

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

- Type of NSR Application (check all that apply):

- Construction
- Modification
- Class I Administrative Update
- Class II Administrative Update
- Relocation
- Temporary
- Permit Determination

- Type of 45CSR30 (TITLE V) Application:

- Title V Initial
- Title V Renewal
- Administrative Amendment**
- Minor Modification**
- Significant Modification**
- Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENTS to the combined NSR/Title V application.**

- Payment Type:

- Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
- Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

- If the permit writer has any questions, please contact (all that apply):

- Responsible Official/Authorized Representative
 - Name:
 - Email:
 - Phone Number:
- Company Contact
 - Name:
 - Email:
 - Phone Number:
- Consultant
 - Name:
 - Email:
 - Phone Number:



BHE GT&S, LLC
6603 West Broad Street
Richmond, VA 23230

November 19, 2020

BY ELECTRONIC DELIVERY
DEPAirQualityPermitting@wv.gov

Laura M. Crowder
Director, Division of Air Quality
WVDEP
601 57th Street, SE
Charleston, WV 25304

RE: Eastern Gas Transmission and Storage, Inc. – Title V Renewal Application
Deep Valley Compressor Station – R30-09500007-2015

Dear Ms. Crowder:

The renewal application for the Title V permit for Eastern Gas Transmission and Storage, Inc.'s¹ Deep Valley Compressor Station is attached. In accordance with WVDEP instructions on your website, only this electronic submittal will be made unless otherwise instructed.

If you need any additional information, please contact Andy Gates at (804) 389-1340 or andy.gates@dominionenergy.com².

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Gangle".

Richard B. Gangle
Director Environmental Services

Attachment: Deep Valley Station Title V Renewal Application Package

¹ As of November 1, 2020, Dominion Energy sold certain companies including Dominion Energy Transmission, Inc. to Berkshire Hathaway Energy Gas Transmission and Storage (BHE GT&S) Company. Dominion Energy Transmission, Inc. has changed its name to Eastern Gas Transmission and Storage, Inc.

² Please note that during a transition period, employees of the BHE GT&S unit will continue to utilize a Dominion Energy email address; however, BHE GT&S is not affiliated with Dominion Energy in any way. Any inferences with respect to the BHE GT&S use of a Dominion Energy email address should be disregarded, as the sender is no longer affiliated with Dominion Energy.

**DEEP VALLEY COMPRESSOR STATION
EASTERN GAS TRANSMISSION AND STORAGE, INC.
(formerly DOMINION ENERGY TRANSMISSION, INC.)
APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-09500007-2015**

Eastern Gas Transmission and Storage, Inc.
Deep Valley Compressor Station
CR 56/1
Deep Valley, WV 26415

NOVEMBER 2020

**EASTERN GAS TRANSMISSION AND STORAGE, INC.
DEEP VALLEY COMPRESSOR STATION**

TITLE V PERMIT RENEWAL APPLICATION

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****Note:** There are no Attachments F or H for this permit application.

SECTION 1

Introduction

INTRODUCTION:

Deep Valley Station is a natural gas compressor station used to compress gas for Eastern Gas Transmission and Storage, Inc.'s (formerly, Dominion Energy Transmission, Inc.) transmission pipeline system in West Virginia. Deep Valley Station is located in Deep Valley, WV.

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

Deep Valley Station was originally issued a Title V Operating Permit (Permit No: R30-09500007-2006) in 2006 that has been subsequently renewed. Deep Valley Station is also subject to an underlying minor New Source Review (Rule 13 Permit No: R13-1104F) and General Permit (Permit No: G60-C029). The Title V operating permit is for the operation of two (2) 800 hp natural gas fired reciprocating engines (EN01 and EN02), one (1) glycol dehydrator system (DEHY02), one (1) dehydration unit reboiler (RBR02), two (2) 192.5 hp emergency generators (EG01 and EG02), and seven (7) above ground storage tanks of various sizes (TK01 – TK07).

The last Title V renewal application was submitted in 2015, with the renewed permit being issued on May 24, 2016. This permit expires May 24, 2021.

PROCESS DESCRIPTION

Deep Valley Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 and EN02) at the facility receive natural gas flowing through a valve on the pipeline and recompresses 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 (DEHY02). The dehydration unit removes moisture and impurities from the gas stream.

The dehydration process begins with the compressed natural gas entering the unit and then being passed through a triethylene glycol dehydration system consisting of a contactor bed, a reboiler (RBR02), and associated equipment. As a result of this process, the natural gas is stripped of moisture and impurities, along with small amounts of hydrocarbons. The wet gas enters the contactor where moisture and some hydrocarbons are absorbed into the lean glycol. The glycol, which has become rich with absorbed moisture and hydrocarbons, is regenerated in the still column (DEHY02) using the heat generated from the natural gas-fired reboiler (RBR02) to liberate the moisture and hydrocarbons, thereby, reducing overall emissions and odor. The compressed, dehydrated gas then enters the pipeline.

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

Two (2) 800 hp Ajax DPC-800-H-1 natural gas-fired reciprocating engines/integral compressors

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

Two (2) 192.5 hp Cummins GM 8.1L 4SRB emergency generators

- Emission unit ID: 002-01 and 002-02
- Emission point ID: EG01 and EG02

One (1) 0.275 MMBtu/hr natural gas-fired dehydration unit reboiler

- Emission unit ID: RBR02
- Emission point ID: RBR02

One (1) 10 MMscf/day dehydration unit/still column

- Emission unit ID: DEHY02
- Emission point ID: DEHY02

One (1) 4 MMBtu/hr dehydration unit thermal oxidizer

- Emission unit ID: 2C
- Emission point ID: 2C

One (1) 1,000-gallon horizontal aboveground ethylene glycol storage tank

- Emission unit ID: TK01
- Emission point ID: TK01

One (1) 1,000-gallon horizontal aboveground triethylene glycol storage tank

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

One (1) 230-gallon horizontal aboveground wastewater storage tank

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

One (1) 4,000-gallon horizontal aboveground produced fluids storage tank

- Emission unit ID: TK04
- Emission point ID: TK04

One (1) 3,040-gallon horizontal aboveground lube oil storage tank

- Emission unit ID: TK05
- Emission point ID: TK05

One (1) 500-gallon vertical aboveground waste water storage tank

- Emission unit ID: TK06
- Emission point ID: TK06

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

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

SECTION 2

Title V Renewal Permit Application -
General Forms



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

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

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. Name of Applicant (As registered with the WV Secretary of State's Office): Eastern Gas Transmission and Storage, Inc. (formerly Dominion Energy Transmission, Inc.)
2. Facility Name or Location: Deep Valley Station
3. DAQ Plant ID No.: 095-00007
4. Federal Employer ID No. (FEIN): 550629203
5. Permit Application Type: [X] Permit Renewal
6. Type of Business Entity: [X] Corporation
7. Is the Applicant the: [X] Both
8. Number of onsite employees: Normally unmanned
9. Governmental Code: [X] Privately owned and operated; 0
10. Business Confidentiality Claims: [X] No

