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

January 17, 2020

BY U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED
7018 1830 0000 9608 7921

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

RE: Dominion Energy Transmission, Inc. – Title V Renewal Application
L.L. Tonkin Compressor Station – R30-01700003-2015 (SM01)

Dear Ms. Crowder:

The renewal application for the Title V permit for Dominion Energy Transmission, Inc's L.L. Tonkin 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.

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: 12/17/19

(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)

L.L. TONKIN COMPRESSOR STATION
DOMINION ENERGY TRANSMISSION, INC.

APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-01700003-2015 (SM01)

January 2020

DOMINION ENERGY TRANSMISSION, INC.
L.L. TONKIN COMPRESSOR STATION

TITLE V PERMIT RENEWAL APPLICATION

TABLE OF CONTENTS

ATTACHMENTS

** **Note — There are no Attachments F, G, or H for this permit application.**

SECTION 1

Introduction

Introduction

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

L.L. Tonkin Station is a major source of air emissions for carbon monoxide (CO) 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.

L.L Tonkin Station was originally issued a Title V Operating Permit (Permit No: R30-01700003-1996) in 1998 that has been subsequently renewed several times. The current Title V Operating Permit was most recently revised on May 9, 2017, with an expiration date of August 17, 2020.

Process Description

L.L. Tonkin Station began operation in 1989. The main process at L.L. Tonkin Station is the compression and transmission of natural gas. The following equipment is present at the facility:

- One 4,417-HP Solar T-4500 Turbine Compressor (NSPS Subpart GG)
    - Emission Point ID/Emission Unit ID: 001-01/TRB01

- One 3,000-gallon aboveground storage tank containing produced fluids (drip gas)
    - Emission Point ID/Emission Unit ID: TK01/TK01

- One 1,000-gallon aboveground storage tank containing used oil
    - Emission Point ID/Emission Unit ID:TK02/TK02

- One 500-gallon aboveground storage tank containing lube oil
    - Emission Point ID/Emission Unit ID:TK03/TK03

- Two 6,035-HP Solar Centaur 50 Turbine Compressors (NSPS Subpart KKKK)
    - Emission Point ID/Emission Unit ID: 001-02/TRB02 and 001-03/TRB03

- One 1,462-HP Caterpillar G3516 natural gas-fired auxiliary generator (NSPS Subpart JJJJ)
    - Emission Point ID/Emission Unit ID:002-02/AUX02

- One 2.94 mmBtu/hr Hurst LPW-G-70-60W natural gas-fired boiler
    - Emission Point ID/Emission Unit ID:004-02/BLR02

Note that the former Cummins auxiliary generator (AUX01) and the former Peerless boiler (BLR01) are no longer in service at this facility and need not be included in the renewed Title V permit.

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:** L.L. Tonkin Compressor Station
3. DAQ Plant ID No.: 0 1 7 — 0 0 0 0 3	**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? 1989

☒ Permit Renewal — What is the expiration date of the existing permit? 08/17/2020

☐ 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: 139 Tonkin Station Road	**City:** West Union	**County:** Doddridge
UTM Easting: 518.82 km	**UTM Northing:** 4351.18 km	**Zone:** ☒ 17 or ☐ 18
Directions: Take Route 50 east from Parkersburg. Approximately 35 miles take West Union Exit, Route 18 North. Go approximately 3.5 miles, the L.L. Tonkin Station is on the left.		
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 and Ohio
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.

The L.L. Tonkin 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 turbines (TRB01, TRB02, and TRB03) at the facility receive natural gas from a valve on a pipeline and compresses 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.	
☒ 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. 40 CFR 63 Subpart HH – This subpart does not apply to the facility since the facility is not a natural gas production facility. 40 CFR 63 Subpart DDDDD – The boiler (BLR02) is not subject to this subpart since the facility is not major source of HAPs. 40 CFR 63 Subpart JJJJJJ – The boilers (BLR01 and BLR02) are not subject to this subpart since they are considered "gas-fired boilers" (i.e. burns only natural gas) and are exempt based on §63.11195(e).
☒ 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, TK02, and TK03 were constructed in 1989. 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 TK01, TK02, and TK03 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 and before September 18, 2015.

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.

40 CFR 64 – CAM requirements – Potential pre-control device emissions from the pollutant-specific emissions units are below the major source threshold. Therefore, according to 40 CFR §64.2(a), CAM is not applicable to any pollutant-specific emission units at this facility.

