

February 15, 2016

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

9590 9401 0037 5168 3629 94

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>
Sardis Compressor Station – R30-03300013-2011

Dear Mr. Durham:

Enclosed please find the Title V Renewal Application for Dominion Transmission, Inc.'s (DTI) Sardis Compressor Station, Permit No. R30-03300013-2011. 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 Sardis Station:

- Equipment added to the facility:
  - o TK08 1,000 gal Horizontal Aboveground Storage Tank (Used Oil)
- Correction to equipment at the facility:
  - TK07 This tank was previously listed as a 520 gallon tank, but the correct capacity is 500 gallons.

In addition, as part of the renewal application, we request the following change to the Title V permit:

Section 6.0 – Emergency Generators

We request that the G60-C026 requirements be spelled out and included in the Title V permit (instead of just attached to the Title V permit) to improve clarity and ensure compliance. Therefore, all requirements for the facility will be in one permit (Title V).

CAM Applicability

We request that all CAM conditions be removed from the Title V permit as CAM does not apply. The dehy unit (DEHY02) is not subject to CAM since it is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990. Per 64.2(b)(1)(i), "emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act" are

exempt from CAM. CAM was established to build in provisions for how compliance would be demonstrated for emission limits if not adequately covered by a NSPS or NESHAP rule.

In addition, for VOC purposes, the dehy unit 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 (R13-2915A) specifies a "continuous compliance determination method" condition (e.g. continuously monitoring the flare using a thermocouple to detect the presence of a flame) and that R13 condition was rolled into the Title V permit, CAM does not apply.

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

# SARDIS COMPRESSOR STATION DOMINION TRANSMISSION INC. APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL TITLE V OPERATING PERMIT NO: R30-03300013-2011

Dominion Transmission, Inc.
Sardis Compressor Station
Route 4
Sardis, WV 26330

**FEBRUARY 2016** 

# DOMINION TRANMISSION, INC. SARDIS COMPRESSOR STATION

#### TITLE V PERMIT RENEWAL APPLICATION

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#### **ATTACHMENTS**

Attachment A: Area Map

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Attachment C: Process Flow Diagrams

Attachment D: Title V Equipment Table

Attachment E: Emission Unit Forms

Attachment G: Air Pollution Control Device Form

Attachment H: Compliance Assurance Monitoring (CAM) Form

\*\*Note: Attachment F is 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)	Attachment H
General Application Forms signed by a Responsible Official	Enclosed – Section 2
Confidential Information submitted in accordance with 45CSR31	Not Applicable

# **SECTION 1**

Introduction

#### INTRODUCTION:

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

Sardis Station has the potential to emit in excess of 100 tons per year of nitrogen oxides (NOx) and volatile organic compounds (VOC). 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. Sardis 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.

Sardis Station was originally issued a Title V Operating Permit (Permit No: R30-03300013-2006) in 2006 for a period of five (5) years, with an expiration date of July 10, 2011. Sardis Station is also subject to the underlying State Operating Permit (Rule 13 Permit No: R13-2915A) and General Permit (G60-C026). The Title V operating permit is for the operation of one (1) 1,000 hp natural gas fired reciprocating engine (EN01), of one (1) 800 hp natural gas fired reciprocating engine (EN02), of one (1) 750 hp natural gas fired reciprocating engine (EN03), one (1) 22 MMscf/day glycol dehydrator system (DEHY02) with flare (FL03), one (1) 1.437 MMBtu/hr dehydration unit reboiler (RBR02), two (2) 192.5 hp natural gas fired emergency generators (EG01 and EG02), and eight (8) above ground storage tanks of various sizes (TK01 – TK08).

The last Title V renewal application was submitted in 2010, with the Title V Operating Permit Renewal being issued on September 15, 2011, with an expiration date of September 15, 2016.

#### PROCESS DESCRIPTION

Sardis Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 – EN03) 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 (DEHY02). 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 (RBR02), 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 (DEHY02) using the heat generated from the natural gas-fired reboiler (RBR02) to liberate the moisture and hydrocarbon vapors. The regenerator vapors are vented to the enclosed flare (FL03) to combust the hydrocarbons; thereby, reducing overall emissions and odor. The flare is permitted with a destruction efficiency of 95% for VOCs and volatile HAPs. The compressed, dehydrated gas then enters the pipeline.

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

One (1) 1,000 hp Ingersoll Rand 36KVS-ET natural gas-fired reciprocating engine/integral compressor

Emission unit ID: EN01Emission point ID: EN01

One (1) 800 hp Ajax DPC-800 natural gas-fired reciprocating engine/integral compressor

Emission unit ID: EN02Emission point ID: EN02

One (1) 750 hp Ajax DPC-2804LE natural gas-fired reciprocating engine/integral compressor

Emission unit ID: EN03Emission point ID: EN03

Two (2) 192.5 hp natural gas-fired emergency generators

Emission unit ID: EG01 and EG02Emission point ID: EG01 and EG02

One (1) 1.437 MMBtu/hr natural gas-fired dehydration unit reboiler

Emission unit ID: RBR02Emission point ID: RBR02

One (1) 22 MMscf/day dehydration unit/still column

Emission unit ID: DEHY02Emission point ID: DEHY02

One (1) 175 scfm dehydration unit flare

Emission unit ID: FL03Emission point ID: FL03

One (1) 2,730 gallon vertical aboveground engine oil storage tank

Emission unit ID: TK01Emission point ID: TK01

One (1) 2,730 gallon vertical aboveground engine oil storage tank

Emission unit ID: TK02Emission point ID: TK02

One (1) 2,500 gallon horizontal aboveground ethylene glycol storage tank

Emission unit ID: TK03Emission point ID: TK03

One (1) 230 gallon horizontal aboveground wastewater storage tank

Emission unit ID: TK04Emission point ID: TK04

One (1) 5,000 gallon horizontal aboveground produced fluids storage tank

Emission unit ID: TK05Emission point ID: TK05

One (1) 500 gallon vertical aboveground wastewater storage tank

Emission unit ID: TK06Emission point ID: TK06

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

Emission unit ID: TK07Emission point ID: TK07

One (1) 1,000 gallon horizontal aboveground used oil storage tank

Emission unit ID: TK08Emission point ID: TK08

## **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. Scheral Information	
<ol> <li>Name of Applicant (As registered with the WV Secretary of State's Office):</li> <li>Dominion Transmission, Inc.</li> </ol>	2. Facility Name or Location: Sardis Station
3. DAQ Plant ID No.:	4. Federal Employer ID No. (FEIN):
033 – 00013	5 5 0 6 2 9 2 0 3
5. Permit Application Type:	
	perations commence? 1961 expiration date of the existing permit? 09/15/2016
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: 2	If the Applicant is not both the owner and operator, please provide the name and address of the other party.
9. Governmental Code:	
<ul> <li>☑ Privately owned and operated; 0</li> <li>☐ Federally owned and operated; 1</li> <li>☐ State government owned and operated; 2</li> </ul>	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	on (per 45CSR31)? Yes No
If yes, identify each segment of information on each justification for each segment claimed confidential, i accordance with the DAQ's "PRECAUTIONARY NO	

