L.L. TONKIN COMPRESSOR STATION
DOMINION TRANSMISSION INC.
APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-01700003-2010

Dominion Transmission, Inc.
L.L. Tonkin Compressor Station
HC 69
West Union, WV 26456

DECEMBER 2014

DOMINION TRANMISSION, INC.
L.L. TONKIN COMPRESSOR STATION

TITLE V PERMIT RENEWAL APPLICATION

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ATTACHMENTS

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

TITLE V PERMIT APPLICATION CHECKLIST FOR ADMINISTRATIVE COMPLETENESS

Requirement	Application
Two signed copies of the application (at least one must contain the original *"Certification"* page signed and dated in blue ink)	Enclosed – Section 2
Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)	Enclosed – 1 CD per binder
*Table of Contents (needs to be included but not for administrative completeness)	Table of Contents
Facility Information	Section 1/Section 2
Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios	Section 1 / Section 2: TV Renewal Application Form Section #14
Area map showing plant location	Attachment A
Plot plan showing buildings and process areas	Attachment B
Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships	Attachment C
Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance	Not Applicable
Listing of all active permits and consent orders (if applicable)	Section 2: TV Renewal

	Application Form Section #21
Facility-wide emissions summary	Section 2: TV Renewal Application Form Section #23
Identification of Insignificant Activities	Section 2: TV Renewal Application Form Section #24
ATTACHMENT D – Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities	Attachment D
ATTACHMENT E – Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance	Attachment E Attachment F not applicable
ATTACHMENT G – Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)	Not Applicable
ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)	Not Applicable
General Application Forms signed by a Responsible Official	Enclosed – Section 2
Confidential Information submitted in accordance with 45CSR31	Not Applicable

SECTION 1

Introduction

INTRODUCTION:

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

L.L. Tonkin Station is a major source of air emissions for nitrogen oxides (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.

L.L. Tonkin Station was originally issued a Title V Operating Permit (Permit No: R30-01700003-1996) in 1998 for a period of five (5) years, with an expiration date of August 17, 2003. L.L. Tonkin Station is also subject to the underlying State Operating Permit (Rule 13 Permit No: R13-1077). These Operating Permits are for the operation of one (1) 4,390-hp turbine (TBR01), one (1) 189-hp auxiliary engine (AUX01), one (1) 0.52 MMBtu/hr natural gas fired boiler (BLR01), one (1) 3,000-gallon aboveground storage tank (TK01), one (1) 1,000-gallon aboveground storage tank (TK02), and one (1) 500-gallon aboveground storage tank (TK03).

A Title V renewal application was submitted in 2003, with the Title V Operating Permit Renewal being issued on September 27, 2005 (expiration date of September 27, 2010). The last Title V Operating Permit Renewal was issued on June 7, 2010, with an expiration date of June 7, 2015.

PROCESS DESCRIPTION

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

Compressor Engines

One (1) 4,390-hp Solar T-4500 Turbine

- Emission unit ID: TRB01
- Emission point ID: 001-01

One (1) 189-hp Cummins GTA-743 auxiliary reciprocating engine*

- Emission unit ID: AUX01
- Emission point ID: 002-01

One (1) 0.52 MMBtu/hr Peerless G-14691-WS-1 natural gas fired boiler

- Emission unit ID: BLR01
- Emission point ID: 004-01

* The auxiliary generator size is actually 189 hp and has been updated with this Title V renewal application.

SECTION 2

Title V Renewal Permit Application -
General Forms

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):** Dominion Transmission, Inc.	**2. Facility Name or Location:** L.L. Tonkin Station
3. DAQ Plant ID No.: 017 -- 00003	**4. Federal Employer ID No. (FEIN):** 550629203

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? 1989
☒ Permit Renewal — What is the expiration date of the existing permit? 06/07/2015
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

8. Number of onsite employees:

15

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.

_____
_____
_____

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: 445 West Main Street		
City: Clarksburg	**State:** WV	**Zip:** 26301
Telephone Number: (304) 627-3225	**Fax Number:** (304) 627-3222	

12. Facility Location		
Street: HC 69, Box 11	**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
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 Sobs 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: Brian C. Sheppard		**Title:** Vice President, Pipeline Operations
Street or P.O. Box: 445 West Main Street		
City: Clarksburg	**State:** WV	**Zip:** 26301
Telephone Number: (304) 627-3733	**Fax Number:** (304) 627-3323	
E-mail address: Brian.C.Sheppard@dom.com		
Environmental Contact: Rebekah (Becky) Remick		**Title:** Environmental Specialist III
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	**State:** VA	**Zip:** 23060
Telephone Number: (804) 273-3536	**Fax Number:** (804) 273-2964	
E-mail address: Rebekah.J.Remick@dom.com		
Application Preparer: Rebekah (Becky) Remick		**Title:** Environmental Specialist III
Company: Dominion Resources, Inc.		
Street or P.O. Box: 5000 Dominion Blvd.		
City: Glen Allen	**State:** VA	**Zip:** 23060
Telephone Number: (804) 273-3536	**Fax Number:** (804) 273-2964	
E-mail address: Rebekah.J.Remick@dom.com		

14. Facility Description

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

Process	Products	NAICS	SIC
Natural Gas Compressor Station	N/A	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 turbine (TRB01) at the facility receives 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 Subpart JJJJ – The auxiliary generator (AUX01) is not subject to this subpart since it was installed in 1989 and was therefore manufactured pre-1989.

