<0.01	<0.01
Hexane	<0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR 13 – Visible Emission Limits (TV 4.1.1, 45 CSR 2-3.1)

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 2-3.1 – Compliance with 4.1.1 is demonstrated by combusting natural gas.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN05	Emission unit name: Cooper GMXE-8 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Natural Gas-fired reciprocating engine/integral compressor – 660 HP (8200 Btu/hp-hr)

Manufacturer: Cooper	Model number: GMXE-8	Serial number:
Construction date: 1964	Installation date: 1964	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 660 HP

Maximum Hourly Throughput: 8200 Btu/hp-hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 660 HP	Type and Btu/hr rating of burners: 8200 Btu/hp-hr, 0.0054 MMscf/hr
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 8200 Btu/hp-hr, 0.0054 MMscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.39	19.23
Nitrogen Oxides (NO _x)	29.49	129.17
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.05	0.24
Total Particulate Matter (TSP)	0.05	0.24
Sulfur Dioxide (SO ₂)	0.003	0.01
Volatile Organic Compounds (VOC)	3.30	14.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.21	0.92
Benzene	0.07	0.32
Toluene	<0.01	0.02
Ethylbenzene	< 0.01	< 0.01
n-Hexane	<0.01	0.01
Xylene	<0.01	< 0.01
Acetaldehyde	0.03	0.13
Acrolein	0.03	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). CO, NO_x, VOC Emission Rates based on annual emission statement submittals to WVDEP. PM10, PM2.5, and SO2 Emission Factors were obtained from USEPA's AIRS Report (March 1990). HAP emission factors based on AP-42 Table 3.2-1</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN04	Emission unit name: Cooper GMXE-8 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Natural Gas-fired reciprocating engine/integral compressor – 660 HP (8200 Btu/hp-hr)

Manufacturer: Cooper	Model number: GMXE-8	Serial number: N/A
Construction date: 1964	Installation date: 1964	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 660 HP

Maximum Hourly Throughput: 8200 Btu/hp-hr	Maximum Annual Throughput: N/A	Maximum Operating Schedule: 8760
---	--	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? ___ Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating: 660 HP	Type and Btu/hr rating of burners: 8200 Btu/hp-hr, 0.0054 MMscf/hr
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 8200 Btu/hp-hr, 0.0054 MMscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.39	19.23
Nitrogen Oxides (NO _x)	29.49	129.17
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.05	0.24
Total Particulate Matter (TSP)	0.05	0.24
Sulfur Dioxide (SO ₂)	0.003	0.01
Volatile Organic Compounds (VOC)	3.30	14.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.21	0.92
Benzene	0.07	0.32
Toluene	<0.01	0.02
Ethylbenzene	< 0.01	< 0.01
n-Hexane	<0.01	0.01
Xylene	<0.01	< 0.01
Acetaldehyde	0.03	0.13
Acrolein	0.03	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). CO, NO_x, VOC Emission Rates based on annual emission statement submittals to WVDEP. PM10, PM2.5, and SO2 Emission Factors were obtained from USEPA's AIRS Report (March 1990). HAP emission factors based on AP-42 Table 3.2-1</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN03	Emission unit name: Cooper GMXE-8 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Natural Gas-fired reciprocating engine/integral compressor – 660 HP (8200 Btu/hp-hr)

Manufacturer: Cooper	Model number: GMXE-8	Serial number:
Construction date: 1964	Installation date: 1964	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 660 HP

Maximum Hourly Throughput: 8200 Btu/hp-hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 660 HP	Type and Btu/hr rating of burners: 8200 Btu/hp-hr, 0.0054 MMscf/hr
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 8200 Btu/hp-hr, 0.0054 MMscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.39	19.23
Nitrogen Oxides (NO _x)	29.49	129.17
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.05	0.24
Total Particulate Matter (TSP)	0.05	0.24
Sulfur Dioxide (SO ₂)	0.003	0.01
Volatile Organic Compounds (VOC)	3.30	14.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.21	0.92
Benzene	0.07	0.32
Toluene	<0.01	0.02
Ethylbenzene	< 0.01	< 0.01
n-Hexane	<0.01	0.01
Xylene	<0.01	< 0.01
Acetaldehyde	0.03	0.13
Acrolein	0.03	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). CO, NO_x, VOC Emission Rates based on annual emission statement submittals to WVDEP. PM10, PM2.5, and SO2 Emission Factors were obtained from USEPA's AIRS Report (March 1990). HAP emission factors based on AP-42 Table 3.2-1</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN02	Emission unit name: Cooper GMXE-8 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Natural Gas-fired reciprocating engine/integral compressor – 660 HP (8200 Btu/hp-hr)

