



February 25, 2016

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

9590 9401 0037 5168 3629 32

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

**RE: Dominion Transmission, Inc. – Title V Renewal Application  
Oscar Nelson Compressor Station – R30-10900018-2011**

Dear Mr. Durham:

Enclosed please find the Title V Renewal Application for Dominion Transmission, Inc.'s Oscar Nelson Compressor Station, Permit No. R30-10900018-2011. The enclosure consists of one hard copy and two cd copies of the application that includes all attachments.

As part of the renewal application, the equipment list has been updated based on recent updates to the Oscar Nelson Station:

- Equipment removed from the facility
  - TK01 – 583 gal Vertical Aboveground Storage Tank (Triethylene Glycol)
  - TK04 – 1,260 gal Vertical Aboveground Storage Tank (Produced Fluids)
  - TK08 – 2,700 gal Vertical Aboveground Storage Tank (Produced Fluids)
- Equipment added to the facility:
  - TK09 – 500 gal Vertical Aboveground Storage Tank (Triethylene Glycol)
  - TK10 – 2,700 gal Vertical Aboveground Storage Tank (Produced Fluids)
- Correction to equipment at the facility:
  - AUX01 – This emergency generator was previously listed as a Waukesha FZ000G engine, but the correct description is a Waukesha F1905 GRU engine.
  - Engines EN01 – EN06 – The compressor engines were previous listed as 2 stroke rich burn engines, but the correct descriptions are 2 stroke lean burn engines.

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

- We request that permit conditions 3.1.9, 3.1.10, 3.2.1, 3.2.2, and 3.2.3 be removed from the facility-wide section (Section 3) and moved to the source-specific sections (Sections 4 and 5) of the permit as they are source-specific requirements.

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

Sincerely,



Amanda B. Tornabene  
Director, Gas Environmental Services

**OSCAR NELSON COMPRESSOR STATION  
DOMINION TRANSMISSION, INC.  
APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL  
TITLE V OPERATING PERMIT NO: R30-10900018-2011**

**Dominion Transmission, Inc.**  
Oscar Nelson Compressor Station  
Marianna, WV

**FEBRUARY 2016**

**DOMINION TRANSMISSION, INC.  
OSCAR NELSON 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:** There is no Attachment F or H for this permit 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 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:**

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

Oscar Nelson Station has the potential to emit in excess of 100 tons per year of nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), and carbon monoxide (CO). The station is classified as a major stationary source under West Virginia Department of Environmental Protection (WVDEP) Regulation (45 CSR Part 30) and is subject to the Title V Operating Permit provisions thereof. Oscar Nelson Station is 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.

Oscar Nelson Station was originally issued a Title V Operating Permit (Permit No: R30-10900018-2006) in 2006 for a period of five (5) years, with an expiration date of May 24, 2011. Oscar Nelson Station is also subject to the underlying State Operating Permit (Rule 13 Permit No: R13-2626D). The Title V operating permit is for the operation of six (6) 880 hp natural gas fired reciprocating engines (EN01 – EN06), one (1) glycol dehydrator system (DEHY1) with a flare (F2), one (1) dehydration unit reboiler (REB1), one (1) 350 hp emergency generator (AUX01), and five (5) above ground storage tanks of various sizes (TK02, TK03, TK07, TK09, and TK10).

The last Title V Operating Permit renewal application was submitted in 2010, and the renewed Title V Operating Permit was issued on September 21, 2011, with an expiration date of September 21, 2016.

## **PROCESS DESCRIPTION**

Oscar Nelson Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 – EN06) at the facility receive natural gas flowing through a valve on the pipeline and recompresses that 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 (DEHY1). The dehydration unit removes moisture and impurities from the gas stream. Emergency backup power is supplied by an emergency generator (AUX01).

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 (REB1), 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 (DEHY1) using the heat generated from the natural gas-fired reboiler (REB1) to liberate the moisture and hydrocarbon vapors. The regenerator vapors are vented to the flare (F2) to combust the hydrocarbons; thereby, reducing overall emissions and odor. The flare is permitted with a destruction efficiency of 95%. The compressed, dehydrated gas then enters the pipeline.



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

Six (6) 880 hp Cooper GMV-8TF natural gas-fired reciprocating engine/integral compressors

- Emission unit ID: EN01 – EN06
- Emission point ID: EN01 – EN06

One (1) 350 hp Waukesha F1905 GRU auxiliary generator

- Emission unit ID: AUX01
- Emission point ID: AUX01

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

- Emission unit ID: REB1
- Emission point ID: 2E

One (1) 54.0 MMscf wet gas/day glycol dehydration system

- Emission unit ID: DEHY1
- Emission point ID: 1E

One (1) 4.0 MMBtu/hr flare

- Emission unit ID: F2
- Emission point ID: 1E

One (1) 10,000 gallon horizontal aboveground engine oil storage tank

- Emission unit ID: TK02
- Emission point ID: TK02

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

- Emission unit ID: TK03
- Emission point ID: TK03

One (1) 2,100 gallon vertical aboveground ethylene glycol storage tank

- Emission unit ID: TK07
- Emission point ID: TK07

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

- Emission unit ID: TK09
- Emission point ID: TK09

One (1) 2,700 gallon vertical aboveground produced fluids storage tank

- Emission unit ID: TK10
- Emission point ID: TK10

## **SECTION 2**

Title V Operating Permit  
Renewal 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](http://www.dep.wv.gov/daq)

