### **Dominion Resources Services, Inc.** 5000 Dominion Boulevard, Glen Allen, VA 23060

dom.com

January 8, 2016



#### BY: U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED

9590 9401 0037 5168 3631 06

William F. Durham Director, Division of Air Quality WVDEP 601 57<sup>th</sup> Street Charleston, WV 25304

RE: <u>Dominion Transmission, Inc. – Title V Renewal Application</u>
Bridgeport Compressor Station – R30-03300100-2011

Dear Mr. Durham:

Enclosed please find the Title V Renewal Application for Dominion Transmission, Inc.'s (DTI) Bridgeport Compressor Station, Permit No. R30-03300100-2011. The enclosure consists of one hard copy and two cd copies of the application that includes all attachments.

As part of the Title V renewal application, the equipment list has been updated based on recent updates to the Bridgeport Station:

- Equipment removed from the facility
  - o TK03 4,200 gal Aboveground Storage Tank (Drip Gas)
- Equipment added to the facility:
  - o TK06 4,200 gal Vertical Aboveground Storage Tank (Wastewater)
  - TK07 4,200 gal Vertical Aboveground Storage Tank (Produced Fluids)
- · Correction to equipment at the facility:
  - Tank TK04 The tank description and install date have been updated.
  - Boiler BLR02 The model for this boiler was previously listed as WN-2500, but the correct description is WN<u>C</u>-2500.
  - Microturbines AUX02 and AUX03 The mircoturbines were upgraded on 7/27/11 when they received their 40,000 hour service. As a result, these units are now Capstone <u>C-65</u> models rated at <u>65 kw (87 hp)</u>.

If you require any additional information, please contact Rebekah Remick at (804) 273-3536 or via email at Rebekah.J.Remick@dom.com.

Sincerely,

Amanda B. Tornabene

Director, Gas Environmental Services

# BRIDGEPORT COMPRESSOR STATION DOMINION TRANSMISSION INC. APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL TITLE V OPERATING PERMIT NO: R30-03300100-2011

Dominion Transmission, Inc.
Bridgeport Compressor Station
Route 2
Bridgeport, WV 26330

**JANUARY 2016** 

# DOMINION TRANMISSION, INC. BRIDGEPORT COMPRESSOR STATION

#### TITLE V PERMIT RENEWAL APPLICATION

#### **TABLE OF CONTENTS**

Title V Permit Application Checklist for Administrative Completeness Cross Reference

Section 1: Introduction

Section 2: Title V Renewal Permit Application – General Forms

#### **ATTACHMENTS**

Attachment A: Area Map

Attachment B: Plot Plan

Attachment C: Process Flow Diagrams

Attachment D: Title V Equipment Table

Attachment E: Emission Unit Forms

Attachment G: Air Pollution Control Device Form

\*\*Note: Attachment F and Attachment H are not included in this application.

# TITLE V PERMIT APPLICATION CHECKLIST FOR ADMINISTRATIVE COMPLETENESS

Requirement	Application
One signed copy of the application (per WVDEP email correspondence 4/16/15)	Enclosed – Section 2
Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)	Enclosed – 2 CDs
*Table of Contents (needs to be included but not for administrative completeness)	Table of Contents
Facility Information	Section 1/Section 2
Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios	Section 1 / Section 2: TV Renewal Application Form Section #14
Area map showing plant location	Attachment A
Plot plan showing buildings and process areas	Attachment B
Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships	Attachment C
Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance	Not Applicable
Listing of all active permits and consent orders (if applicable)	Section 2: TV Renewal Application Form Section #21

Facility-wide emissions summary	Section 2: TV Renewal Application Form Section #23
Identification of Insignificant Activities	Section 2: TV Renewal Application Form Section #24
ATTACHMENT D – Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities	Attachment D
ATTACHMENT E – Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance	Attachment E  Attachment F not applicable
ATTACHMENT G – Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)	Attachment G
ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each new control device for which the "Is the device subject to CAM?" question is answered "Yes" on the Air Pollution Control Device Form (ATTACHMENT G)	Not Applicable
General Application Forms signed by a Responsible Official	Enclosed – Section 2
Confidential Information submitted in accordance with 45CSR31	Not Applicable

# **SECTION 1**

Introduction

#### **INTRODUCTION:**

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

Bridgeport Station has the potential to emit in excess of 100 tons per year of nitrogen oxides (NOx). The station is classified as a major stationary source under the West Virginia Department of Environmental Protection (WVDEP) Regulation (45 CSR Part 30) and is subject to the Title V Operating Permit provisions of Part 30. Bridgeport Station is also an area source of hazardous air pollutants (HAPs) since the potential to emit is less than 10 tons per year for individual HAPs and less than 25 tons per year of combined HAPs.

Bridgeport Station was originally issued a Title V Operating Permit (Permit No: R30-03300100-2007) in 2007 for a period of five (5) years, with an expiration date of February 6, 2012. Bridgeport Station is also subject to the underlying State Operating Permit (Rule 13 Permit No: R13-1801G). The Title V operating permit is for the operation of two (2) 1,100 hp natural gas fired reciprocating engines (EN01 and EN02), one (1) 80 MMscf/day glycol dehydrator system (DEHY01) with flare (FLARE01), one (1) 0.75 MMBtu/hr dehydration unit reboiler (RBR01), one (1) 2.5 MMBtu/hr natural gas fired boiler (BLR02), two (2) 65 kW (87 hp) natural gas fired auxiliary microturbines (AUX02 and AUX03), and six (6) above ground storage tanks of various sizes (TK01, TK02, TK04 – TK07).

The last Title V renewal application was submitted in 2011, with the Title V Operating Permit Renewal being issued on August 8, 2011, with an expiration date of August 8, 2016.

#### PROCESS DESCRIPTION

Bridgeport Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 and EN02) 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.

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 enclosed flare (FLARE01) to combust the hydrocarbons; thereby, reducing overall emissions and odor. The flare is permitted with a destruction efficiency of 98% for VOCs and volatile HAPs. The compressed, dehydrated gas then enters the pipeline.

Listed below is a description of the equipment located at the Bridgeport Station:

Two (2) 1,100 hp Cooper GMVA-8 natural gas-fired reciprocating engines/integral compressors

Emission unit ID: 001-01 and 001-02Emission point ID: EN01 and EN02

Two (2) 65 kW (87 hp) Capstone C-65 microturbines

Emission unit ID: 002-01 and 002-02Emission point ID: AUX02 and AUX03

One (1) 2.5 MMBtu/hr natural gas-fired boiler

Emission unit ID: 005-01Emission point ID: BLR02

One (1) 0.75 MMBtu/hr natural gas-fired dehydration unit reboiler

Emission unit ID: 005-02Emission point ID: RBR01

One (1) 80 MMscf/day dehydration unit/still column

Emission unit ID: DEHY01Emission point ID: FLARE01

One (1) 247 scfm dehydration unit enclosed flare

Emission unit ID: FLARE01Emission point ID: FLARE01

One (1) 1,500 gallon horizontal aboveground triethylene glycol storage tank

Emission unit ID: TK01Emission point ID: TK01

One (1) 4,200 gallon vertical aboveground glycol/water storage tank

Emission unit ID: TK02Emission point ID: TK02

One (1) 8,000 gallon horizontal aboveground engine oil/lube oil storage tank

Emission unit ID: TK04Emission point ID: TK04

#### One (1) 1,000 gallon horizontal aboveground odorant storage tank

Emission unit ID: TK05Emission point ID: TK05

One (1) 4,200 gallon vertical aboveground wastewater storage tank

Emission unit ID: TK06Emission point ID: TK06

One (1) 4,200 gallon vertical aboveground produced fluids storage tank

Emission unit ID: TK07Emission point ID: TK07

# **SECTION 2**

Title V Renewal Permit Application -General Forms



# WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### **DIVISION OF AIR QUALITY**

601 57<sup>th</sup> Street SE Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

#### INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

#### Section 1: General Information

section 1. General Injornation	
Name of Applicant (As registered with the WV Secretary of State's Office):  Dominion Transmission, Inc.	2. Facility Name or Location: Bridgeport Compressor Station
3. DAQ Plant ID No.:	4. Federal Employer ID No. (FEIN):
0 3 3 — 0 0 1 0 0	5 5 0 6 2 9 2 0 3
5. Permit Application Type:	
-	perations commence? 1960 expiration date of the existing permit? 08/08/2016
6. Type of Business Entity:	7. Is the Applicant the:
☐ Corporation ☐ Governmental Agency ☐ LLC ☐ Partnership ☐ Limited Partnership	Owner Operator Both
8. Number of onsite employees: 14	If the Applicant is not both the owner and operator, please provide the name and address of the other party.
9. Governmental Code:	
☐ Federally owned and operated; 1 ☐	County government owned and operated; 3 Municipality government owned and operated; 4 District government owned and operated; 5
10. Business Confidentiality Claims	
Does this application include confidential information	n (per 45CSR31)? Yes No
If yes, identify each segment of information on each justification for each segment claimed confidential, in accordance with the DAQ's "PRECAUTIONARY NO	ncluding the criteria under 45CSR§31-4.1, and in

11. Mailing Address				
Street or P.O. Box: 925 White Oaks	Blvd.			
City: Bridgeport		State: WV		<b>Zip:</b> 26330
<b>Telephone Number:</b> (681) 842-3000	0 Fax Number: (681) 842-3323			
12. Facility Location				
Street: Route 2	City: Bridgeport		County	: Harrison
UTM Easting: 567.05 km	UTM Northing: 4355.39 km		Zone:	☑ 17 or ☐ 18
<b>Directions:</b> Exit #125 off I-79. Take	Route 73 North	for approximately 0.5	miles. Sta	ation is located on the right.
<b>Portable Source?</b> ☐ Yes ☐	No			
Is facility located within a nonattain	ment area?	Yes No	If yes, fo	or what air pollutants?
Is facility located within 50 miles of another state? Yes No If yes, name the afference Pennsylvania Ohio		name the affected state(s). vania		
Is facility located within 100 km of a If no, do emissions impact a Class I			Dolly So	name the area(s). obs Wilderness Area reek Wilderness Area
<sup>1</sup> Class I areas include Dolly Sods and Otter Face Wilderness Area in Virginia.	Creek Wilderness A	reas in West Virginia, and Sh	L ıenandoah l	National Park and James River

13. Contact Information		
Responsible Official: Brian C. Sheppard		<b>Title:</b> Vice President, Pipeline Operations
Street or P.O. Box: 925 White Oaks Blvd.		
City: Bridgeport	State: WV	<b>Zip:</b> 26330
<b>Telephone Number:</b> (681) 842-3733	Fax Number: (681) 842-332	23
E-mail address: Brian.C.Sheppard@dom.com	L	
Environmental Contact: Rebekah Remick		Title: Environmental Consultant
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	State: VA	<b>Zip:</b> 23060
<b>Telephone Number:</b> (804) 273-3536	Fax Number: (804) 273-296	4
E-mail address: Rebekah.J.Remick@dom.com		
Application Preparer: Rebekah Remick		Title: Environmental Consultant
Company: Dominion Resources, Inc.		
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	State: VA	<b>Zip:</b> 23060
<b>Telephone Number:</b> (804) 273-3536	Fax Number: (804) 273-296	4
E-mail address: Rebekah.J.Remick@dom.com		

14. Facility Descri	ption
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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	486120	4922

#### Provide a general description of operations.

Bridgeport Station is a natural gas compressor facility that services a natural gas storage pool and pipeline system. The compressor engines (EN01 and EN02) at the facility recompress natural gas for injection from the pipeline system into the storage pool or withdrawal from storage pool into the pipeline system. Prior to exiting the facility via pipeline, compressed withdrawal 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."
- Provide a detailed Process Flow Diagram(s) showing each process or emissions unit as ATTACHMENT
   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.	
□ SIP	☐ FIP
☑ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64)
☐ CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	☐ CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
☐ CAIR SO <sub>2</sub> Trading Program (45CSR41)	

#### 19. Non Applicability Determinations (Continued)

### 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.

- 40 CFR 60 Subpart Dc The boiler (BLR02) is not subject to this subpart since it is less than 10 MMBtu/hr; therefore, does not meet the applicability of this subpart.
- 40 CFR60 Subpart Kb The tanks are not subject to this subpart as they are all less than 19,813 gallons; therefore, do not meet the applicability of this subpart.
- 40 CFR 60 Subpart KKK The operations at the facility do not meet the definition of a "natural gas processing plant;" therefore, does not meet the applicability of this subpart.
- 40 CFR 60 Subpart LLL The facility does not meet the definition of a "natural gas processing plant," nor does the facility include a sweetening unit. Therefore, the requirements of this subpart do not apply.
- 40 CFR 60 Subpart IIII The compressor engines (EN01 and EN02) are not subject to this subpart since they are spark ignition IC engines; therefore, do not meet the applicability of this subpart.
- 40 CFR 60 Subpart JJJJ The compressor engines (EN01 and EN02) are not subject to this subpart since they were installed in 1960 and 1963, before the applicability date.
- 40 CFR 60 Subpart OOOO This subpart does not apply to the facility since the facility does not have gas wells, centrifugal compressors, reciprocating compressors, and/or pneumatic controllers constructed, modified, or reconstructed after August 23, 2011. None of the newly installed tanks onsite meet the applicability requirements in 40 CFR 60.5365(e).
- 40 CFR 63 Subpart HH The facility is not considered to be within the natural gas production source category since it does not meet the definition of "facility," (i.e. the facility is categorized as a natural gas transmission and storage facility). Therefore, the requirements of this subpart do not apply.
- 40 CFR 63 Subpart HHH While the facility is a transmission and storage facility, it is not a major source of HAP. Therefore, the requirements of this subpart do not apply.
- 40 CFR 63 Subpart DDDDD The boiler (BLR02) and reboiler (RBR01) are not subject to this subpart since they are exempt by §63.7491(h) and the facility is not major source of HAPs.
- 40 CFR 63 Subpart JJJJJJ The boiler (BLR02) combusts only natural gas and is therefore exempt per 63.11195(e). The reboiler (RBR01) is not applicable to this subpart since it is considered a "process heater," which is excluded from the definition of "boiler".
- 40 CFR 64 CAM At the time of the first renewal, CAM was determined not to be applicable to the sources at this facility. No changes have been made to this determination.



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 and 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)
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 and 45 CSR 34 – Prior to demolition/construction buildings will be inspected for asbestos (TV
3.1.3) 45 CSR 4 and 45 CSR 30 – Permittee shall maintain records of all odor complaints received (TV 3.1.4, 3.4.3) 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 13 and WV Code 22-5-4(a)(14 - 15) – The permittee will perform stack testing in accordance with testing requirements, if testing is requested or required (TV 3.3.1; R13-180G1 3.3.1) 45 CSR 30 – Recordkeeping Requirements (TV 3.4; R13-1801G 4.4.1) 45 CSR 30 – Reporting Requirements (TV 3.5) 45 CSR 30 - The permittee shall submit a certified emissions statement and pay fees annually (TV 3.5.4)
45 CSR 30 - The permittee shall submit semi-annual monitoring reports (TV 3.5.6)  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 (if any)
R13-1801G	06/16/2015	N/A

22. Inactive Permits/Obsolete Perm	nit Conditions	
Permit Number	Date of Issuance	Permit Condition Number
N/A		

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	69.37
Nitrogen Oxides (NO <sub>X</sub> )	185.55
Lead (Pb)	N/A
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	2.89
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	2.89
Total Particulate Matter (TSP)	5.49
Sulfur Dioxide (SO <sub>2</sub> )	4.33
Volatile Organic Compounds (VOC)	77.50
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Acetaldehyde	0.58
Acrolein	0.58
Benzene	0.27
Ethylbenzene	0.34
Formaldehyde	4.10
Hexane	0.14
Toluene	0.28
Xylene	2.58
Regulated Pollutants other than Criteria and HAP	Potential Emissions

 $<sup>^{1}</sup>PM_{2.5}$  and  $PM_{10}$  are components of TSP.