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) 842-300	0	<b>Fax Number:</b> (681) 8	Fax Number: (681) 842-3323	
12. Facility Location				
Street: Route 4	City: Sardis		County	: Harrison
UTM Easting: 552.89 km	UTM Northin	<b>ng:</b> 4355.61 km	Zone:	17 or 18
<b>Directions:</b> Take Interstate 79 North to the Clarksburg exit (Exit 110). Turn west off the ramp onto Route 50W towards Clarksburg, WV. Continue on Route 50W for 5.8 miles. Turn right onto County Road 5035 for 0.4 miles. Turn right onto Wilsonburg Road for 0.7 miles. Turn right onto Route 9 (Gregory Run Road). Continue on Route 9 for 5.1 miles. Turn right at Dominion Transmission Inc. (DTI) sign. Continue for 0.5 miles to station.				
Portable Source?				
Is facility located within a nonattainment area?				
Is facility located within 50 miles of another state?  \( \sum \) Yes \( \sum \) No \( \text{If yes, name the affected state(s).} \( \text{Ohio} \)				
Is facility located within 100 km of a Class I Area¹? ☐ Yes ☐ No  If yes, name the area(s).  Otter Creek Wilderness Area  If no, do emissions impact a Class I Area¹? ☐ Yes ☐ No			, ,	
<sup>1</sup> Class I areas include Dolly Sods and Otter Face Wilderness Area in Virginia.	Creek Wilderness A	reas in West Virginia, and Si	henandoah 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	1) 842-3323
E-mail address: Brian.C.Sheppard@dom.co	l om	
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		) 273-2964
E-mail address: Rebekah.J.Remick@dom.co	om	
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)	) 273-2964
E-mail address: Rebekah.J.Remick@dom.co	om	

#### 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	486120	4922

#### Provide a general description of operations.

The Sardis Station is a compressor facility that services a natural gas pipeline system. The purpose of the facility is to recompress natural gas flowing through a pipeline for transportation. The reciprocating engines (EN01 – EN03) at the facility receive natural gas from a valve on a pipeline. The engines then compress 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 (DEHY02). 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.		
☐ 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		
List all requirements which the source has determined requested. The listing shall also include the rule citation	on and the reason why the shield applies.	
40 CFR Subpart JJJJ – The compressor engines (EN01 and manufactured in 1961 and 1987, respectively, before the a		
40 CFR 60 Subpart OOOO – This subpart does not apply to the facility (except for the compressor associated with EN03) since the facility is a gathering facility that does not have gas wells, centrifugal compressors, other 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 HHH – This subpart does not apply to the facility since the facility is not a transmission or storage station and is not a major source of HAPs.  40 CFR 63 Subpart DDDDD – The reboiler (RBR02) is not subject to this subpart since it is exempt by §63.7491(h) and facility is not major source of HAPs.  40 CFR 63 Subpart JJJJJJ – The reboiler (RBR02) is not applicable to this subpart since it is considered a "process heater," which is excluded from the definition of "boiler".  40 CFR 64 – The dehy unit (DEHY02) is not applicable to CAM since the unit is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990 (exemption per 64.2(b)(1)(i)). In addition, since the R13-2915A permit specifies a "continuous compliance determination method" condition (e.g.		
continuously monitoring the flare using a thermocouple to the Title V permit, CAM does not apply (exemption per 6-	detect the presence of a flame) which was included in	
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. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ).  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 61.145(b) 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)				
45 CSR 13 – Follow permit application and other permits issued after (TV 3.1.10; R13-2915A, 2.5.1) 45 CSR 13 – Operation and maintenance of air pollution control equipment (TV 3.1.11; R13-2915A 4.1.2)				
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 – 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 13 – The permittee shall construct and operate in accordance with R13-2915 (TV 3.1.10; R13-2915A, 2.5.1)				
45 CSR 13 – The permittee shall, to the extent practicable, install, maintain, and operate the control devices in a manner consistent with safety and good air pollution control practices for minimizing emissions (TV 3.1.10; R13-2915A, 4.1.2)				
45 CSR 13 and WV Code 22-5-4 (a) (15) – Stack Testing (TV 3.3.1) 45 CSR 30 – Recordkeeping Requirements (TV 3.4)				
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 <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .				

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)
G60-C026	01/04/2011	N/A
R13-2915A	05/08/2015	N/A

22. Inactive Permits/Obsolete Permit 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)	33.69	
Nitrogen Oxides (NO <sub>X</sub> )	435.39	
Lead (Pb)	N/A	
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	3.39	
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	3.39	
Total Particulate Matter (TSP)	4.27	
Sulfur Dioxide (SO <sub>2</sub> )	0.05	
Volatile Organic Compounds (VOC)	173.88	
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions	
Acetaldehyde	0.68	
Acrolein	0.58	
Benzene	0.64	
Ethylbenzene	0.31	
Formaldehyde	4.62	
Hexane	0.69	
Toluene	0.96	
Xylene	2.28	
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.	Insign	ificant Activities (Check all that apply)
	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.
$\boxtimes$	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.
	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:
		<del></del>

24.	4. 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:					
빝	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 slaughterhouse such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.					
	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.					
	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.					
	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.	. Insignificant 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.					
	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.					
	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							
Noi	e: 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.	Certification of Truth, Accuracy and Completeness						
this I ce sub resp kno fals	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.							
Res	sponsible official (type or print)						
Nar	me: Brian C. Sheppard  Title: Vice President, Pipeline Operations						
Sign	nature: Signature Date: O1/28/16						
Not	te: Please check all applicable attachments included with this permit application:						
$\boxtimes$	ATTACHMENT A: Area Map						
$\boxtimes$	ATTACHMENT B: Plot Plan(s)						
$\boxtimes$	ATTACHMENT C: Process Flow Diagram(s)						
$\boxtimes$	ATTACHMENT D: Equipment Table						
$\boxtimes$	ATTACHMENT E: Emission Unit 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/dag">www.dep.wv.gov/dag</a>, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT F: Schedule of Compliance Form(s)

ATTACHMENT G: Air Pollution Control Device Form(s)

ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

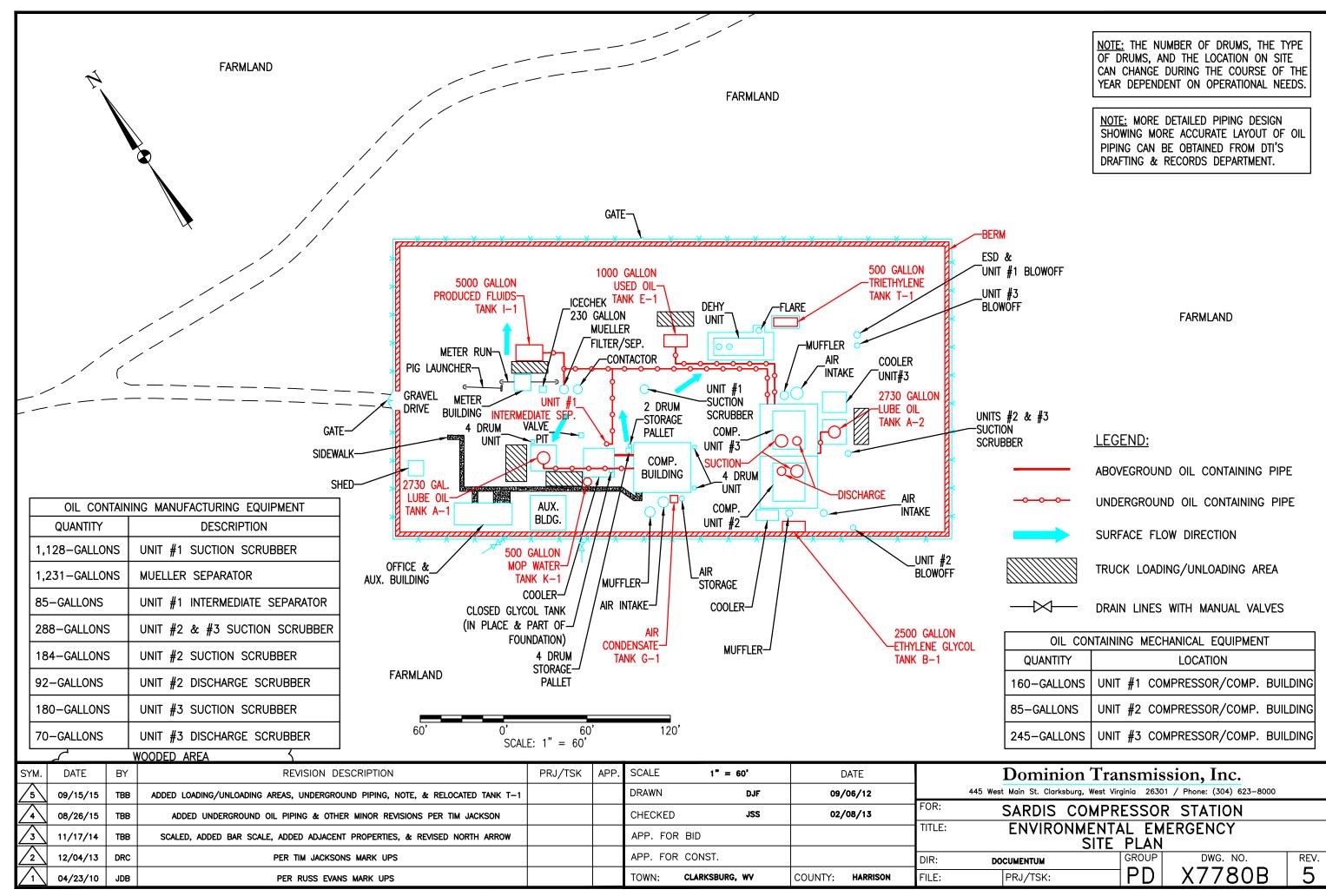
## **Attachment A**

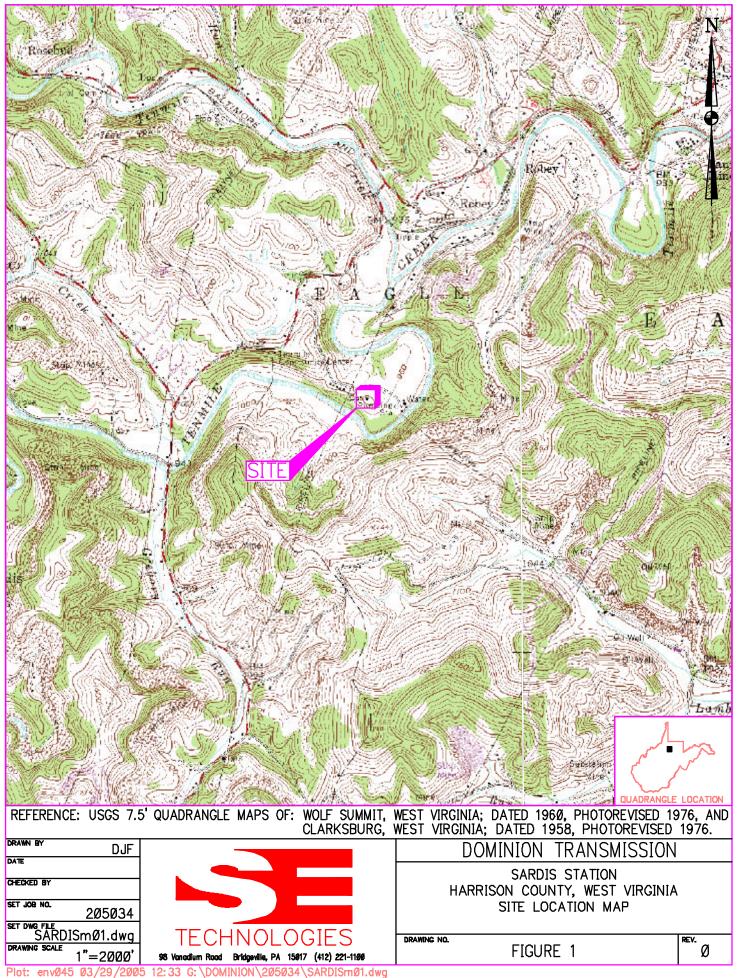
Area Map



### **Attachment B**

Plot Plan



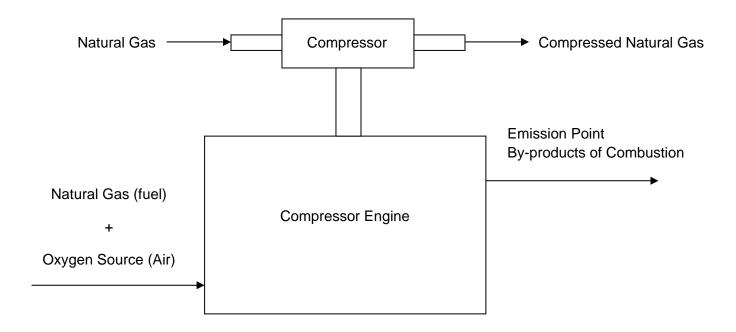


## **Attachment C**

**Process Flow Diagrams** 

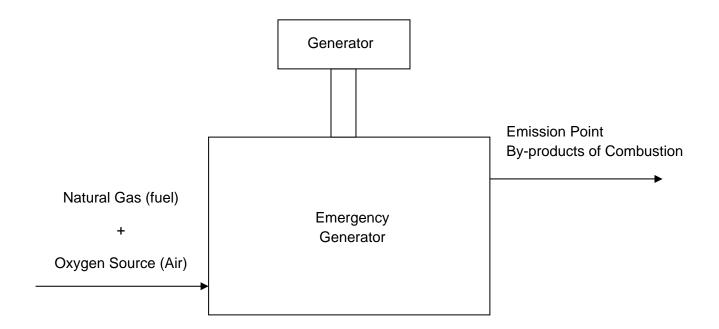
### <u>Dominion Transmission, Inc.</u> <u>Sardis Compressor Station</u>

