Dominion Energy Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
DominionEnergy.com

November 12, 2019

BY U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED
7018 1830 0000 9608 7532

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

RE: Dominion Energy Transmission, Inc. – Title V Renewal Application
Pepper Compressor Station – R30-000100100-2015

Dear Ms. Crowder:

The renewal application for the Title V permit for Dominion Energy Transmission, Inc's Pepper Compressor Station is enclosed. The Title V Application Form and its attachments are enclosed on two CDs in accordance with WVDEP instructions on your website. The original signature of the certification page is also enclosed. We are not requesting any specific changes to this permit as a result of this renewal.

If you need any additional information, please contact Andy Gates at (804) 273-2950 or andy.gates@dominionenergy.com.

Sincerely,

Thomas N. Effinger
Director, Environmental Services

Enclosures: Original signed certification page
Two CDs containing copies of the application forms and attachments

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: 11/6/19
(Must be signed and dated in blue ink)

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)

PEPPER COMPRESSOR STATION
DOMINION ENERGY TRANSMISSION, INC.

APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-00100100-2015 (AA01)

November 7, 2019

DOMINION ENERGY TRANSMISSION, INC.
PEPPER COMPRESSOR STATION

TITLE V PERMIT RENEWAL APPLICATION

TABLE OF CONTENTS

ATTACHMENTS

** **Note — There are no Attachments F and H for this permit application.**

SECTION 1

Introduction

Introduction

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

Pepper Station is a major source of air emissions for oxides of nitrogen (NOx) 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.

Pepper Station was originally issued a Title V Operating Permit (Permit No: R30-0010100-1996) in 1997 that has been subsequently renewed several times. The current Title V Operating Permit was most recently revised on February 16, 2016, with an expiration date of June 22, 2020.

Process Description

Pepper Station began operation in 1977. The main process at Pepper Station is the compression of natural gas. The following equipment is present at the facility:

- Two 600-HP Ajax DPC-600 Reciprocating Engines/Integral Compressors
    - Emission Point ID/Emission Unit ID: EN01/EN01, EN02/EN02

- One 1,775-HP Caterpillar G3606LE Compressor Engine
    - Emission Point ID/Emission Unit ID: EN03/EN03

- One 530-HP Cummins Generator Set KTA19G
    - Emission Point ID/Emission Unit ID:EN05/EN05

- One Glycol Dehydration Unit Still
    - Emission Point ID/Emission Unit ID:RSV1/F1

- One Dehydration Unit Flare (Control Device)
    - Emission Point ID/Emission Unit ID: F1/F1

- One Glycol Dehydration Reboiler
    - Emission Point ID/Emission Unit ID:RBV1/RBV1

- One 4,200-gallon aboveground storage tank containing produced fluids (drip gas)
    - Emission Point ID/Emission Unit ID: TK01/TK01

- One 4,200-gallon aboveground storage tank containing new engine oil
    - Emission Point ID/Emission Unit ID:TK02/TK02

- One 2,000-gallon aboveground storage tank containing ethylene glycol
    - Emission Point ID/Emission Unit ID:TK03/TK03

- One 230-gallon aboveground storage tank containing waste water
    - Emission Point ID/Emission Unit ID:TK04/TK04

- One 4,000-gallon aboveground storage tank containing produced fluids (drip gas)
    - Emission Point ID/Emission Unit ID:TK05/TK05

- One 400-gallon aboveground storage tank containing TEG
    - Emission Point ID/Emission Unit ID:TK06/TK06

- One 4,200-gallon aboveground storage tank containing used oil
    - Emission Point ID/Emission Unit ID:TK07/TK07

- One 4,740gallon aboveground storage tank containing motor oil
    - Emission Point ID/Emission Unit ID:TK08/TK08

- One 1,726-gallon aboveground storage tank containing ethylene glycol
    - Emission Point ID/Emission Unit ID:TK09/TK09

SECTION 2

Renewal Title V 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):** Dominion Energy Transmission, Inc.	**2. Facility Name or Location:** Pepper Compressor Station
3. DAQ Plant ID No.: 0 0 1 — 0 0 1 0 0	**4. Federal Employer ID No. (FEIN):** 5 5 0 6 2 9 2 0 3

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? MM/DD/YYYY

☒ Permit Renewal — What is the expiration date of the existing permit? 06/22/2020

☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity: ☒ Corporation ☐ Governmental Agency ☐ LLC ☐ Partnership ☐ Limited Partnership	**7. Is the Applicant the:** ☐ Owner ☐ Operator ☒ Both If the Applicant is not both the owner and operator, please provide the name and address of the other party. _____ _____ _____
8. Number of onsite employees: Approx. 15	

9. Governmental Code:

☒ Privately owned and operated; 0

☐ Federally owned and operated; 1

☐ State government owned and operated; 2

☐ County government owned and operated; 3

☐ Municipality government owned and operated; 4

☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ 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.

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: Brushy Fork Rd	**City:** Pepper	**County:** Barbour
UTM Easting: 574.20 km	**UTM Northing:** 4337.79 km	**Zone:** ☒ 17 or ☐ 18
Directions: Travel north 2.5 miles on Stewarts Run Road from Rt. 57, turn left on Brushy Fork Road. Travel 1 mile and the station will be on the right.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Pennsylvania, Ohio, Virginia, and Maryland
Is facility located within 100 km of a Class I Area[1]? ☒ Yes ☐ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☐ No		**If yes, name the area(s).** Dolly Sods Wilderness Area Otter Creek Wilderness Area

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: John M. Lamb		**Title:** Vice President, Eastern Pipeline Operations
Street or P.O. Box: 925 White Oaks Blvd.		
City: Bridgeport	**State:** WV	**Zip:** 26330
Telephone Number: (681) 842-3550	**Fax Number:** (804) 273-2964	
E-mail address: john.m.lamb@dominionenergy.com		
Environmental Contact: Andy Gates		**Title:** Environmental Consultant
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	**State:** VA	**Zip:** 23060
Telephone Number: (804) 273-2950	**Fax Number:** (804) 273-2964	
E-mail address: andy.gates@dominionenergy.com		
Application Preparer: Andy Gates		**Title:** Environmental Consultant
Company: Dominion Energy		
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	**State:** VA	**Zip:** 23060
Telephone Number: (804) 273-2950	**Fax Number:** (804) 273-2964	
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	48612	4922

Provide a general description of operations.

Pepper Compressor Station is a natural gas compressor station. Engines EN01 and EN02 compress wet production natural gas flowing through a pipeline for transportation. Engine EN03 and the glycol dehydration unit compress and dehydration wet transmission natural gas flowing through a pipeline for transportation.