<sup>&</sup>lt;sup>2</sup>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.	24. Insignificant Activities (Check all that apply)				
$\boxtimes$	1.	Air compressors and pneumatically operated equipment, including hand tools.			
	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.			
	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.			
$\boxtimes$	4.	Bathroom/toilet vent emissions.			
	5.	Batteries and battery charging stations, except at battery manufacturing plants.			
	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.			
	7.	Blacksmith forges.			
$\boxtimes$	8.	Boiler water treatment operations, not including cooling towers.			
	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.			
	10.	CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.			
	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.			
$\boxtimes$	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.			
	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.			
	14.	Demineralized water tanks and demineralizer vents.			
	15.	Drop hammers or hydraulic presses for forging or metalworking.			
	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.			
	17.	Emergency (backup) electrical generators at residential locations.			
	18.	Emergency road flares.			
	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , 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.	24. Insignificant Activities (Check all that apply)				
	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.			
		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:			
Ш	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.			
	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.			
	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.			
$\boxtimes$	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.			
	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.			
$\boxtimes$	26.	Fire suppression systems.			
$\boxtimes$	27.	Firefighting equipment and the equipment used to train firefighters.			
	28.	Flares used solely to indicate danger to the public.			
	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.			
	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.			
$\boxtimes$	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.			
	32.	Humidity chambers.			
	33.	Hydraulic and hydrostatic testing equipment.			
	34.	Indoor or outdoor kerosene heaters.			
$\boxtimes$	35.	Internal combustion engines used for landscaping purposes.			
	36.	Laser trimmers using dust collection to prevent fugitive emissions.			
	37.	Laundry activities, except for dry-cleaning and steam boilers.			
	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.			
	39.	Oxygen scavenging (de-aeration) of water.			
	40.	Ozone generators.			

24.	Insign	ificant Activities (Check all that apply)
	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 owners/operators must still get a permit if otherwise requested.)
	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.
	43.	Process water filtration systems and demineralizers.
	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.
$\boxtimes$	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
	48.	Shock chambers.
	49.	Solar simulators.
$\boxtimes$	50.	Space heaters operating by direct heat transfer.
	51.	Steam cleaning operations.
	52.	Steam leaks.
	53.	Steam sterilizers.
	54.	Steam vents and safety relief valves.
	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.
$\boxtimes$	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.
	57.	Such other sources or activities as the Director may determine.
	58.	Tobacco smoking rooms and areas.
	59.	Vents from continuous emissions monitors and other analyzers.

#### 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**.

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance							
Note	This Certification must be signed by a responsible official. The <b>original</b> , signed in <b>blue ink</b> , must be submitted with the application. Applications without an <b>original</b> signed certification will be considered as incomplete.						
a. (	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)							
Nan	ne: Brian C. Sheppard  Title: Vice President, Pipeline Operations						
Responsible official's signature:  Signature: Signature Date: 12-17-15  (Must be signed and dated in blue ink)							
Not	e: Please check all applicable attachments included with this permit application:						
× ×	ATTACHMENT A: Area Map						
	ATTACHMENT B: Plot Plan(s)						
$\boxtimes$	ATTACHMENT C: Process Flow Diagram(s)						
	ATTACHMENT D: Equipment Table						
$\boxtimes$	ATTACHMENT E: Emission Unit Form(s)						
	ATTACHMENT F: Schedule of Compliance Form(s)						
$\boxtimes$	ATTACHMENT G: Air Pollution Control Device Form(s)						
	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 <a href="https://www.dep.wv.gov/daq">www.dep.wv.gov/daq</a>, requested by phone (304) 926-0475, and/or obtained through the mail.