40 CFR 60 Subpart OOOO – This subpart does not apply to the facility since the facility is a transmission facility that has tanks below 6 tons VOC/yr which has not been constructed, modified, or reconstructed after August 23, 2011.

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 HHH – This subpart does not apply to the facility since the facility is not a major source of HAPs.

40 CFR 63 Subpart ZZZZ – The turbine (TRB01) is not subject to this subpart as it is not a RICE unit.

40 CFR 63 Subpart DDDDD – The boiler (BLR01) is not subject to this subpart since the facility is not major source of HAPs.

40 CFR 63 Subpart JJJJJJ – The boiler (BLR01) is not applicable to this subpart since it is considered a "gas-fired boiler" (i.e. burns only natural gas) and is exempt based on §63.11195.

☐ 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 – Asbestos inspection and removal (TV 3.1.3)

45 CSR 15 – Asbestos inspection and removal (TV 3.1.3)

<u>State Only:</u>

45 CSR 4 – No Objectionable odors (TV 3.1.4)

45 CSR 11-5.2 – Standby plans for emergency episodes (TV 3.1.5)

WV Code 22-5-4 (a) (14) – The Secretary can request any pertinent information such as annual emission inventory reporting (TV 3.1.6)

40 CFR Part 82 Subpart F – Ozone depleting substances (TV 3.1.7)

40 CFR Part 68 – Risk Management Plan (TV 3.1.8)

45 CR 10 – Emission of Sulfur Oxides (TV 3.1.9)

45 CF 10 – Emission of Hydrogen Sulfides (TV 3.1.10)

45 CSR 2 – Indirect Heat Exchangers (TV 3.1.11)

45 CSR 13 – Operating Permit requirements (TV 3.1.12, R13-1077.A)

40 CFR 60 Subpart GG – Turbine NSPS (TV.3.1.13, R13-1077.B-1)

45 CSR 13 – Compliance with 40 CFR 60 Subpart GG (TV 3.1.13, R13-1077.B-1)

45 CSR 16 – Compliance with 40 CFR 60 Subpart GG (TV 3.1.13, R13-1077.B-1)

40 CFR 63 Subpart ZZZZ – RICE NESHAP (§63.6585)

☐ Permit Shield

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

45 CSR 6-3.1 – The permittee shall prohibit open burning (TV 3.1.1)

45 CSR 6-3.2 – The permittee shall prohibit open burning (TV 3.1.2)

40 CFR Part 61 – Prior to demolition/construction, buildings will be inspected for asbestos (TV 3.1.3)

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

45 CSR 4 – Permittee shall maintain records of all odor complaints received (TV 3.1.4)

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

WV 22-5-4 – The permittee shall submit semi-annual emission inventory reports (TV 3.1.6)

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

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

45 CR 10 – Emission of Sulfur Oxides shall be limited by burning only pipeline quality natural gas (TV 3.1.9)

45 CR 10 – Emission of Hydrogen Sulfides shall be limited by burning only pipeline natural gas (TV 3.1.10)

45 CSR 2 – The permittee will limit visible emissions from fuel burning equipment by burning only pipeline quality natural gas (TV 3.1.11)

45 CSR 13 – Emissions from the turbine shall be limited by burning pipeline quality natural gas (TV 3.1.12, R13-1077.A)

40 CFR 60 Subpart GG – The permittee shall comply with the emission limits for NOx and SO_2 (TV 3.1.13, R13-1077.B-1)

45 CSR 13 – The permittee shall install a CEMS unit or provide for an alternate compliance plan (TV 3.1.13, R13-1077.B-1)

45 CSR 16 – The permittee shall install a CEMS unit or provide for an alternate compliance plan (TV 3.1.13, R13-1077.B-1)

45 CSR 17 – The permittee will limit fugitive emissions from the facility (TV 3.1.14)

45 CSR 30-5.1.c – Semi-Annual Visible Emission readings will be conducted and records shall be maintained (TV 3.2.1)

45 CSR 30.5.1.c – Semi-Annual inlet gas stream shall be sampled for Total Sulfur (TV 3.2.2)

45 CSR 30.5.1.c – Semi-Annual inlet gas steam shall be sampled for H_2S (TV 3.2.3)

45 CSR 30.5.1.c – The permittee shall calculate the monthly emissions from the turbine by the 15th day of the subsequent month for NOx, SO_2, CO, and VOC (TV 3.2.4)

45 CSR 13 – The permittee shall monitor inlet fuel for nitrogen if a fuel change occurs (TV 3.2.5)

45 CSR 13 – The permittee shall analyze inlet fuel sulfur content on a semi-annual basis (TV 3.2.6)

45 CSR 13 – The permittee shall notify the State if a change in fuel occurs (TV 3.2.7)

45 CSR 30.5.1.c – The permittee shall maintain records of compliance tests for a duration of five (5) years (TV 3.4.2)

40 CFR 63 Subpart ZZZZ – For the Auxiliary Generator only: The permittee shall comply with all applicable requirements for an existing, emergency, spark ignition engine at an area source.