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

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

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

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☒ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations
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. 45 CSR 2 – *To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.* The Ajax CPD-600 Reciprocating Engines/Integral Compressors (Emission Points EN01 and EN02) are exempted from sections 4, 5, 6, 8, and 9 since they have a design heat input below 10 million BTU/hr. Section three lists opacity requirements. Since these engines burn natural gas, visible emissions will be minimal making opacity conditions in the permit unnecessary. 45 CSR 10—*To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.* The director has determined that 45 CSR 10 does not apply to engines; the engines do not meet the definition of a fuel burning unit in 45 CSR §10-2.8 or a manufacturing process in 45 CSR §2-2.11. Additionally, the Ajax CPD-600 Reciprocating Engines/Integral Compressors (Emission Points EN01 and EN m sections 3 and 6-8 since they have a design heat input below 10 million BTU/hr.
☒ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

40 CFR 60, Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. TK01 and TK02 were constructed in 1977. However, this subpart does not apply per 40 C.F.R.60 § 110(a) because these tanks have a capacity below 40,000 gallons.

40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Although TK03 – TK09 were installed after 1984, none are equal to or greater than 75 cubic meters (19,813 gals). Therefore, this Subpart does not apply.

40 CFR 60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution. This facility has no equipment with applicable requirements under Subpart OOOO. This subpart applies to equipment installed after August 23, 2011. The compressor associated with EN03 has no requirements under Subpart OOOO because the unit services transmission natural gas. TK06 – TK09 have no requirements under Subpart OOOO because none have the potential for VOC of 6 tons per year or more.

40 CFR 60, Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015. 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 effected emissions units that have been installed after the applicable Subpart OOOOa effective date.

40 CFR 63, Subpart HHH—National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. This facility is exempt per 40 C.F.R. 63 § 1270(a) since this facility is not a major HAP source.

☒ 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 <u>construction permit</u> 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 61.145(b) / 45 CSR 34 – Asbestos inspection and removal (TV 3.1.3)
45 CSR 11-5.2 – Standby plans for reducing emissions (TV 3.1.5)
WV Code 22-5-4(a)(14) – The permittee is responsible for submitting, on an annual basis, as emission inventory in accordance with the submittal requirements (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 – No fugitive particulate matter beyond the property boundary (TV 3.1.9)
WV Code 22-5-4(a)(15) and 45 CSR 13 – Stack Testing Requirements (TV 3.3.1)
45 CSR 13 / 45 CSR 30 – Record keeping and Reporting (TV 3.4 and 3.5)

State Enforceable Only:
45 CSR 4-3.1 – Odor control (TV 3.1.4)

☒ 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 not meeting an exemption listed in 45 CSR 6-3.2 (TV 3.1.1)
45 CSR 6-3.2 – The permittee shall prohibit open burning not meeting an exemption listed in 45 CSR 6-3.2 (TV 3.1.2)
40 CFR Part 61.145(b) / 45 CSR 34 – 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 without using certified technicians and equipment (TV 3.1.7)
40 CFR Part 68 – Should the permittee become subject to 40 CFR Part 68, a Risk Management Plan shall be submitted (TV 3.1.8)
WV Code 22-5-4(a)(15) and 45 CSR 13 – Stack Testing shall be conducted as required and when requested (TV 3.3.1)
45 CSR 30-5.1.c.2.A, 45 CSR 13 – The permittee shall keep records of monitoring (TV 3.4.1, R13-2866 4.3.1)
45 CSR 30-5.1.c.2.B – The permittee shall keep records of monitoring and supporting information for at least 5 years (TV 3.4.2)
45 CSR 30-4.4 and 5.1.c.3.D – Any application form shall contain a certification by the responsible official that states that the statements and information in the document are true (TV 3.5.1)
45 CSR 30-5.1.c.3.E – The permittee may request confidential treatment for the submission of reporting (TV 3.5.2)
45 CSR 30-8 – The permittee shall submit a certified emissions statement annually (TV 3.5.4)
45 CSR 30-5.3.e – The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ (TV 3.5.5)
45 CSR 30-5.1.c.3.A – The permittee shall submit reports of any required monitoring on or before the required dates (TV 3.5.6)

State Enforceable Only:
45 CSR 30-5.1.c – The permittee shall keep records of all odor complaints received, any investigation performedin response to such a compliant, and any responsive action(s) taken (TV 3.4.3)

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

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

20. Facility-Wide Applicable Requirements *(Continued)* - *Attach additional pages as necessary.*

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

(page intentionally blank)

☐ 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.)

(page intentionally blank)

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

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

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2866B	01/26/2016	None
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
None	MM/DD/YYYY	NA
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	48.11
Nitrogen Oxides (NO_X)	192.01
Lead (Pb)	
Particulate Matter ($PM_{2.5}$)[1]	1.95
Particulate Matter (PM_{10})[1]	1.95
Total Particulate Matter (TSP)	3.00
Sulfur Dioxide (SO_2)	0.06
Volatile Organic Compounds (VOC)	84.35
Hazardous Air Pollutants[2]	Potential Emissions
Formaldehyde	5.11
Acrolein	0.63
Acetaldehyde	0.82
Benzene	0.11
Ethylbenzene	0.01
n-Hexane	0.25
Toluene	0.48
Xylene	0.87
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1]$PM_{2.5}$ and PM_{10} are components of TSP.

[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Note: These potentials-to-emit are based on current permit limits and calculated consistent with annual SLEIS reporting. The VOC potential to emit includes fugitive emissions and tank emissions.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☐	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☐	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☐	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☐	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☐	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_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)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☐	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☐	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☐	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

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

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:

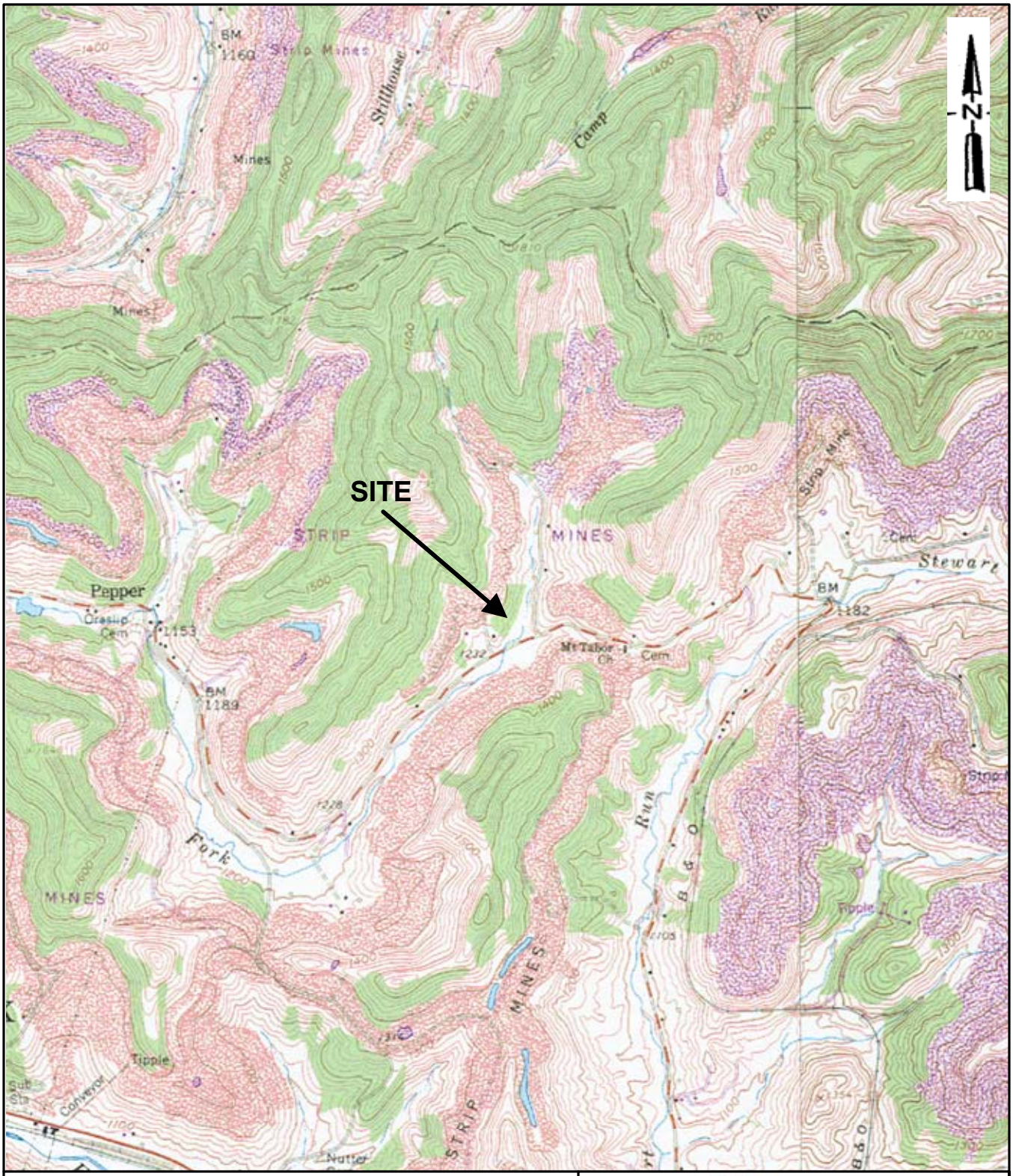
Signature: _____ Signature Date: 11/6/19

(Must be signed and dated in blue ink)

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)

ATTACHMENT A

Area Map



0 2000 4000

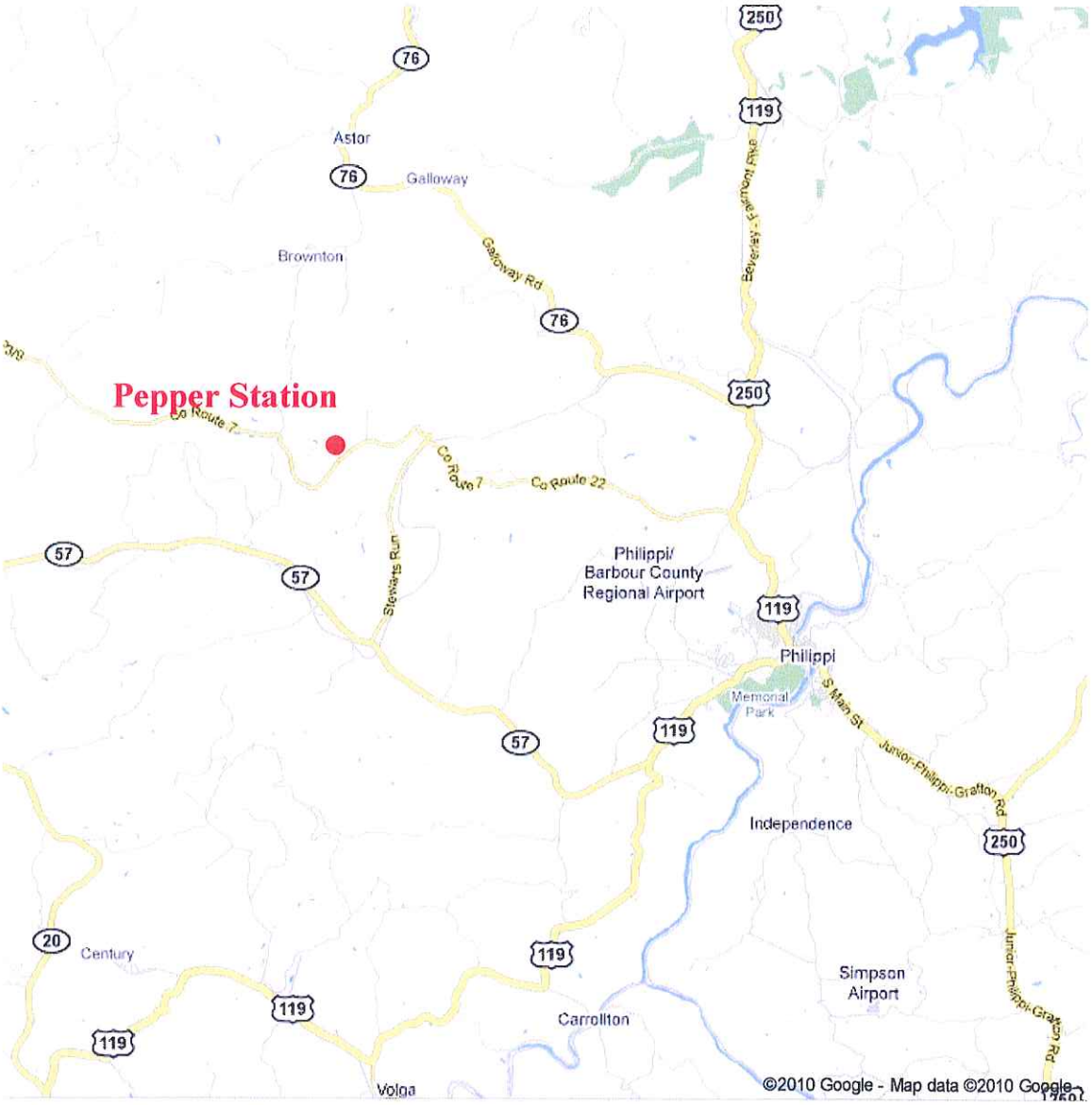
APPROXIMATE SCALE IN FEET

BASE MAP SOURCE: Browton, WV (1961, Photorevised 1976) 7.5 Minute Series Topographic Map.

Dominion
It all starts here.