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

12. Facility Location		
Street: CR 56/1	City: Deep Valley	County: Tyler
UTM Easting: 511.63 km	UTM Northing: 4354.77 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Travel North West on State Route 18 from West Union. At Deep Valley, take Route 56 and then follow approximately 2 miles up Raymond Ridge Road (County Route 56/1) to the site.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Ohio and Pennsylvania	
Is facility located within 100 km of a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: John M. Lamb		Title: Vice President, Pipeline Operations
Street or P.O. Box: 925 White Oaks Blvd.		
City: Bridgeport	State: WV	Zip: 26330
Telephone Number: (681) 842-3000	Fax Number: (681) 842-3323	
E-mail address: john.m.lamb@dominionenergy.com		
Environmental Contact: Andy Gates		Title: Environmental Consultant
Street or P.O. Box: 120 Tredegar St., Clearinghouse Bldg – 3 rd Floor		
City: Richmond	State: VA	Zip: 23219
Telephone Number: (804) 389-1340	Fax Number: NA	
E-mail address: andy.gates@dominionenergy.com		
Application Preparer: Andy Gates		Title: Environmental Consultant
Company: BHE GT&S, LLC		
Street or P.O. Box: 120 Tredegar St., Clearinghouse Bldg – 3 rd Floor		
City: Richmond	State: VA	Zip: 23219
Telephone Number: (804) 389-1340	Fax Number: NA	
E-mail address: andy.gates@dominionenergy.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.

The Deep Valley Station is a compressor facility that services a natural gas pipeline system. The purpose of the facility is to recompress natural gas flowing through a pipeline for transportation. The reciprocating engines (EN01 and EN02) at the facility receive natural gas from a valve on a pipeline and compress it to enable further transportation in the pipeline.

- 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 checked="" 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 checked="" type="checkbox"/> Section 111 NSPS	<input 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 _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations
<p>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</p> <p>45 CSR 10 – Compressor engines (EN01 and EN02) have been excluded from the applicability of SO₂ and H₂S limits. WVDEP determined that 45 CSR 10 is not applicable to compressor engines.</p> <p>40 CFR Subpart JJJJ – The compressor engines (EN01 and EN02) are not subject to this subpart since they were installed in 1989, 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 tanks constructed, modified, or reconstructed after August 23, 2011.</p> <p>40 CFR 60, Subpart OOOOa –This facility has no equipment with applicable requirements under Subpart OOOOa. This subpart applies to equipment installed after September 18, 2015. The facility has no affected emissions units that have been installed after the applicable Subpart OOOOa effective date.</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 (RBR02) 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 (RBR02) is not applicable to this subpart since it is considered a “process heater,” which is excluded from the definition of “boiler.”</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; R13-1104F 3.1.1)
- 45 CSR 6-3.2 – Open Burning exemption (TV 3.1.2; R13-1104F 3.1.2)
- 40 CFR Part 61 – Asbestos inspection and removal (TV 3.1.3; R13-1104F 3.1.3)
- 45 CSR 15 – Asbestos inspection and removal (TV 3.1.3; R13-1104F 3.1.3)
- 45 CSR 11-5.2 – Standby plans for emergency episodes (TV 3.1.5; R13-1104F 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 – Fugitive Particulate Matter (TV 3.1.9)
- 45 CSR 13 – Testing Requirements (TV 3.3.1; WV Code 22-5-4(a)(15))
- 45 CSR 30-5.1(c)(2)(A) – Monitoring Recordkeeping Requirements (TV 3.4.1; R13-1104F 4.1.1)
- 45 CSR 30-5.1(c)(2)(B) – Retention Recordkeeping Requirements (TV 3.4.2; R13-1104F 3.4.1)
- 40 CFR Subpart JJJJ – Engine NSPS (40 CFR Part 60)
- 40 CFR Subpart HH – Dehydration Unit NESHAP (40 CFR Part 63)
- 40 CFR 63 Subpart ZZZZ – RICE NESHAP (40 CFR Part 63)

State Only

- 45 CSR 4 – No objectionable odors (TV 3.1.4; R13-1104F 3.1.4)
- WV Code 22-5-4(a)(14) – The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements (TV 3.1.6)
- 45 CSR 13 – Odor Recordkeeping Requirements (TV 3.4.3; R13-1104F 3.1.1)
- 45 CSR 30-5.1(c) – Recordkeeping Requirements (TV 3.4.3)

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 – Prior to demolition/construction, buildings will be inspected for asbestos (TV 3.1.3)

45 CSR 15 – Prior to demolition//construction, buildings will be inspected for asbestos (TV 3.1.3)

45 CSR 11-5.2 – Upon request by the Secretary, the permittee shall prepare a standby plan (TV 3.1.5)

40 CFR Part 82 Subpart F – The permittee will prohibit maintenance, service, or repair of appliances containing ozone depleting substances (TV 3.1.7)

40 CFR Part 68 – Should the permittee become subject to 40 CFR Part 68, a RMP shall be submitted (TV 3.1.8)

45 CSR 17 – The permittee will limit fugitive emissions from the facility (TV 3.1.11)

45 CSR 30-5.1.c.2.A – Monitoring Information (TV 3.4.1; R13-1104F 4.1.1)

45 CSR 30-5.1.c.2.B – Retention of Records (TV 3.4.2; R13-1104F 3.4.1)

45 CSR 30-4.4 – The permittee shall certify and submit monitoring reports, compliance reports, and emissions statements as specified (TV 3.5.1)

45 CSR 30-8 – The permittee shall submit a certified emissions statement and pay fees on an annual basis (TV 3.5.4)

45 CSR 30-5.3.e – The permittee shall submit an annual compliance certification (TV 3.5.5)

45 CSR 30-5.1.c.3.A – The permittee shall submit semi-annual monitoring reports (TV 3.6.6)

40 CFR 60 Subpart JJJJ – For the emergency generators only: The permittee shall comply with all applicable requirements for a new, emergency, spark ignition engine.

40 CFR 63 Subpart HH – The permittee shall comply with all applicable requirements while taking the benzene exemption.

40 CFR 63 Subpart ZZZZ – For the emergency generators: The permittee shall comply with all applicable requirements for a new, emergency, spark ignition engine at an area source. Meeting the requirements for 40 CFR 60 Subpart JJJJ assures compliance with 40 CFR 63 Subpart ZZZZ. For the compressor engines: The permittee shall comply with all applicable requirements for an existing, non-emergency engine at an area source.