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

**Section 1: General Information**

<b>1. Name of Applicant (As registered with the WV Secretary of State's Office):</b> Dominion Transmission, Inc.	<b>2. Facility Name or Location:</b> Oscar Nelson Station
<b>3. DAQ Plant ID No.:</b>  1 0 9 - 0 0 0 1 8	<b>4. Federal Employer ID No. (FEIN):</b>  5 5 0 6 2 9 2 0 3
<b>5. Permit Application Type:</b>  <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal <input type="checkbox"/> Update to Initial/Renewal Permit Application  When did operations commence? 1947 What is the expiration date of the existing permit? 09/21/2016	
<b>6. Type of Business Entity:</b>  <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Governmental Agency <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Partnership	<b>7. Is the Applicant the:</b>  <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both  If the Applicant is not both the owner and operator, please provide the name and address of the other party.  _____  _____  _____
<b>8. Number of onsite employees:</b>  14	
<b>9. Governmental Code:</b>  <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> District government owned and operated; 5	
<b>10. Business Confidentiality Claims</b>  Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> 925 White Oaks Blvd.		
<b>City:</b> Bridgeport	<b>State:</b> WV	<b>Zip:</b> 26330
<b>Telephone Number:</b> (681) 842-3000	<b>Fax Number:</b> (681) 842-3323	

<b>12. Facility Location</b>		
<b>Street:</b>	<b>City:</b> Marianna	<b>County:</b> Wyoming
<b>UTM Easting:</b> 445.76 km	<b>UTM Northing:</b> 4161.72 km	<b>Zone:</b> <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<b>Directions:</b> Take Interstate 77 South to the Mabscott/MacArthur Exit. Turn South on State Route 16 and travel approximately 16 miles to Maben in Wyoming County. Turn right onto State Route 97 West and go 20.2 miles to Marianna. Turn left at Phillips Coal Road off of Route 97 (just before Turkey Creek Road). Go across the bridge crossing the Guyandotte River. Turn right at the end of the bridge and go 0.5 miles to the station.		
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Is facility located within a nonattainment area?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, for what air pollutants?</b>
<b>Is facility located within 50 miles of another state?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, name the affected state(s).</b> Virginia
<b>Is facility located within 100 km of a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>If no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, name the area(s).</b>
<sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Brian C. Sheppard		<b>Title:</b> Vice President, Pipeline Operations
<b>Street or P.O. Box:</b> 925 White Oaks Blvd.		
<b>City:</b> Bridgeport	<b>State:</b> WV	<b>Zip:</b> 26330
<b>Telephone Number:</b> (681) 842-3733	<b>Fax Number:</b> (681) 842-3323	
<b>E-mail address:</b> Brian.C.Sheppard@dom.com		
<b>Environmental Contact:</b> Rebekah Remick		<b>Title:</b> Environmental Consultant
<b>Street or P.O. Box:</b> 5000 Dominion Blvd.		
<b>City:</b> Glen Allen	<b>State:</b> VA	<b>Zip:</b> 23060
<b>Telephone Number:</b> (804) 273-3536	<b>Fax Number:</b> (804) 273-2964	
<b>E-mail address:</b> Rebekah.J.Remick@dom.com		
<b>Application Preparer:</b> Rebekah Remick		<b>Title:</b> Environmental Consultant
<b>Company:</b> Dominion Resources, Inc.		
<b>Street or P.O. Box:</b> 5000 Dominion Blvd.		
<b>City:</b> Glen Allen	<b>State:</b> VA	<b>Zip:</b> 23060
<b>Telephone Number:</b> (804) 273-3536	<b>Fax Number:</b> (804) 273-2964	
<b>E-mail address:</b> Rebekah.J.Remick@dom.com		

**14. Facility Description**

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

Process	Products	NAICS	SIC
Natural Gas Compressor Station	N/A	486120	4922

**Provide a general description of operations.**

Oscar Nelson Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 – EN06) 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 (DEHY1). The dehydration unit removes moisture and impurities from the gas stream.

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

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

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

## Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	
19. Non Applicability Determinations	
<p><b>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.</b></p> <p>45 CSR 10 – Compressor engines (EN01 through EN06) have been excluded from the applicability of SO<sub>2</sub> and H<sub>2</sub>S limits. WVDAQ determined that 45 CSR 10 is not applicable to compressor engines.</p> <p>40 CFR 60 Subpart JJJJ – The compressor engines (EN01 – EN06) are not subject to this subpart since they were manufactured pre-1947, before the applicability date.</p> <p>40 CFR 60 Subpart OOOO – This subpart does not apply to the facility since the facility is a gathering facility that does not have gas wells, centrifugal compressors, reciprocating compressors, and/or pneumatic controllers constructed, modified, or reconstructed after August 23, 2011.</p> <p>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.</p> <p>40 CFR 63 Subpart DDDDD – The reboiler (REB1) is not subject to this subpart since it is exempt by §63.7491(h) and facility is not major source of HAPs.</p> <p>40 CFR 63 Subpart JJJJJ – The reboiler (REB1) is not applicable to this subpart since it is considered a “process heater,” which is excluded from the definition of “boiler” in §63.11237.</p> <p>40 CFR 64 – The dehy unit (DEHY1) is not subject 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 R13-2626D permit specifies a “continuous compliance determination method” condition (e.g. continuously monitoring the flare using a thermocouple to detect the presence of a flame) which was included in the Title V permit, CAM does not apply (exemption per 64.2(b)(1)(vi)).</p>	
<input checked="" type="checkbox"/> Permit Shield	



## 20. Facility-Wide Applicable Requirements

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

45 CSR 6-3.1 – Open burning prohibited (TV 3.1.1)  
45 CSR 6-3.2 – Open burning exemption (TV 3.1.2)  
40 CFR Part 61 and 45 CSR 34 – Asbestos inspection and removal (TV 3.1.3)  
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)  
45 CSR 17-3.1 – Fugitive particulate matter (TV 3.1.11)  
45 CSR 13 – Minor source of Hazardous Air Pollutants (HAP) (TV 3.1.12, R13-2626D, 4.1.3)

☐ 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 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 17-3.1 – The permittee will limit fugitive particulate matter emissions from the facility by burning only pipeline quality natural gas (TV 3.1.11)  
45 CSR 13 and WV Code 22-5-4(a)(14 - 15) – Testing requirements (TV 3.3.1)  
45 CSR 30-5.1.c.2.A and 45 CSR 13 – Monitoring records (TV 3.4.1; R13-2626D 4.2.1)  
45 CSR 30-5.1.c – Permittee shall maintain records of all odor complaints received (TV 3.4.3)  
45 CSR 13 – Records of maintenance of air pollution control equipment (TV 3.4.4; R13-2626D 4.2.2)  
45 CSR 13 – Records of malfunctions of air pollution control equipment (TV 3.4.5; R13-2626D 4.2.3)  
45 CSR 13 – Records of annual HAP emissions (TV 3.4.6; R13-2626D 4.2.4)  
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.