#### Compressor Engines (EN01 – EN03) Process Flow Diagram



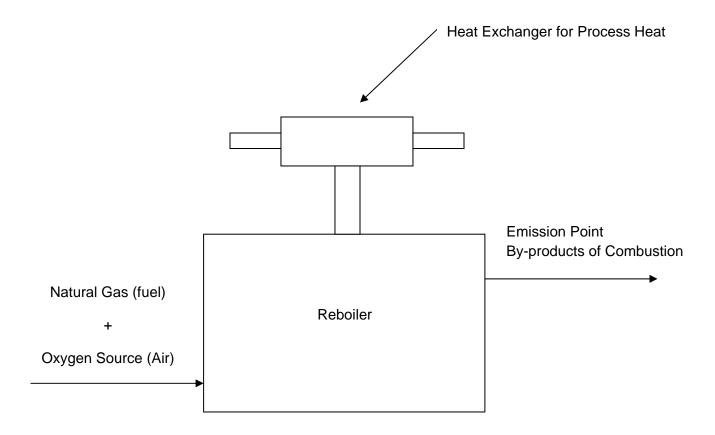
### <u>Dominion Transmission, Inc.</u> <u>Sardis Compressor Station</u>

**Emergency Generators (EG01 and EG02) Process Flow Diagram** 



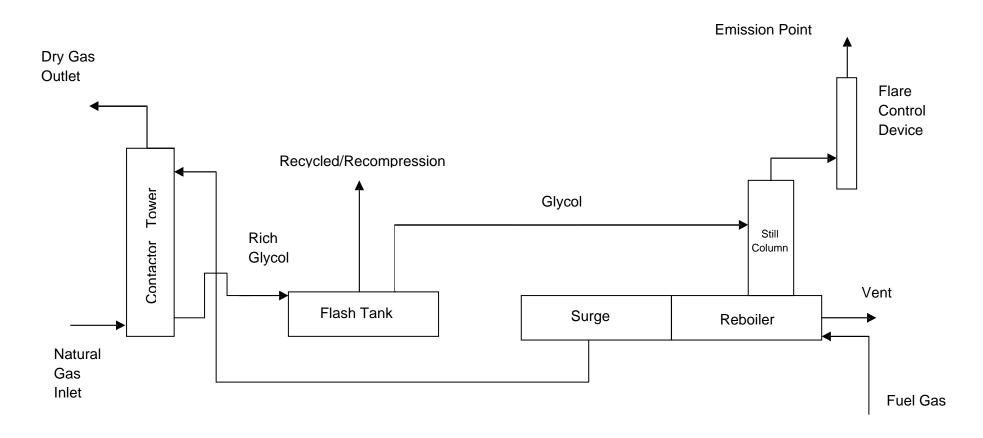
### <u>Dominion Transmission, Inc.</u> <u>Sardis Compressor Station</u>

#### Reboiler (RBR02) Process Flow Diagram



# **Dominion Transmission, Inc. Sardis Compressor Station**

#### Dehydration Unit (FL03, DEHY02, and RBR02) 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)

		9	,		
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	CC02	EN01	Reciprocating Engine/Integral Compressor; Ingersoll Rand 36KVS-ET (4SLB)	1,000 hp	1961
EN02	N/A	EN02	Reciprocating Engine/Integral Compressor; Ajax DPC-800 (2SLB)	800 hp	1987
EN03	CC01	EN03	Reciprocating Engine/Integral Compressor; Ajax DPC-2804LE (2SLB)	750 hp	2012
EG01	NSCR1	EG01	Emergency Generator	192.5 bhp	2011
EG02	NSCR2	EG02	Emergency Generator	192.5 bhp	2011
DEHY02	FL03	DEHY02	Glycol Dehydration Unit Still; Cameron	22 MMscf/hr	2012
RBR02	N/A	RBR02	Glycol Dehydration Reboiler; Cameron	1.437 MMBtu/hr	2012
FL03	N/A	FL03	QTI Q250 Dehydration Unit Flare	175 scfm	2015
TK01	N/A	TK01	Vertical Aboveground Tank Containing Engine Oil	2,730 Gallons	1961
TK02	N/A	TK02	Vertical Aboveground Tank Containing Engine Oil	2,730 Gallons	1984
TK03	N/A	TK03	Horizontal Aboveground Tank Containing Ethylene Glycol	2,500 Gallons	1991
TK04	N/A	TK04	Horizontal Aboveground Tank Containing Wastewater	230 Gallons	2003
TK05	N/A	TK05	Horizontal Aboveground Tank Containing Produced Fluids	5,000 Gallons	2003
TK06	N/A	TK06	Vertical Aboveground Tank Containing Wastewater	500 Gallons	2003
New units (ar	nd updates) t	o equipment	list:		
TK07	N/A	TK07	Horizontal Aboveground Tank Containing Triethylene Glycol	500 Gallons	1992
TK08	N/A	TK08	Horizontal Aboveground Tank Containing Used Oil	1,000 Gallons	2012

<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.

### **Attachment E**

**Emission Unit Forms** 

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: DEHY02	Emission unit name: DEHY02 Glycol Dehydration Unit Still	List any control devices associated with this emission unit: FL03	
Provide a description of the emission Glycol Dehydration Unit Still	n unit (type, method of operation, d	esign parameters, etc.	):
Manufacturer: Cameron	Model number: 5GR-250	Serial number: N/A	
Construction date: N/A	Installation date: 2012	Modification date(s N/A	):
Design Capacity (examples: furnace 22 MMscf/day	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 22 MMscf/day	Maximum Annual Throughput: 8,030 MMscf/yr	Maximum Operatir 8,760 hrs/yr	ng Schedule:
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel	?Yes _X_ No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A		Type and Btu/hr ra N/A	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 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
N/A			

Emissions Data		
Criteria Pollutants	Potentia	al 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)	7.34	32.15
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Benzene	0.12	0.52
Ethylbenzene	0.07	0.30
Hexane	0.14	0.62
Toluene	0.21	0.90
Xylene	0.52	2.26
Regulated Pollutants other than Criteria	Potentia	l Emissions
and HAP	PPH	TPY

Emission rates for the dehydration unit were obtained from GRI CYLCalc 4.0 with a 95% destruction efficiency from the flare. A safety factor of 20% is included in the total.