☒ 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)
45 CSR 13 – General air pollution control equipment requirements (TV 3.1.10)
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, R13-1077B 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 DEP (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)*
R13-1077B	02/09/2017	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)	119.8
Nitrogen Oxides (NO_X)	60.4
Lead (Pb)	--
Particulate Matter ($PM_{2.5}$)[1]	10.6
Particulate Matter (PM_{10})[1]	10.6
Total Particulate Matter (TSP)	10.6
Sulfur Dioxide (SO_2)	0.7
Volatile Organic Compounds (VOC)	18.5
Hazardous Air Pollutants[2]	Potential Emissions
Formaldehyde	1.15
Acrolein	0.07
Acetaldehyde	0.03
Benzene	0.01
Ethylbenzene	0.12
Hexane	0.02
Toluene	0.04
Xylene	0.02
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.

Potentials-to-emit are based on currently operating equipment and permit limits as applicable and include fugitive VOC.

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: 12/17/19

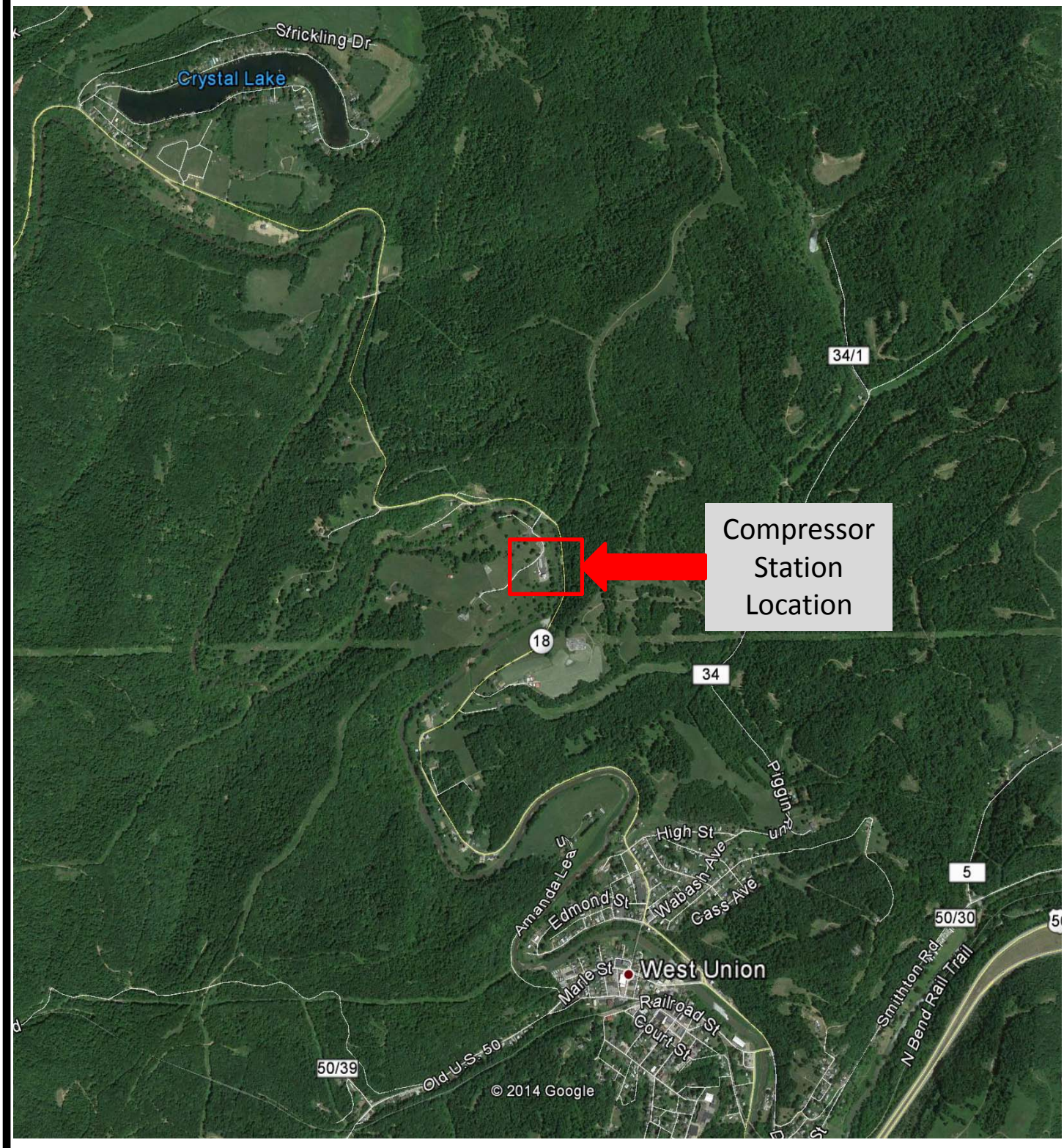
(Must be signed and dated in blue ink)