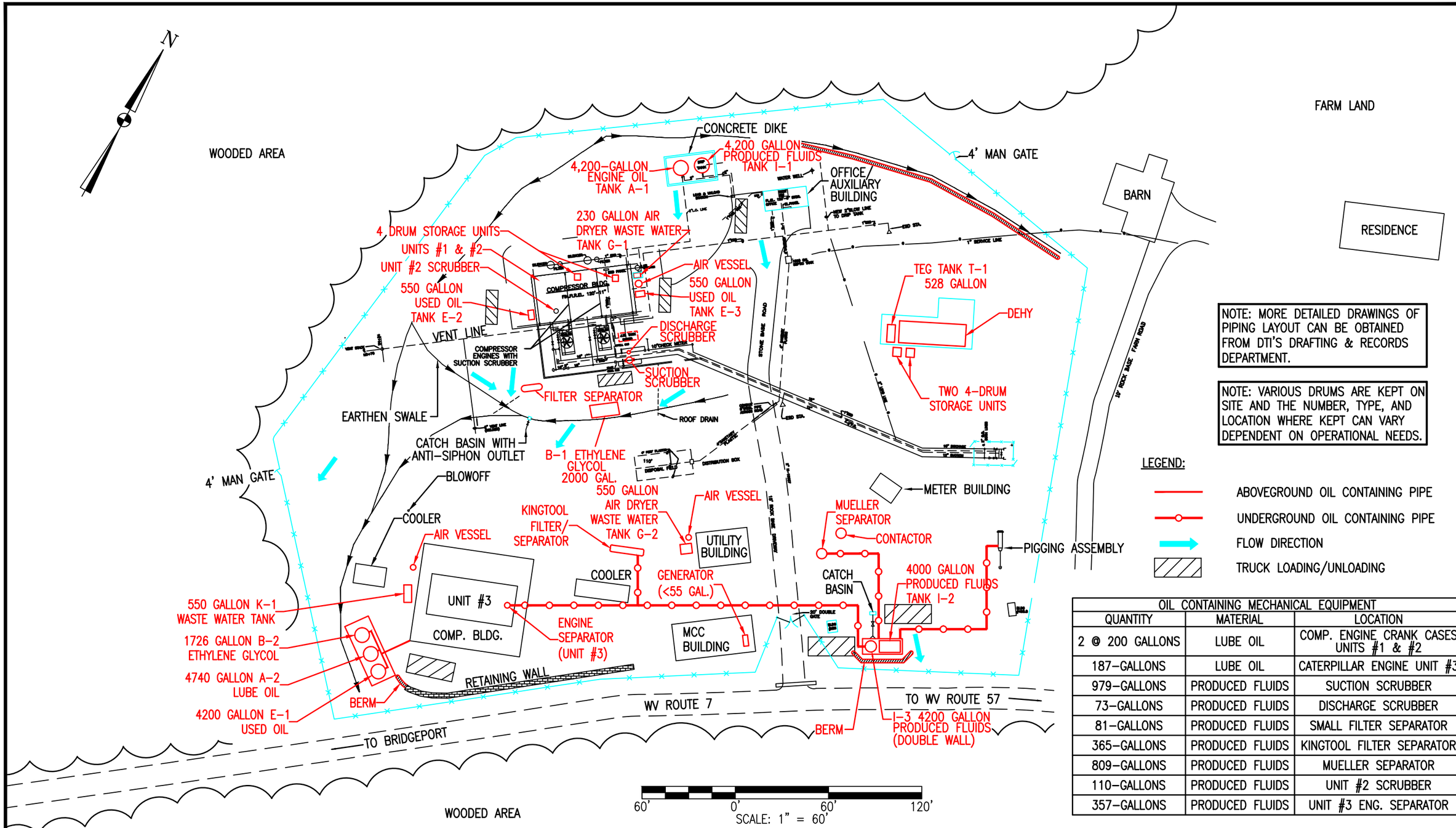
FIGURE 1
SITE LOCATION MAP
PEPPER COMPRESSOR STATION
BARBOUR COUNTY, WEST VIRGINIA

URS


Pepper Station
Co Route 7
Co Route 7
Co Route 22
Stewarts Run
Philippi/
Barbour County
Regional Airport
Philippi
Memorial
Park
S Main St
Junior-Philippi-Grafton Rd
Independence
Simpson
Airport
Carrollton
Century
Volga
Astor
Galloway
Brownton
Galloway Rd
Beverly - Elkhorn Rive
76
250
119
57
20
©2010 Google - Map data ©2010 Google

ATTACHMENT B

Plot Plan



NOTE: MORE DETAILED DRAWINGS OF PIPING LAYOUT CAN BE OBTAINED FROM DTI'S DRAFTING & RECORDS DEPARTMENT.

NOTE: VARIOUS DRUMS ARE KEPT ON SITE AND THE NUMBER, TYPE, AND LOCATION WHERE KEPT CAN VARY DEPENDENT ON OPERATIONAL NEEDS.

LEGEND:

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

OIL CONTAINING MECHANICAL EQUIPMENT		
QUANTITY	MATERIAL	LOCATION
2 @ 200 GALLONS	LUBE OIL	COMP. ENGINE CRANK CASES UNITS #1 & #2
187-GALLONS	LUBE OIL	CATERPILLAR ENGINE UNIT #3
979-GALLONS	PRODUCED FLUIDS	SUCTION SCRUBBER
73-GALLONS	PRODUCED FLUIDS	DISCHARGE SCRUBBER
81-GALLONS	PRODUCED FLUIDS	SMALL FILTER SEPARATOR
365-GALLONS	PRODUCED FLUIDS	KINGTOOL FILTER SEPARATOR
809-GALLONS	PRODUCED FLUIDS	MUELLER SEPARATOR
110-GALLONS	PRODUCED FLUIDS	UNIT #2 SCRUBBER
357-GALLONS	PRODUCED FLUIDS	UNIT #3 ENG. SEPARATOR

SYM.	DATE	BY	REVISION DESCRIPTION	PRJ/TSK	APP.
8	09/07/2018	TBB	REVISED PER RACHEL CALVERT MARK UPS		
7	09/15/2015	TBB	ADDED TRUCK LOADING/UNLOADING AREAS		
6	08/26/2015	TBB	ADDED OIL-CONTAINING PIPE & OTHER MINOR REVISIONS PER TIM JACKSON		
5	10/23/2014	TBB	ADDED TWO TANKS & AN AIR VESSEL PER TIM JACKSON		
4	10/15/2014	TBB	VERIFIED SCALE, FIXED NORTH ARROW, ADDED ADJACENT PROPERTIES, & ADDED BAR SCALE		

SCALE	1" = 60'	DATE
DRAWN	DJF	10/20/2009
CHECKED		
APP. FOR BID		
APP. FOR CONST.		
TOWN:	PEPPER, WV	COUNTY: BARBOUR

Dominion Energy®
Dominion Energy Transmission, Inc.
925 White Oaks Blvd., Bridgeport, WV 26330
(681) 842-3000