State Only

45 CSR 30-5.1.c – The permittee shall maintain records of all odor complaints (TV 3.4.3)

WV Code 22-5-4 (a)(15) – Stack Testing (TV 3.3.1)

WV Code 22-5-4 (a)(14) – The permittee shall submit emission inventory reports as required (TV 3.1.6)

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

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

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (<i>if any</i>)
R13-1104F	08/31/2015	N/A
G60-C029	02/10/2011	N/A

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

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	55.0
Nitrogen Oxides (NO _x)	324.9
Lead (Pb)	N/A
Particulate Matter (PM _{2.5}) ¹	2.3
Particulate Matter (PM ₁₀) ¹	2.3
Total Particulate Matter (TSP)	2.9
Sulfur Dioxide (SO ₂)	0.1
Volatile Organic Compounds (VOC)	135.9
Hazardous Air Pollutants ²	Potential Emissions
Acetaldehyde	0.4
Acrolein	0.4
Benzene	0.5
Ethylbenzene	0.2
Formaldehyde	3.1
Hexane	0.2
Toluene	1.7
Xylene	6.7
Regulated Pollutants other than Criteria and HAP	Potential Emissions

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Potentials-to-emit are based on currently operating equipment and permit limits as applicable and include fugitive VOC (including pigging and blowdowns).

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input 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 ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

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

24. Insignificant Activities (Check all that apply)	
	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

25. Equipment Table

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

26. Emission Units

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

27. Control Devices

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

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

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

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification


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

Responsible official (type or print)

Name: John M. Lamb

Title: Vice President, Eastern Pipeline Operations

Responsible official's signature:

Signature: 

Signature Date: 11/19/2020

(Must be signed and dated in blue ink)

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

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

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

Attachment A

Area Map

Deep Valley Compressor Station – Area Map

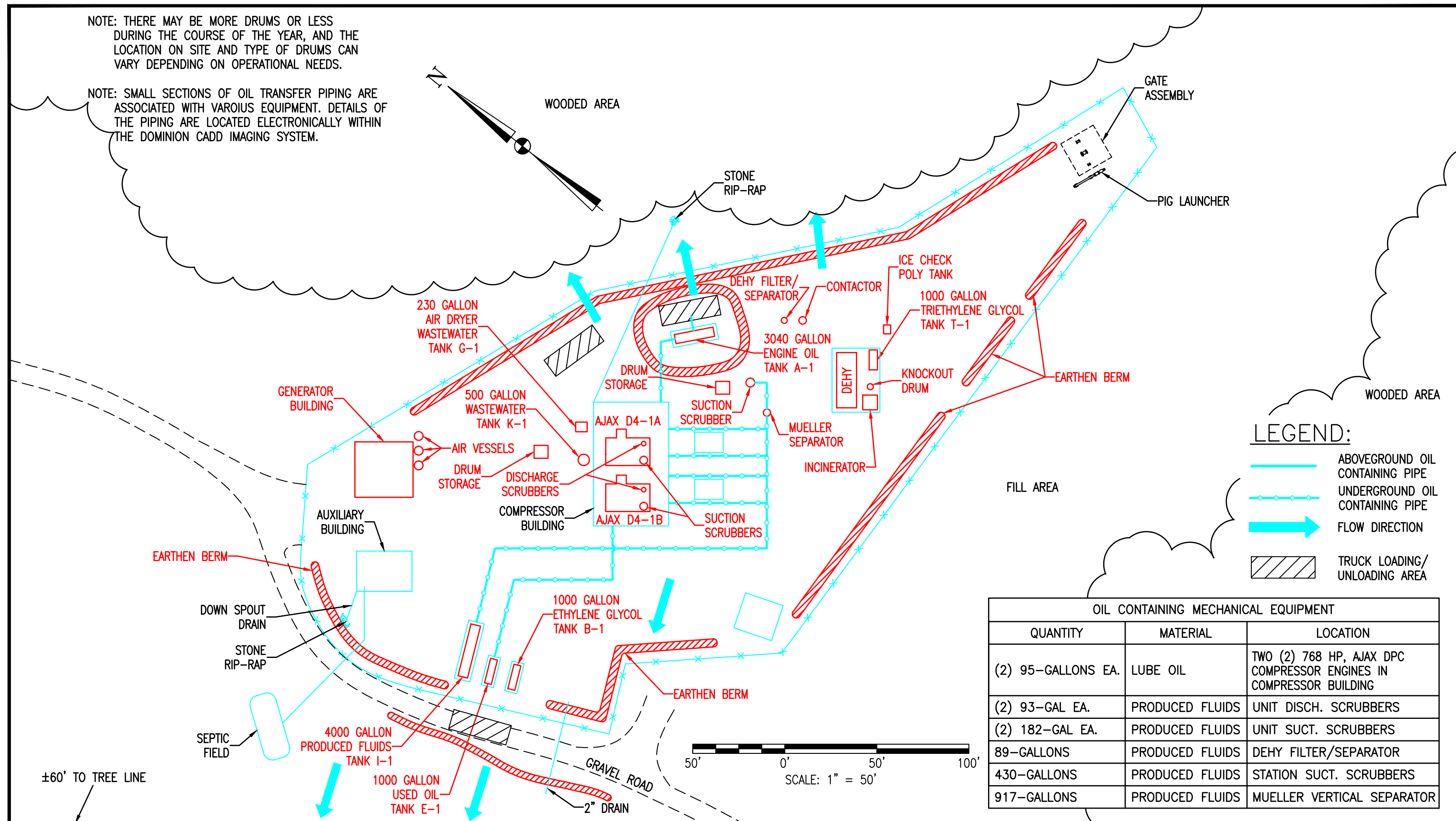


Attachment B

Plot Plan

NOTE: THERE MAY BE MORE DRUMS OR LESS DURING THE COURSE OF THE YEAR, AND THE LOCATION ON SITE AND TYPE OF DRUMS CAN VARY DEPENDING ON OPERATIONAL NEEDS.

NOTE: SMALL SECTIONS OF OIL TRANSFER PIPING ARE ASSOCIATED WITH VARIOUS EQUIPMENT. DETAILS OF THE PIPING ARE LOCATED ELECTRONICALLY WITHIN THE DOMINION CADD IMAGING SYSTEM.



LEGEND:

- ABOVEGROUND OIL CONTAINING PIPE
- - - UNDERGROUND OIL CONTAINING PIPE
- FLOW DIRECTION
- TRUCK LOADING/ UNLOADING AREA

OIL CONTAINING MECHANICAL EQUIPMENT		
QUANTITY	MATERIAL	LOCATION
(2) 95-GALLONS EA.	LUBE OIL	TWO (2) 768 HP, AJAX DPC COMPRESSOR ENGINES IN COMPRESSOR BUILDING
(2) 93-GAL EA.	PRODUCED FLUIDS	UNIT DISCH. SCRUBBERS
(2) 182-GAL EA.	PRODUCED FLUIDS	UNIT SUCT. SCRUBBERS
89-GALLONS	PRODUCED FLUIDS	DEHY FILTER/SEPARATOR
430-GALLONS	PRODUCED FLUIDS	STATION SUCT. SCRUBBERS
917-GALLONS	PRODUCED FLUIDS	MUELLER VERTICAL SEPARATOR