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

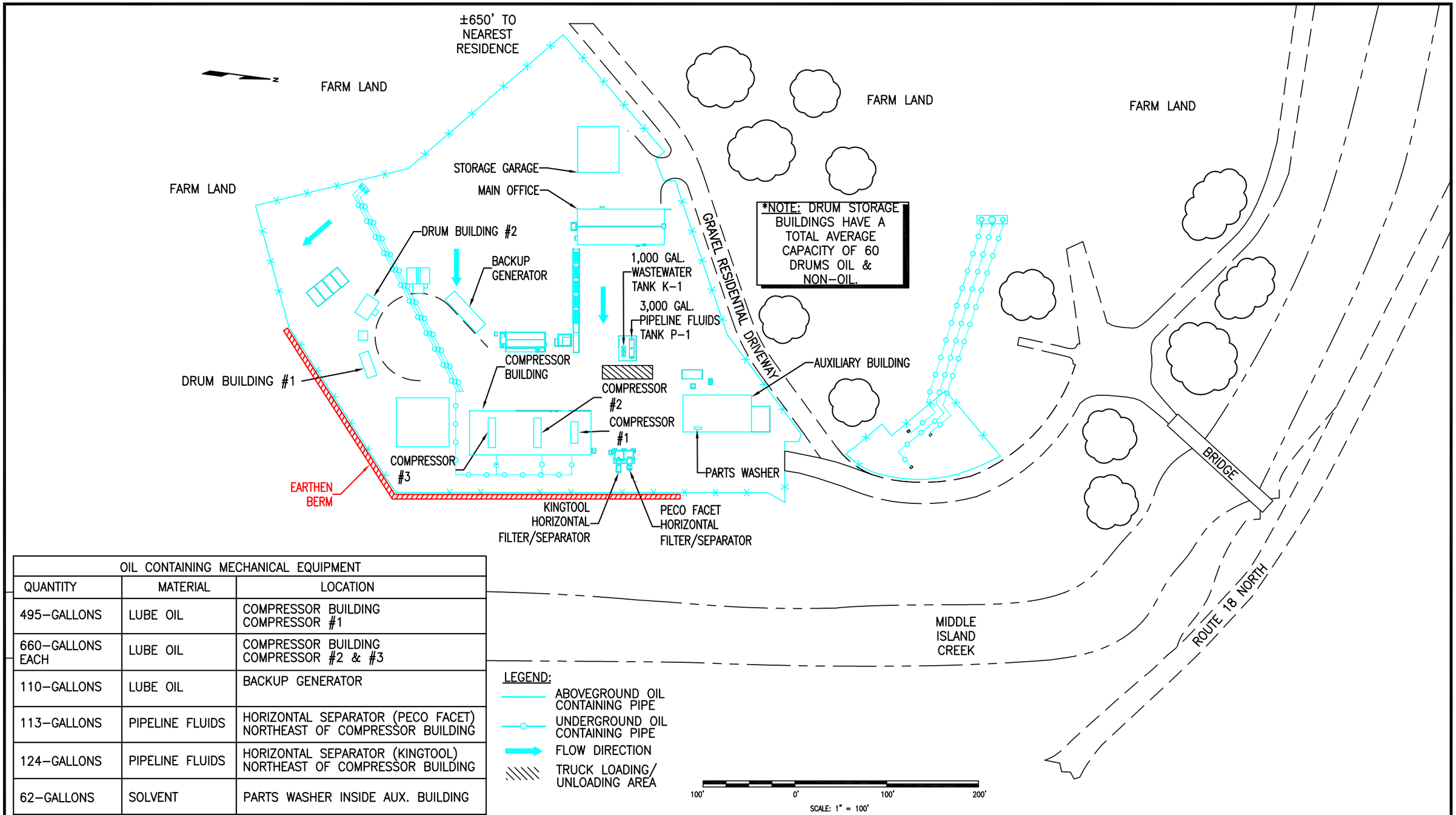
Area Map



From the town of Parkersburg, take Route 50 East. After approximately 45 miles, take West Union exit (Route 18 North). Travel approximately 3.5 miles and the L.L. Tonkin Compressor Station will be on the left.

ATTACHMENT B

Plot Plan



OIL CONTAINING MECHANICAL EQUIPMENT		
QUANTITY	MATERIAL	LOCATION
495-GALLONS	LUBE OIL	COMPRESSOR BUILDING COMPRESSOR #1
660-GALLONS EACH	LUBE OIL	COMPRESSOR BUILDING COMPRESSOR #2 & #3
110-GALLONS	LUBE OIL	BACKUP GENERATOR
113-GALLONS	PIPELINE FLUIDS	HORIZONTAL SEPARATOR (PECO FACET) NORTHEAST OF COMPRESSOR BUILDING
124-GALLONS	PIPELINE FLUIDS	HORIZONTAL SEPARATOR (KINGTOOL) NORTHEAST OF COMPRESSOR BUILDING
62-GALLONS	SOLVENT	PARTS WASHER INSIDE AUX. BUILDING