FOR: PEPPER COMPRESSOR STATION

TITLE: ENVIRONMENTAL EMERGENCY SITE PLAN

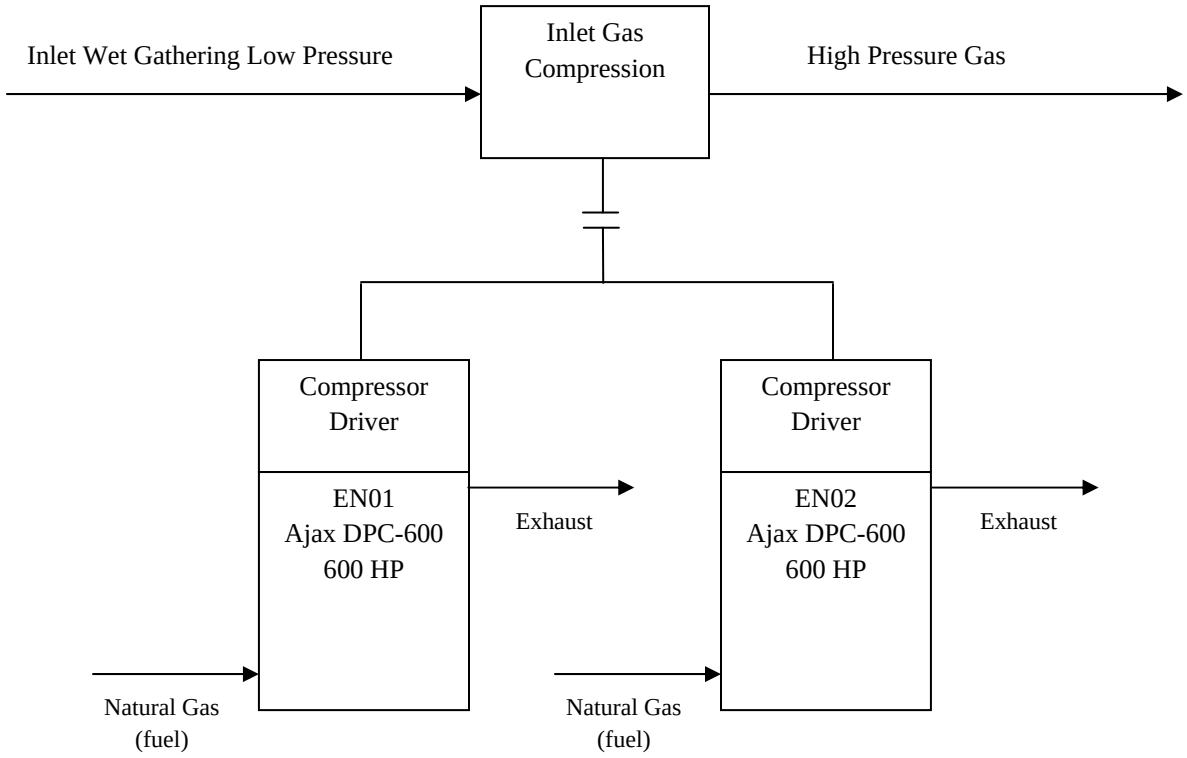
DIR:	GROUP	DWG. NO.	REV.
DOCUMENTUM	PD	X1397	8
FILE: PDX1397.dwg PRJ/TSK: -			