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)*
R13-1077	04/07/1989	N/A

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

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	40.0
Nitrogen Oxides (NO_X)	123.6
Lead (Pb)	N/A
Particulate Matter ($PM_{2.5}$)[1]	2.8
Particulate Matter (PM_{10})[1]	5.5
Total Particulate Matter (TSP)	5.5
Sulfur Dioxide (SO_2)	0.19
Volatile Organic Compounds (VOC)	14.8
Hazardous Air Pollutants[2]	Potential Emissions
Acetaldehyde	0.3
Acrolein	0.08
Benzene	0.27
Ethylbenzene	0.03
Formaldehyde	0.54
Hexane	0.25
Toluene	0.07
Xylene	0.10
Regulated Pollutants other than Criteria and HAP	Potential Emissions

Greenhouse Gases (GHGs)	Potential Emissions
Carbon Dioxide (CO_2)	6,238
Nitrous Oxide (N_2O)	0.01
Methane (CH_4)	293
Hydrofluorocarbons (HFCs)	N/A
Perfluorocarbons (PFCs)	N/A
Sulfur hexafluoride (SF_6)	N/A
CO_2 equivalent (CO_2e)	13,579

[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.

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.
☒	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

24. Insignificant Activities (Check all that apply)		
		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: Brian C. Sheppard	Title: Vice President, Pipeline Operations

Responsible official's signature:

Signature: _____ Signature Date: 12-01-2014

(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)