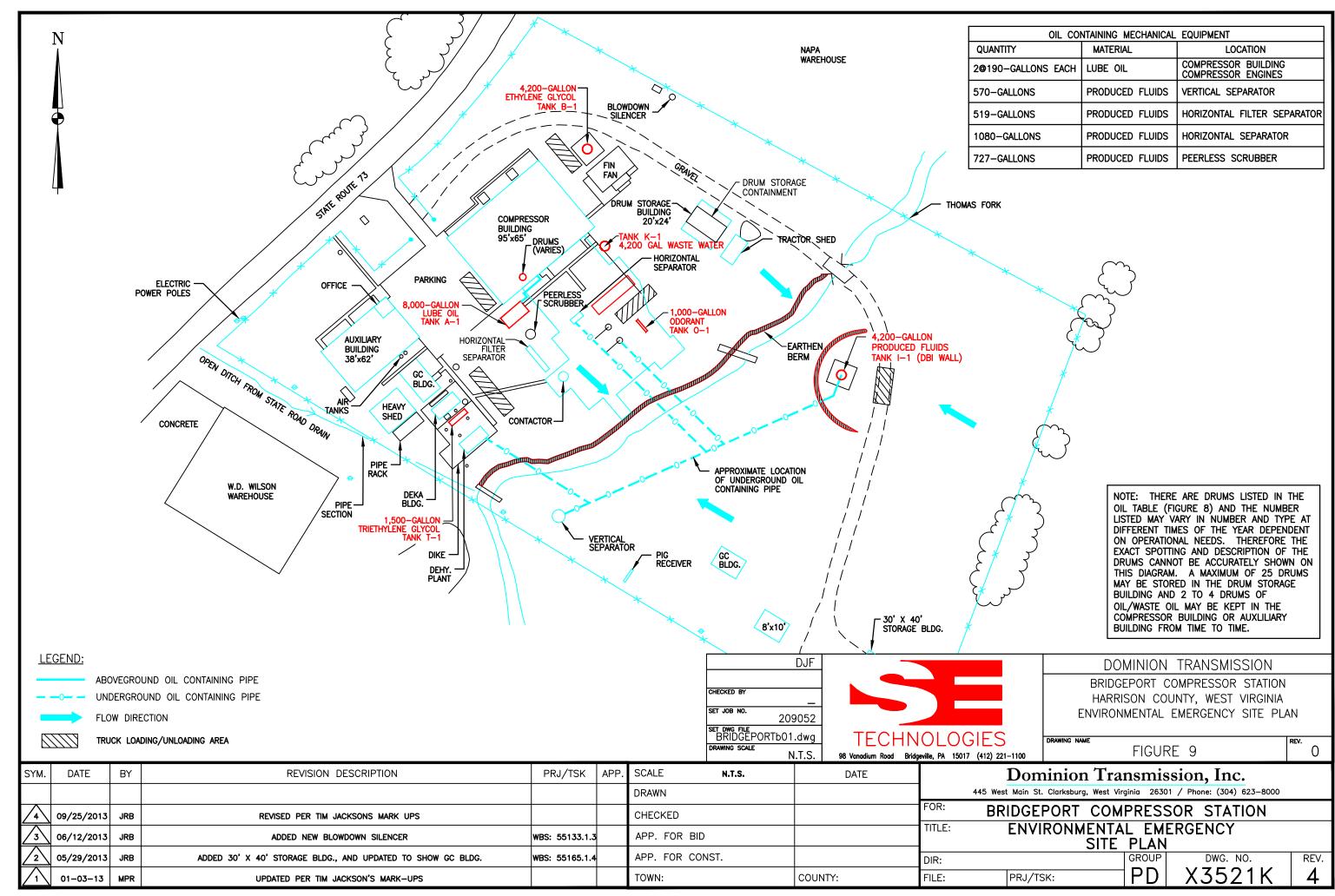
# **Attachment A**

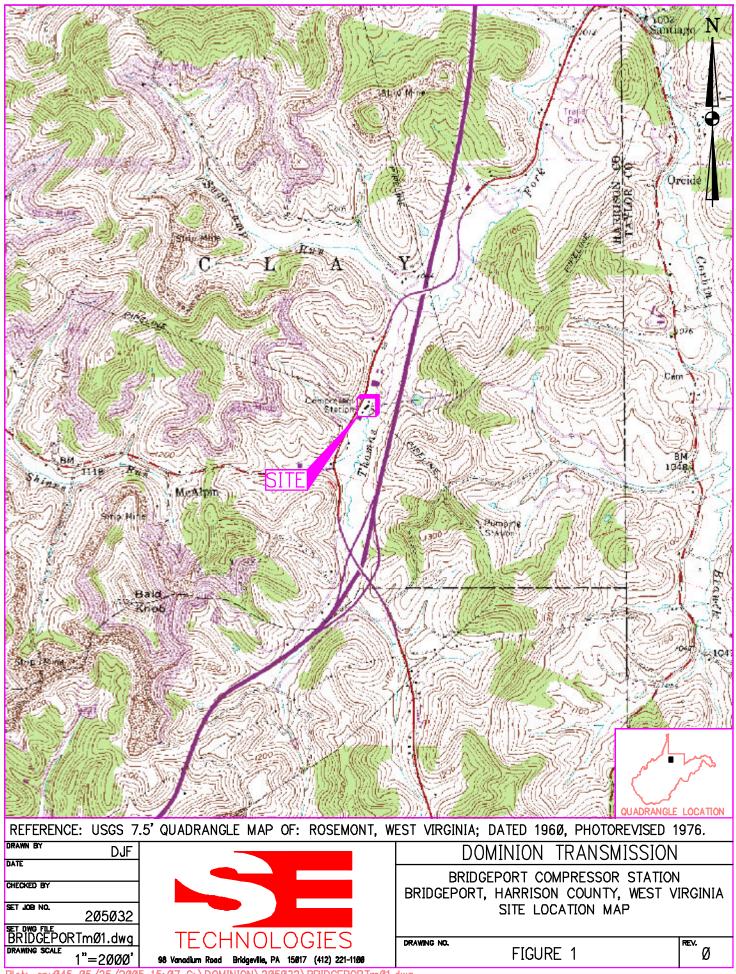
Area Map



# **Attachment B**

Plot Plan

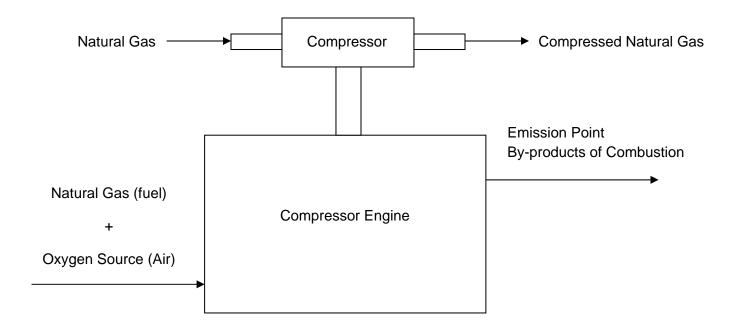




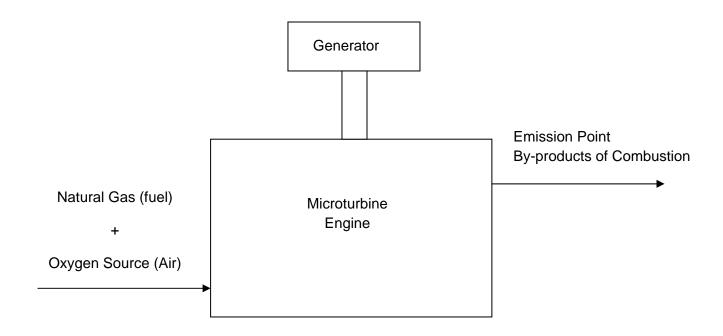
# **Attachment C**

**Process Flow Diagrams** 

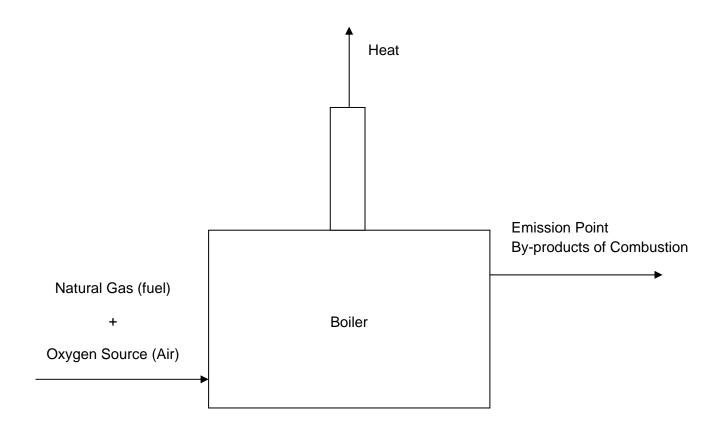
#### Compressor Engines (EN01 and EN02) Process Flow Diagram



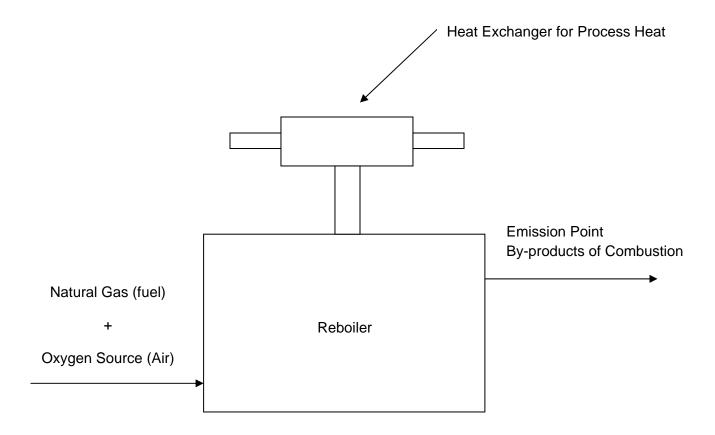
#### Microturbines (AUX02 and AUX03) Process Flow Diagram



#### **Boiler (BLR02) Process Flow Diagram**



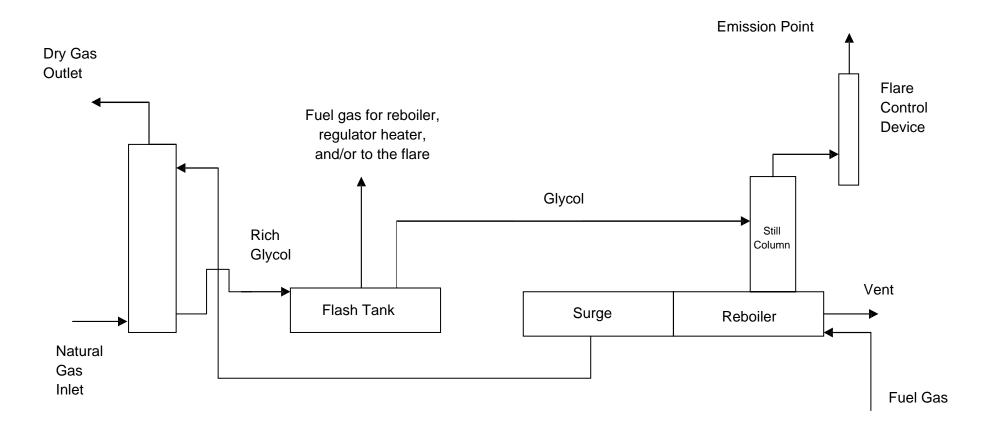
#### Reboiler (RBR01) Process Flow Diagram