Printed: Sep 07, 2018 @09:56, By: timo409, Filename: PDX1397.dwg

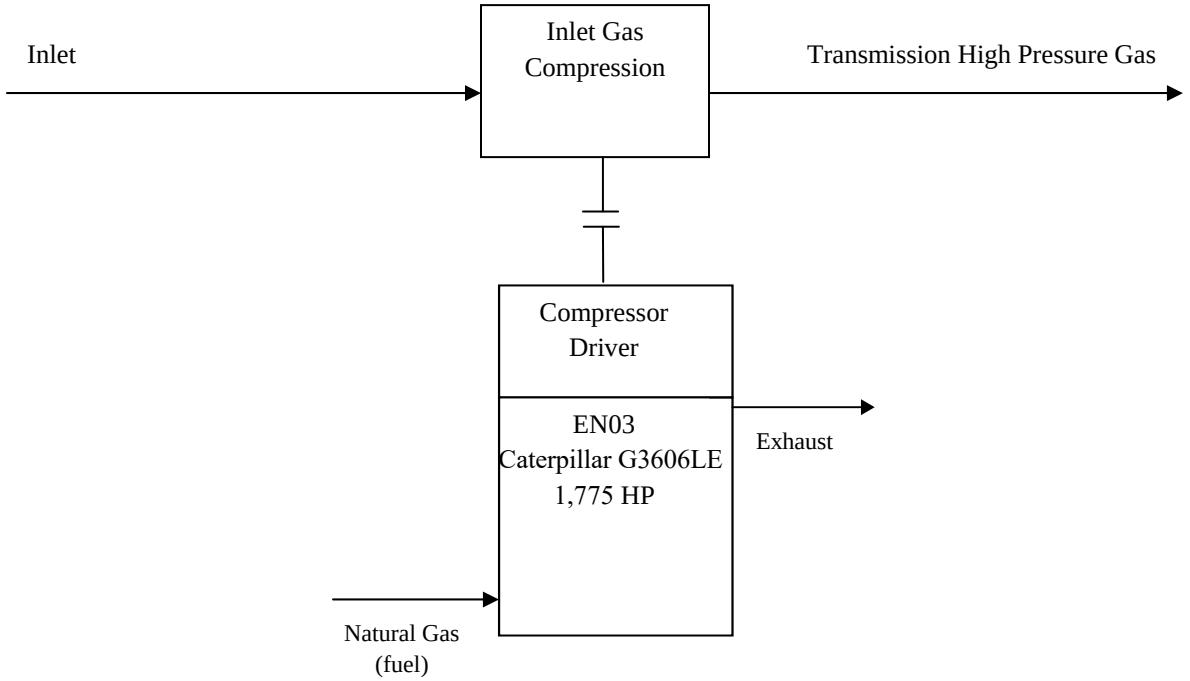
ATTACHMENT C

Process Flow Diagram

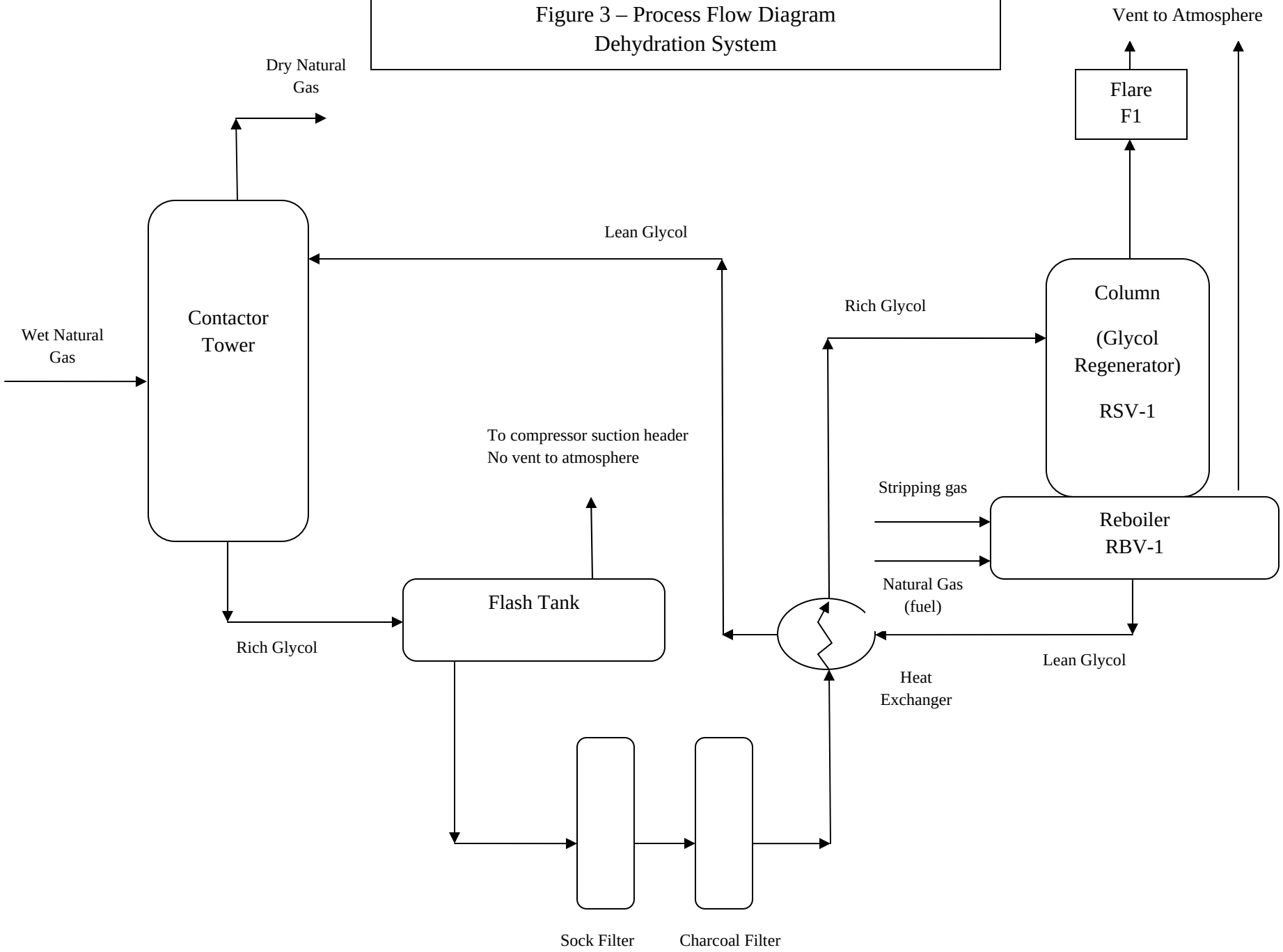
Pepper Compressor Station
Figure 1 – Process Flow Diagram
Compressor Engines



Pepper Compressor Station
Figure 2 – Process Flow Diagram
Compressor Engines



Pepper Compressor Station
Figure 3 – Process Flow Diagram
Dehydration System



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	EN01	Reciprocating Engine/Integral Compressor; Ajax DPC-600	600 HP	1977
EN02*	N/A	EN02	Reciprocating Engine/Integral Compressor; Ajax DPC-600	600 HP	1977
EN03*	CC1	EN03	Caterpillar G3606LE Compressor	1775 HP	2011
EN05*	N/A	EN05	Cummins Generator Set; KTA19G	530 HP	2012
RSV1	F1	F1	Glycol Dehydrator Regenerator	30 mmscf/day	2011
RBV1	N/A	RBV1	Glycol Dehydrator Reboiler Vent	1.155 mmBtu/hr	2011
TK01	N/A	TK01	Tank containing Drip Gas	4200 gallon	1977
TK02	N/A	TK02	Tank containing New Engine Oil	4200 gallon	1977
TK03	N/A	TK03	Tank containing Ethylene Glycol	2000 gallon	1992
TK04	N/A	TK04	Tank containing Waste Water	230 gallon	1985
TK05	N/A	TK05	Tank containing Drip Gas	4000 gallon	2005
TK06	N/A	TK06	Tank containing TEG	400 gallon	2012
TK07	N/A	TK07	Tank containing Used Oil	4200 gallon	2012
TK08	N/A	TK08	Tank containing Motor Oil	4740 gallon	2012
TK09	N/A	TK09	Tank containing Ethylene Glycol	1726 gallon	2012
Control Devices					
F1		F1	Ground Level Flare	6 mmBtu/hr	2011
CC1		EN03	Catalyst on EN03	NA	2011

* Equipment burns or combusts pipeline quality natural gas only.

[1]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

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EN01	EN01	NA

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

Ajax 600 hp Natural gas fired reciprocating internal combustion engine/integral compressor.

Manufacturer:	**Model number:**	**Serial number:**
Ajax	DPC-600	NA
Construction date:	**Installation date:**	**Modification date(s):**
Pre-NSPS	1977	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,000 btu/hp-hrs

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.0048 MMscf/hr		8760

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

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 600 HP	**Type and Btu/hr rating of burners:** NA

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

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.1	18.0
Nitrogen Oxides (NO_X)	20.5	90.0
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.19	0.81
Particulate Matter (PM_{10})	0.19	0.81
Total Particulate Matter (TSP)	0.24	1.02
Sulfur Dioxide (SO_2)	0.003	0.01
Volatile Organic Compounds (VOC)	3.8	16.8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.12	0.63
Acrolein	0.04	0.16
Acetaldehyde	0.04	0.16
Benzene	0.009	0.04
Ethylbenzene	0.0005	<0.01
Toluene	0.0046	0.02
Xylene	0.0013	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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.).

NOx, CO, and VOC emission rates were based on emission factors provided by the manufacturer.
Other emissions were calculated using AP-42 Table 3.2-1 (7/00) or in accordance with SLEIS calculations.