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

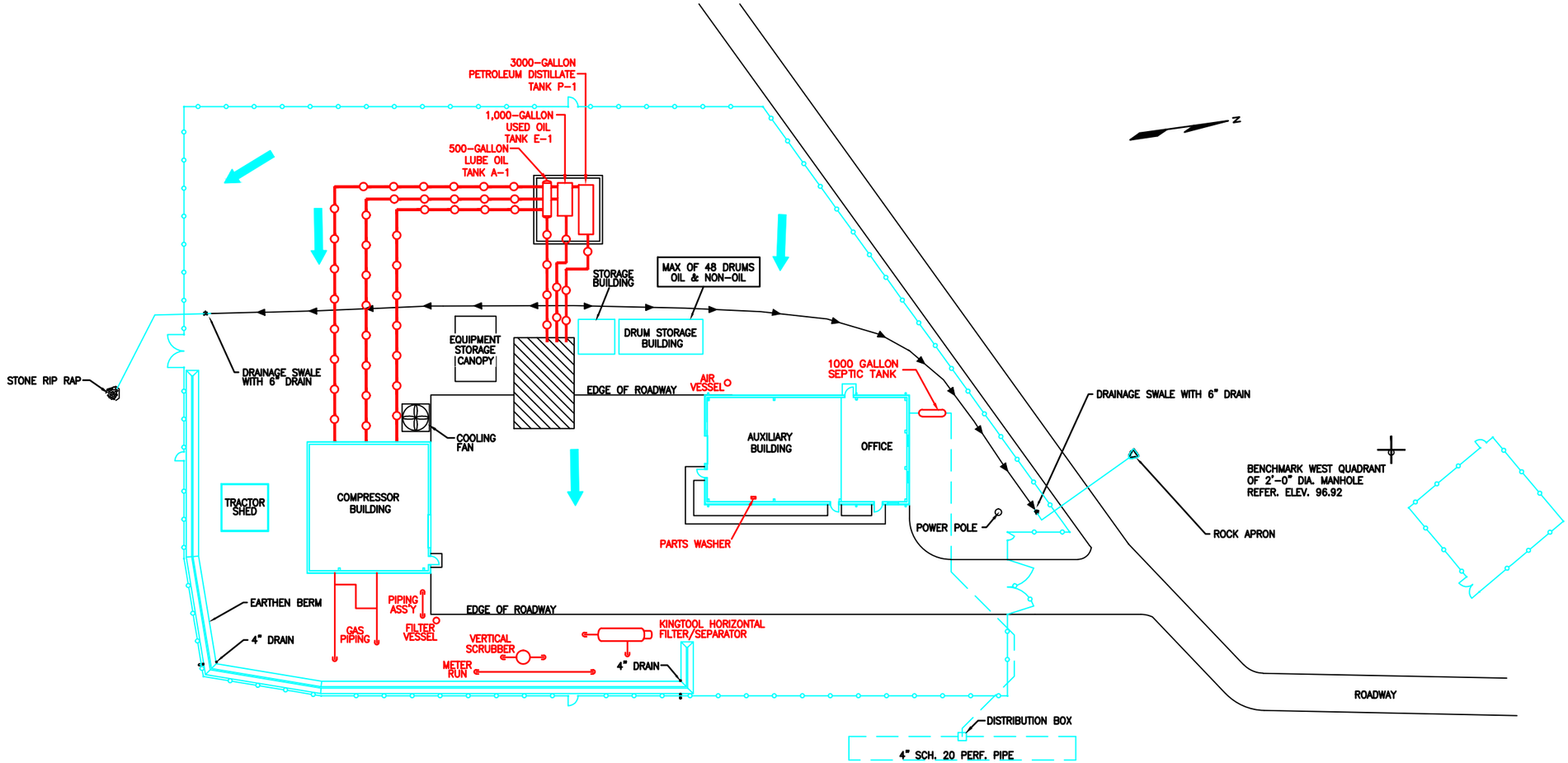
ATTACHMENT A

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



LEGEND:

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

OIL CONTAINING MECHANICAL EQUIPMENT		
QUANTITY	MATERIAL	LOCATION
350-GALLONS	LUBE OIL	COMPRESSOR BUILDING SOLAR CENTER TURBINE ENGINES
124-GALLONS	PIPELINE FLUIDS	HORIZONTAL SEPARATOR (KINGTOOL) SOUTHEAST OF COMPRESSOR BUILDING
1,316-GALLONS	PIPELINE FLUIDS	VERTICAL SEPARATOR SOUTHEAST OF COMPRESSOR BUILDING
62-GALLONS	SOLVENT	PARTS WASHER INSIDE AUX. BUILDING

TECHNOLOGIES
98 Vanadium Road Bridgeville, PA 15017 (412) 221-1100

SYM.	DATE	BY	REVISION DESCRIPTION	PRJ/TSK	APP.
1	08/01/2014	TBB	REVISED PER TIM JACKSON MARK UPS		

SCALE N.T.S.	DATE
DRAWN	
CHECKED	
APP. FOR BID	
APP. FOR CONST.	
TOWN: WEST UNION, WV	COUNTY: DODDRIDGE

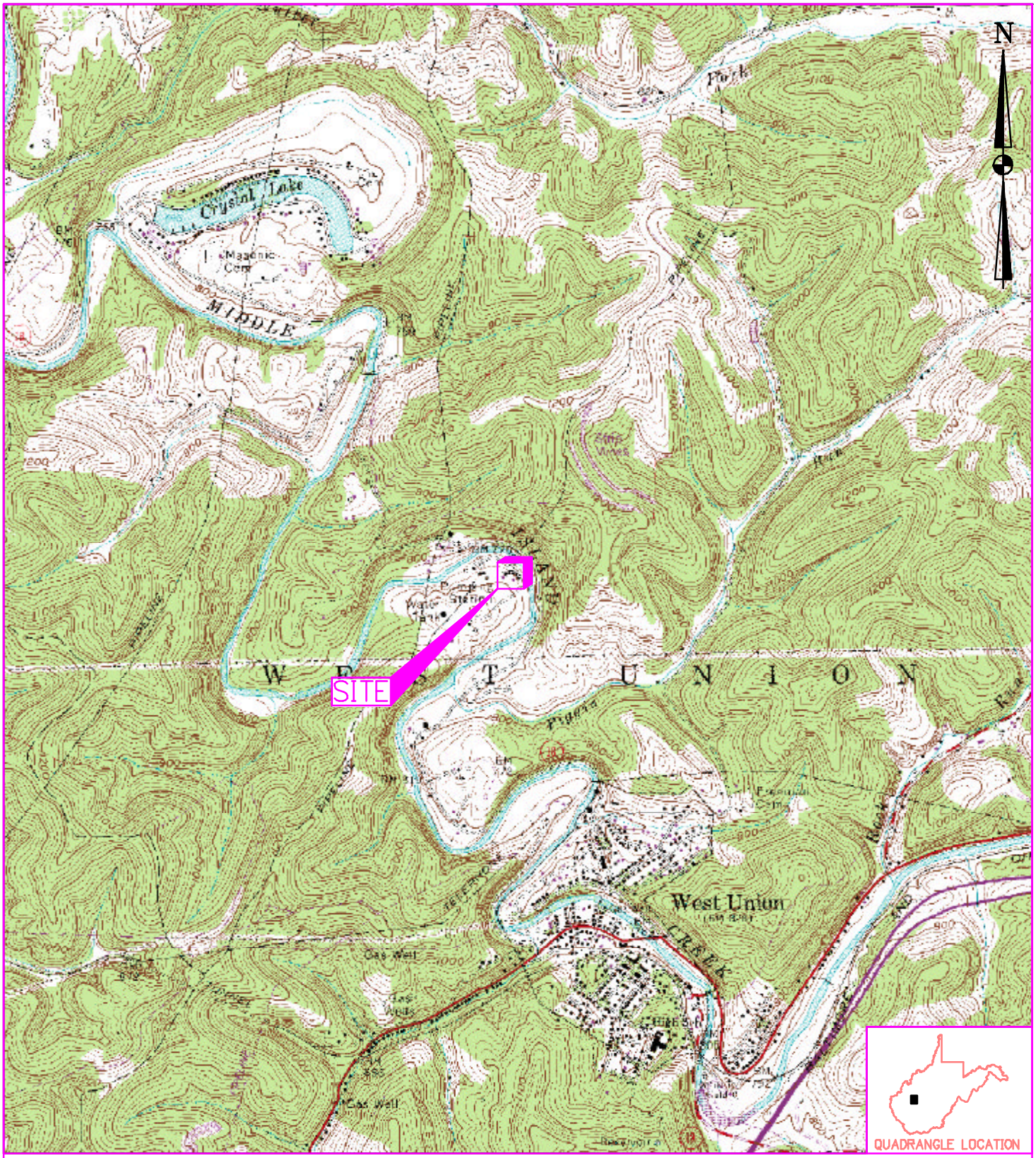
Dominion Transmission, Inc.
445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