SYM.	DATE	BY	REVISION DESCRIPTION	PRJ/TSK	APP.
5	05/02/2017	JAR	ADDED STORAGE GARAGE, EXTENDED EARTHEN BERM AND LABELED MAIN OFFICE		
4	02/21/17	JAR	REVISED PER JOSEPH GIAMPOLO'S MARK UPS		
3	03/31/16	MPR	UPDATED PER TIM JACKSON'S MARK UPS		
2	11/03/14	TBB	SCALED, ADDED BAR SCALE, ADDED ADJACENT PROPERTIES & REVISED NORTH ARROW		
1	08/01/14	TBB	REVISED PER TIM JACKSON'S MARK UPS		

SCALE	1" = 100'	DATE
DRAWN		
CHECKED		
APP. FOR BID		
APP. FOR CONST.		
TOWN:	WEST UNION, WV	COUNTY: DODDRIDGE

Dominion Transmission, Inc.
925 White Oaks Blvd. Bridgeport, West Virginia 26330 / Phone: (681) 842-3000

FOR: LL TONKIN COMPRESSOR STATION

TITLE: ENVIRONMENTAL EMERGENCY SITE PLAN

DIR:	GROUP	DWG. NO.	REV.
DOCUMENTUM	PD	X7921C	5

FILE: PRJ/TSK:

ATTACHMENT C

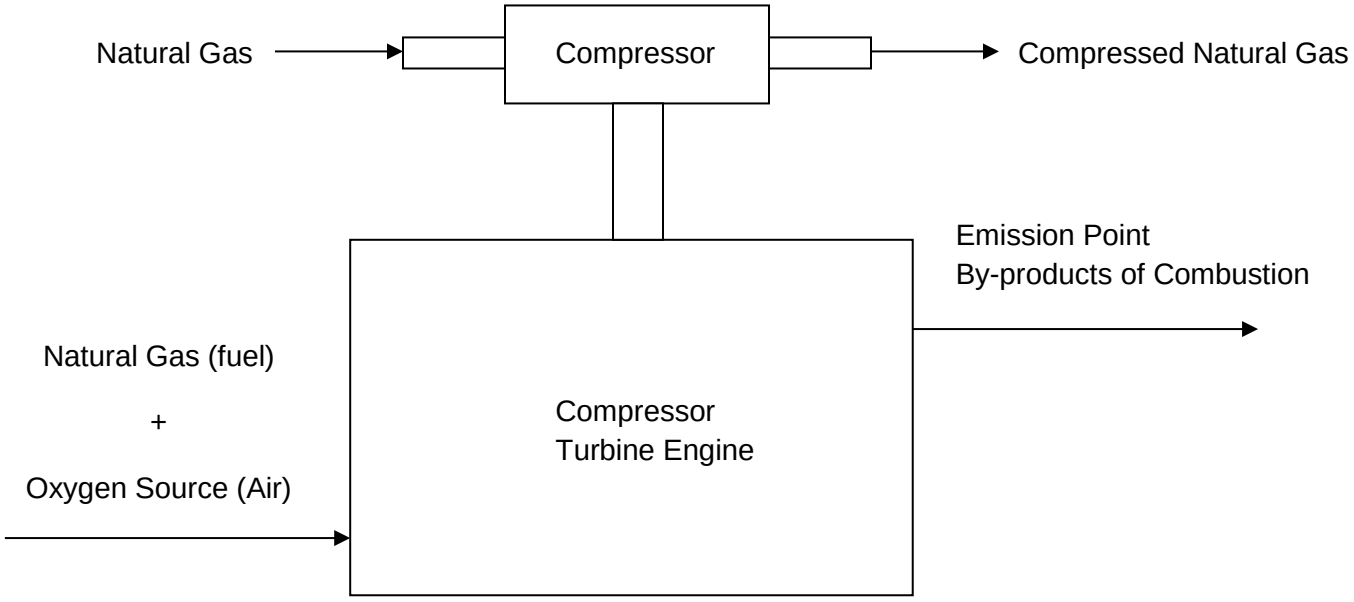
Process Flow Diagram

Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

Compressor Turbine Engines (TRB01, TRB02, TRB03) Process Flow Diagram

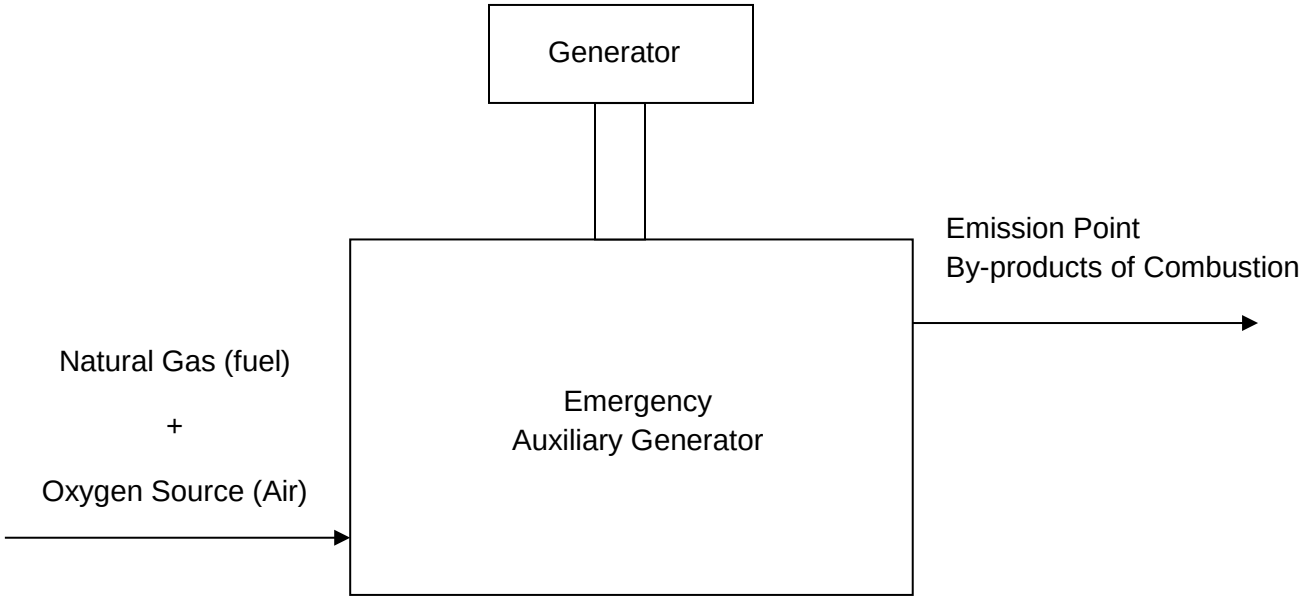
(similar flows for all three turbines)



Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

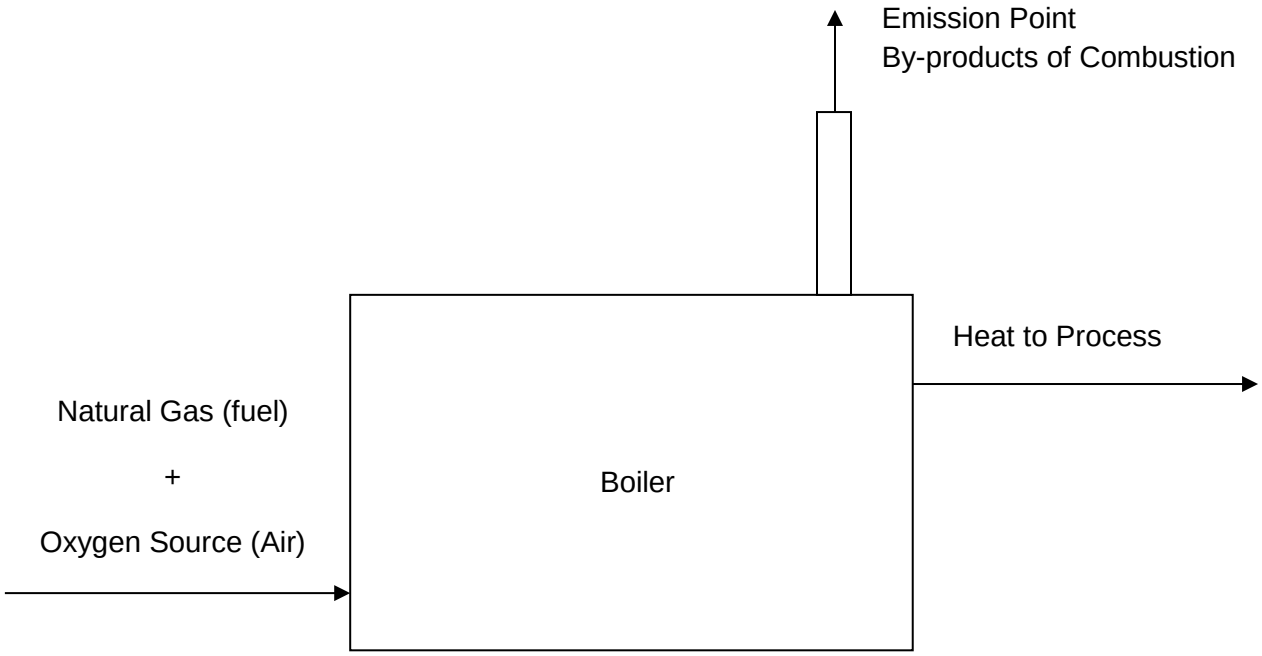
Emergency Auxiliary Generator (AUX02) Process Flow Diagram



Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

Boiler (BLR02) 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
001-01*	N/A	TRB01	Turbine, Solar T-4500	4,417 hp	1989
TK01	N/A	TK01	Horizontal Aboveground Storage Tank – Drip Gas	3,000 gallon	1989
TK02	N/A	TK02	Horizontal Aboveground Storage Tank – Used Oil	1,000 gallon	1989
TK03	N/A	TK03	Horizontal Aboveground Storage Tank – Lube Oil	500 gallon	1989
001-02*	N/A	TRB02	Solar Centaur 50 Combustion Turbine #2 with	6,035 hp	2016
001-03*	N/A	TRB03	Solar Centaur 50 Combustion Turbine #3 with Gas Compressor configuration	6,035 hp	2016
002-02*	LEC with AFR	AUX02	Caterpillar G3516 Generator Set with Spark Ignition using Natural Gas	1,462 hp	2016
004-02*	N/A	BLR02	Hurst LPW-G-70-60W Boiler, Natural Gas fired	2.94 mmBtu/hr	2016

[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.

*This equipment burns or combusts only pipeline quality natural gas.

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:**
TRB01	Turbine, Solar T-4500	N/A

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

Natural Gas-Fired Turbine

Manufacturer:	**Model number:**	**Serial number:**
Solar	T-4500	CC89440
Construction date:	**Installation date:**	**Modification date(s):**
1989	1989	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4,417 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	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: 4,417 hp	**Type and Btu/hr rating of burners:** 9,124 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 = 0.04576 MMscf/hr @ 0º F.
- Maximum annual fuel usage = 384.18 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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	5.10	44.16
Nitrogen Oxides (NO_X)	6.41	28.63
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.70	2.94
Particulate Matter (PM_{10})	0.70	2.94
Total Particulate Matter (TSP)	0.70	2.94
Sulfur Dioxide (SO_2)	0.04	0.18
Volatile Organic Compounds (VOC)	0.30	1.55
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.0019	0.0082
Acrolein	0.0003	0.0013
Benzene	0.0006	0.0025
Ethylbenzene	0.0015	0.0065
Formaldehyde	0.0331	0.1452
Toluene	0.0061	0.0266
Xylene	0.0030	0.0131
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.).

Notes:

1 NOx, CO, PM (all varieties), and VOC are based on vendor data as reflected in the applications for permit R13-1077B. Annual PTEs as reflected in Condition 4.1.1 of R13-1077B.
2 Others from AP-42, Section 3.1 (4/00)

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 60 Subpart GG – Standards for Nitrogen Oxides (TV 4.1.1.a.i)
40 CFR 60 Subpart GG – Standards for Sulfur Dioxide (TV 4.1.1.a.iii)
45 CSR 13 – Turbine Emission Limits (TV 4.1.1, R13-1077B)
45 CSR 13 – Compliance with 40 CFR 60 Subpart GG (TV 4.1.1, R13-1077B, B.1)
45 CSR 13 – Pipeline quality natural gas (TV 4.1.1.b, R13-1077B, B.3)
45 CSR 13 – Install, operate, and maintain SoLoNOx (TV 4.1.1.c, R13-1077B)
45 CSR 13 – Monitoring operating conditions and times (TV 4.2.1, R13-1077B 4.2.1)
45 CSR 13 – Recordkeeping (TV 4.4.1, R13-1077B, 4.4.4)

__X__ 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 60 Subpart GG – NOx compliance will be demonstrated by compliance test and recordkeeping. (TV 4.3.1)
40 CFR 60 Subpart GG – SO_2 will be limited by combusting only pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Turbine emissions are limited by Operating Permit R13-1077B. (TV 4.4.1)
45 CSR 13 – Compliance will be demonstrated by compliance testing and recordkeeping. (TV 4.3.1, 4.4.1, 4.4.2)
45 CSR 13 – Tariff to demonstrate compliance with pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Records will be kept for five years. (TV 3.4.2)

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TRB02	Turbine, Solar Centaur 50	N/A

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

Natural Gas-Fired Turbine

Manufacturer:	**Model number:**	**Serial number:**
Solar	Centaur 50	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2016	2016 (NSPS KKKK and OOOOa-affected)	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,035 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	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: 6,035 hp	**Type and Btu/hr rating of burners:** 8,538 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 = 0.05802 MMscf/hr @ 0º F.
- Maximum annual fuel usage = 491.2 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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.25	36.50
Nitrogen Oxides (NO_X)	3.20	14.43
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.89	3.76
Particulate Matter (PM_{10})	0.89	3.76
Total Particulate Matter (TSP)	0.89	3.76
Sulfur Dioxide (SO_2)	0.06	0.23
Volatile Organic Compounds (VOC)	0.37	1.87
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.0024	0.0104
Acrolein	0.0004	0.0017
Benzene	0.0007	0.0031
Ethylbenzene	0.0019	0.0083
Formaldehyde	0.0420	0.1841
Toluene	0.0077	0.0337
Xylene	0.0038	0.0166
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.).