SYM.	DATE	BY	REVISION DESCRIPTION	PRJ/TSK	APP.
7	04/10/18	JAL	ADDED EARTHEN BERM TO PERIMETER & BERM AROUND TANK 1-A, ADDED DRUM STORAGE AREAS		
6	11/28/17	JRB	AS-BUILT	63713.3	
5	12/29/16	JAR	REMOVED ICE CHECK POLY TANK		
-	07/14/16	JRB	ISSUE FOR CONSTRUCTION	63713.3	DET
-	04/04/16	JRB	2016 DEHY REPLACEMENT - REISSUE FOR BID	63713.3	DET

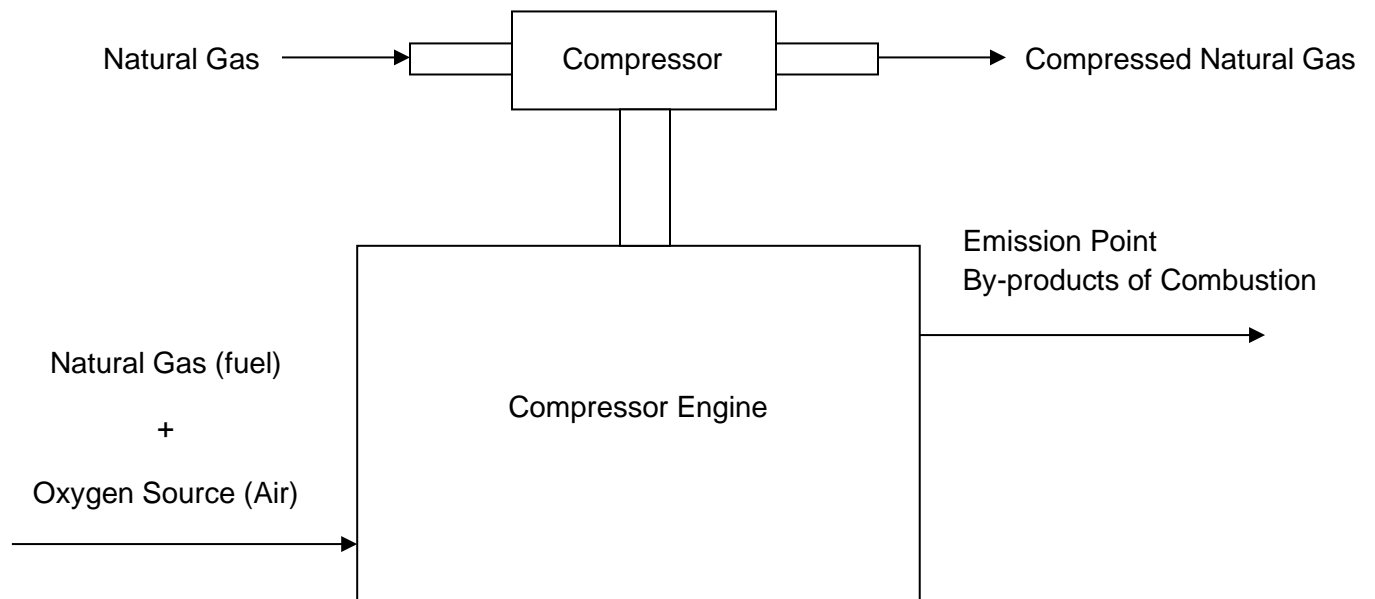
	Dominion Energy Transmission, Inc. 925 White Oaks Blvd., Bridgeport, WV 26330 (681) 842-3000		
	FOR: DEEP VALLEY COMPRESSOR STATION TITLE: ENVIRONMENTAL EMERGENCY SITE PLAN		
DIR: DOCUMENTUM	GROUP: PD	DWG. NO.: X7951B	REV.: 7
FILE: PRJ/TSK:	TOWN: CENTERVILLE, WV	COUNTY: TYLER	