Manufacturer: Cooper	Model number: GMXE-8	Serial number:
Construction date: 1962	Installation date: 1962	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
660 HP

Maximum Hourly Throughput: 8200 Btu/hp-hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 660 HP	Type and Btu/hr rating of burners: 8200 Btu/hp-hr, 0.0054 MMscf/hr
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 8200 Btu/hp-hr, 0.0054 MMscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.39	19.23
Nitrogen Oxides (NO _x)	29.49	129.17
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.05	0.24
Total Particulate Matter (TSP)	0.05	0.24
Sulfur Dioxide (SO ₂)	0.003	0.01
Volatile Organic Compounds (VOC)	3.30	14.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.21	0.92
Benzene	0.07	0.32
Toluene	<0.01	0.02
Ethylbenzene	< 0.01	< 0.01
n-Hexane	<0.01	0.01
Xylene	<0.01	< 0.01
Acetaldehyde	0.03	0.13
Acrolein	0.03	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). CO, NO_x, VOC Emission Rates based on annual emission statement submittals to WVDEP. PM10, PM2.5, and SO2 Emission Factors were obtained from USEPA's AIRS Report (March 1990). HAP emission factors based AP-42 Table 3.2-1</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN01	Emission unit name: Cooper GMXE-8 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Natural Gas-fired reciprocating engine/integral compressor – 660 HP (8200 Btu/hp-hr)

Manufacturer: Cooper	Model number: GMXE-8	Serial number:
Construction date: 1962	Installation date: 1962	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
660 HP

Maximum Hourly Throughput: 8200 Btu/hp-hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 660 HP	Type and Btu/hr rating of burners: 8200 Btu/hp-hr, 0.0054 MMscf/hr
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 8200 Btu/hp-hr, 0.0054 MMscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.39	19.23
Nitrogen Oxides (NO _x)	29.49	129.17
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.05	0.24
Total Particulate Matter (TSP)	0.05	0.24
Sulfur Dioxide (SO ₂)	0.003	0.01
Volatile Organic Compounds (VOC)	3.30	14.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.21	0.92
Benzene	0.07	0.32
Toluene	<0.01	0.02
Ethylbenzene	< 0.01	< 0.01
n-Hexane	<0.01	0.01
Xylene	<0.01	< 0.01
Acetaldehyde	0.03	0.13
Acrolein	0.03	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). CO, NO_x, VOC Emission Rates based on annual emission statement submittals to WVDEP. PM10, PM2.5, and SO2 Emission Factors were obtained from USEPA's AIRS Report (March 1990). HAP emission factors based on AP-42 Table3.2-1</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EG01	Emission unit name: Emergency Generator	List any control devices associated with this emission unit: N/A
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Emergency Generator – 475 hp / 1800 rpm

Manufacturer: Cummins	Model number: GTA 19 GS2	Serial number:
Construction date: 2009	Installation date: 2009	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
475 hp / 1800 rpm

Maximum Hourly Throughput: 4.28 mmbtu/hr	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
--	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 475 hp / 1800 rpm	Type and Btu/hr rating of burners:
---	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas – 475 hp / 1800 rpm

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.19	1.05
Nitrogen Oxides (NO _x)	2.09	0.52
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	0.04	0.01
Total Particulate Matter (TSP)	0.04	0.01
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	1.05	0.26
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	<0.01	0.02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR 13 – Emission Limits (TV 6.1.1, 45 CSR 13, G60-C014)
45 CSR 16 – Emission Limits based on maximum engine power (TV 6.1.2, 45 CSR 16, 40 CFR 60.4248)

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 13 – Initial emissions test was conducted
45 CSR 16 – Initial emissions test was conducted

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: DEHY01	Emission unit name: DEHY01	List any control devices associated with this emission unit: N/A
---	--------------------------------------	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Dehydration Unit Still Column

Manufacturer: NATCO	Model number: 450/750	Serial number:
Construction date: 2009	Installation date: 2009	Modification date(s):

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27.6 mmscf/Day

Maximum Hourly Throughput: 27.6 mmscf/Day	Maximum Annual Throughput:	Maximum Operating Schedule: 8760
---	-----------------------------------	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas – 27.6 mmscf/Day throughput

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr Sulfur/100 cu. ft.		