### **Dominion Transmission, Inc.**

### **Bridgeport Compressor Station**

#### Dehydration Unit (DEHY01, FLARE01 and RBR01) Process Flow Diagram



# **Attachment D**

Title V Equipment Table

## **ATTACHMENT D - Title V Equipment Table**

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

			•	<u> </u>	
Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
EN01	N/A	001-01	Reciprocating Engine/Internal Compressor; Cooper GMVA-8	1,100 hp	1960
EN02	N/A	001-02	Reciprocating Engine/Internal Compressor; Cooper GMVA-8	1,100 hp	1963
FLARE01	FLARE01	DEHY01	TEG Dehydration Unit with flash tank and pilot light regulator heater (2,500 Btu/hr)	80 MMscf/day	2004
BLR02	N/A	005-01	Boiler; Ajax WNC-2500	2.5 MMBtu/hr	2002
RBR01	N/A	005-02	Reboiler for glycol regenerator	0.75 MMBtu/hr	2004
FLARE01	N/A	FLARE01	Non-assisted, Enclosed Flare – Questor Q250	247 scfm	2015
TK01	N/A	TK01	Horizontal Aboveground Tri-Ethylene Glycol Storage Tank	1,500 Gallons	1989
TK02	N/A	TK02	Vertical Aboveground Glycol/Water Storage Tank	4,200 Gallons	1988
TK04	N/A	TK04	Horizontal Aboveground Engine Oil/Lube Oil Storage Tank	8,000 Gallons	2002
TK05	N/A	TK05	Horizontal Aboveground Storage Tank – Odorant	1,000 Gallons	2003
New units (u	pdates) to eq	uipment list:			
AUX02	N/A	002-01	Capstone C-65 Microturbine	65 kW (87 hp)	2011
AUX03	N/A	002-02	Capstone C-65 Microturbine	65 kW (87 hp)	2011
TK06	N/A	TK06	Vertical Aboveground Wastewater Storage Tank	4,200 Gallons	2013
TK07	N/A	TK07	Vertical Aboveground Produced Fluids Storage Tank	4,200 Gallons	2013
Units that hav	ve been remo	oved:			
TK03	N/A	TK03	Aboveground Drip Gas Storage Tank	4,200 Gallons	1980
	1	1	1	l	

<sup>1</sup>For 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.

Title V Equipment Table (equipment_table.doc)				
Page 1 of 1				
1 Revised 4/11/05	1	of	1	age

# **Attachment E**

**Emission Unit Forms** 

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated		
002-01	AUX02	with this emission u	ınit:	
	Microturbine	IV/A		
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):	
Natural gas-fired microturbine				
Manufacturer:	Model number:	Serial number:		
Capstone	C-65	002219		
Construction date:	Installation date:	Modification date(s	):	
2002	2002	2011 – 07/20/2011 Upgrade from C-60 to C-65		
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):			
65 kW (87 hp)				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
842 cf/hr	7.38 MMcf/yr	8760 hrs/yr		
Fuel Usage Data (fill out all applical	ole fields)			
Does this emission unit combust fuel? _X_Yes No If yes, is it?				
		Indirect Fired	_XDirect Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:	
65 kW (87 hp)		0.842 MMBtu/hr		
List the primary fuel type(s) and if a		s). For each fuel type	listed, provide	
the maximum hourly and annual fu	el usage for each.			
Natural gas - Maximum hourly fuel usage	= 842 cf/hr			
- Maximum annual fuel usage				
Describe each fuel expected to be us	ed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf	
	<u> </u>		•	

Emissions Data (AUX02)			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	0.08	0.35	
Nitrogen Oxides (NO <sub>X</sub> )	0.03	0.13	
Lead (Pb)	N/A	N/A	
Particulate Matter (PM <sub>2.5</sub> )	< 0.01	0.01	
Particulate Matter (PM <sub>10</sub> )	< 0.01	0.01	
Total Particulate Matter (TSP)	0.01	0.02	
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.01	
Volatile Organic Compounds (VOC)	0.01	0.03	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Acetaldehyde	< 0.01	< 0.01	
Acrolein	< 0.01	< 0.01	
Benzene	< 0.01	< 0.01	
Ethylbenzene	< 0.01	< 0.01	
Formaldehyde	< 0.01	< 0.01	
Toluene	< 0.01	< 0.01	
Xylene	< 0.01	< 0.01	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	

- CO, NOx, and VOC emission rates are based on manufacturer's technical reference sheet for system emissions.
- PM and SO2 emission factors from USEPA AP-42, Section 3.1, Stationary Gas Turbines, Table 3.1-2
- HAP emission factors from USEPA AP-42, Section 3.1, Stationary Gas Turbines, Table 3.1-3

Applicable Requirements (AUX02)
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.
N/A – No Permit Requirements in Title V Operating Permit (R30-03300100-2011) nor R13 Construction Permit to Modify (R13-1801G).
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.)
N/A-No Permit Requirements in Title V Operating Permit (R30-03300100-2011) nor R13 Construction Permit to Modify (R13-1801G).
Are you in compliance with all applicable requirements for this emission unit? X_YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number: 002-02	Emission unit name: AUX03	List any control devices associated with this emission unit:			
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  Natural gas-fired microturbine					
Manufacturer: Capstone	Model number: C-65	Serial number: 002209			
Construction date: 2002	Installation date: 2002	Modification date(s): 2011 – 07/20/2011 Upgrade from C-60 to C-65			
<b>Design Capacity (examples: furnace</b> 65 kW (87 hp)	s - tons/hr, tanks - gallons):				
Maximum Hourly Throughput: 842 cf/hr	Maximum Annual Throughput: 7.38 MMcf/yr	Maximum Operating Schedule: 8760 hrs/yr			
Fuel Usage Data (fill out all applical	ole fields)				
Does this emission unit combust fuel? _X_Yes No If yes, is it?					
		Indirect Fired	_XDirect Fired		
Maximum design heat input and/or 65 kW (87 hp)	Type and Btu/hr rating of burners: 0.842 MMBtu/hr				
List the primary fuel type(s) and if a the maximum hourly and annual fuel Natural gas  - Maximum hourly fuel usage - Maximum annual fuel usage	el usage for each. = 842 cf/hr	s). For each fuel type	listed, provide		
Describe each fuel expected to be us	ed during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf		

Emissions Data (AUX02)			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	0.08	0.35	
Nitrogen Oxides (NO <sub>X</sub> )	0.03	0.13	
Lead (Pb)	N/A	N/A	
Particulate Matter (PM <sub>2.5</sub> )	< 0.01	0.01	
Particulate Matter (PM <sub>10</sub> )	< 0.01	0.01	
Total Particulate Matter (TSP)	0.01	0.02	
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.01	
Volatile Organic Compounds (VOC)	0.01	0.03	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Acetaldehyde	< 0.01	< 0.01	
Acrolein	< 0.01	< 0.01	
Benzene	< 0.01	< 0.01	
Ethylbenzene	< 0.01	< 0.01	
Formaldehyde	< 0.01	< 0.01	
Toluene	< 0.01	< 0.01	
Xylene	< 0.01	< 0.01	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	

- CO, NOx, and VOC emission rates are based on manufacturer's technical reference sheet for system emissions.
- PM and SO2 emission factors from USEPA AP-42, Section 3.1, Stationary Gas Turbines, Table 3.1-2
- HAP emission factors from USEPA AP-42, Section 3.1, Stationary Gas Turbines, Table 3.1-3

Applicable Requirements (AUX02)
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.
N/A – No Permit Requirements in Title V Operating Permit (R30-03300100-2011) nor R13 Construction Permit to Modify (R13-1801G).
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.)
N/A-No Permit Requirements in Title V Operating Permit (R30-03300100-2011) nor R13 Construction Permit to Modify (R13-1801G).
Are you in compliance with all applicable requirements for this emission unit? X_YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: 005-01	Emission unit name: BLR02	List any control devices associated with this emission unit:	
	Boiler	N/A	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc.	):
Natural gas-fired boiler			
<b>Manufacturer:</b> Ajax	Model number: WNC-2500	Serial number: 60959	
Construction date: 2002	Installation date: 2002	Modification date(s	):
Design Capacity (examples: furnace 2.5 MMBtu/hr	s - tons/hr, tanks - gallons):		
<b>Maximum Hourly Throughput:</b> 0.0025 MMcf/hr	Maximum Annual Throughput: 21.9 MMcf/yr	Maximum Operating Schedule: 8760 hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel	? _XYes No	If yes, is it?	
		Indirect Fired _	X_Direct Fired
Maximum design heat input and/or 2.5 MMBtu/hr	maximum horsepower rating:	Type and Btu/hr rating of burners: 2.5 MMBtu/hr	
List the primary fuel type(s) and if a the maximum hourly and annual fu		s). For each fuel type	listed, provide
Natural gas  - Maximum hourly fuel usage - Maximum annual fuel usage			
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data (BLR02)			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	0.09	0.41	
Nitrogen Oxides (NO <sub>X</sub> )	0.23	1.01	
Lead (Pb)	N/A	N/A	
Particulate Matter (PM <sub>2.5</sub> )	< 0.01	0.02	
Particulate Matter (PM <sub>10</sub> )	< 0.01	0.02	
Total Particulate Matter (TSP)	0.02	0.08	
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.01	
Volatile Organic Compounds (VOC)	0.06	0.27	
Hazardous Air Pollutants	Potential Emissions		
	РРН	TPY	
Benzene	< 0.01	< 0.01	
Formaldehyde	< 0.01	< 0.01	
n-Hexane	< 0.01	0.02	
Toluene	< 0.01	< 0.01	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	