Attachment C

Process Flow Diagrams

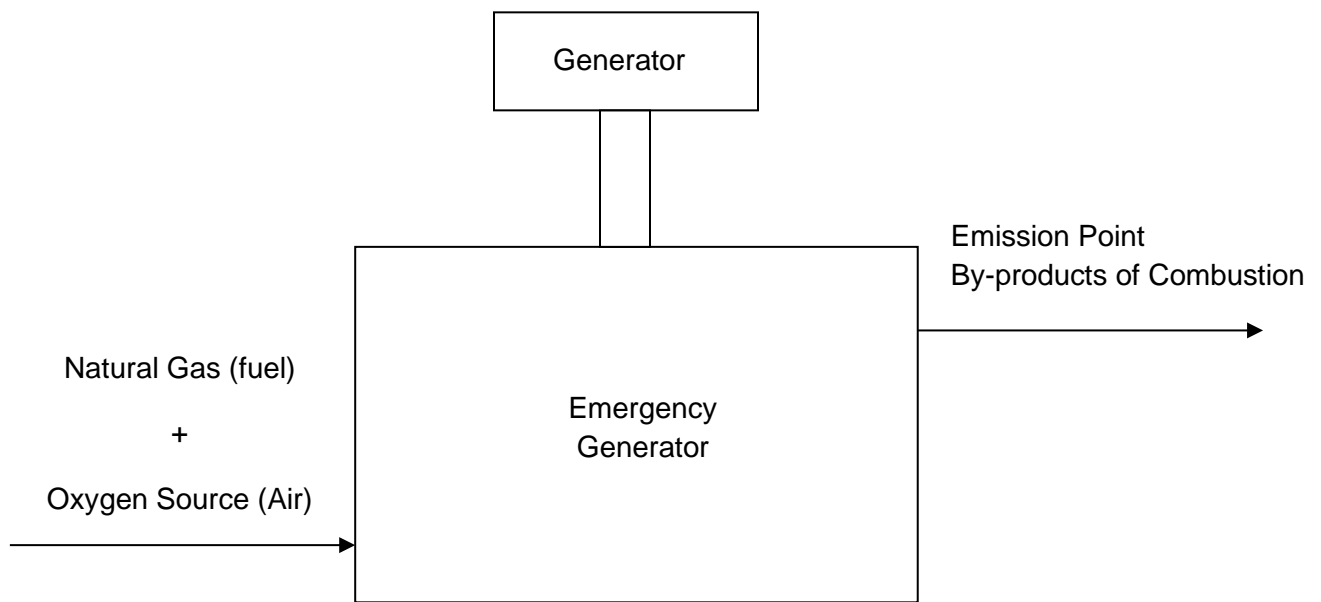
Deep Valley Compressor Station

Compressor Engines (EN01 and EN02) Process Flow Diagram



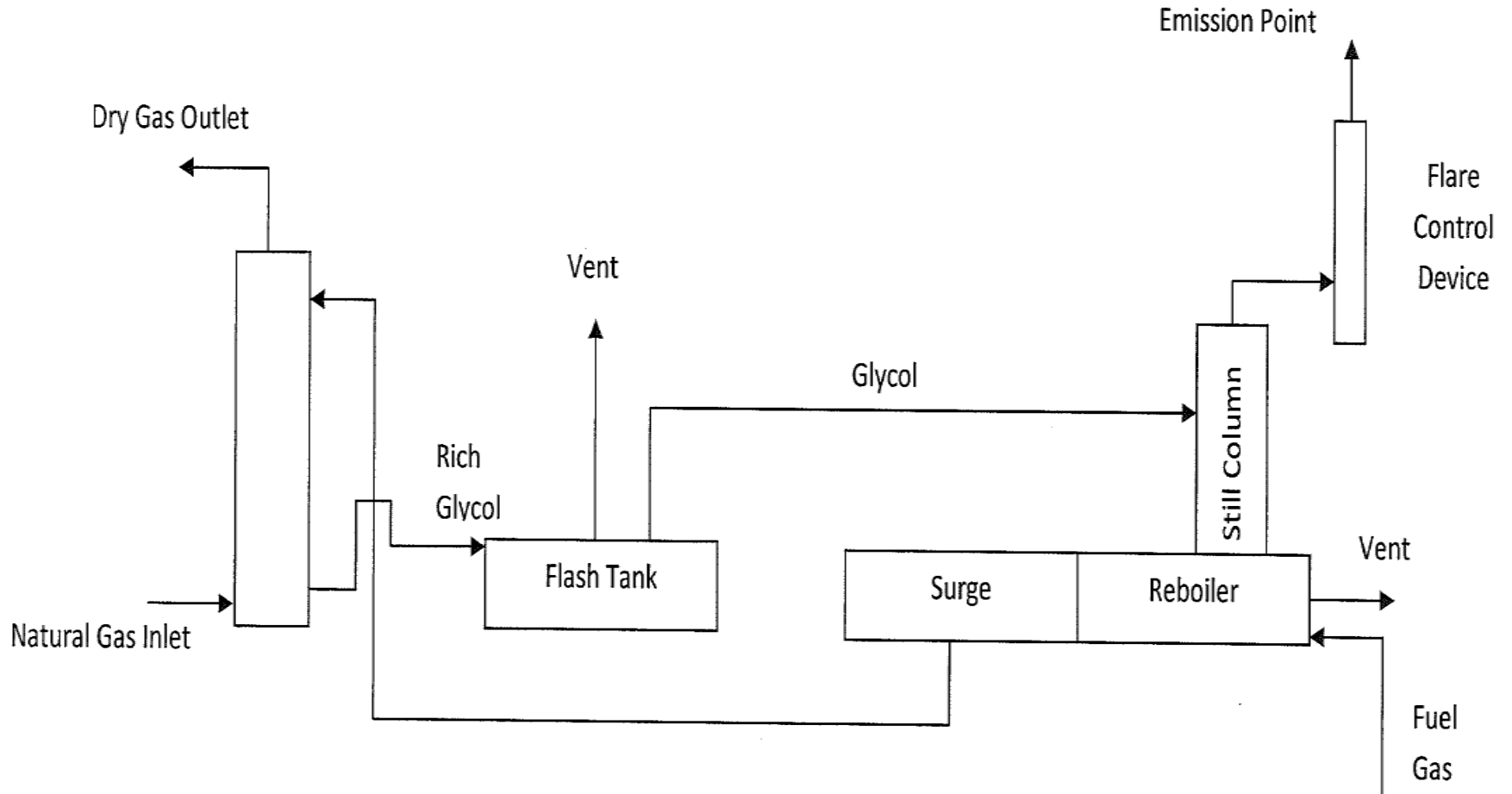
Deep Valley Compressor Station

Emergency Generators (EG01 and EG02) Process Flow Diagram



Deep Valley Compressor Station

Dehydration Unit (2C, DEHY02, and RBR02) Process Flow Diagram



Attachment D

Title V Equipment Table

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

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
EN01	N/A	001-01	Reciprocating Engine/Integral Compressor; Ajax DPC-800	800 hp	1989
EN02	N/A	001-02	Reciprocating Engine/Integral Compressor; Ajax DPC-800	800 hp	1989
EG01	S1	002-01	Emergency Generator, Cummins GM 8.1L; 4SRB	192.5 hp	2012
EG02	S2	002-02	Emergency Generator, Cummins GM 8.1L; 4SRB	192.5 hp	2012
DEHY02(2C)	2C	DEHY02	Dehydration Unit Still; Inegral	10 MMscf/day	2015
RBR02	N/A	RBR02	Dehydration Unit Reboiler; Inegral	0.275 MMBtu/hr	2015
2C	N/A	2C	Thermal Oxidizer	4 MMBtu/hr	2015
TK01	N/A	TK01	Horizontal Aboveground Ethylene Glycol Storage Tank	1000 gallons	2008
TK02	N/A	TK02	Horizontal Aboveground Tri-Ethylene Glycol Storage Tank	1000 gallons	1998
TK03	N/A	TK03	Horizontal Aboveground Waste Water Storage Tank	230 gallons	2003
TK04	N/A	TK04	Horizontal Aboveground Produced Fluids Storage Tank	4000 gallons	2008
TK05	N/A	TK05	Horizontal Aboveground Lube Oil Storage Tank	3040 gallons	2008
TK06	N/A	TK06	Vertical Aboveground Waste Water Storage Tank	500 gallons	2003
TK07	N/A	TK07	Horizontal Aboveground Used Oil Storage Tank	1000 gallons	2008

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

Attachment E

Emission Unit Forms

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001-01	Emission unit name: EN01 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

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

Natural gas-fired reciprocating engine/integral compressor

Manufacturer: Ajax	Model number: DPC-800-H-1	Serial number: 83243
------------------------------	-------------------------------------	--------------------------------

Construction date:	Installation date: 1989	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
800 hp

Maximum Hourly Throughput: 0.0064 MMscf/hr	Maximum Annual Throughput: 56.1 MMscf/yr	Maximum Operating Schedule: 8,760 hrs/yr
--	--	--

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 800 hp	Type and Btu/hr rating of burners: 8,000 Btu/hp-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 = 0.0064 MMscf/hr
 - Maximum annual fuel usage = 56.1 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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.47	23.9
Nitrogen Oxides (NO _x)	36.9	161.5
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.25	1.08
Particulate Matter (PM ₁₀)	0.25	1.08
Total Particulate Matter (TSP)	0.31	1.35
Sulfur Dioxide (SO ₂)	0.004	0.02
Volatile Organic Compounds (VOC)	5.11	22.4
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.05	0.22
Acrolein	0.05	0.22
Benzene	0.01	0.05
Ethylbenzene	<0.01	<0.01
Formaldehyde	0.35	1.55
Hexane	<0.01	0.01
Toluene	0.01	0.03
Xylene	<0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO, NO_x, and VOC emission rates based on manufacturer specifications - PM₁₀, PM_{2.5}, SO₂, and HAP emission rates based on AP-42 Section 3.2, Table 3.2-1 (7/2000). 		