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.25	1.08
Nitrogen Oxides (NO _x)	0.05	0.20
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	0.02
Particulate Matter (PM ₁₀)	< 0.01	0.02
Total Particulate Matter (TSP)	< 0.01	0.02
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	4.86	21.28
<i>The emissions from the Reboiler (RBR01) and the Dehydration Unit Flare (DEHY) are combined and are reported on this form.</i>		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
n-Hexane	0.08	0.33
Benzene	0.12	0.52
Toluene	0.21	0.90
Ethylbenzene	0.07	0.31
Xylenes	0.36	1.55
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emission rates for the dehydration unit were obtained from GRI GLYCalc V4.0, with 95% destruction efficiency for the flare. The flare emissions were estimated using AP-42 Table 13.5-1 for NO_x, CO, & VOC, and Table 1.4-2 for PM & SO₂.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Source Specific

- 45 CSR 13 – Maximum Throughput Limitation (TV 5.1.9, 45 CSR 13, R13-2792, 5.1.1) – DEHY01
- 45 CSR 13 – Maximum Emission Limits (TV 5.1.10, 45 CSR 13, R13-2792, 5.1.2) – DEHY01
- 40 CFR 63.764(a) – Compliance with 40 CFR, Part 63, Subpart A, as listed in Table 2 of 40 CFR, Part 63, Subpart HH (TV 5.1.12) – DEHY01
- 40 CFR 63.760(f)(6) – Compliance with 40 CFR, Part 63, Subpart HH is required upon initial start-up (TV 5.1.13) – DEHY01
- 45 CSR 13 – 40 CFR 63 Subpart HH or HHH Benzene exemption requirements (TV 5.1.14, 45 CSR 13, R13-2792, 6.1.1) – DEHY01
- 45 CSR 13 – Compliance with 5.1.14 shall be achieved by meeting conditions a, b, and c of this condition (TV 5.1.15, 45 CSR 13, R13-2792, 6.1.2) – DEHY01

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring

- 45 CSR 30-5.1.c - Compliance with 5.1.5 will be demonstrated by using GlyCalc V3 or higher (TV 5.2.1, 45 CSR 13, R13-2792, 5.3.3) – DEHY01

CAM

- 45 CSR 13 – Wet Gas Throughput shall be monitored on a monthly basis (TV 5.2.6, 45 CSR 13, R13-2792, 5.2.2) – DEHY01

Testing

- 45 CSR 30-5.1.c – Wet Gas Sampling (TV 5.3.1) – DEHY01
- 40 CFR 63.772(b)(2) – Procedures for determining Benzene emissions for exemption under 40 CFR 63.764(e)(1) (TV 5.3.3) – DEHY01

Recordkeeping

- 45 CSR 13 – Facility-wide HAP emission calculations shall be maintained to demonstrate compliance with 5.1.5 (TV 5.4.8, 45 CSR 13, R13-2792, 5.4.6) – DEHY01
- 45 CSR 13 – Wet gas throughput records shall be maintained to demonstrate compliance with 5.2.6 (TV 5.4.9, 45 CSR 13, R13-2792, 5.4.7) – DEHY01
- 45 CSR 13 – Records for conditions 5.4.3 through 5.4.10 shall be maintained and made available for inspection (TV 5.4.10, 45 CSR 13, R13-2792, 5.4.8) – DEHY01 & F1

Reporting

- 45 CSR 30-5.1.c – Reporting of sampling results for 5.3.1 (TV 5.5.2) – DEHY01
- 45 CSR 13 – If required to demonstrate compliance with 5.2.1, permittee shall submit a test protocol (TV 5.5.3, 45 CSR 13, R13-2791, 5.5.1) – DEHY01

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.



APPENDIX F
P.E. CERTIFICATIONS



P.E. Certification

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments as they pertain to the practice of engineering. This is defined as the performance of a professional service such as consultation, investigation, evaluation, planning, design or supervision of construction or operation in connection with any utilities, structures, buildings, machines, equipment, processes, works, or projects wherein the safeguarding of life, health and property is concerned, when such service or work requires the application of engineering principals and data. Based on my inquiry of those individuals with primary responsibility for obtaining such information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name of P.E. _____

Signature of P.E. _____

Date ____/____/____

WV License No. _____

Phone () _____



APPENDIX G

AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: F1	List all emission units associated with this control device.
--	---

Manufacturer: Natco	Model number: Q250	Installation date: 2009
-------------------------------	------------------------------	-----------------------------------

Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input checked="" type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC		95%
Benzene		95%
Ethylbenzene		95%
n-Hexane		95%
Toluene		95%
Xylene		95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
10 MMBtu/hr

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** The Permittee is conducting reasonable assurance compliance monitoring to maintain minor source classification in accordance with the requirements of 40 CFR 63, Subpart HH.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

45 CSR 6-4.1 – Particulate Matter emission limit (TV **5.1.1**)
 45 CSR 6-4.3 – Flare operating requirements (TV **5.1.2**, 45 CSR 13, R13-2792, 5.1.4)
 45 CSR 6-4.5 – Incinerator operating requirements (TV **5.1.3**)
 45 CSR 6-4.6 – Incinerator odor prevention requirements (TV **5.1.4**)
 40 CFR 63.10(b)(3) – Facility shall maintain minor source of HAPs by complying with 3.1.10 (TV **5.1.5**, 45 CSR 13, R13-2792, 5.1.3)
 45 CSR 10-4.1 – Sulfur Dioxide emission limit (TV **5.1.6**)
 45 CSR 10-5.1 – Hydrogen Sulfide emission limit (TV **5.1.7**)
 45 CSR 13 – Operation and Maintenance of APCE (TV **5.1.8**, 45 CSR 13, R13-2792, 4.1.3)
 45 CSR 13 – Flare compliance assessment (TV **5.1.11**, 45 CSR 13, R13-2792, 5.1.5)

ATTACHMENT G - Air Pollution Control Device Form

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Monitoring

- 45 CSR 30-5.1.c – Compliance with 5.1.2 shall be demonstrated by conducting Monthly Visible Emission Observations (TV **5.2.2**, 45 CSR 13, R13-2792, 5.3.1)
- 45 CSR 30-5.1.c – Compliance with 5.1.6 shall be demonstrated by annual inlet wet gas sampling (TV **5.2.3**)
- 45 CSR 30-5.1.c – Compliance with 5.1.7 shall be demonstrated by annual inlet wet gas sampling (TV **5.2.4**)

CAM

- 40 CFR 64.3(a) – Compliance with 5.1.2.c shall be demonstrated by monitoring the presence or absence of a flare pilot flame (TV **5.2.5**, 45 CSR 13, R13-2792, 5.2.1, 45 CSR 30-5.1.c)
- 40 CFR 64.7(a) – Monitoring of Flare (TV **5.2.7**, 45 CSR 30-5.1.c)
- 40 CFR 64.7(b) – Proper Maintenance of APCD equipment (TV **5.2.8**, 45 CSR 30-5.1.c)
- 40 CFR 64.7(c) – Continuous Monitoring of Flare (TV **5.2.9**, 45 CSR 30-5.1.c)
- 40 CFR 64.7(e) – Documentation of Need for Improved Monitoring of Flare (TV **5.2.10**, 45 CSR 30-5.1.c)
- 40 CFR 64.8 – Quality Improvement Plan shall be developed if required (TV **5.2.11**, 45 CSR 30-5.1.c)
- 40 CFR 64.6(c)(2) – Flame Detector Excursions (TV **5.2.12**, 45 CSR 30-5.1.c)

Testing

- 45 CSR 13 – Flare Compliance Assessment shall be conducted if required (TV **5.3.2**, 45 CSR 13, R13-2792, 5.3.2)

Recordkeeping

- 45 CSR 30-5.1.c – Monitoring data shall be maintained to demonstrate compliance with 5.1.2.b, 5.1.2.i, and 5.2.2 (TV **5.4.1**)
- 45 CSR 13 – Records of Malfunctions of APCE shall be maintained (TV **5.4.2**, 45 CSR 13, R13-2792, 4.1.4)
- 45 CSR 13 – Pilot Flame Absence records shall be maintained to demonstrate compliance with 5.1.2.c and 5.2.5 (TV **5.4.3**, 45 CSR 13, R13-2792, 5.4.1)
- 45 CSR 13 – Flare design evaluation records shall be maintained to demonstrate compliance with 5.1.2 and 5.3.2 (TV **5.4.4**, 45 CSR 13, R13-2792, 5.4.2)
- 45 CSR 13 – Testing records for 5.2.1 shall be maintained to demonstrate compliance with 5.1.2 and 5.2.1 (TV **5.4.5**, 45 CSR 13, R13-2792, 5.4.3)
- 45 CSR 13 – Monitoring records for 5.2 and testing records for 5.3 shall be maintained (TV **5.4.6**, 45 CSR 13, R13-2792, 5.4.4)
- 45 CSR 13 – Visible Emission Test records shall be maintained to demonstrate compliance with 5.1.2.b (TV **5.4.7**, 45 CSR 13, R13-2792, 5.4.5)
- 45 CSR 13 – Records for conditions 5.4.3 through 5.4.10 shall be maintained and made available for inspection (TV **5.4.10**, 45 CSR 13, R13-2792, 5.4.8)
- 40 CFR 64.7(d) – Response to Excursion or Exceedances (TV **5.4.12**, 45 CSR 30-5.1.c)
- 40 CFR 64.9(b) – General recordkeeping requirements for 40 CFR 64 CAM (TV **5.4.13**, 45 CSR 30-5.1.c.1)