### Applicable Requirements - DEHY02 ONLY 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 63.10(b)(3) and NESHAP Subpart HH – Shall be an area source of HAPs (below 10/25 tons/yr) (TV 5.1.5) 45 CSR 10-4.1 – SO2 emissions shall not exceed 2,000 ppm by volume (TV 5.1.6) 45 CSR 10-5.1 – H2S emissions shall not exceed 50 gr/100cf (TV 5.1.7) 63.764(d)(2) and (e)(1)(ii) – Requirements if exceed 1 ton/yr of benzene (TV 5.1.8) 45 CSR 30-5.1 and 45 CSR 13 – The maximum wet natural gas shall not exceed 22 MMcf/day (TV 5.1.9, R13-2915A 7.1.1) 45 CSR 13 - Emission limits (TV 5.1.10; R13-2915A 7.1.2) 45 CSR 13 – Use methods in NESHAP Subpart HH for determining potential HAP emissions (TV 5.1.11; R13-2915A 7.1.3) 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 30-5.1.c - Compliance with TV 5.1.5 will be demonstrated by using GLYCalc V3 or higher and monitoring actual operating parameters (TV 5.2.1) 45 CSR 30-5.1(c) – SO<sub>2</sub> emissions shall be complied with by annual sampling of inlet natural gas stream (TV 5.2.3) 45 CSR 30-5.1(c) – H<sub>2</sub>S emissions shall be complied with by annual sampling of inlet natural gas stream (TV 5.2.4) 45 CSR 30-5.1.c and 45 CSR 13 - Wet gas throughput shall be monitored on a daily and monthly basis (TV 5.2.6, R13-2915A 7.2.2) 45 CSR 30-5.1.c – Perform a BTEX wet gas analysis sample once per calendar year (TV 5.3.1)

45 CSR 13 – Maintain records of the wet gas throughput (TV 5.4.7 and 5.4.10; R13-2915A 7.4.4 and 7.4.7) 45 CSR 13 – Maintain records of all PTE HAP calculations for the entire facility (TV 5.4.9; R13-2915A 7.4.6) 45 CSR 30-5.1.c – Submit by March 31<sup>st</sup> of the following year, an emission summary for the dehydration unit, which

Are you in compliance with all applicable requirements for this emission unit? X Yes

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

incorporates the BTEX wet gas analysis sample (TV 5.5.1)

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: EG01	Emission unit name: EG01 Emergency Generator	List any control devices associated with this emission unit:  NSCR1	
Provide a description of the emission  Natural gas-fired emergency auxiliary	-	esign parameters, etc	.):
Manufacturer: Cummins/GM	Model number: Cummins: GGLA-6209499 GM: 8.1L	Serial number: Cummins: L100175 GM: 8.1L24729	388
Construction date: 11/2010	Installation date: 2011	Modification date(s N/A	):
<b>Design Capacity (examples: furnace</b> 192.5 hp	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 1,667 scf/hr	Maximum Annual Throughput: 0.83 MMscf/yr	Maximum Operation 500 hrs/yr	ng Schedule:
Fuel Usage Data (fill out all applicate	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 maximum horsepower rating: 192.5 hp		Type and Btu/hr ra	
List the primary fuel type(s) and if a the maximum hourly and annual fuel  Pipeline quality natural gas  - Maximum hourly fuel usage :  - Maximum annual fuel usage :	el usage for each. = 1,667 scf/hr	). 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
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potenti	ial Emissions
	PPH	TPY
Carbon Monoxide (CO)	0.39	0.10
Nitrogen Oxides (NO <sub>X</sub> )	0.03	0.01
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.02	< 0.01
Particulate Matter (PM <sub>10</sub> )	0.02	< 0.01
Total Particulate Matter (TSP)	0.03	0.01
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.19	0.05
Hazardous Air Pollutants	Potential Emissions	
	РРН	TPY
Acetaldehyde	< 0.01	< 0.01
Acrolein	< 0.01	< 0.01
Benzene	< 0.01	< 0.01
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.03	0.01
Toluene	< 0.01	< 0.01
Xylene	< 0.01	< 0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY

- NOx, CO, and VOC data taken from engine manufacturer's technical data sheet
- PM, SO2, and HAP emissions calculated from AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, Table 3.2-3, 7/00

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 – Operate and maintain according to manufacturer (G60-C026 5.1.1) 45 CSR 13 – Emission limits (TV 6.1.1, G60-C026 5.1.2) 45 CSR 13 – Maximum fuel consumption (G60-C026 5.1.3) 45 CSR 13 – Requirements for use of a catalytic reduction device (G60-C026 5.1.4) 40 CFR Part 60 Subpart JJJJ – NSPS emission limits (G60-C026 8.2.5) 40 CFR Part 60 Subpart JJJJ – NSPS emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (G60-C026 8.4.4) 40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as a new, emergency, spark ignition engine at an area source (40 CFR 63 Subpart ZZZZ)
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 – The NSCR shall be fitted with a closed-loop, automatic air/fuel ratio controller (G60-C026 5.1.4) 45 CSR 213 – Maintain proper operation of the air/fuel ratio controller (or automatic feedback controller) and follow operating and maintenance recommendations of the NSCR manufacturer (G60-C026 5.2.1) 45 CSR 13 – Record hours of operation and fuel consumption on a monthly basis; keep records for 5 years (G60-C026 5.4.1)
40 CFR Part 60 Subpart JJJJ – Purchase a certified engine to meet NSPS emission limits (G60-C026 8.4.1) 40 CFR Part 60 Subpart JJJJ – Install non-resettable hour meter (G60-C026 8.3.8) 40 CFR Part 60 Subpart JJJJ – Comply with all applicable monitoring, reports, and recordkeeping requirements (G60-C026 8.6.1)
40 CFR Part 63 Subpart ZZZZ – Compliance with NSPS Subpart JJJJ shows compliance with NESHAP Subpart

Are you in compliance with all applicable requirements for this emission unit? \_X\_Yes \_\_\_\_No