FOR: L.L. TONKIN COMPRESSOR STATION

TITLE: ENVIRONMENTAL EMERGENCY SITE PLAN

DIR:		GROUP	DWG. NO.	REV.
FILE:	PRJ/TSK:	PD	X7921C	1

Printed: Aug 01, 2014 @07:22, By: timo409, Filename: PDX7921C.dwg



REFERENCE: USGS 7.5' QUADRANGLE MAP OF: WEST UNION, WEST VIRGINIA; DATED 1961, PHOTOREVISED 1976.

DRAWN BY	DJF
DATE	
CHECKED BY	
SET JOB NO.	205034-02
SET DWG FILE	LLTONKINm01.dwg
DRAWING SCALE	1"=2000'

SE TECHNOLOGIES
98 Vanadium Road Bridgeville, PA 15017 (412) 221-1100

DOMINION TRANSMISSION

LL TONKIN COMPRESSOR STATION
WEST UNION, DODDRIDGE COUNTY, WEST VIRGINIA
SITE LOCATION MAP

DRAWING NO.	REV.
FIGURE 1	0

Plot: env045 05/05/2005 13:13 G:\DOMINION\205034\LLTONKINm01dwg.dwg

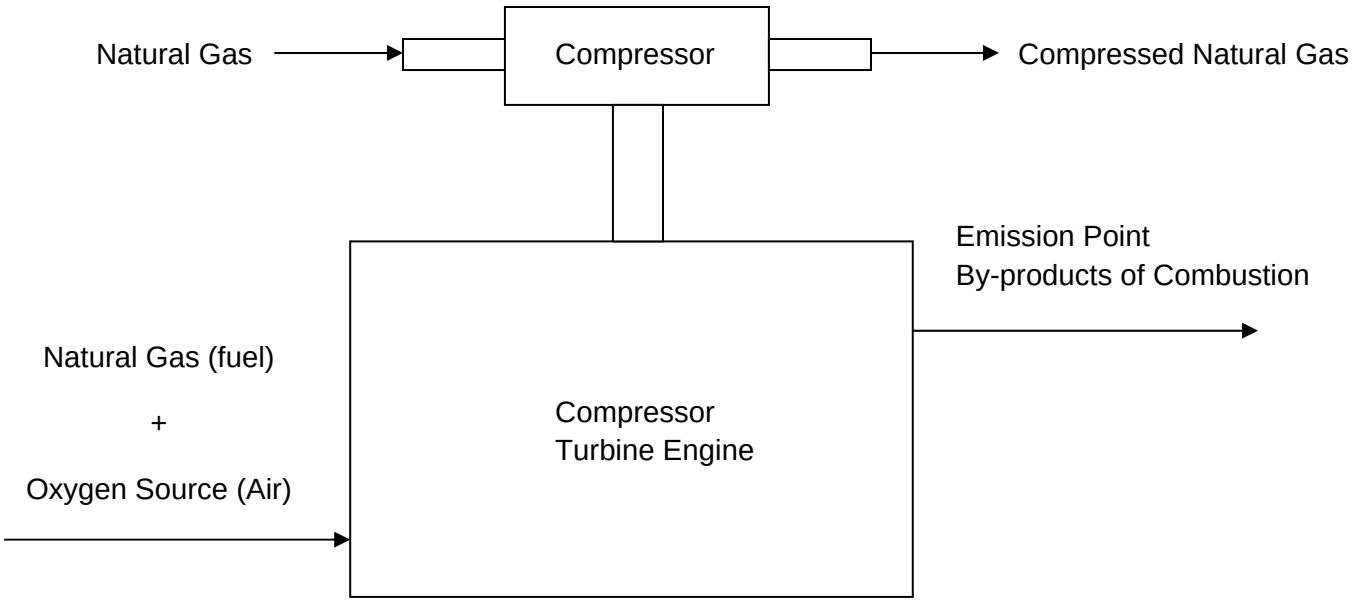
ATTACHMENT C

Process Flow Diagrams

Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

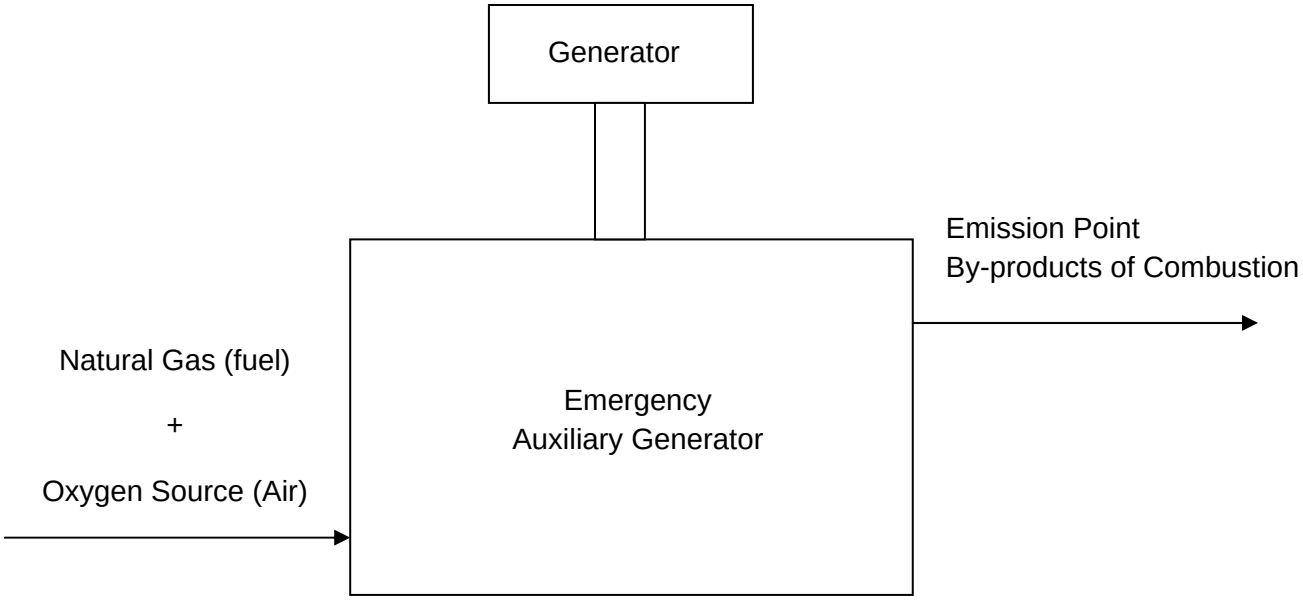
Compressor Turbine Engine (TRB01) Process Flow Diagram



Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

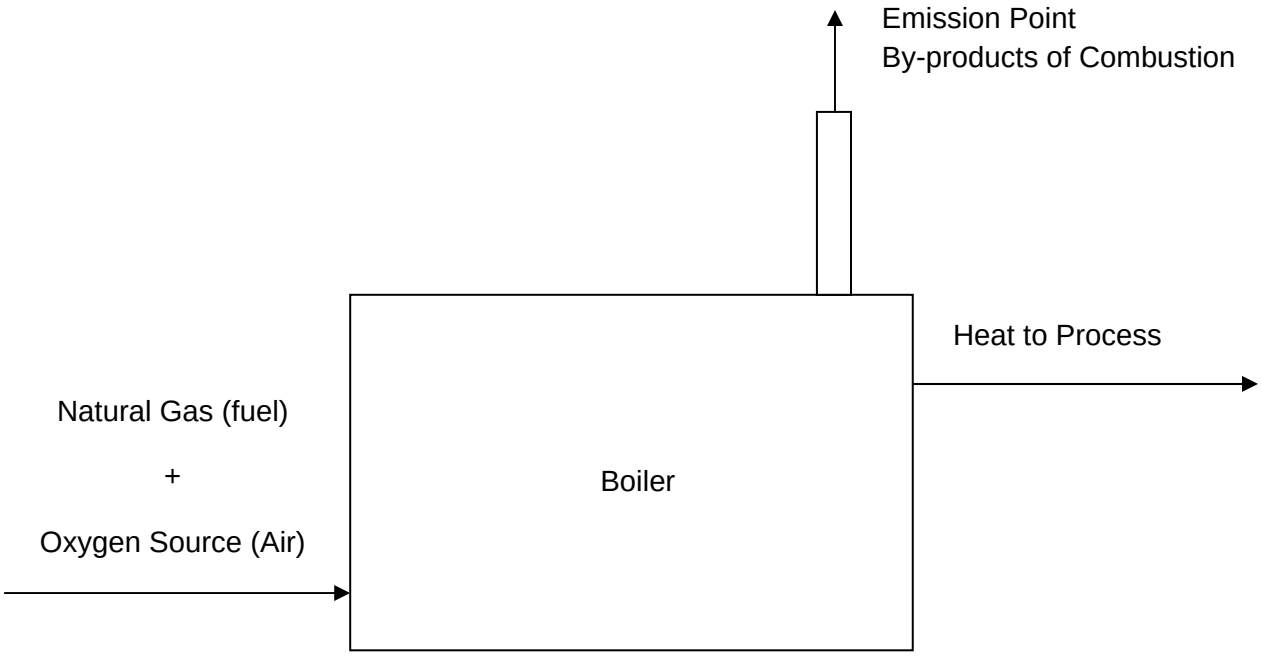
Emergency Auxiliary Generator (AUX01) Process Flow Diagram



Dominion Transmission, Inc.