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 7.1.2)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP Work or management practices (TV 7.1.4)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 7.1.3 and 7.1.5)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP monitoring requirements (TV 7.2.1)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP recordkeeping requirements (TV 7.4.1)

Permit Shield

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

- 40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first (TV 7.1.2)
- 40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer’s instructions OR develop and follow your own maintenance plan (TV 7.1.4)
- 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 7.1.3 and 7.1.5)
- 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring, recordkeeping, and reporting requirements (TV 7.2.1 and 7.4.1)

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 E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001-01	Emission unit name: EN02 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
---	--	--

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

Natural gas-fired reciprocating engine/integral compressor

Manufacturer: Ajax	Model number: DPC-800-H-1	Serial number: 83244
------------------------------	-------------------------------------	--------------------------------

Construction date:	Installation date: 1989	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
800 hp

Maximum Hourly Throughput: 0.0064 MMscf/hr	Maximum Annual Throughput: 56.1 MMscf/yr	Maximum Operating Schedule: 8,760 hrs/yr
--	--	--

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 800 hp	Type and Btu/hr rating of burners: 8,000 Btu/hp-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 = 0.0064 MMscf/hr
 - Maximum annual fuel usage = 56.1 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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.47	23.9
Nitrogen Oxides (NO _x)	36.9	161.5
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.25	1.08
Particulate Matter (PM ₁₀)	0.25	1.08
Total Particulate Matter (TSP)	0.31	1.35
Sulfur Dioxide (SO ₂)	0.004	0.02
Volatile Organic Compounds (VOC)	5.11	22.4
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.05	0.22
Acrolein	0.05	0.22
Benzene	0.012	0.05
Ethylbenzene	<0.01	<0.01
Formaldehyde	0.35	1.55
Hexane	<0.01	0.01
Toluene	<0.01	0.03
Xylene	<0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO, NO_x, and VOC emission rates based on manufacturer specifications - PM10, PM2.5, SO₂, and HAP emission rates based on AP-42 Section 3.2, Table 3.2-1 (7/2000). 		

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 7.1.2)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP Work or management practices (TV 7.1.4)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 7.1.3 and 7.1.5)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP monitoring requirements (TV 7.2.1)
- 40 CFR Part 63 Subpart ZZZZ – NESHAP recordkeeping requirements (TV 7.4.1)

____ Permit Shield

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

- 40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first (TV 7.1.2)
- 40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer’s instructions OR develop and follow your own maintenance plan (TV 7.1.4)
- 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 7.1.3 and 7.1.5)
- 40 CFR Part 63 Subpart ZZZZ – Comply with all applicable monitoring, recordkeeping, and reporting requirements (TV 7.2.1 and 7.4.1)

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 E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EG01	Emission unit name: 4SRB Emergency Generator (002-01)	List any control devices associated with this emission unit: N/A
---	--	--

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

Natural gas-fired emergency auxiliary generator

Manufacturer: Gen: Cummins Engine: PSI/General Motors/Vortec Engines	Model number: Gen: 125 GGLA-6209521 Engine: GM-8.1L	Serial number: Gen: L100175395 Engine: 8.1L24733
---	--	---

Construction date: 2010	Installation date: 2012	Modification date(s): N/A
-----------------------------------	-----------------------------------	-------------------------------------

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

192.5 hp

Maximum Hourly Throughput: 1,667 cf/hr	Maximum Annual Throughput: 0.834 MMcf/yr	Maximum Operating Schedule: 500 hrs/yr
--	--	--

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 192.5 hp	Type and Btu/hr rating of burners: 1.67 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 = 1,667 cf/hr
 - Maximum annual fuel usage = 0.834 MMcf/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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.39	0.10
Nitrogen Oxides (NO _x)	0.03	0.01
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.02	<0.01
Particulate Matter (PM ₁₀)	0.02	<0.01
Total Particulate Matter (TSP)	0.02	<0.01
Sulfur Dioxide (SO ₂)	<0.01	<0.01
Volatile Organic Compounds (VOC)	0.19	0.05
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	0.03	0.01
Toluene	<0.01	<0.01
Xylene	<0.01	<0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO, NO_x, VOC, and SO₂ emission rates were based on manufacturer's technical data sheet. - All other emission rates calculated using USEPA's AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, 7/00 		

Applicable Requirements

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

- 45 CSR 13 – Operate and maintain according to manufacturer (G60-C029 5.1.1)
- 45 CSR 13 – Emission limits (G60-C029 5.1.2)
- 45 CSR 13 – Maximum fuel consumption (G60-C029 5.1.3)
- 45 CSR 13 – Catalyst control requirements (G60-C029 5.1.4)
- 40 CFR Part 60 Subpart JJJJ – NSPS emission limits (G60-C029 8.2.5)
- 40 CFR Part 60 Subpart JJJJ – NSPS emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (G60-C029 8.4.4)
- 40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as a new, emergency, spark ignition engine at an area source (40 CFR 63 Subpart ZZZZ)

Permit Shield

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

- 45 CSR 13 – Regularly inspect, properly maintain and/or replace catalytic reduction devices (G60-C029 5.2.1)
- 45 CSR 13 – Record hours of operation and fuel consumption on a monthly basis; keep records for 5 years (G60-C029 5.4.1)
- 40 CFR Part 60 Subpart JJJJ – Purchase a certified engine to meet NSPS emission limits (G60-C029 8.4.1)
- 40 CFR Part 60 Subpart JJJJ – Install non-resettable hour meter to demonstrate compliance with 7.1.4 (G60-C029 8.3.8)
- 40 CFR Part 60 Subpart JJJJ – Comply with all applicable monitoring, reports, and recordkeeping requirements (G60-C029 8.6.1)
- 40 CFR Part 63 Subpart ZZZZ – Compliance with NSPS Subpart JJJJ shows compliance with NESHAP Subpart ZZZZ (TV 6.1.1)

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 E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EG02	Emission unit name: 4SRB Emergency Generator (002-02)	List any control devices associated with this emission unit: N/A
---	--	--

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

Natural gas-fired emergency auxiliary generator

Manufacturer: Gen: Cummins Engine: PSI/General Motors/Vortec Engines	Model number: Gen: 125 GGLA-6209521 Engine: GM-8.1L	Serial number: Gen: L100175397 Engine: 8.1L24730
---	--	---

Construction date: 2010	Installation date: 2012	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

192.5 hp

Maximum Hourly Throughput: 1,667 cf/hr	Maximum Annual Throughput: 0.834 MMcf/yr	Maximum Operating Schedule: 500 hrs/yr
--	--	--