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

ZZZZ

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number: EG02	Emission unit name: EG02 Emergency Generator	List any control dev with this emission u NSCR2	
Provide a description of the emission  Natural gas-fired emergency auxiliary	-	 esign parameters, etc	.):
Manufacturer: Cummins/GM	Model number: Cummins: GGLA-6209499 GM: 8.1L	Serial number: Cummins: L100175 GM: 8.1L24731	385
Construction date: 11/2010	Installation date: 2011	Modification date(s N/A	):
<b>Design Capacity (examples: furnace</b> 192.5 hp	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 1,667 scf/hr	Maximum Annual Throughput: 0.83 MMscf/yr	Maximum Operation 500 hrs/yr	ng Schedule:
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fuel	1? _XYes No	If yes, is it?	
		Indirect Fired	_XDirect Fired
Maximum design heat input and/or 192.5 hp	maximum horsepower rating:	Type and Btu/hr ra 1.67 MMBtu/hr	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fuel Pipeline quality natural gas  - Maximum hourly fuel usage - Maximum annual fuel usage	el usage for each. = 1,667 scf/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
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potenti	ial Emissions
	PPH	TPY
Carbon Monoxide (CO)	0.39	0.10
Nitrogen Oxides (NO <sub>X</sub> )	0.03	0.01
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.02	< 0.01
Particulate Matter (PM <sub>10</sub> )	0.02	< 0.01
Total Particulate Matter (TSP)	0.03	0.01
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.19	0.05
Hazardous Air Pollutants	Potential Emissions	
	РРН	TPY
Acetaldehyde	< 0.01	< 0.01
Acrolein	< 0.01	< 0.01
Benzene	< 0.01	< 0.01
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.03	0.01
Toluene	< 0.01	< 0.01
Xylene	< 0.01	< 0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY

- NOx, CO, and VOC data taken from engine manufacturer's technical data sheet
- PM, SO2, and HAP emissions calculated from AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, Table 3.2-3, 7/00

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 – Operate and maintain according to manufacturer (G60-C026 5.1.1) 45 CSR 13 – Emission limits (TV 6.1.1, G60-C026 5.1.2) 45 CSR 13 – Maximum fuel consumption (G60-C026 5.1.3) 45 CSR 13 – Requirements for use of a catalytic reduction device (G60-C026 5.1.4) 40 CFR Part 60 Subpart JJJJ – NSPS emission limits (G60-C026 8.2.5) 40 CFR Part 60 Subpart JJJJ – NSPS emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (G60-C026 8.4.4) 40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as a new, emergency, spark ignition engine at an area source (40 CFR 63 Subpart ZZZZ)
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 – The NSCR shall be fitted with a closed-loop, automatic air/fuel ratio controller (G60-C026 5.1.4) 45 CSR 213 – Maintain proper operation of the air/fuel ratio controller (or automatic feedback controller) and follow operating and maintenance recommendations of the NSCR manufacturer (G60-C026 5.2.1) 45 CSR 13 – Record hours of operation and fuel consumption on a monthly basis; keep records for 5 years (G60-C026 5.4.1)
40 CFR Part 60 Subpart JJJJ – Purchase a certified engine to meet NSPS emission limits (G60-C026 8.4.1) 40 CFR Part 60 Subpart JJJJ – Install non-resettable hour meter (G60-C026 8.3.8) 40 CFR Part 60 Subpart JJJJ – Comply with all applicable monitoring, reports, and recordkeeping requirements (G60-C026 8.6.1)
40 CFR Part 63 Subpart ZZZZ – Compliance with NSPS Subpart JJJJ shows compliance with NESHAP Subpart

Are you in compliance with all applicable requirements for this emission unit? \_X\_Yes \_\_\_\_No

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

ZZZZ

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: EN01	Emission unit name: EN01	List any control devices associated with this emission unit:	
	Reciprocating Engine/Integral Compressor	CC02	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc.	.):
Natural gas-fired reciprocating engine	/integral compressor		
Manufacturer: Ingersoll Rand	Model number: 36KVS-ET	Serial number: 36ET363	
Construction date: Pre-1961	Installation date: 1961	Modification date(s	):
Design Capacity (examples: furnace 1,000 hp	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.0071 MMscf/hr	Maximum Annual Throughput: 61.8 MMscf/yr	Maximum Operatin 8,760 hrs/yr	ng Schedule:
Fuel Usage Data (fill out all applicate	ble fields)		
Does this emission unit combust fue	<b>1?</b> _XYes No	If yes, is it?	
		Indirect Fired	_XDirect Fired
Maximum design heat input and/or maximum horsepower rating: 1,000 hp		Type and Btu/hr ra 7.05 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
Pipeline quality 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
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	0.77	3.38
Nitrogen Oxides (NO <sub>X</sub> )	59.52	260.72
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)	0.07	0.31
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.02
Volatile Organic Compounds (VOC)	11.02	48.28
Hazardous Air Pollutants	Potential Emissions	
	РРН	TPY
Acetaldehyde	0.06	0.26
Acrolein	0.04	0.16
Benzene	< 0.01	0.02
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.37	1.63
Hexane	0.01	0.03
Toluene	< 0.01	0.01
Xylene	< 0.01	0.01
Regulated Pollutants other than	Potent	tial Emissions
Criteria and HAP	PPH	TPY

- CO, NOx, VOC Emission Rates based on manufacturer information.
   \*\*Note: The CO emission rates are based off of a 93% control efficiency for the catalyst/silencer provided by the manufacturer.
- PM10, PM2.5, SO2, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-2.

Are you in compliance with all applicable requirements for this emission unit? \_X\_Yes \_\_\_\_No

If no, complete the Schedule of Compliance Form as ATTACHMENT  ${\bf F}.$ 

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number: EN02	Emission unit name: EN02	List any control dev with this emission u NA	
	Reciprocating Engine/Integral Compressor	11/1	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc.	):
Natural gas-fired reciprocating engine	/integral compressor		
<b>Manufacturer:</b> Ajax	Model number: DPC-800	Serial number: 82258	
Construction date: Pre-1987	Installation date: 1987	Modification date(s) N/A	):
<b>Design Capacity (examples: furnace</b> 800 hp	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.0064 MMscf/hr	Maximum Annual Throughput: 56.1 MMscf/yr	Maximum Operatin 8,760 hrs/yr	g Schedule:
Fuel Usage Data (fill out all applicate	ble fields)		
Does this emission unit combust fue	1? _XYes No	If yes, is it?	
		Indirect Fired	_XDirect Fired
Maximum design heat input and/or maximum horsepower rating: 800 hp		Type and Btu/hr rat 6.40 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
Pipeline quality 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
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	5.47	23.95
Nitrogen Oxides (NO <sub>X</sub> )	36.86	161.45
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.25	1.08
Particulate Matter (PM <sub>10</sub> )	0.25	1.08
Total Particulate Matter (TSP)	0.31	1.35
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.02
Volatile Organic Compounds (VOC)	5.11	22.40
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.05	0.22
Acrolein	0.05	0.22
Benzene	0.01	0.05
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.35	1.55
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY

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

Are you in compliance with all applicable requirements for this emission unit? \_X\_Yes \_\_\_\_No