<b>21. Active Permits/Consent Orders</b>		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R13-2626D	12/13/2013	

<b>22. Inactive Permits/Obsolete Permit Conditions</b>		
Permit Number	Date of Issuance	Permit Condition Number
N/A		

**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	155.76
Nitrogen Oxides (NO <sub>x</sub> )	1,518.78
Lead (Pb)	N/A
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	7.47
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	7.47
Total Particulate Matter (TSP)	9.42
Sulfur Dioxide (SO <sub>2</sub> )	0.12
Volatile Organic Compounds (VOC)	121.53
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Acetaldehyde	1.51
Acrolein	1.51
Benzene	0.54
Ethylbenzene	0.48
Formaldehyde	7.24
Hexane	0.12
Toluene	0.75
Xylene	0.63
Regulated Pollutants other than Criteria and HAP	Potential Emissions
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> are components of TSP. <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**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	<p>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.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

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

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
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 <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

**Section 6: Certification of Information**

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

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

**a. Certification of Truth, Accuracy and Completeness**

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

**b. Compliance Certification**

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

**Responsible official (type or print)**

Name: Brian C. Sheppard

Title: Vice President, Pipeline Operations

**Responsible official's signature:**

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

Signature Date: 02/13/16

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

☒ ATTACHMENT A: Area Map

☒ ATTACHMENT B: Plot Plan(s)

☒ ATTACHMENT C: Process Flow Diagram(s)

☒ ATTACHMENT D: Equipment Table

☒ ATTACHMENT E: Emission Unit Form(s)

☐ ATTACHMENT F: Schedule of Compliance Form(s)

☒ 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 [www.dep.wv.gov/daq](http://www.dep.wv.gov/daq), requested by phone (304) 926-0475, and/or obtained through the mail.***