Notes:

1 NOx, CO, PM (all varieties), and VOC are based on vendor data as reflected in the applications for permit R13-1077B. Annual PTEs as reflected in Condition 4.1.1 of R13-1077B.
2 Others from AP-42, Section 3.1 (4/00)

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 60 Subpart KKKK – Standards for Nitrogen Oxides (TV 4.1.2.a.i)
40 CFR 60 Subpart KKKK – Standards for Sulfur Dioxide (TV 4.1.2.a.iii)
45 CSR 13 – Turbine Emission Limits (TV 4.1.2, R13-1077B, A)
45 CSR 13 – Compliance with 40 CFR 60 Subpart KKKK (TV 4.1.2, R13-1077B, B.1)
45 CSR 13 – Pipeline quality natural gas (TV 4.1.2, R13-1077B, B.3)
45 CSR 13 – Install, operate, and maintain air pollution control equipment (SoLoNOx) (TV 4.1.2.c, R13-1077B)
45 CSR 13 – Monitoring operating conditions and times (TV 4.2.1, R13-1077B 4.2.1)
45 CSR 13 – Testing requirements (TV 4.3.2, R13-1077B 4.3.2)
45 CSR 13 – Recordkeeping (TV 4.4.1, R13-1077B, 4.4.4)
40 CFR 60 Subpart OOOOa – Standards for VOC and GHG from Natural Gas Facilities

__X__ 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 60 Subpart KKKK – NOx compliance will be demonstrated by periodic compliance testing and recordkeeping. (TV 4.3.2)
40 CFR 60 Subpart KKKK – SO_2 will be limited by combusting only pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Turbine emissions are limited by Operating Permit R13-1077B. (TV 4.4.1)
45 CSR 13 – Compliance will be demonstrated by compliance testing and recordkeeping. (TV 4.3.2, 4.4.1, 4.4.2)
45 CSR 13 – Tariff to demonstrate compliance with pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Records will be kept for five years. (TV 3.4.2)
40 CFR 60 Subpart OOOOa – Periodic LDAR and reporting under NSPS OOOOa (applies to entire compressor station)

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:**
TRB03	Turbine, Solar Centaur 50	N/A

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

Natural Gas-Fired Turbine

Manufacturer:	**Model number:**	**Serial number:**
Solar	Centaur 50	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2016	2016 (NSPS KKKK and OOOOa-affected)	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,035 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	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: 6,035 hp	**Type and Btu/hr rating of burners:** 8,538 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 = 0.05802 MMscf/hr @ 0º F.
- Maximum annual fuel usage = 491.2 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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.25	36.50
Nitrogen Oxides (NO_X)	3.20	14.43
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.89	3.76
Particulate Matter (PM_{10})	0.89	3.76
Total Particulate Matter (TSP)	0.89	3.76
Sulfur Dioxide (SO_2)	0.06	0.23
Volatile Organic Compounds (VOC)	0.37	1.87
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.0024	0.0104
Acrolein	0.0004	0.0017
Benzene	0.0007	0.0031
Ethylbenzene	0.0019	0.0083
Formaldehyde	0.0420	0.1841
Toluene	0.0077	0.0337
Xylene	0.0038	0.0166
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.).

Notes:

1 NOx, CO, PM (all varieties), and VOC are based on vendor data as reflected in the applications for permit R13-1077B. Annual PTEs as reflected in Condition 4.1.1 of R13-1077B.
2 Others from AP-42, Section 3.1 (4/00)

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 60 Subpart KKKK – Standards for Nitrogen Oxides (TV 4.1.2.a.i)
40 CFR 60 Subpart KKKK – Standards for Sulfur Dioxide (TV 4.1.2.a.iii)
45 CSR 13 – Turbine Emission Limits (TV 4.1.2, R13-1077B, A)
45 CSR 13 – Compliance with 40 CFR 60 Subpart KKKK (TV 4.1.2, R13-1077B, B.1)
45 CSR 13 – Pipeline quality natural gas (TV 4.1.2, R13-1077B, B.3)
45 CSR 13 – Install, operate, and maintain air pollution control equipment (SoLoNOx) (TV 4.1.2.c, R13-1077B)
45 CSR 13 – Monitoring operating conditions and times (TV 4.2.1, R13-1077B 4.2.1)
45 CSR 13 – Testing requirements (TV 4.3.2, R13-1077B 4.3.2)
45 CSR 13 – Recordkeeping (TV 4.4.1, R13-1077B, 4.4.4)
40 CFR 60 Subpart OOOOa – Standards for VOC and GHG from Natural Gas Facilities