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

ATT	ACHMENT E - Emission Uni	t Form		
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control dev		
EN03	EN03	with this emission u	init:	
	Reciprocating Engine/Integral Compressor	CC01		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
Natural gas-fired reciprocating engine	/integral compressor			
3.5	w 11 1			
Manufacturer: Ajax	Model number: DPC-2804LE	Serial number: 85968		
Construction date: 12/10/2011	Installation date: 2012	Modification date(s	):	
12/10/2011	2012	17/11		
<b>Design Capacity (examples: furnace</b> 750 hp	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput: 0.0059 MMscf/hr	<b>Maximum Annual Throughput:</b> 51.6 MMscf/yr	Maximum Operation 8,760 hrs/yr	ng Schedule:	
Fuel Usage Data (fill out all applical	Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fue	1? _XYes No	If yes, is it?		
		Indirect Fired	_XDirect Fired	
Maximum design heat input and/or maximum horsepower rating: 750 hp		Type and Btu/hr ra 5.90 MMBtu/hr		
List the primary fuel type(s) and if a the maximum hourly and annual fu		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		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	1.23	5.41
Nitrogen Oxides (NO <sub>X</sub> )	1.65	7.24
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.23	0.99
Particulate Matter (PM <sub>10</sub> )	0.23	0.99
Total Particulate Matter (TSP)	0.28	1.25
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	0.02
Volatile Organic Compounds (VOC)	0.50	2.17
Hazardous Air Pollutants	Potential Emissions	
	РРН	TPY
Acetaldehyde	0.05	0.20
Acrolein	0.05	0.20
Benzene	0.01	0.05
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.33	1.43
Hexane	< 0.01	0.01
Toluene	0.01	0.02
Xylene	< 0.01	0.01
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY

- CO, NOx, and VOC emission rates based on manufacturer specs dated 9-10-98
   \*\*Note: CO based on 560 hp load due to higher emissions at that load
- PM, SO2, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1

#### Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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 Fuel throughput limit (TV 7.1.9; R13-2915A 5.1.1)
- 45 CSR 13 Emission limits (TV 7.1.10; R13-2915A 5.1.2)
- 45 CSR 13 Requirements for the use of catalytic reduction devices (TV 7.1.11; R13-2915A 5.1.3)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ NSPS general requirements/provisions (TV 7.1.12. 7.1.14., and 7.1.17. 7.1.19; R13-2915A 8.1.1 8.1.3 and 8.2.3, 8.3.1, and 8.3.2)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ NSPS emission limits (TV 7.1.15; R13-2915A 8.2.1)
- 40 CFR Part 60 Subpart JJJJ NSPS operating requirements (TV 7.1.16)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ NSPS continuous compliance (TV 7.1.20; R13-2915A 8.4.1)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Propane usage limited to 100 hrs/yr for emergency operations (TV 7.1.21; R13-2915A 8.4.2)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Air-to-fuel ratio controller maintenance and operation (TV 7.1.22; R13-2915A 8.4.3)

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 and 40 CFR Part 60 Subpart JJJJ Develop and follow your own maintenance plan and keep records of conducted maintenance (TV 7.1.20; R13-2915A 8.4.1)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Conduct an initial performance test and continuous performance tests every 8,760 hours or 3 years, whichever comes first (TV 7.1.20; R13-2915A 8.4.1)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Keep records of propane usage (TV 7.1.21; R13-2915A 8.4.2)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Comply with air-to-fuel ratio controller maintenance and operation (TV 7.1.22; R13-2915A 8.4.3)
- 45 CSR 13 The permittee shall ensure proper operation, maintenance, and performance of the catalytic reduction device (TV 7.2.3; R13-2915A 5.2.1)
- 45 CSR 13 and 40 CFR Part 60 Subpart JJJJ Comply with all NSPS applicable testing requirements (TV 7.3.4; R13-2915A 8.5.1)
- 45 CSR 13 Maintain monthly records of the amount of natural gas consumed and the hours of operation for at least 5 years (TV 7.4.5; R13-2915A 5.3.1)
- 45~CSR~13~and~40~CFR~Part~60~Subpart~JJJJ-Comply~with~all~NSPS~applicable~notification,~reporting,~and~recordkeeping~requirements~(TV~7.4.6;~R13-2915A~8.6.1)

Are you in compliance with all applicable requirements for this emission unit? \_X\_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: FL03	Emission unit name: FL03 Flare	List any control dev with this emission u N/A	
Provide a description of the emission  Dehydration Unit Flare	n unit (type, method of operation, d	l esign parameters, etc.	):
Manufacturer: Questor	Model number: Q250  Serial number:		
Construction date: 2015	Installation date: 2015	Modification date(s): N/A	
Design Capacity (examples: furnace Flare Rating: 175 scfm Pilot Burner: 52,500 Btu/hr	s - tons/hr, tanks - gallons):	,	
Maximum Hourly Throughput: Fuel to pilot flame: 50 scf/hr	Maximum Annual Throughput: Fuel to pilot flame: 0.438 MMscf/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 X_Direct Fired	
Maximum design heat input and/or maximum horsepower rating: Flare Rating: 175 scfm Pilot Burner: 52,500 Btu/hr		Type and Btu/hr rat Flare Rating: 175 scf Pilot Burner: 52,500	ting 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  - Maximum hourly fuel to pilot throughput = 50 scf/hr			
- Maximum annual fuel to pilot throughput = 0.438 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		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	0.07	0.32
Nitrogen Oxides (NO <sub>X</sub> )	1.23	5.39
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.30	1.31
Particulate Matter (PM <sub>10</sub> )	0.30	1.31
Total Particulate Matter (TSP)	0.30	1.31
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	< 0.01	< 0.01
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	Potential Emissions	
Criteria and HAP	РРН	TPY

Emissions were added together for the pilot and combustor:

#### Pilot:

- PM, SO2 and VOC emission factors based on AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98.
- HAP emission factors based on AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-3, 7/98.

#### Combustor:

- NOx and CO emission rates based on vendor specifications: maximum flowrate = 252 Mscf/day; waste to fuel gas ratio of 1:0.1.
- 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 Estimation 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.