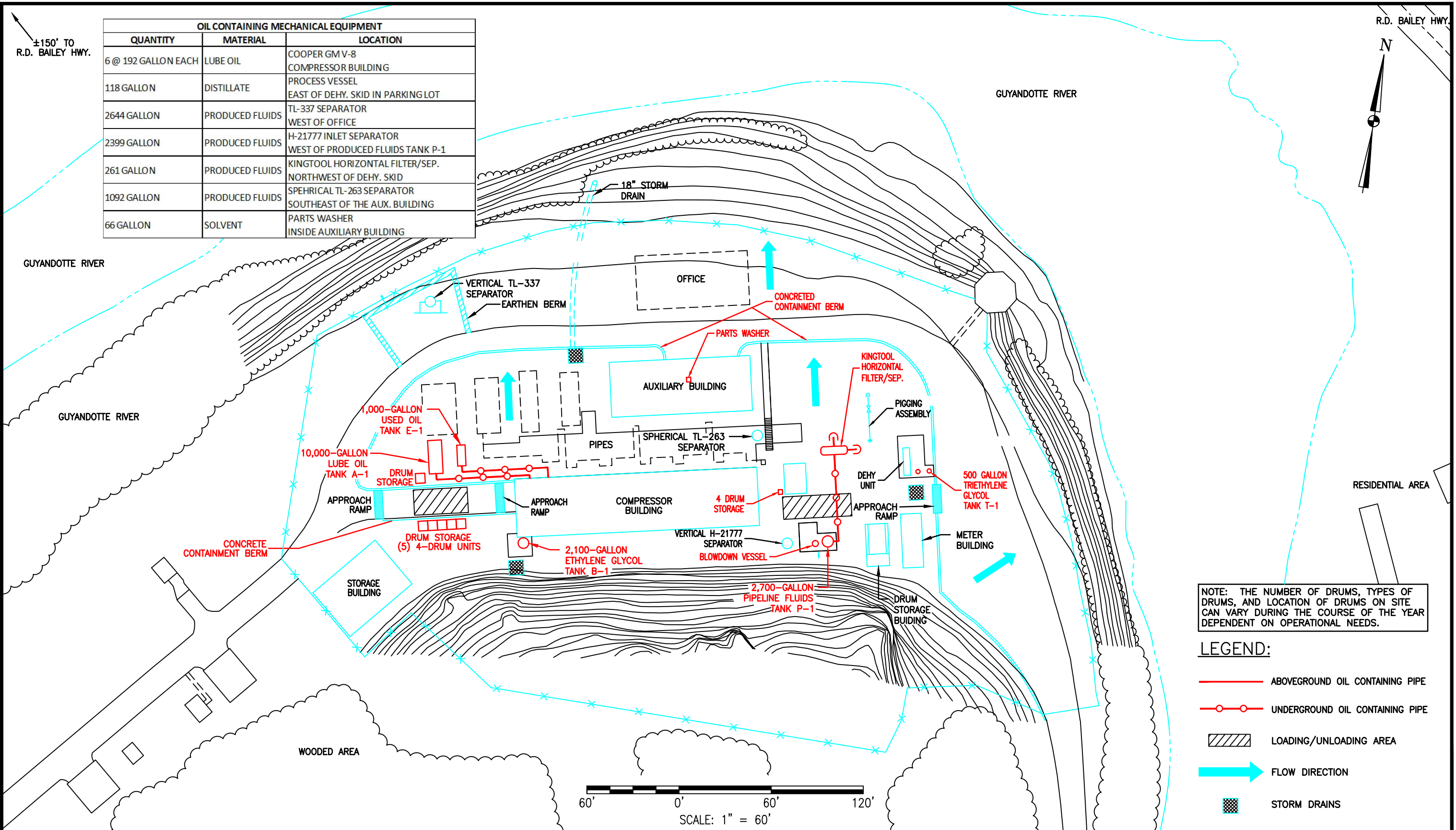
## **Attachment A**

Area Map



## **Attachment B**

Plot Plan



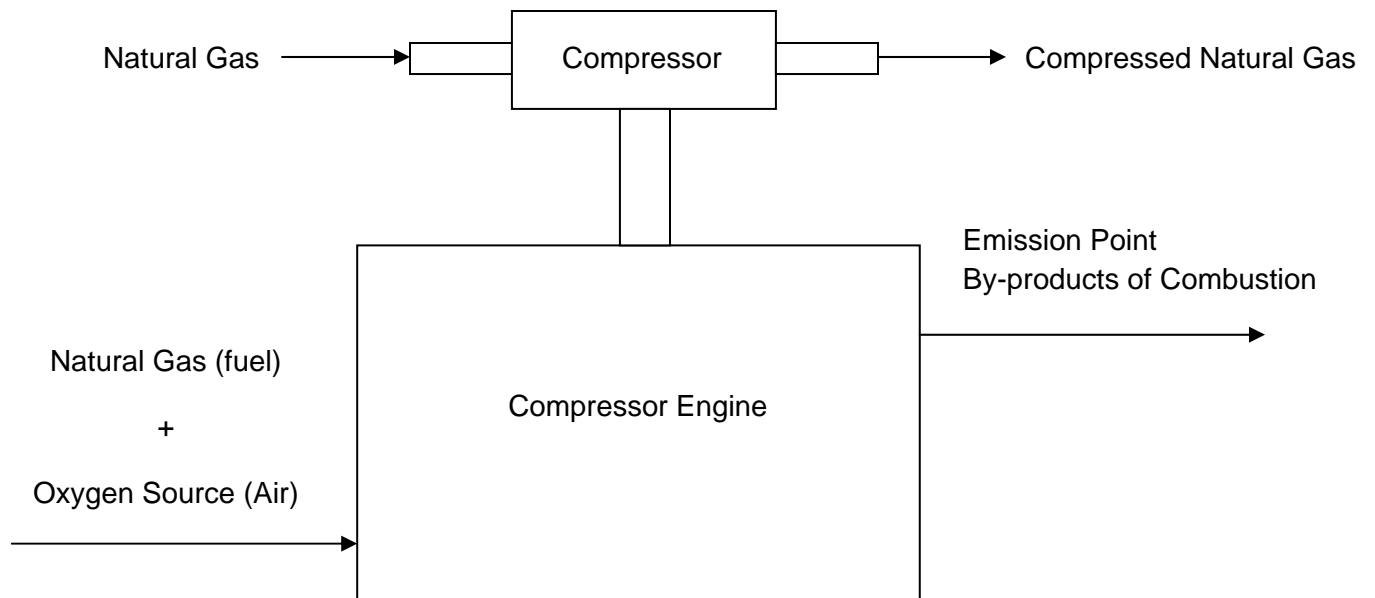
SYM.	DATE	BY	REVISION DESCRIPTION	PRJ/TSK	APP.	SCALE	1" = 60'	DATE	Dominion Transmission, Inc.			
						DRAWN	DJF	09/19/12	445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000			
						CHECKED	JSS		FOR: OSCAR NELSON COMPRESSOR STATION			
						APP. FOR BID			TITLE: ENVIRONMENTAL EMERGENCY SITE PLAN			
						APP. FOR CONST.			DIR: DOCUMENTUM	GROUP	DWG. NO.	REV.
						TOWN: MARIANNA, WV		COUNTY: WYOMING	FILE:	PRJ/TSK:	PD X8138B	3
3	10/14/15	TBB	REVISED PER TIM JACKSON'S MARK UPS									
2	11/07/14	TBB	SCALED, ADDED BAR SCALE, ADDED ADJACENT PROPERTIES, & REVISED NORTH ARROW									
1	09/13/13	MPR	UPDATED PER TIM JACKSONS MARK UPS									

## **Attachment C**

### Process Flow Diagrams

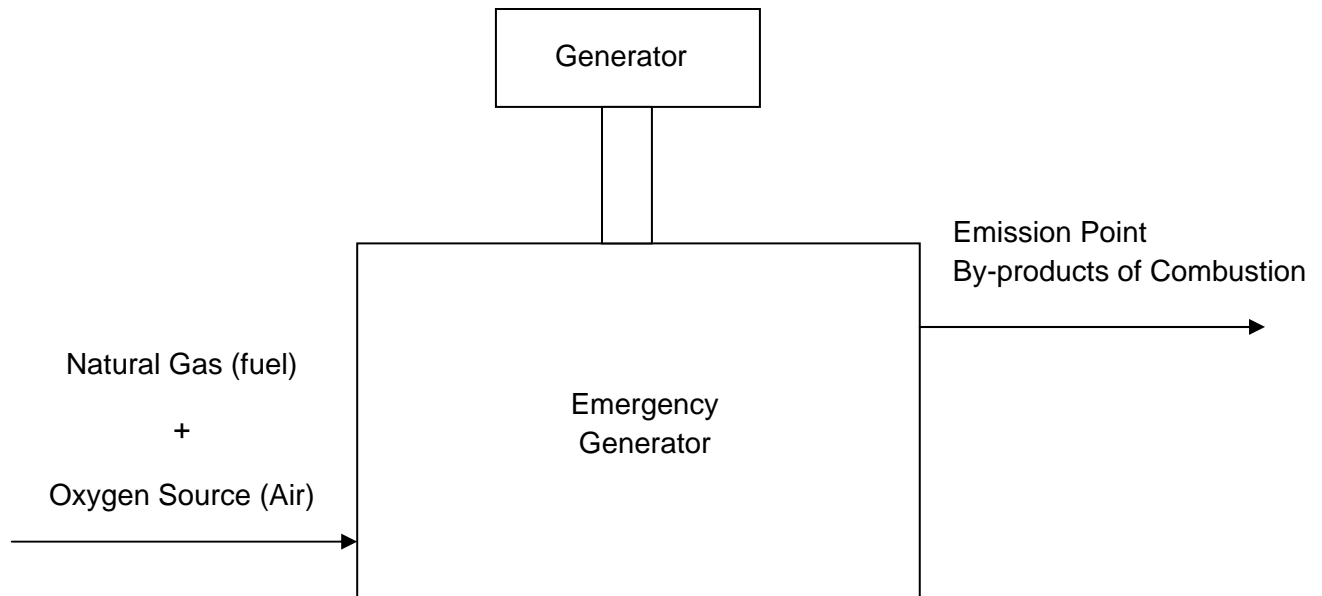
**Dominion Transmission, Inc.**  
**Oscar Nelson Compressor Station**