Reporting

- 45 CSR 30-5.1.c – Reporting of Visible Emission Limit Exceedances (TV **5.5.1**)
- 45 CSR 13 – Reporting of deviations of visible emissions requirement (TV **5.5.4**, 45 CSR 13, R13-2792, 5.5.2)
- 45 CSR 13 – Report deviation from flare design and operation criteria (TV **5.5.5**, 45 CSR 13, R13-2792, 5.5.3)
- 40 CFR 64.9(a) – General reporting requirements for 40 CFR Part 64 CAM (TV **5.5.6**, 45 CSR 30-5.1.c)



APPENDIX H
CAM FORMS

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): YES NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
 - d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
 - e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.

INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
DEHY01	Glycol Dehydration Unit Still	VOC	Flare (F1)	20.88 tons/year	Continuous monitoring of flare to ensure flare operation at any time dehydration unit is operating.
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: DEHY01	4b) Pollutant: VOC	4c) ^a Indicator No. 1: Flare (F1) operation	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Continuous monitoring of the flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration is in operation.	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		Detector: 1.4 to 5.5 micro amps. A single reading will restart pilot to ensure ignition of flare. If the pilot does not relight, the ensuing signal detected will initiate a shutdown of the dehydration system.	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		The detector will be installed, as specified by manufacturer, to sight the most stable part of the flare flame at all firing rates. The installation will be performed by a trained, experienced flame safeguard control representative of the manufacturer. Accuracy of detector is -15% to +10%.	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		Adjust siting detector using a volt-ohm meter to identify a position with a maximum steady reading of at least 3 micro amps for both pilot and main burner only operation. The manufacturer will complete the adjustment of the detector as well as complete a full checkout procedure prior to operation.	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		There are no scheduled QA/QC practices prescribed for the detector as it operates as a fail safe system. An oscillating shutter interrupts ultraviolet radiation reaching the sensor 60 times per minute to ensure the sensor is functioning properly eliminating false positive readings. False negative readings are minimized by the automatic shutdown logic which shuts down the entire dehydration unit when the detector senses absence of flare flame. As such, if a false negative reading occurred the entire unit would shut down and would not be able to be restarted without a positive signal from the detector. Failure investigations would occur if the unit could not be restarted, which would identify the cause of the false negative reading.	
^d Provide the <u>MONITORING FREQUENCY</u> :		Continuous (1Hz nominal)	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Continuous, alarmed signal is sent to the control panel and recorded in Mhealth, Dominion's computerized data acquisition, monitoring, and statistical analysis system.	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		N/A	

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

- ^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.
- ^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.
- ^d Emission units with post-control PTE \geq 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
Flare (F1)

6b) Regulated Air Pollutant:
VOC

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

40 CFR Part 63 Subpart HH requires that emissions from the dehydration unit be controlled; this will be accomplished using a flare that meets the requirements of 40 CFR 63.11 which requires that the flare be equipped with a "heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame". The continuous monitoring methodology required by the MACT to show compliance with the destruction efficiency requirements also meets the requirements of the CAM rule. The flare will meet the requirements of 40 CFR 63.11 and, therefore, has a presumptive control efficiency of 95%, the emission limitation for VOC. The methodology used to monitor the flare operation when the dehydration unit is operating meets the requirements of 40 CFR Part 64.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The indicator is used to determine the presence of flare flame and pilot flame. If the detector indicates the absence of a flame, the unit is shutdown eliminating the possibility of excess emissions. The detector function is automatically tested once per second (1 Hz) to ensure proper detector operation. The monitoring device returns a value of either "ON" (flame present) or "OFF" (flame absent); this attribute data is the Indicator Range of the monitoring methodology.