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> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number: RBR02  Provide a description of the emission	Emission unit name:  RBR02  Glycol Dehydration Unit Reboiler  n unit (type, method of operation, de	List any control dev with this emission u N/A	nit:
Glycol Dehydration Unit Reboiler			
Manufacturer: Cameron	Model number: 5GR-250	<b>Serial number:</b> A14312000607601	
Construction date: 2012	Installation date: 2012	Modification date(s	):
Design Capacity (examples: furnace 1.437 MMBtu/hr	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput: 0.00120 MMscf/hr	Maximum Annual Throughput: 10.52 MMscf/yr	Maximum Operatir 8,760 hrs/yr	ng Schedule:
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: 1.437 MMBtu/hr		<b>Type and Btu/hr ra</b> 1.437 MMBtu/hr	ting 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.  Pipeline quality natural gas  - Maximum hourly fuel usage = 0.00120 MMscf/hr - Maximum annual fuel usage = 10.52 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
Pipeline quality natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf
	1	į l	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	0.10	0.44	
Nitrogen Oxides (NO <sub>X</sub> )	0.13	0.57	
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	0.04	
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	< 0.01	
Volatile Organic Compounds (VOC)	0.06	0.26	
Hazardous Air Pollutants	Potential Emissions		
	РРН	TPY	
Benzene	< 0.01	< 0.01	
Formaldehyde	< 0.01	< 0.01	
Hexane	< 0.01	0.01	
Toluene	< 0.01	< 0.01	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	

- NOx, CO, and VOC tons/yr per Dominion Spec Sheet 1/3/2011
- PM, PM10, PM2.5, and SO2 emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98
- HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 4, 7/98

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 2-3.1 and 45 CSR 13 – Opacity limit of 10% (TV 4.1.1; R13-2915A 6.1.1) 45 CSR 2-3.2 and 45 CSR 13 – Compliance with the opacity limit is determined using Method 9 (TV 4.1.2; R13-2915A 6.1.2) 45 CSR 13 – The maximum design heat unit is 1.437 MMBtu/hr (TV 4.1.3; R13-2915A 6.1.3) 45 CSR 13 – Fuel throughput limit (TV 4.1.4; R13-2915A 6.1.4) 45 CSR 13 – Emission limits (TV 4.1.5; R13-2915A 6.1.5)
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? \_X\_Yes \_\_\_No

45 CSR 13 – Maintain monthly records of the amount of natural gas consumed and the hours of operation for a

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

45 CSR 13 – Method 9 performed as requested (TV 4.2.1; R13-2915A 6.2.1)

period of 5 years (TV 4.4.1; R13-2915A 6.3.1)

## **Attachment G**

Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form			
Control device ID number: FL03	List all emission units associated with this control device. DEHY02		
Manufacturer: QTI	Model number:	Installation date:	
QII	Q250	2015	
Type of Air Pollution Control Device:			
Baghouse/Fabric Filter	Venturi Scrubber]	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 Dry Plate Electrostatic Precipitator			
List the pollutants for which this devi	ce is intended to control and the ca	pture 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.).  QTI dehydration unit flare 175 scfm non-assisted burner			
Is this device subject to the CAM requ	nirements of 40 C.F.R. 64?Yes	_X_ No	
If Yes, Complete ATTACHMENT H			
If No, <b>Provide justification.</b> The dehy unit (DEHY02) is not subject to CAM since it is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990. Per 64.2(b)(1)(i), "emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act" are exempt from CAM. CAM was established to build in provisions for how compliance would be demonstrated for emission limits if not adequately covered by a NSPS or NESHAP rule.			
In addition, for VOC purposes, the dehy unit 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 (R13-2915) specifies a "continuous compliance determination method" condition (e.g. continuously monitoring the flare using a thermocouple 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 6-4.1 Particulate Matter emission limit (TV 5.1.1)
- 45 CSR 6-4.3 Incinerator opacity limit of 20% (TV 5.1.2)
- 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) and NESHAP Subpart HH Facility shall maintain minor source of HAPs (TV 5.1.5)
- 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 Emission limits (TV 5.1.10; R13-2915A 7.1.2)
- 45 CSR 13 Operation and design of the flare (TV 5.1.12, R13-2915A 7.1.4)
- 45 CSR 13 Conduct a flare design evaluation (TV 5.1.13; R13-2915A 7.1.5)

#### **Monitoring**

- 45 CSR 30-5.1c Conduct monthly visible emission observations (TV 5.2.2)
- 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)
- 45 CSR 30-5.1.c and 45 CSR 13 Monitor the presence or absence of the flare pilot flame using a thermocouple (TV 5.2.5; R13-2915A 7.2.1)

#### **Testing**

- 45 CSR 13 Initial Method 22 (TV 5.3.2, R13-2915A 7.3.1)
- 45 CSR 13 Flare compliance assessment shall be conducted if required (TV 5.3.3, R13-2915A 7.3.2)

#### Recordkeeping

- 45 CSR 30-5.1.c Records of visible emission observations (TV 5.4.1)
- 45 CSR 30-5.1.c Records of periodic testing/checks/calibration, and maintenance per manufacturer's specifications for the flare monitoring device (TV 5.4.2)
- 45 CSR 13 Records of the times and duration of all periods which the pilot flame was absent (TV 5.4.4 and 5.4.7; R13-2915A 7.4.1 and 7.4.4)
- 45 CSR 13 Records of the flare design evaluation (TV 5.4.5, R13-2915A 7.4.2)
- 45 CSR 13 Records of initial Method 22 (TV 5.4.6; R13-2915A 7.4.3)

#### Reporting

- 45 CSR 13 Reporting of deviations of visible emissions requirements (TV 5.5.4, R13-2915A 7.5.1)
- 45 CSR 13 Report deviation from flare design and operation criteria (TV 5.5.5, R13-2915A 7.5.3)

# **Attachment H**

Compliance Assurance Monitoring (CAM) Form

### ${\bf ATTACHMENT\; H\; -\; Compliance\; Assurance\; Monitoring\; (CAM)\; Plan\; Form}$

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  $\frac{\text{http://www.epa.gov/ttn/emc/cam.html}}{\text{http://www.epa.gov/ttn/emc/cam.html}}$ 

CAM APPLICABILITY DETERMINATION							
sep CF app	1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to <u>EACH</u> 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 <u>all</u> of the following criteria ( <i>If No, then the remainder of this form need not be completed</i> ):						
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 <u>NOT</u> exempt;						
	<ul> <li>LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:</li> <li>NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.</li> <li>Stratospheric Ozone Protection Requirements</li> </ul>						
<ul> <li>Stratospheric Ozone Protection Requirements.</li> <li>Acid Rain Program Requirements.</li> </ul>							
	<ul> <li>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.</li> </ul>						
	• 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 <u>NOT</u> 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:							
	<u>RENEWAL APPLICATION</u> . <u>ALL</u> PSEUs for which a CAM plan has <u>NOT</u> 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) <sup>a</sup> BACKGROUND DATA AND INFORMATION

Complete the following table for <u>all</u> 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.

requirements specified in	40 CFR §64.4. If additional space is	needed, attach and lac	bei accordingly.		
PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	<sup>b</sup> EMISSION LIMITATION or STANDARD	° MONITORING REQUIREMENT
Request to delete the CAM	Subpart HH, which has provisions for	(per 64.2(b)(1)(i)).	purposes, the facility is not	64.2(b)(1)(vi) since the Title V permit specifies a "continuous	
Plan as the unit is subject to	compliance monitoring established after 1990	In addition, for VOC	subject to CAM per	compliance determination method" condition.	
EXAMPLE 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

<sup>&</sup>lt;sup>a</sup> 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).

<sup>&</sup>lt;sup>c</sup> Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.