- NOx, CO, and VOC data taken from manufacturer's technical data sheet.
- PM and SO2 emission factors from USEPA AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2
- HAP emission factors from USEPA AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3

Applicable Requirements (BLR02)
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 and 45 CSR §2-3.1 – Visible Emission Limits (TV 4.1.1)
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? _X_YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: DEHY01	Emission unit name: DEHY01	List any control devices associated with this emission unit: FLARE01	
	Dehydration Unit		
Provide a description of the emission  Dehydration unit still column	n unit (type, method of operation, d	esign parameters, etc.	.):
Manufacturer: ETI	Model number: 750-HDFH	Serial number:	
Construction date: 2004	Installation date: 2004		
<b>Design Capacity (examples: furnace</b> 80 MMscf wet gas /day	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 80 MMscf wet gas /day	Maximum Annual Throughput: 29,200 MMscf wet gas/yr	Maximum Operating Schedule: 8760 hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel	?Yes _ <u>X</u> No	If yes, is it?	
		Indirect Fired	Direct Fired
$\label{eq:maximum design heat input and/or} \begin{tabular}{ll} Maximum design heat input and/or $N/A$ \end{tabular}$	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fue		s). For each fuel type	listed, provide
Natural gas  - Maximum hourly wet gas thr - Maximum annual wet gas thr			
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
	<u> </u>	<u>i                                      </u>	

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>X</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	2.72	11.91
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.03	0.12
Ethylbenzene	0.08	0.33
n-Hexane	0.02	0.08
Toluene	0.05	0.21
Xylenes	0.59	2.56
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY

- Emission point is FLARE01, but emissions provided include only dehydration process emissions, DEHY01. (Flare pilot fuel combustion emissions are in Attachment E FLARE01)
- VOC and HAP emission rates for the dehydration unit were obtained from GRI GLYCalc V4.0 with a 98% destruction efficiency

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 - The maximum wet natural gas shall not exceed 80 MMscf/day (TV 5.1.1.a; R13-1801G 4.1.1.a) 45 CSR 13 - The flash tank off gas used as fuel (TV 5.1.1.b; R13-1801G 4.1.1.b) 45 CSR 13 - Effluent generated by still vent shall be routed through a closed vent system to FLAREO1 at all times while operating (TV 5.1.1.c, R13-1801G 4.1.1.c) 45 CSR 13 - Maximum emission limits for the dehydration unit via the FLAREO1 (TV 5.1.2; R13-1801G 4.1.1.c)  — 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 - Compliance with VOC and HAP emission limits will be demonstrated by using GLYCalc 4.0 (TV 5.1.2.c; R13-1801G 4.1.2.c) 45 CSR 13 and 45 CSR 6-4.3 - Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLAREO1 (TV 5.1.2.d; R13-1801G 4.1.2.d) 45 CSR 13 and 45 CSR 10-5.1 - Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e) 45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual natural gas flowrate (TV 5.2.1; R13-1801G 4.2.1)	Applicable Requirements
45 CSR 13 – The flash tank off gas used as fuel (TV 5.1.1.b; R13-1801G 4.1.1.b) 45 CSR 13 – Effluent generated by still vent shall be routed through a closed vent system to FLARE01 at all times while operating (TV 5.1.1.c, R13-1801G 4.1.1.c) 45 CSR 13 – Maximum emission limits for the dehydration unit via the FLARE01 (TV 5.1.2; R13-1801G 4.1.1.c)  ——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 – Compliance with VOC and HAP emission limits will be demonstrated by using GLYCalc 4.0 (TV 5.1.2.c; R13-1801G 4.1.2.c) 45 CSR 13 and 45 CSR 6-4.3 – Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLARE01 (TV 5.1.2.d; R13-1801G 4.1.2.d) 45 CSR 13 and 45 CSR 10-5.1 – Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e) 45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual natural gas flowrate (TV 5.2.1; R13-1801G 4.2.1)  Are you in compliance with all applicable requirements for this emission unit? _X_YesNo	underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). 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,
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 – Compliance with VOC and HAP emission limits will be demonstrated by using GLYCalc 4.0 (TV 5.1.2.c; R13-1801G 4.1.2.c)  45 CSR 13 and 45 CSR 6-4.3 – Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLARE01 (TV 5.1.2.d; R13-1801G 4.1.2.d)  45 CSR 13and 45 CSR 10-5.1 – Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e)  45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual natural gas flowrate (TV 5.2.1; R13-1801G 4.2.1)  Are you in compliance with all applicable requirements for this emission unit? _X_YesNo	45 CSR 13 – The flash tank off gas used as fuel (TV 5.1.1.b; R13-1801G 4.1.1.b) 45 CSR 13 – Effluent generated by still vent shall be routed through a closed vent system to FLARE01 at all times while operating (TV 5.1.1.c, R13-1801G 4.1.1.c)
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 – Compliance with VOC and HAP emission limits will be demonstrated by using GLYCalc 4.0 (TV 5.1.2.c; R13-1801G 4.1.2.c)  45 CSR 13 and 45 CSR 6-4.3 – Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLARE01 (TV 5.1.2.d; R13-1801G 4.1.2.d)  45 CSR 13 and 45 CSR 10-5.1 – Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e)  45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual natural gas flowrate (TV 5.2.1; R13-1801G 4.2.1)  Are you in compliance with all applicable requirements for this emission unit? _X_YesNo	Permit Shield
5.1.2.c; R13-1801G 4.1.2.c)  45 CSR 13 and 45 CSR 6-4.3 – Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLARE01 (TV 5.1.2.d; R13-1801G 4.1.2.d)  45 CSR 13 and 45 CSR 10-5.1 – Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e)  45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual natural gas flowrate (TV 5.2.1; R13-1801G 4.2.1)  Are you in compliance with all applicable requirements for this emission unit? _X_YesNo	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
	5.1.2.c; R13-1801G 4.1.2.c) 45 CSR 13 and 45 CSR 6-4.3 – Compliance with PM emission limits will be demonstrated by not exhibiting any visible emissions from the FLARE01 (TV 5.1.2.d; R13-1801G 4.1.2.d) 45 CSR 13and 45 CSR 10-5.1 – Compliance with SO2 emission limits will be demonstrated by limiting the natural gas to no greater than 10 gr H2S/100 cf (TV 5.1.2.e; R13-1801G 4.1.2.e) 45 CSR 13 - Wet gas throughput shall be monitored on a daily basis, days the dehydration unit operated, and annual
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .	Are you in compliance with all applicable requirements for this emission unit? _X_YesNo
	If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
001-01	EN01	with this emission u	ınit:
	Reciprocating Engine/Integral Compressor	N/A	
Provide a description of the emission	on unit (type, method of operation, d	esign parameters, etc	·.):
Natural gas-fired reciprocating engine	e/integral compressor		
Manufacturer: Cooper	Model number: GMVA-8	Serial number: 45092	
Construction date: 1960	Installation date: 1960	Modification date(s): N/A	
Design Capacity (examples: furnace 1,100 hp	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.0085 MMscf/hr	<b>Maximum Annual Throughput:</b> 74.20 MMscf/yr	Maximum Operating Schedule: 8,760 hrs/yr	
Fuel Usage Data (fill out all applica	ble fields)	1	
Does this emission unit combust fue	el? <u>X</u> Yes No	If yes, is it?	
		Indirect Fired	_XDirect Fired
Maximum design heat input and/or maximum horsepower rating: 1,100 hp  Type and Btu/hr rating of bury 7,700 Btu/hp-hr 8.5 MMBtu/hr		iting of burners:	
List the primary fuel type(s) and if the maximum hourly and annual fu	applicable, the secondary fuel type(seel usage for each.	s). For each fuel type	listed, provide
Pipeline quality natural gas  - Maximum hourly fuel usage - Maximum annual fuel usage			
Describe each fuel expected to be us	sed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data (EN01)		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	7.28	31.87
Nitrogen Oxides (NO <sub>X</sub> )	20.86	91.35
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.33	1.42
Particulate Matter (PM <sub>10</sub> )	0.33	1.42
Total Particulate Matter (TSP)	0.41	1.79
Sulfur Dioxide (SO <sub>2</sub> )	0.01	0.02
Volatile Organic Compounds (VOC)	5.58	24.43
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.07	0.29
Acrolein	0.07	0.29
Benzene	0.02	0.07
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.47	2.05
Hexane	< 0.01	0.02
Toluene	0.01	0.04
Xylene	< 0.01	0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY

- CO, NOx, and VOC emission rates based on manufacturer specs.
- PM, SO2, and HAP emission factors based on USEPA's AP-42 Section 3.2, Table 3.2-1.

Applicable Requirements (EN01)
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.
40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1) 40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.2, 6.1.3, 6.1.4) 40 CFR Part 63 Subpart ZZZZ – NESHAP testing requirements, if applicable (TV 6.3.1) 40 CFR Part 63 Subpart ZZZZ – NESHAP recordkeeping requirements (TV 6.4.1, 6.4.2) 40 CFR Part 63 Subpart ZZZZ – NESHAP reporting requirements (TV 6.5.1)
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.)
40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions including compliance date of Oct 19, 2013 (TV 6.1.1) 40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first (TV 6.1.2) 40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer's instructions OR develop and follow your own maintenance plan (TV 6.1.3, 6.1.4) 40 CFR Part 63 Subpart ZZZZ – If selected, option of utilizing oil analysis program to comply with maintenance requirements of Table 2d, Item 6, comply with applicable testing requirements (TV 6.3.1) 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable recordkeeping and reporting requirements (TV 6.4.1, 6.4.2, 6.5.1)
Are you in compliance with all applicable requirements for this emission unit? _X_YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

AT	TACHMENT E - Emission Un	it Form	
Emission Unit Description			
Emission unit ID number: 001-02	Emission unit name: EN02	List any control dev	
	Reciprocating Engine/Integral Compressor	N/A	
-	ion unit (type, method of operation, c	lesign parameters, etc.	):
Natural gas-fired reciprocating engin	ne/integral compressor		
Manufacturer: Cooper	Model number: GMVA-8	Serial number: 45808	
Construction date: 1963	Installation date: 1963	Modification date(s N/A	):
<b>Design Capacity (examples: furna</b> 1,100 hp	ces - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.0085 MMscf/hr	Maximum Annual Throughput: 74.20 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr	
Fuel Usage Data (fill out all applic	able fields)		
Does this emission unit combust fu	nel? X Yes No	If yes, is it?	
		Indirect Fired	_XDirect Fired
<b>Maximum design heat input and/o</b> 1,100 hp	or maximum horsepower rating:	<b>Type and Btu/hr ra</b> 7,700 Btu/hp-hr 8.5 MMBtu/hr	ting of burners:
List the primary fuel type(s) and i the maximum hourly and annual i	f applicable, the secondary fuel type(fuel usage for each.	s). For each fuel type	listed, provide
Pipeline quality natural gas  - Maximum hourly fuel usag  - Maximum annual fuel usag			
Describe each fuel expected to be	used during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data (EN01)		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	7.28	31.87
Nitrogen Oxides (NO <sub>X</sub> )	20.86	91.35
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.33	1.42
Particulate Matter (PM <sub>10</sub> )	0.33	1.42
Total Particulate Matter (TSP)	0.41	1.79
Sulfur Dioxide (SO <sub>2</sub> )	0.01	0.02
Volatile Organic Compounds (VOC)	5.58	24.43
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.07	0.29
Acrolein	0.07	0.29
Benzene	0.02	0.07
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.47	2.05
Hexane	< 0.01	0.02
Toluene	0.01	0.04
Xylene	< 0.01	0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY

- CO, NOx, and VOC emission rates based on manufacturer specs.
- PM, SO2, and HAP emission factors based on USEPA's AP-42 Section 3.2, Table 3.2-1.

Applicable Requirements (EN01)
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.
40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1) 40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.2, 6.1.3, 6.1.4) 40 CFR Part 63 Subpart ZZZZ – NESHAP testing requirements, if applicable (TV 6.3.1) 40 CFR Part 63 Subpart ZZZZ – NESHAP recordkeeping requirements (TV 6.4.1, 6.4.2) 40 CFR Part 63 Subpart ZZZZ – NESHAP reporting requirements (TV 6.5.1)
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.)
40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions including compliance date of Oct 19, 2013 (TV 6.1.1) 40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first (TV 6.1.2) 40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer's instructions OR develop and follow your own maintenance plan (TV 6.1.3, 6.1.4) 40 CFR Part 63 Subpart ZZZZ – If selected, option of utilizing oil analysis program to comply with maintenance requirements of Table 2d, Item 6, comply with applicable testing requirements (TV 6.3.1) 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable recordkeeping and reporting requirements (TV 6.4.1, 6.4.2, 6.5.1)
Are you in compliance with all applicable requirements for this emission unit? _X_YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number: FLARE01	Emission unit name: FLARE01 Dehydration Unit Flare	List any control devices associated with this emission unit:	
Provide a description of the emission Dehydration Unit Enclosed Flare	n unit (type, method of operation, d	esign parameters, etc.	):
Manufacturer: Questor	Model number: Q250	Serial number:	
Construction date: 2015	Installation date: 2015	Modification date(s) N/A	) <b>:</b>
Design Capacity (examples: furnace Maximum volumetric flowrate of was Pilot Burner: 51,000 Btu/hr			
Maximum Hourly Throughput: Fuel to pilot flame: 51 scf/hr	Maximum Annual Throughput: Fuel to pilot flame: 0.447 MMscf/yr	<b>Maximum Operating Schedule:</b> 8760 hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel	1? <u>X</u> Yes No	If yes, is it?	
		Indirect Fired	X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: Pilot Burner: 51,000 Btu/hr		<b>Type and Btu/hr ra</b> Pilot Burner: 51,000	
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  - Maximum hourly fuel to pilot throughput = 51 scf/hr  - Maximum annual fuel to pilot throughput = 0.447 MMscf/yr			
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 cf	N/A	1,000 Btu/cf

Emissions Data (FLARE01)		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.28	1.25
Nitrogen Oxides (NO <sub>X</sub> )	0.34	1.47
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	< 0.01	< 0.01
Particulate Matter (PM <sub>10</sub> )	< 0.01	< 0.01
Total Particulate Matter (TSP)	0.40	1.75
Sulfur Dioxide (SO <sub>2</sub> )	0.97	4.25
Volatile Organic Compounds (VOC)	< 0.01	< 0.01
Hazardous Air Pollutants	Poten	tial Emissions
	PPH	TPY
Benzene	< 0.01	< 0.01
Formaldehyde	< 0.01	< 0.01
n-Hexane	< 0.01	< 0.01
Toluene	< 0.01	< 0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY

Emissions provided include pilot fuel combustion emissions and burner emissions. (Emissions from dehydration process, DEHY01, are in Attachment E - DEHY01)

### Pilot emissions:

- NOx and CO emission factors based on AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-1
- PM, SO2 and VOC emission factors based on AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2
- HAP emission factors based on AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-3

### Burner emissions:

- NOx and CO emission rates based on vendor specifications: maximum flowrate = 776.0 Mscf/day; waste to fuel gas ratio of 1:0.11.
- PM emission factor based on AP-42, Section 13.5, Industrial Flares, Table 13.5-1 for soot, assuming lightly smoking flare (40 ug/L). According to May 2011 Emission Estimateion Protocol for Petroleum Regineries, approved by the US EPA on March 28, 2011, 40 ug/L is equivalent to 0.027 lb/MMBtu, assuming 3% O2 in exhaust gas stream.
- SO2 emission factor based on re-running GLYCalc with a 10 gr/100 scf rating.