__X__ 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 60 Subpart KKKK – NOx compliance will be demonstrated by periodic compliance testing and recordkeeping. (TV 4.3.2)
40 CFR 60 Subpart KKKK – SO_2 will be limited by combusting only pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Turbine emissions are limited by Operating Permit R13-1077B. (TV 4.4.1)
45 CSR 13 – Compliance will be demonstrated by compliance testing and recordkeeping. (TV 4.3.2, 4.4.1, 4.4.2)
45 CSR 13 – Tariff to demonstrate compliance with pipeline quality natural gas. (TV 4.4.2)
45 CSR 13 – Records will be kept for five years. (TV 3.4.2)
40 CFR 60 Subpart OOOOa – Periodic LDAR and reporting under NSPS OOOOa (applies to entire compressor station)

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:**
BLR02	Boiler, Hurst LPW-G-70-60W	N/A

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

2.94 MMBtu/hr natural gas-fired boiler

Manufacturer:	**Model number:**	**Serial number:**
Hurst	LPW-G-70-60W	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2016	2016	N/A

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2.94 MMBtu/hr	N/A	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: 2.94 MMBtu/hr	**Type and Btu/hr rating of burners:** 2.94 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.

Pipeline quality natural gas
- Maximum hourly fuel usage = 0.0028 MMscf/hr
- Maximum annual fuel usage = 25.25 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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.24	1.06
Nitrogen Oxides (NO_X)	0.29	1.26
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.022	0.10
Particulate Matter (PM_{10})	0.022	0.10
Total Particulate Matter (TSP)	0.022	0.10
Sulfur Dioxide (SO_2)	0.003	0.012
Volatile Organic Compounds (VOC)	0.016	0.07
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	6.05E-06	2.65E-05
Formaldehyde	2.16E-04	9.47E-04
Toluene	9.80E-06	4.29E-05
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.).

Emission factors used for the boiler were obtained from US EPA's AP-42, Section 1.4, Natural Gas Combustion, (7/98) and are as used in the application for R13-1077B.

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 ten (10) percent (TV 4.1.4)

__X__ 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 – Opacity readings shall be conducted as necessary for this gas-fired boiler

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:**
AUX02	Emergency Reciprocating Engine/Auxiliary Generator; Caterpillar G3516	N/A

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

Natural gas-fired emergency reciprocating engine/auxiliary generator

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar	G3516	2DM02751
Construction date:	**Installation date:**	**Modification date(s):**
2016 (NSPS JJJJ)	2017	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,462 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	500 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: 1,462 hp	**Type and Btu/hr rating of burners:** 12.63 mmBtu/hr

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

Pipeline quality natural gas
- Maximum hourly fuel usage = 0.0012 MMscf/hr
- Maximum annual fuel usage = 6.19 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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	6.19	1.55
Nitrogen Oxides (NO_X)	6.45	1.61
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.13	0.03
Particulate Matter (PM_{10})	0.13	0.03
Total Particulate Matter (TSP)	0.13	0.03
Sulfur Dioxide (SO_2)	0.012	0.003
Volatile Organic Compounds (VOC)	1.74	0.34
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.0649	0.0162
Acrolein	0.1056	0.0264
Benzene	0.0056	0.0014
Ethylbenzene	0.0003	0.0001
Formaldehyde	1.0000	0.2500
Toluene	0.0052	0.0013
Xylene	0.0023	0.0006
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.).

All emission rates for the auxiliary generator were based on manufacturer's data or emission factors presented in the permit application for R13-1077B or USEPA's AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, Table 3.2-3, 7/00.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <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 60 Subpart JJJJ applicability, emission limits, and general requirements (TV 6.1.1, R13-1077B 4.1.4, 40 CFR §60.4243)
40 CFR 60 Subpart JJJJ operation and maintenance requirements (TV 6.1.2, 40 CFR §60.4234)
40 CFR 60 Subpart JJJJ air-to-fuel ratio controller operation (TV 6.1.3, 40 CFR §60.4243)
40 CFR 60 Subpart JJJJ General Provisions (TV 6.1.4, Table 3 to 40 CFR 60 Subpart JJJJ)

____ 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 60 Subpart JJJJ emergency generator operating hour monitoring and recordkeeping requirements (TV 6.2.1, R13-1077B 4.2.3, 40 CFR §60.4245)
40 CFR 60 Subpart JJJJ testing requirements (TV 6.3.1 and 6.3.2, R13-1077B 4.3.3, 40 CFR §§60.4243 and 60.4244)
40 CFR 60 Subpart JJJJ recordkeeping requirements (TV 6.4.1, 40 CFR §60.4245)
40 CFR 60 Subpart JJJJ reporting requirements (TV 6.5.1, 40 CFR §60.4245) [Note: these requirements only apply if engine is operated for certain non-emergency purposes.]

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**.