Applicable Requirements

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

40 CFR Part 63, Subpart ZZZZ §63.6603(a), Table 2d (Item 6), and §63.6595(a)(1): Every 4,320 hours of operation or annually, whichever comes first change oil and filter and inspect spark plugs, hoses, and belts (replace as necessary). (TV 4.1.10)

40 CFR Part 63, Subpart ZZZZ §63.6625(e)(5), §63.6630(a) and Table 6 (Item 9): Operate and maintain the stationary RICE, and any after-treatment control device, according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (TV 4.1.11(e))

40 CFR Part 63, Subpart ZZZZ §63.6625(h): The engine must be in compliance with NESHAP emission limits (if applicable) or NESHAP work practice standards within 30 minutes of startup. (TV 4.1.11(h))

40 CFR Part 63, Subpart ZZZZ §63.6625(j): The permittee may implement an oil analysis program to extend the specified oil change requirement (TV 4.1.11(j))

40 CFR Part 63, Subpart ZZZZ §63.6605: At all times must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. (General duty to comply clause). (TV 4.1.12)

40 CFR Part 63, Subpart ZZZZ §§63.6640(b): The permittee must report each instance in which they did not meet operating limitations. (TV 4.1.13)

____ 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 §§63.6655(a): The permittee must maintain records of the following:
a. The occurrence and duration of each malfunction of the unit and air pollution control equipment.
b. All required maintenance performed on the engine and air pollution control equipment to demonstrate that you operated and maintained them in accordance with your maintenance plan including the required work practice requirements.
c. Actions taken during periods of malfunction to minimize emissions including corrective actions to restore malfunctioning process and air pollution control equipment. (TV 4.4.4)

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EN02	EN02	N/A

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

Ajax 600 hp Natural gas fired reciprocating internal combustion engine/integral compressor.

Manufacturer:	**Model number:**	**Serial number:**
Ajax	DPC-600	NA
Construction date:	**Installation date:**	**Modification date(s):**
Pre-NSPS	1977	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,000 btu/hp-hrs

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.0048 MMscf/hr		8760 hrs/yr

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

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 600 HP	**Type and Btu/hr rating of burners:** NA

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

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.1	18.0
Nitrogen Oxides (NO_X)	20.5	90.0
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.19	0.81
Particulate Matter (PM_{10})	0.19	0.81
Total Particulate Matter (TSP)	0.24	1.02
Sulfur Dioxide (SO_2)	0.003	0.01
Volatile Organic Compounds (VOC)	3.8	16.8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.12	0.63
Acrolein	0.04	0.16
Acetaldehyde	0.04	0.16
Benzene	0.009	0.04
Ethylbenzene	0.0005	<0.01
Toluene	0.0046	0.02
Xylene	0.0013	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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.).

NOx, CO, and VOC emission rates were based on emission factors provided by the manufacturer.
Other emissions were calculated using AP-42 Table 3.2-1 (7/00) or in accordance with SLEIS calculations.

Applicable Requirements

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

40 CFR Part 63, Subpart ZZZZ §63.6603(a), Table 2d (Item 6), and §63.6595(a)(1): Every 4,320 hours of operation or annually, whichever comes first change oil and filter and inspect spark plugs, hoses, and belts (replace as necessary). (TV 4.1.10)

40 CFR Part 63, Subpart ZZZZ §63.6625(e)(5), §63.6630(a) and Table 6 (Item 9): Operate and maintain the stationary RICE, and any after-treatment control device, according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (TV 4.1.11(e))

40 CFR Part 63, Subpart ZZZZ §63.6625(h): The engine must be in compliance with NESHAP emission limits (if applicable) or NESHAP work practice standards within 30 minutes of startup. (TV 4.1.11(h))

40 CFR Part 63, Subpart ZZZZ §63.6625(j): The permittee may implement an oil analysis program to extend the specified oil change requirement (TV 4.1.11(j))

40 CFR Part 63, Subpart ZZZZ §63.6605: At all times must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. (General duty to comply clause). (TV 4.1.12)

40 CFR Part 63, Subpart ZZZZ §§63.6640(b): The permittee must report each instance in which they did not meet operating limitations. (TV 4.1.13)

____ 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 §§63.6655(a): The permittee must maintain records of the following:
a. The occurrence and duration of each malfunction of the unit and air pollution control equipment.
b. All required maintenance performed on the engine and air pollution control equipment to demonstrate that you operated and maintained them in accordance with your maintenance plan including the required work practice requirements.
c. Actions taken during periods of malfunction to minimize emissions including corrective actions to restore malfunctioning process and air pollution control equipment. (TV 4.4.4)

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EN03	EN03	CC1

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

Natural gas fired reciprocating internal combustion engine.

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar	G3606LE	NA
Construction date:	**Installation date:**	**Modification date(s):**
NSPS JJJJ-affected	2011	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,775 HP

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
~12,780 cf/hr	NA	8,760 hrs/yr

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

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 1,775 HP	**Type and Btu/hr rating of burners:**

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

Pipeline Quality Natural Gas

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.15	9.43
Nitrogen Oxides (NO_X)	1.96	8.57
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.001	0.005
Particulate Matter (PM_{10})	0.001	0.005
Total Particulate Matter (TSP)	0.13	0.59
Sulfur Dioxide (SO_2)	0.008	0.035
Volatile Organic Compounds (VOC)	0.87	3.78
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.87	3.78
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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.).

NOx, CO, VOC, and formaldehyde emission factors are from the manufacturer and limited by R13-2866B.
SO2, PM10, and PM2.5 emission factors are from AP-42.

Applicable Requirements

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

40 CFR Part 60, Subpart JJJJ 60.4233(e) and Table 1: Emission limits for NOx of 1.0 g/HP-hr or 82 ppmvd at 15% O2, CO of 2.0 g/HP-hr or 270 ppmvd at 15% O2, and VOC of 1.0 g/HP-hr or 60 ppmvd at 15% O2. (TV 4.1.14)

40 CFR Part 63, Subpart ZZZZ 63.6590(c): Meet requirements of Subpart ZZZZ by meeting the requirements in 40 CFR Part 60, Subpart JJJJ. No further requirements in Subpart ZZZZ apply.

R13-2866B limits the amount of fuel to 12,780 cf/hr. Note that this is the maximum design capacity of the unit.

____ 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 60, Subpart JJJJ 60.4243(b)(2)(ii), 60.4244, 60.4245(a), and 60.4245(d):
Keep a maintenance plan and records of conducted maintenance.
Maintain and operate, to the extent practicable, the engine in a manner consistent with good air pollution control practices for minimizing emissions.
Conduct and initial performance test and subsequent performance testing every 8,760 hours or 3 years, whichever comes first. (TV 4.3, 4.4.5)

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EN05	EN05	N/A

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

Emergency auxiliary generator.

Manufacturer:	**Model number:**	**Serial number:**
Cummins	KTA19G	NA
Construction date:	**Installation date:**	**Modification date(s):**
NSPS JJJJ-affected	2012	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
~4,615 cf/hr	NA	500

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

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 530 HP	**Type and Btu/hr rating of burners:**

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

Pipeline Quality Natural Gas

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.75	0.44
Nitrogen Oxides (NO_X)	1.69	0.42
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	<0.01	<0.01
Particulate Matter (PM_{10})	<0.01	<0.01
Total Particulate Matter (TSP)	0.05	0.01
Sulfur Dioxide (SO_2)	<0.01	<0.01
Volatile Organic Compounds (VOC)	0.21	0.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.26	0.07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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.).