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.
Requirements are listed under Attachment G – Air Pollution Control Device Form.
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.)  Requirements are listed under Attachment G – Air Pollution Control Device Form.
Are you in compliance with all applicable requirements for this emission unit? _X_YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: 005-02	Emission unit name: RBR01	List any control devices associated with this emission unit:	
Provide a description of the emission	Dehydration Unit Reboiler  n unit (type, method of operation, de	, i	):
Natural gas-fired regenerator used to r	eheat glycol within the dehydration un	nit.	
Manufacturer: ETI	Model number:	Serial number:	
Construction date: 2004	Installation date: 2004	Modification date(s): N/A	
Design Capacity (examples: furnace 0.75 MMBtu/hr	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.00075 MMcf/hr	<b>Maximum Annual Throughput:</b> 6.57 MMcf/yr	Maximum Operating Schedule: 8760 hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)	-	
Does this emission unit combust fue	? _XYes No	If yes, is it?Indirect Fired	X Direct Fired
Maximum design heat input and/or maximum horsepower rating:  0.75 MMBtu/hr  Type and Btu/hr rating of burne 0.75 MMBtu/hr		ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		s). For each fuel type	listed, provide
Natural gas  - Maximum hourly fuel usage - Maximum annual fuel usage			
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data (RBR01)		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.06	0.28
Nitrogen Oxides (NO <sub>X</sub> )	0.08	0.33
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	< 0.01	0.01
Particulate Matter (PM <sub>10</sub> )	< 0.01	0.01
Total Particulate Matter (TSP)	0.01	0.02
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.24	1.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	< 0.01	< 0.01
Formaldehyde	< 0.01	< 0.01
n-Hexane	< 0.01	0.01
Toluene	< 0.01	< 0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	РРН	TPY

- CO and NOx emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-1
- PM, SO2 and VOC emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2
- HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3
- VOC and HAP emissions were calculated by adding the calculations from AP-42 and the GLYCalc flash tank emissions together.

Applicable Requirements (RBR01)
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 5.1.3.a, b; R13-1801G 4.1.3.a, b) 45 CSR 13 – Operating limits (TV 5.1.3.d.i,iii; R13 4.1.6.i,iii) 45 CSR 13 and 45CSR§2-3.1 – Visible emission limit (TV 5.1.3.d.ii, iii; R13-1801G 4.1.3.d.ii, iii) 45 CSR 13 – Monitoring Requirements (TV 5.2.1.c; R13 4.2.1.c) 45 CSR 13 – Recordkeeping Requirement (TV 3.4.2; R13 3.4.1; 40CSR§30-5.1.c.2.B.)
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 – Compliance with 5.1.3.a and b emission limits is demonstrated using GLYCalc 4.0 (TV 5.1.3.c; R13-1801G 4.1.3.c) 45 CSR 2-3.1 – Compliance with 5.1.3.d.ii visible emission limit and 5.1.3.d.iii operating limit is demonstrated by combusting natural gas, flash tank off gas, or a combination of the two fuels (TV 5.1.3.d.iii; R13-1801G 4.1.3.d.iii) 45 CSR 13 and 45 CSR 30-5.1.c.2.B – Identify any periods there was no flame present for the pilot of the reboiler; keep records (TV 5.2.1.c and 3.4.2; R13-1801G 4.2.1.c and 3.4.1)
Are you in compliance with all applicable requirements for this emission unit? _X_YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

# **Attachment G**

Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form				
Control device ID number: FLARE01	List all emission units associated with this control device. DEHY01, FLARE01			
Manufacturer:	Model number:	Installation date:		
Questor	Q250	2015		
Type of Air Pollution Control Device:				
Baghouse/Fabric Filter	Venturi Scrubber 1	Multiclone		
Carbon Bed Adsorber	Packed Tower Scrubber	Single Cyclone		
Carbon Drum(s)	Other Wet Scrubber	Cyclone Bank		
Catalytic Incinerator	Condenser	Settling Chamber		
Thermal IncineratorX_	Flare	Other (describe)		
Wet Plate Electrostatic Precipitator	1	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		98%		
Benzene		98%		
Ethylbenzene		98%		
n-Hexane		98%		
Toluene		98%		
Xylene		98%		
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).  Questor Q250 dehydration unit enclosed flare 247 scfm non-assisted burner				
Is this device subject to the CAM requirements of 40 C.F.R. 64? YesX_ No				
If Yes, Complete ATTACHMENT H				
If No, <b>Provide justification.</b> The dehy unit (for VOC and HAP) is not subject to CAM per 64.2(b)(1)(vi), which states "emission limitations or standards for which a part 70 or 71 permit specified a continuous compliance determination method, as defined in 64.1" is exempt from CAM. Since the R13 permit for the facility (R13-1801G) specifies a "continuous compliance determination method" condition (e.g. continuously monitoring the flare to detect the presence of a flame) and that R13 condition was rolled into the Title V permit, CAM does not apply.				

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

- 45 CSR 13 VOC and HAP emission limits (TV 5.1.2.a, b; R13-1801G 4.1.2.a, b)
- 45 CSR 6-4.1 Particulate Matter emission limit (TV 5.1.2.d; R13-1801G 4.1.2.d)
- 45 CSR 10-5.1 Sulfur Dioxide emission limit (TV 5.1.2.e; R13-1801G 4.1.2.e)
- 45 CSR 6-4.3 Visible Emissions Limit (TV 5.1.2.f; R13-1801G 4.1.2.f)
- 45 CSR 13 Flare destruction efficiency limit (TV 5.1.2.g; R13-1801G 4.1.2.g)
- 45 CSR 13 and 45 CSR §13-5.11 Operation and Maintenance of air pollution control equipment (TV 5.1.4; R13-1801G 4.1.4)

#### Monitoring

- 45 CSR 13 VOC and HAP emissions shall be demonstrated by using GLYCalc 4.0 (TV 5.1.2.c; R13-1801G 4.1.2.c)
- 45 CSR 13 Particulate matter and visible emission limits are demonstrated by monitoring the flame absence and presence continuously while the dehydration unit is operating (TV 5.2.1.c; R13-1801 4.2.1.c; 40CSR§30-5.1.c.2.B)
- 45 CSR 10-8.3 Sulfur Dioxide emissions shall be complied with by annual sampling of inlet natural gas stream (TV 5.2.2 and 3.4.2; R13-1801G 4.2.2 and 3.4.1)
- 45 CSR 13– Compliance with 5.1.2 shall be demonstrated by conducting monthly visible emission observations (TV 5.2.3 and 3.4.2, R13-1801G 4.2.3 and 3.4.1)

#### **Testing**

45 CSR 13 – Compliance with 5.1.2 shall be demonstrated by conducting an initial Method 22 performance test (TV 5.3.1 and 3.4.2, R13-1801G 4.3.1 and 3.4.1)

### Recordkeeping

- 45 CSR 13 Keep records of flame presence (TV 3.4.2; R13-1801G 3.4.1)
- 45 CSR 30-5.1.c Monitoring data shall be maintained to demonstrate compliance with 5.1.2.c, 5.2.2, 5.2.3 and 5.3.1) (TV 3.4.1 and 3.4.2; R13-1801 4.4.1)
- 45 CSR 13 Records of maintenance performed on air pollution control equipment (TV 5.4.1, R13-1801G 4.4.2)
- 45 CSR 13 Records of malfunctions of air pollution control equipment (TV 5.4.2, R13-1801G 4.4.3)