L.L. Tonkin Compressor Station

Boiler (BLR01) 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	4390 hp	1989
002-01*	N/A	AUX01	Emergency Reciprocating Engine/Auxiliary Generator; Cummins GTA-743	189 hp[a]	1989
004-01*	N/A	BLR01	Boiler; Peerless G-14691-WS-I	0.52 MMBtu/hr	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

[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.

[a] The auxiliary generator size is actually 189 hp and has been updated with this Title V renewal application.

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:**
AUX01	Emergency Reciprocating Engine/Auxiliary Generator; Cummins GTA-743	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:**
Cummins	GTA-743	25165472
Construction date:	**Installation date:**	**Modification date(s):**
1989	1989	N/A

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		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: 189 hp	**Type and Btu/hr rating of burners:** 7500 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 = 0.0013 MMscf/hr
- Maximum annual fuel usage = 11.388 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)	1.79	7.84
Nitrogen Oxides (NO_X)	1.09	4.78
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	4.57E-03	2.00E-02
Particulate Matter (PM_{10})	4.57E-03	2.00E-02
Total Particulate Matter (TSP)	9.34E-03	4.09E-02
Sulfur Dioxide (SO_2)	2.83E-04	1.24E-03
Volatile Organic Compounds (VOC)	0.17	0.75
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	1.34E-03	5.88E-03
Acrolein	1.27E-03	5.54E-03
Benzene	7.60E-04	3.33E-03
Ethylbenzene	1.19E-05	5.23E-05
Formaldehyde	9.86E-03	4.32E-02
Toluene	2.68E-04	1.18E-03
Xylene	9.38E-05	4.11E-04
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 emission factors presented in 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.

45 CSR 10-4.1 – SO_2 emissions shall not exceed 2,000 ppm by volume (TV 3.1.9)
45 CSR 10-5.1 – H_2S emissions shall not exceed 50 gr/100 cu ft (TV 3.1.10)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for Total Sulfur (TV 3.2.2)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for H_2S (TV 3.2.3)
40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as an existing, emergency, spark ignition engine at an area source (§63.6585)

____ 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 10-4.1 – SO_2 emissions are limited by Operating Permit R13-1077.
45 CSR 10-5.1 – H_2S emissions are limited by Operating Permit R13-1077.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.
40 CFR 63 Subpart ZZZZ §63.6595(a)(1), §63.6603(a) Table 2d (item 5) & §63.10(b)(1) – The permittee shall comply with the following requirements:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first (or implement oil analysis program)
b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
d. Maintain records of maintenance for a minimum of 5 years.

40 CFR 63 Subpart ZZZZ §63.6625(e)(3), §63.6640(a), §63.6605 and Table 6 (Item 9) –
Operate and maintain the stationary RICE and after-treatment control device (if any) 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 the manner consistent with good air pollution control practice for minimizing emissions. At all times operate and maintain any affected source, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
40 CFR 63 Subpart ZZZZ §63.6625(f) - Emergency generator to be equipped with a non-resettable hour meter. Install a non-resettable hour meter if one is not already installed.
40 CFR 63 Subpart ZZZZ §63.6640(f) - Emergency stationary RICE are permitted to operate as follows:

a. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations are limited to 50 hours per year, is prohibited. There is no time limit on the use of emergency stationary RICE in emergency situations.
b. Emergency RICE may be operated for the purpose of maintenance checks and readiness testing. Maintenance checks and readiness testing . Maintenance checks and readiness testing of such units is limited to 100 hours per 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.)
d. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generated income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except for a maximum of 15 hours per year as part of a demand response program.
e. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is

expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent.

40 CFR 63 Subpart ZZZZ §63.6640, §63.6655 & §63.10(b) - Keep records of the following for a minimum of 5 years:

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.
d. The hours of operation recorded through the non-resettable hour meter. Must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
e. Must report each instance which you did not meet an operating limit that applies to you.