NOx, CO, VOC, and formaldehyde emission factors are potential emissions as limited by R13-2866B.
SO2 and Particulate Matter emission factors are from AP-42.

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 60, Subpart JJJJ, 60.4233and Table 1: Emission limits for NOx of 2.0 g/HP-hr or 160 ppmvd at 15% O2, CO of 4.0 g/HP-hr or 540 ppmvd at 15% O2, and VOC of 1.0 g/HP-hr or 86 ppmvd at 15% O2. (TV 4.1.14)

40 CFR Part 60, Subpart JJJJ, 60.4243(d):
a. There is no time limit on the use of emergency stationary RICE in emergency situations.
b. Emergency RICE may be operated for maintenance checks and readiness testing as required by government, manufacturer, vendor, insurance, regional transmission or equivalent balancing authority and transmission operator, and emergency demand response in Energy Emergency alert Level 2, etc. for maximum of 100 hours per calendar year.
c. Emergency stationary RICE may operate up to 50 hours per year in non-emergency situations (those 50 hours are counted towards the 100 hours per year provided for maintenance and testing and emergency demand response.) (TV 4.1.18)

40 CFR Part 60, Subpart JJJJ, 60.4237(a): Must install and maintain a non-resettable hour meter. (TV 4.1.15)

40 CFR Part 63, Subpart ZZZZ, 63.6590(c): Meet requirements of Subpart ZZZZ by meeting the requirements in 40 CFR Part 60, Subpart JJJJ. No further requirements in Subpart ZZZZ apply.

____ 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 60, Subpart JJJJ, 60.4245(a and b):
Keep records of the following:
a. Maintenance conducted on engine
b. Manufacturer documentation of engine certification
c. Operating hours (TV 4.4.6, 4.4.7, 4.4.8)

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
RBV1	RBV1	N/A

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

Glycol dehydration system reboiler.

Manufacturer:	**Model number:**	**Serial number:**
Engineering Technology Incorporated	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
2011	2011	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.155 x 10^6 BTU/hr	NA	8760

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

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 1.155 x 10^6 BTU/hr	**Type and Btu/hr rating of burners:**

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

Pipeline Quality Natural Gas

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.151	0.66
Nitrogen Oxides (NO_X)	0.247	1.08
Lead (Pb)	Negligible	Negligible
Particulate Matter ($PM_{2.5}$)	<0.01	0.01
Particulate Matter (PM_{10})	<0.01	0.01
Total Particulate Matter (TSP)	0.01	0.05
Sulfur Dioxide (SO_2)	<0.01	<0.01
Volatile Organic Compounds (VOC)	0.116	0.51
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

CO, NOx, and VOC are based on vendor guarantees (Dominion Quotation DO081010) and as permitted in R13-2866B. All remaining emission factors are from AP-42.

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 CSR 2-3.1 – Emission of Visible Particulate Matter must be less than 10% opacity on a six minute block average.

____ 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.)

TV 2.1.7: Proper operation and fuel type will prevent visible particulate matter from exceeding the 10% opacity on six minute block average limit. Emergency situations which cause an exceedance of this limit will be reported.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
RSV1	F1	F1

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

Glycol dehydration regenerator still.

Manufacturer:	**Model number:**	**Serial number:**
Engineering Technology, Inc.	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
2011	2011	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
~30 mmscfd

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	~10,950 mmscf/yr	8,760 hrs/yr

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

Does this emission unit combust fuel? _X_Yes ___ No Fuel is combusted in the flare.	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: Flare has a max capacity of 9,381 scf/hr	**Type and Btu/hr rating of burners:** NA

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 for supplemental fuel and pilots used to combust the waste gas.

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/100 ft^3	N/A	1,000 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.36	1.57
Nitrogen Oxides (NO_X)	0.45	1.94
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.08	0.32
Particulate Matter (PM_{10})	0.08	0.32
Total Particulate Matter (TSP)	0.08	0.32
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	1.29	5.63
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hexane	0.03	0.15
Toluene	0.095	0.42
Xylene	0.193	0.85
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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.).

NOx, CO, and PMemission factors are from the flare Manufacturer and included in R13-2866B.
VOC and HAP emission factors are from GLYCalc Version 4.0, also as reflected in R13-2866B.

Applicable Requirements

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

45 CSR 6-4.3, 6-4.4: Flare must not cause smoke with opacity of 20% or greater, with the exception of smoke less than 40% opacity for less than 8 minutes during startup. (TV 4.1.4, 4.1.5)

45 CSR 6-4.5: Flare must not release particles of unburned or partially burned refuse or ash. (TV 4.1.6)

45 CSR 6-4.6: Flare must not omit any objectionable odors. (TV 4.1.7)

45 CSR 13-5.11: Flare must be maintained and operated in a manner consistent with safety and good air pollution control practices. (TV 4.1.9)

____ 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.)

TV 4.2.2: Conduct monthly visual emission checks.

TV 3.4.3: Maintain a record of odor complaints and responsive actions taken.

TV 4.4.1: Maintain records of inspections and maintenance.

TV 4.4.2: Maintain records of malfunctions.

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 G

Air Pollution Control Device Forms

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CC1	**List all emission units associated with this control device.** EN03	
Manufacturer: Vanec	**Model number:** NA	**Installation date:** 2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	_X_ Other (describe) _Catalytic Oxidation and Reduction_
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

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

Pollutant	Capture Efficiency	Control Efficiency
CO	100%	80% (2.75 gr/bhp-hr pre-catalsyt, 0.55 gr/bhp-hr post-catalyst)

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

NA

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

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** The potential pre-control emissions of applicable pollutants does not exceed 100% of the major source threshold. NSPS JJJJ-affected engine.

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

Certified engine; operate in conformance with NSPS JJJJ requirements.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: F1	**List all emission units associated with this control device.** RSV1	
Manufacturer: Engineering Technology Incorporated	**Model number:**	**Installation date:** 2011

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_X_ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

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

Pollutant	Capture Efficiency	Control Efficiency
VOC		98%
Hexane		98%
Toluene		98%
Xylene		98%

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

Capacity of flare: 9,381 scf/hr

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

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** The potential pre-control emissions of applicable pollutants from RSV1 does not exceed 100% of the major source threshold amount. The Permittee is conducting reasonable assurance compliance monitoring to maintain minor source classification in accordance with the requirements of 40 CFR 63, Subpart HH.

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

The system is equipped with a thermocouple which prevents the dehydration system from operating if the flare pilot lights are not operating.