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 192.5 hp	Type and Btu/hr rating of burners: 1.67 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 = 1,667 cf/hr
 - Maximum annual fuel usage = 0.834 MMcf/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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.39	0.10
Nitrogen Oxides (NO _x)	0.03	0.01
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.02	<0.01
Particulate Matter (PM ₁₀)	0.02	<0.01
Total Particulate Matter (TSP)	0.02	<0.01
Sulfur Dioxide (SO ₂)	<0.01	<0.01
Volatile Organic Compounds (VOC)	0.19	0.05
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	0.03	0.01
Toluene	<0.01	<0.01
Xylene	<0.01	<0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO, NO_x, VOC, and SO₂ emission rates were based on manufacturer's technical data sheet. - All other emission rates calculated using USEPA's AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, 7/00 		

Applicable Requirements

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

- 45 CSR 13 – Operate and maintain according to manufacturer (G60-C029 5.1.1)
- 45 CSR 13 – Emission limits (G60-C029 5.1.2)
- 45 CSR 13 – Maximum fuel consumption (G60-C029 5.1.3)
- 45 CSR 13 – Catalyst control requirements (G60-C029 5.1.4)
- 40 CFR Part 60 Subpart JJJJ – NSPS emission limits (G60-C029 8.2.5)
- 40 CFR Part 60 Subpart JJJJ – NSPS emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (G60-C029 8.4.4)
- 40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as a new, emergency, spark ignition engine at an area source (40 CFR 63 Subpart ZZZZ)

Permit Shield

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

- 45 CSR 13 – Regularly inspect, properly maintain and/or replace catalytic reduction devices (G60-C029 5.2.1)
- 45 CSR 13 – Record hours of operation and fuel consumption on a monthly basis; keep records for 5 years (G60-C029 5.4.1)
- 40 CFR Part 60 Subpart JJJJ – Purchase a certified engine to meet NSPS emission limits (G60-C029 8.4.1)
- 40 CFR Part 60 Subpart JJJJ – Install non-resettable hour meter to demonstrate compliance with 7.1.4 (G60-C029 8.3.8)
- 40 CFR Part 60 Subpart JJJJ – Comply with all applicable monitoring, reports, and recordkeeping requirements (G60-C029 8.6.1)
- 40 CFR Part 63 Subpart ZZZZ – Compliance with NSPS Subpart JJJJ shows compliance with NESHAP Subpart ZZZZ (TV 6.1.1)

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 E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 003-01	Emission unit name: DEHY02 Dehydration Unit	List any control devices associated with this emission unit: 2C
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Dehydration unit still column

Manufacturer: Inegral	Model number: NA	Serial number: NA
Construction date: 2015	Installation date: 2015	Modification date(s): N/A

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

10 MMscf /day

Maximum Hourly Throughput: 10 MMscf /day	Maximum Annual Throughput: 3,650 MMscf/yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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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 = 10 MMscf/day
 - Maximum annual wet gas usage = 3,650 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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	5.23	22.92
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.08	0.35
Ethylbenzene	0.05	0.20
n-Hexane	0.05	0.20
Toluene	0.38	1.68
Xylenes	1.52	6.67
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emission rates for the dehydration unit were obtained from GRI GYLCalc 4.0 with a 95% destruction efficiency from the thermal oxidizer. A safety factor of 20% is included in the total.</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 – SO₂ emissions shall not exceed 2,000 ppm by volume (TV 5.1.1)
- 45 CSR 10-5.1 – H₂S emissions shall not exceed 50 gr/100 cf (TV 5.1.2)
- 45 CSR 13 – The maximum wet natural gas shall not exceed 10 MMcf/day (TV 5.1.3; R13-1104F 4.1.2)
- 45 CSR 13 – Maximum emissions from 2C (TV 5.1.4; R13-1104F 4.1.3)
- 45 CSR 13 – Determining potential HAP emissions (TV 5.1.4; R13-1104F 4.1.3; NESHAP Subpart HH)
- 45 CSR 13 – Design and operation of the thermal oxidizer (TV 5.1.6; R13-1104F 4.1.5)
- 45 CSR 13 and 6 – Incinerator PM limits (TV 5.1.5; R13-1104F 4.1.5)
- 45 CSR 13 – Closed vent requirements (TV 5.1.7; R13-1104F 4.1.6)
- 45 CSR 13 – Install, maintain, and operate all pollution control equipment (TV 5.1.9; R13-1104F 4.1.8)

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 – Maintain monthly records of the wet natural gas throughput for up to 5 years on site and using a 12-month rolling total (TV 5.2.1; R13-1104F 4.2.1)
- 45 CSR 13 – Monitor the presence or absence of a flare pilot flame using a thermocouple or equivalent device. Keep records (TV 5.2.2 and 5.4.1; R13-1104F 4.2.3 and 4.2.4)
- 45 CSR 13 – Initial Method 22 to show compliance with visible emission limit; keep records (TV 5.2.3 and 5.4.1; R13-1104F 4.2.5)
- 45 CSR 13 – Closed vent monitoring; keep records (TV 5.2.4 and 5.4.2; R13-1104F 4.2.6 and 4.2.7)
- 45 CSR 13 – Comply with all monitoring, compliance demonstration, recordkeeping, and reporting requirements of 45 CSR 6 and NESHAP Subpart HH (TV 5.2.5 and 5.4.5; R13-1104F 4.2.8)
- 45 CSR 30-5.1(c) – SO₂ emissions shall be complied with by annual sampling of inlet natural gas stream (TV 5.2.6)
- 45 CSR 30-5.1(c) – H₂S emissions shall be complied with by annual sampling of inlet natural gas stream (TV 5.2.7)
- 45 CSR 13 – Determining potential HAP emissions using GLYCalc per NESHAP Subpart HH upon request from Director (TV 5.3.2 and 5.3.4; R13-1104F 4.3.2)
- 45 CSR 13 – Maintain records of any occurrences of maintenance, malfunctions, or shutdown of the air pollution control equipment (TV 5.4.3 and 5.4.4; R13-1104F 4.4.2 and 4.4.3)

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: RBR02	Emission unit name: RBR02 Dehydration Unit Reboiler	List any control devices associated with this emission unit: N/A
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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.

Manufacturer: Diverse Energy Systems	Model number:	Serial number:
Construction date: 2015	Installation date: 2015	Modification date(s): N/A

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

0.275 MMBtu/hr

Maximum Hourly Throughput: 0.00038 mmscf/hr	Maximum Annual Throughput: 3.33 MMcf/yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 0.275 MMBtu/hr	Type and Btu/hr rating of burners:
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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 = 380 cf/hr
 - Maximum annual fuel usage = 3.33 MMcf/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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.09	0.41
Nitrogen Oxides (NO _x)	0.11	0.48
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	0.01
Particulate Matter (PM ₁₀)	< 0.01	0.01
Total Particulate Matter (TSP)	0.01	0.03
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.01	0.03
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	< 0.01	< 0.01
Ethylbenzene	< 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
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - NO_x and CO emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-1, 7/98 - VOC, PM, PM₁₀, PM_{2.5}, and SO₂ emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98 - HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 4, 7/98 		