**Compressor Engines (EN01 – EN06) Process Flow Diagram**



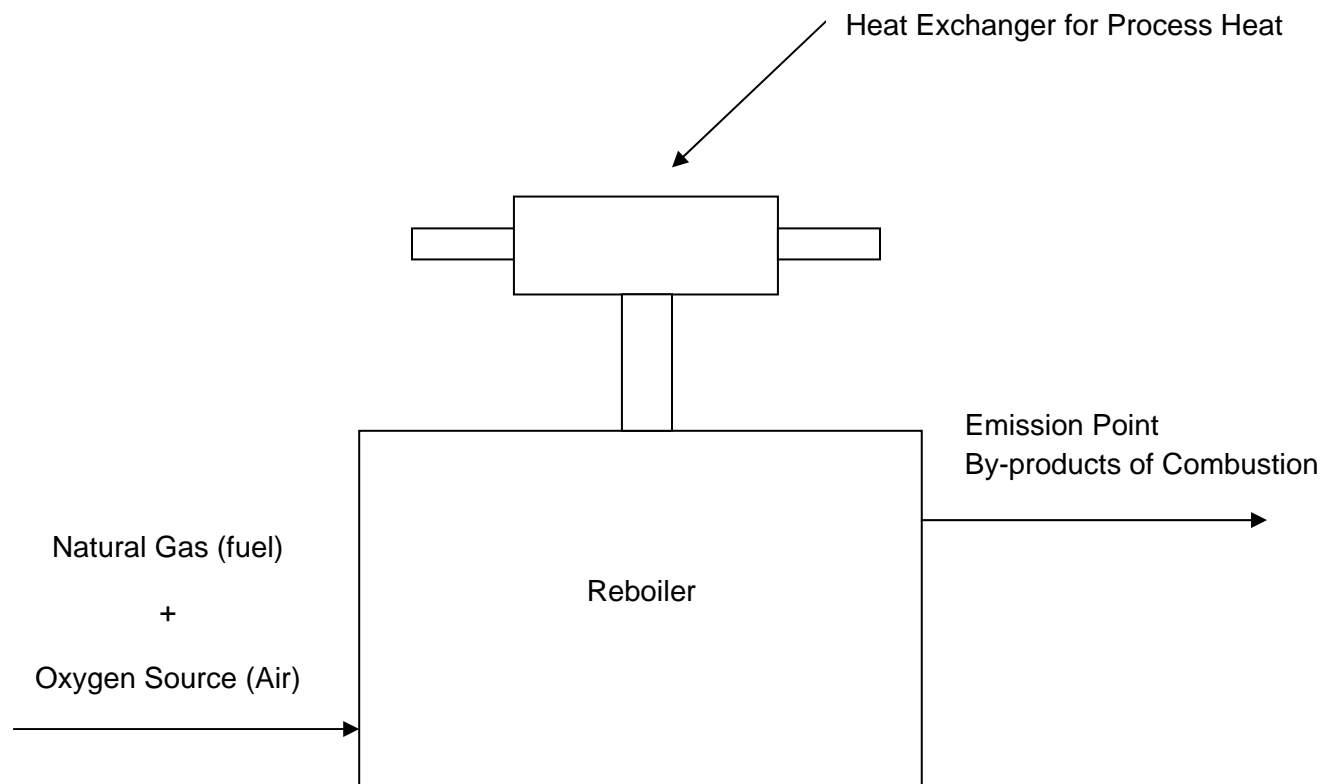
**Dominion Transmission, Inc.**  
**Oscar Nelson Compressor Station**

**Emergency Generator (AUX01) Process Flow Diagram**



**Dominion Transmission, Inc.**  
**Oscar Nelson Compressor Station**

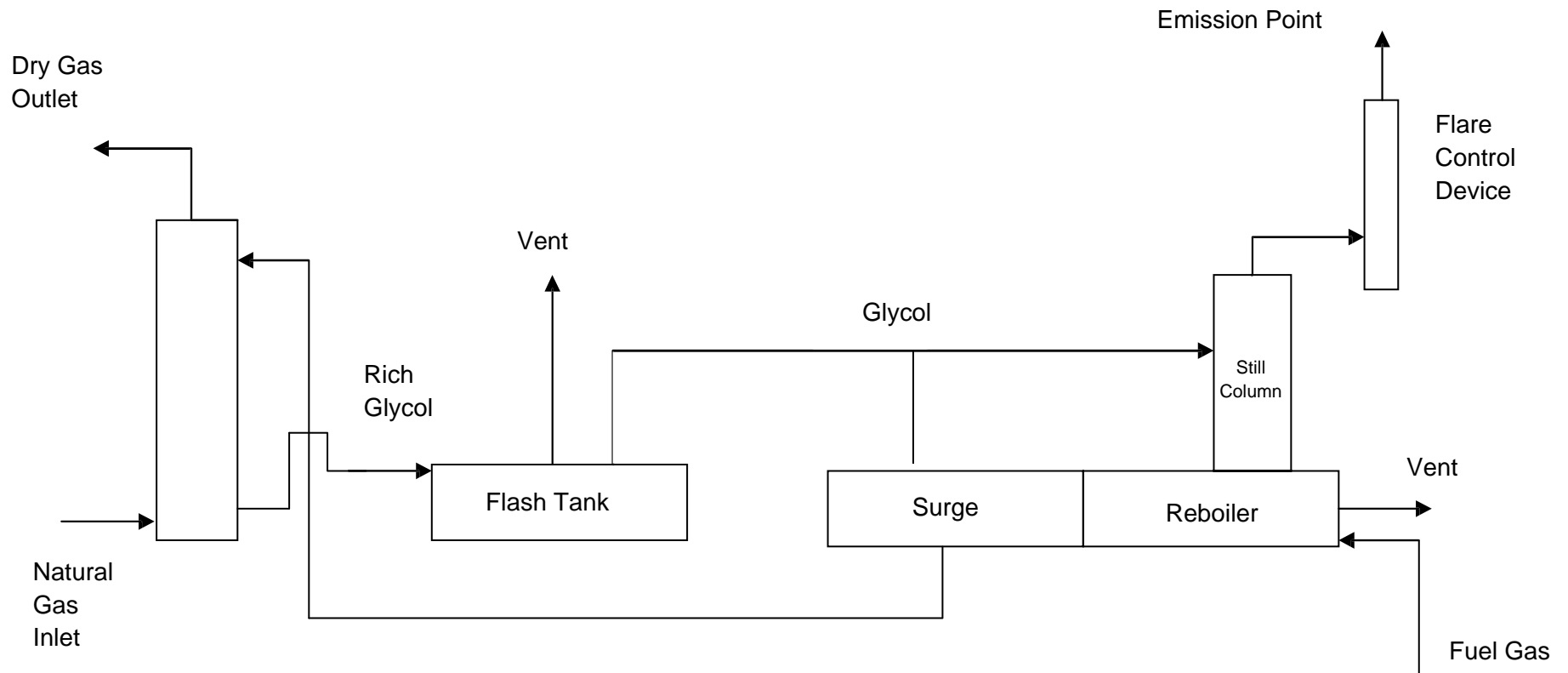
**Reboiler (REB1) Process Flow Diagram**





**Dominion Transmission, Inc.**  
**Oscar Nelson Compressor Station**

**Dehydration Unit (F2, DEHY1, and REB1) 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)

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	EN01	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
EN02	N/A	EN02	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
EN03	N/A	EN03	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
EN04	N/A	EN04	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
EN05	N/A	EN05	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
EN06	N/A	EN06	Reciprocating Engine/Integral Compressor; Cooper GMV-8TF; 2 Cycle Lean Burn	880 hp	1947
AUX01	N/A	AUX01	Auxiliary Generator; Waukesha F1905 GRU	350 hp	1988
1E	F2	DEHY1	Glycol Dehydration System	54.0 MMscf wet gas/day	2005
2E	N/A	REB1	Reboiler 1	0.75 MMBtu/hr	2005
1E	N/A	F2	Flare	4.0 MMBtu/hr	2013
TK02	N/A	TK02	Horizontal Aboveground Tank Containing Engine Oil	10,000 Gallons	2004
TK03	N/A	TK03	Horizontal Aboveground Tank Containing Used Oil	1,000 Gallons	2004
TK07	N/A	TK07	Vertical Aboveground Tank Containing Ethylene Glycol	2,100 Gallons	N/A
New units (updates) to equipment list:					
TK09	N/A	TK09	Vertical Aboveground Tank Containing Tri- Ethylene Glycol	500 Gallons	2015
TK10	N/A	TK10	Vertical Aboveground Tank Containing Produced Fluids	2,700 Gallons	2003
Units that have been removed:					
TK01	N/A	TK01	Vertical Aboveground Tank Containing Tri- Ethylene Glycol	583 Gallons	1947
TK04	N/A	TK04	Vertical Aboveground Tank Containing Produced Fluids	1,260 Gallons	2005
TK08	N/A	TK08	Vertical Aboveground Tank Containing Produced Fluids	2,700 Gallons	1947
<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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> AUX01	<b>Emission unit name:</b> Auxiliary Generator	<b>List any control devices associated with this emission unit:</b> N/A
--	---	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired emergency auxiliary generator

<b>Manufacturer:</b> Waukesha	<b>Model number:</b> F1905 GRU	<b>Serial number:</b> RU19363
----------------------------------	-----------------------------------	----------------------------------

<b>Construction date:</b> Pre-1988	<b>Installation date:</b> 1988	<b>Modification date(s):</b> N/A
---------------------------------------	-----------------------------------	-------------------------------------

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
350 hp

<b>Maximum Hourly Throughput:</b> 0.0026 MM scf/hr	<b>Maximum Annual Throughput:</b> 1.31 MMscf/yr	<b>Maximum Operating Schedule:</b> 500 hrs/yr
---	--	--

### *Fuel Usage Data (fill out all applicable fields)*

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

<b>Maximum design heat input and/or maximum horsepower rating:</b> 350 hp	<b>Type and Btu/hr rating of burners:</b> 2.63 MMBtu/hr
--	--

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

Natural gas

- Maximum hourly fuel usage = 0.0026 MMscf/hr
- Maximum annual fuel usage = 1.31 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	9.94	2.49
Nitrogen Oxides (NO <sub>x</sub> )	11.56	2.89
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)	0.05	0.01
Sulfur Dioxide (SO <sub>2</sub> )	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.16	0.04
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	0.05	0.01
Toluene	< 0.01	< 0.01
Xylene	< 0.01	< 0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-3.</li> </ul>		

**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.**

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)  
40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)  
40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)  
40 CFR Part 63 Subpart ZZZZ – NESHAP emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (TV 6.1.1, § 63.6640)  
40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603 and § 63.6625)  
40 CFR Part 63 Subpart ZZZZ – Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first (TV 6.1.1, § 63.6603)  
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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)  
40 CFR Part 63 Subpart ZZZZ – Install a non-resettable hour meter (TV 6.1.1, § 63.6625)  
40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)  
40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)  
40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> DEHY1	<b>Emission unit name:</b> DEHY1 Dehydration Unit	<b>List any control devices associated with this emission unit:</b> Flare (F2)
--	---	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Dehydration unit still column

<b>Manufacturer:</b> ETI	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> 2005	<b>Modification date(s):</b> N/A

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

54.0 MMscf wet gas/day

<b>Maximum Hourly Throughput:</b> 54.0 MMscf wet gas/day	<b>Maximum Annual Throughput:</b> 19,710 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
---	--	--

### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u> X </u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
--	---

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

**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 wet gas usage = 54.0 MMscf/day
- Maximum annual wet gas usage = 19,710 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



<b>Emissions Data</b>		
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)	0.53	2.32
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.04	0.16
Ethylbenzene	0.11	0.45
n-Hexane	0.01	0.03
Toluene	0.13	0.56
Xylenes	0.13	0.58
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>Emission rates for Dehydration Still estimated from GRI-GLYCalc V4.0, with a 95% destruction efficiency of the flare. GLYCalc inputs and emission calculations based on October 2013 application for new flare.</p>		

### ***Applicable Requirements***

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

45 CSR 10-4.1 – SO<sub>2</sub> emissions shall not exceed 2,000 ppm by volume (TV 3.1.9; R13-2626D, 4.1.2)  
45 CSR 10-5.1 – H<sub>2</sub>S emissions shall not exceed 50 gr/100 cu ft of gas (TV 3.1.10)  
45 CSR 13 – The maximum wet natural gas throughput shall not exceed 54.0 MMscf/day (TV 5.1.7; R13-2626D 6.1.7)  
45 CSR 13 – Emission limits (TV 5.1.8; R13-2626D 6.1.8)  
45 CSR 34 and 63.764(e)(1)(ii)– Actual average emissions of benzene are less than 1 ton/yr (TV 5.1.9)

\_\_\_\_ 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 - TV 3.1.9 shall be complied with by annual sampling of inlet natural gas stream (TV 3.2.2)  
45 CSR 30-5.1.c - TV 3.1.10 shall be complied with by annual sampling of inlet natural gas stream (TV 3.2.3)  
45 CSR 30-5.1(c) - TV 5.1.7 will be demonstrated by monitoring daily the wet natural gas throughput fed to the dehydration system (TV 5.2.3; R13-2626D 6.2.3)  
45 CSR 30-5.1.c – TV 5.1.9 benzene emissions shall be determined based on GRI- GYLCalc 3.0 or higher using actual operating parameters (TV 5.2.4 and R13-2626D, 6.2.4)  
45 CSR 30-5.1.c – Within the 4<sup>th</sup> year of the permit term, take a BTEX wet gas sample (TV 5.3.1)  
45 CSR 13 – Maintain a record of the wet natural gas throughput through the dehydration unit (TV 5.4.1; R13-2626D 6.4.1)  
45 CSR 34 and 63.774(d)(1)(ii) – Maintain records of the actual average benzene emissions (TV 5.4.5)  
45 CSR 30-5.1.c – By March 31<sup>st</sup> of the following year, submit a report which incorporates the BTEX wet gas sample (TV 5.5.2)

**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 F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN01	<b>Emission unit name:</b> EN01 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 41567
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas  
 - Maximum hourly fuel usage = 0.0074 MMscf/hr  
 - Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		

***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.**

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN02	<b>Emission unit name:</b> EN02 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 41566
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas

- Maximum hourly fuel usage = 0.0074 MMscf/hr
- Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		

**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.

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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



## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN03	<b>Emission unit name:</b> EN03 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 41565
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas  
 - Maximum hourly fuel usage = 0.0074 MMscf/hr  
 - Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		

**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.

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN04	<b>Emission unit name:</b> EN04 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 41568
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas

- Maximum hourly fuel usage = 0.0074 MMscf/hr
- Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		

**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.

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN05	<b>Emission unit name:</b> EN05 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 42413
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas

- Maximum hourly fuel usage = 0.0074 MMscf/hr
- Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		



***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.**

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> EN06	<b>Emission unit name:</b> EN06 Reciprocating Engine/Integral Compressor	<b>List any control devices associated with this emission unit:</b> N/A
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Natural gas-fired reciprocating engine/integral compressor

<b>Manufacturer:</b> Cooper	<b>Model number:</b> GMV-8TF	<b>Serial number:</b> 41564
<b>Construction date:</b> Pre-1947	<b>Installation date:</b> 1947	<b>Modification date(s):</b> N/A

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

880 hp

<b>Maximum Hourly Throughput:</b> 0.0074 MMscf/hr	<b>Maximum Annual Throughput:</b> 64.8 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 880 hp	<b>Type and Btu/hr rating of burners:</b> 8,400 Btu/hp-hr 0.0074 MMscf/hr

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

Pipeline quality natural gas

- Maximum hourly fuel usage = 0.0074 MMscf/hr
- Maximum annual fuel usage = 64.8 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

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.82	25.49
Nitrogen Oxides (NO <sub>x</sub> )	57.62	252.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.24
Particulate Matter (PM <sub>10</sub> )	0.28	1.24
Total Particulate Matter (TSP)	0.36	1.56
Sulfur Dioxide (SO <sub>2</sub> )	<0.01	0.02
Volatile Organic Compounds (VOC)	4.46	19.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.06	0.25
Acrolein	0.06	0.25
Benzene	0.01	0.06
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.28	1.20
Hexane	< 0.01	0.01
Toluene	0.01	0.03
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- CO, NO<sub>x</sub>, and VOC emission rates based on manufacturer specs.</li> <li>- PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-1.</li> <li>- Formaldehyde emission rate based on an emission test report conducted in 2006 in accordance with EPA Method 320.</li> </ul>		

***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.**

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – NESHAP operating requirements (TV 6.1.1, § 63.6605 and § 63.6625)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 6.1.1, § 63.6665)

\_\_\_\_ 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 – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 6.1.1, § 63.6603)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 6.1.1, § 63.6665)

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 6.1.1, § 63.6625 and TV 6.1.1, § 63.6640)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring and recordkeeping requirements (TV 6.2 and 6.4, § 63.6635, § 63.6655 and § 63.6660)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE and the hours of operation (TV 6.4.1, § 63.6655)

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> F2	<b>Emission unit name:</b> F2 Flare	<b>List any control devices associated with this emission unit:</b> N/A
---------------------------------------	---	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Dehydration Unit Flare