Applicable Requirements

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

45 CSR 2-3.1 – Opacity limit of less than 10% (TV 4.1.1; R13-1104F 4.1.4.d)
45 CSR 13 – Maximum design heat input shall not exceed 0.275 MMBtu/hr (TV 4.1.2.a; R13-1104F 4.1.4.a)
45 CSR 13 – Maximum emissions shall not exceed prescribed limits (TV 4.1.2.b; R13-1104F 4.1.4.b)

Permit Shield

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

45 CSR 2-3.1, 2-3.2, and 13 – Performing Method 9 emission observations upon request from the Department (TV 4.2.1 and 4.2.2; R13-1104F 4.2.2)
45 CSR 13 – Maintain applicable records given in 45 CSR 2 (TV 4.4.1; R13-1104F 4.4.4)

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 2C	Emission unit name: 2C Thermal Oxidizer	List any control devices associated with this emission unit: N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Dehydration Unit Thermal Oxidizer

Manufacturer: Questor	Model number: Q100	Serial number:
Construction date: 2015	Installation date: 2015	Modification date(s): N/A

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

Combustor Rating: 4.0 MMBtu/hr
Pilot Burner: 30,000 Btu/hr

Maximum Hourly Throughput: Fuel to pilot flame: 30 scf/hr	Maximum Annual Throughput: Fuel to pilot flame: 0.263 MMscf/yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: Combustor Rating: 4.0 MMBtu/hr Pilot Burner: 30,000 Btu/hr	Type and Btu/hr rating of burners: Combustor Rating: 4.0 MMBtu/hr Pilot Burner: 30,000 Btu/hr
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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 = 30 scf/hr
 - Maximum annual fuel to pilot throughput = 0.263 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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.49	6.51
Nitrogen Oxides (NO _x)	0.33	1.45
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.04	0.16
Particulate Matter (PM ₁₀)	0.04	0.16
Total Particulate Matter (TSP)	0.04	0.16
Sulfur Dioxide (SO ₂)	< 0.01	0.01
Volatile Organic Compounds (VOC)	< 0.01	< 0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	< 0.01	< 0.01
Formaldehyde	< 0.01	< 0.01
n-Hexane	< 0.01	< 0.01
Toluene	< 0.01	< 0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emissions were added together for the pilot and combustor:</p> <ul style="list-style-type: none"> - Emission factors from AP-42 Section 1.4 "Natural Gas Combustion" Tables 1.4-1, 1.4-2. Used for Pilot. - Emission factors from AP-42 Section 13.5 "Industrial Flares" Tables 13.5-1, 13.5-2. Used for Combustor. 		

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 G

Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 2C	List all emission units associated with this control device. DEHY02
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Manufacturer: QTI	Model number: Q100	Installation date: 2015
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Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter <input type="checkbox"/> Carbon Bed Adsorber <input type="checkbox"/> Carbon Drum(s) <input type="checkbox"/> Catalytic Incinerator <input checked="" type="checkbox"/> Thermal Incinerator <input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Venturi Scrubber <input type="checkbox"/> Multiclone <input type="checkbox"/> Packed Tower Scrubber <input type="checkbox"/> Single Cyclone <input type="checkbox"/> Other Wet Scrubber <input type="checkbox"/> Cyclone Bank <input type="checkbox"/> Condenser <input type="checkbox"/> Settling Chamber <input type="checkbox"/> Flare <input type="checkbox"/> Other (describe) <input type="checkbox"/> Dry Plate Electrostatic Precipitator
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List the pollutants for which this device is intended to control and the capture and control efficiencies.

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

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

QTI dehydration unit controlled thermal oxidizer
 4.0 MMBtu/hr burner

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** The dehy unit (DEHY02) is not subject to CAM since it is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990. Per 64.2(b)(1)(i), “*emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act*” are exempt from CAM. CAM was established to build in provisions for how compliance would be demonstrated for emission limits if not adequately covered by a NSPS or NESHAP rule.

In addition, for VOC purposes, the dehy unit is not subject to CAM per 64.2(b)(1)(vi), which states “*emission limitations or standards for which a part 70 or 71 permit specified a continuous compliance determination method, as defined in 64.1*” is exempt from CAM. Since the R13 permit for the facility (R13-1104F) 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 13 – Emission limits (TV 5.1.6.a, R13-1104F 4.1.5.a)
- 45 CSR 13 – Design capacity (TV 5.1.6.b, R13-1104F 4.1.5.b)
- 45 CSR 13 – The pilot flame shall be present at all times when the thermal oxidizer is operating (TV 5.1.6.c, R13-1104F 4.1.5.c)
- 45 CSR 13 – Visible emissions (TV 5.1.6.d, R13-1104F 4.1.5.d)
- 45 CSR 13 – The thermal oxidizer shall be operated at all times when emissions may be vented to it (TV 5.1.6.e, R13-1104F 4.1.5.e)
- 45 CSR 13 – Operation and design of the thermal oxidizer to meet a 95.0% control (TV 5.1.6.f, R13-1104F 4.1.5.f)
- 45 CSR 13 – Operate and maintain the thermal oxidizer according to manufacturer specification (TV 5.1.6.g, R13-1104F 4.1.5.g)
- 45 CSR 6-4.1 – Particulate matter emission limit (TV 5.1.5.1, R13-1104F 4.1.5.h)
- 45 CSR 6-4.3, 4, 5 – Incinerator operating requirements (TV 5.1.5, R13-1104F 4.1.5.h)
- 45 CSR 6-4.6 – Incinerator odor prevention requirements (TV 5.1.5.5, R13-1104F 4.1.5.h)
- 45 CSR 13 – Closed vent requirements (TV 5.1.7, R13-1104F 4.1.6)

Monitoring

- 45 CSR 13 – Thermocouple to detect a presence of a flame (TV 5.2.2, R13-1104F 4.2.3)
- 45 CSR 13 – Visible emissions monitoring (TV 5.2.3, R13-1104F 4.2.5)
- 45 CSR 13 – Initial AVO and annual AVOs (TV 5.2.4, R13-1104F 4.2.6)

Testing

- 45 CSR 13 – Testing if required (TV 5.3.1, R13-1104F 4.3.1)
- 45 CSR 13 – Testing for particulate matter loading shall be conducted if required (TV 5.3.3, R13-1104F 4.3.3)

Recordkeeping

- 45 CSR 13 – Pilot flame records (TV 5.4.1, R13-1104F 4.2.4)
- 45 CSR 13 – AVO recordkeeping (TV 5.4.2, R13-1104F 4.2.7)
- 45 CSR 13 – APCE maintenance records (TV 5.4.3, R13-1104F 4.4.2)
- 45 CSR 13 – APCE malfunction records (TV 5.4.4, R13-1104F 4.4.3)

Reporting

- 45 CSR 13 – Reporting of deviations of visible emissions requirements (TV 5.5.1, R13-1104F 4.5.1)
- 45 CSR 13 – Reporting of any time the thermal oxidizer is not operating when emissions are vented to it (TV 5.5.3, R13-1104F 4.5.3)