<b>Manufacturer:</b> Questor	<b>Model number:</b> Q100	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> 2013	<b>Modification date(s):</b> N/A

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

Combustor Rating: 4.0 MMBtu/hr

<b>Maximum Hourly Throughput:</b> Fuel to pilot flame: 70.8 scf/hr	<b>Maximum Annual Throughput:</b> Fuel to pilot flame: 0.62 MMscf/yr	<b>Maximum Operating Schedule:</b> 8760 hrs/yr
--	--	---

### *Fuel Usage Data (fill out all applicable fields)*

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

<b>Maximum design heat input and/or maximum horsepower rating:</b> Combustor Rating: 4.0 MMBtu/hr	<b>Type and Btu/hr rating of burners:</b> Combustor Rating: 4.0 MMBtu/hr
--	---

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

Natural gas

- Maximum hourly fuel to pilot throughput = 70.8 scf/hr
- Maximum annual fuel to pilot throughput = 0.62 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

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.01	0.05
Nitrogen Oxides (NO <sub>x</sub> )	0.30	1.31
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)	0.01	0.03
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	N/A	N/A
Formaldehyde	N/A	N/A
n-Hexane	N/A	N/A
Toluene	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>  - Ton/yr values based on Dominion Spec. Sheet dated 08/20/13		

***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?** ☒ Yes ☐ No

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> REB1	<b>Emission unit name:</b> REB1 Dehydration Unit Reboiler	<b>List any control devices associated with this emission unit:</b> N/A
---	---	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

A natural gas fired boiler used to reheat glycol within the dehydration unit.

<b>Manufacturer:</b> ETI	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> 2005	<b>Modification date(s):</b> N/A

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

<b>Maximum Hourly Throughput:</b> 735 scf/hr	<b>Maximum Annual Throughput:</b> 6.44 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
---	--	--

### *Fuel Usage Data (fill out all applicable fields)*

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

<b>Maximum design heat input and/or maximum horsepower rating:</b> 0.75 MMBtu/hr	<b>Type and Btu/hr rating of burners:</b>
---	---

**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 usage = 735 scf/hr  
 - Maximum annual fuel usage = 6.44 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



<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.06	0.27
Nitrogen Oxides (NO <sub>x</sub> )	0.07	0.32
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	0.02
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	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <ul style="list-style-type: none"> <li>- NO<sub>x</sub> and CO emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-1, 7/98</li> <li>- VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub> emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98</li> <li>- HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 4, 7/98</li> </ul>		

***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 10-5.1 – H<sub>2</sub>S emissions shall not exceed 50 gr/100 cf of gas (TV 3.1.10)

45 CSR 2-3.1 – Opacity limit of less than 10% on a six minute block average (TV 4.1.1; R13-2626D, 5.1.1)

45 CSR 13 – Fuel consumption limited to 735 scf/hr and 6.44 MMscf/yr of natural gas (TV 4.1.3; R13-2626D 5.1.3)

\_\_\_\_ 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 13 – Compliance with 4.1.1 shall be demonstrated by a Method 9 emission observations, if requested (TV 4.1.2 and 4.2.1; R13-2626D 5.1.2 and 5.2.1)

45 CSR 13 – Compliance with 4.1.3 shall be demonstrated by maintaining monthly records of the amount of natural gas consumed and the hours of operation (TV 4.4.1; R13-2626D 5.4.1)

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

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

## **Attachment G**

### Air Pollution Control Device Form

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> F2	<b>List all emission units associated with this control device.</b> DEHY1	
<b>Manufacturer:</b> QTI	<b>Model number:</b> Q100	<b>Installation date:</b> 2013
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe)</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
VOC		95%
Benzene		95%
Ethylbenzene		95%
n-Hexane		95%
Toluene		95%
Xylene		95%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>  4.00 MMBtu/hr burner		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b> The dehy unit (DEHY1) 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), “ <i>emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act</i> ” 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 “ <i>emission limitations or standards for which a part 70 or 71 permit specified a continuous compliance determination method, as defined in 64.1</i> ” is exempt from CAM. Since the R13 permit for the facility (R13-2626D) 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 6-4.3 and 45 CSR 13 – Visible emissions (TV 5.1.1, R13-2626D 6.1.1)

45 CSR 30-12.7 and 45 CSR 13 – Operational design limits and routine maintenance (TV 5.1.2, R13-2626D 6.1.2, 6.1.3)

45 CSR 6-4.1 – Particulate matter emission limit (TV 5.1.4, R13-2626D 6.1.4)

45 CSR 6-4.6 – Incinerator odor prevention requirements (TV 5.1.6, R13-2626D 6.1.6)

45 CSR 13 – Emission limits (TV 5.1.8, R13-2626D 6.1.8)

**Monitoring**

45 CSR 30-5.1.c – Monthly visual emission checks (TV 3.2.1)

45 CSR 13 – Compliance with 5.1.2.c shall be demonstrated by continuously monitoring using a thermocouple to detect a presence of a flame (TV 5.2.1, R13-2626D 6.2.1, 6.1.3)

45 CSR 13 – Compliance with 5.1.1 shall be demonstrated by monthly visible emission checks and/or opacity monitoring (TV 5.2.2, R13-2626D 6.2.2)

**Testing**

45 CSR §30-5.1.c – Initial Method 22 (TV 5.3.3)

**Recordkeeping**

45 CSR 13 – Maintain a continuous record of the times and duration of all periods during which the pilot flame was absent (TV 5.4.2, R13-2626D 6.4.2)

45 CSR 30-5.1.c and 45 CSR 13 – Maintain a record of the flare design evaluation (TV 5.4.3; R13-2626D 6.4.3)

45 CSR 30-5.1.c – Maintain records of the initial Method 22 (TV 5.4.6)

**Reporting**

45 CSR 30-5.1.c and 45 CSR 13 – Reporting of deviations of visible emissions requirements (TV 5.5.1, R13-2626 6.5.1)

45 CSR 30-5.1.c – Reporting of any deviation from the flare design and operation criteria in 5.1.2 (TV 5.5.3)