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:**
BLR01	Boiler, Peerless G-14691-WS-1	N/A

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

0.52 MMBtu/hr natural gas-fired boiler

Manufacturer:	**Model number:**	**Serial number:**
Peerless	G-14691-WS-1	61-49844-0589

Construction date:	**Installation date:**	**Modification date(s):**
1989	1989	N/A

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.52 MMBtu/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: 0.52 MMBtu/hr	**Type and Btu/hr rating of burners:** 0.0005 MMscf/hr

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

Pipeline quality natural gas
- Maximum hourly fuel usage = 0.0005 MMscf/hr
- Maximum annual fuel usage = 4.38 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)	0.04	0.19
Nitrogen Oxides (NO_X)	0.05	0.23
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	9.88E-04	4.33E-03
Particulate Matter (PM_{10})	9.88E-04	4.33E-03
Total Particulate Matter (TSP)	3.95E-03	1.73E-02
Sulfur Dioxide (SO_2)	3.12E-04	1.37E-03
Volatile Organic Compounds (VOC)	2.86E-03	0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	1.09E-06	4.78E-06
Formaldehyde	3.90E-05	1.71E-04
Toluene	1.77E-06	7.74E-06
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, Tables 1.4-1, 2, 3, 4 (dated 7/98).

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 10-4.1 – SO_2 emissions shall not exceed 2,000 ppm by volume (TV 3.1.9)
45 CSR 10-5.1 – H_2S emissions shall not exceed 50 gr/100 cu ft (TV 3.1.10)
45 CSR 2-3.1 – Opacity limit of less than ten (10) percent (TV 3.1.9)
45 CSR 2-3.1 – Semi-Annual Opacity Readings and Records (TV 3.2.1)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for Total Sulfur (TV 3.2.2)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for H_2S (TV 3.2.3)

____ Permit Shield

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

45 CSR 10-4.1 – SO_2 emissions are limited by Operating Permit R13-1077.
45 CSR 10-5.1 – H_2S emissions are limited by Operating Permit R13-1077.
45 CSR 2-3.1 – Opacity readings shall be conducted on a semi-annual basis and records shall be maintained.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.

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:**
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):
4390 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		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: 4390 hp	**Type and Btu/hr rating of burners:** 9,955 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 = 0.04365 MMscf/hr
- Maximum annual fuel usage = 382.4 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)	3.8	16.6
Nitrogen Oxides (NO_X)	22.6	99.0
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	0.63	2.6
Particulate Matter (PM_{10})	0.63	2.6
Total Particulate Matter (TSP)	0.63	2.6
Sulfur Dioxide (SO_2)	0.04	0.18
Volatile Organic Compounds (VOC)	1.4	6.1
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.027	0.29
Acrolein	0.018	0.07
Benzene	0.065	0.27
Ethylbenzene	0.0081	0.03
Formaldehyde	0.16	0.50
Hexane	0.06	0.25
Toluene	0.016	0.07
Xylene	0.025	0.10
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 SO_2 emissions for the turbine were based on allowable emission rates established in the Operating Permit R13-1077.
- PM, PM_{10}, and $PM_{2.5}$ emission factors for the turbine were obtained from US EPA's AIR report (March 1990)
- HAP emission factors for the turbine were based on turbine emission factors obtained from GRI's HAP Calc v 1.0 (July 1994), except for ethylbenzene and xylene which were obtained from US EPA's AP-42 (July 1993)

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
40 CFR 60 Subpart GG – Standards for Sulfur Dioxide
45 CSR 10-4.1 – SO_2 emissions shall not exceed 2,000 ppm by volume (TV 3.1.9)
45 CSR 10-5.1 – H_2S emissions shall not exceed 50 gr/100 cu ft (TV 3.1.10)
45 CSR 13 – Turbine Emission Limits (TV 3.1.11, R13-1077, A)
45 CSR 13 – Compliance with 40 CFR 60 Subpart GG (TV 3.1.13, R13-1077, B.1)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for Total Sulfur (TV 3.2.2)
45 CSR 30-5.1(c) – Annual analysis of Inlet Gas for H_2S (TV 3.2.3)
45 CSR 30-5.1(c) – Monthly calculations of NOx, CO, SO_2, and VOC emissions (TV 3.2.4)
45 CSR 30-5.1(c) – Semi-annual analysis of fuel sulfur content (TV 3.2.6)
45 CSR 13 – Monitoring of fuel nitrogen (TV 3.2.5, R13-1077, B.2)
45 CSR 13 – Fuel Change (TV 3.2.7, R13-1077, B.3)
45 CSR 13 – Recordkeeping (TV 3.4.4, R13-1077, B.4)

____ 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.
40 CFR 60 Subpart GG – SO_2 will be limited by combusting only pipeline quality natural gas.
45 CSR 10-4.1 – SO_2 emissions are limited by Operating Permit R13-1077.
45 CSR 10-5.1 – H_2S emissions are limited by Operating Permit R13-1077.
45 CSR 13 – Turbine emissions are limited by Operating Permit R13-1077.
45 CSR 13 – Compliance will be demonstrated by compliance testing and recordkeeping.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.
45 CSR 30-5.1(c) – Annual inlet gas sampling will be conducted and records will be maintained.
45 CSR 30-5.1(c) – Monthly criteria pollutant emissions will be calculated by the 15th date of the subsequent month (TV 3.2.3)
45 CSR 30-5.1(c) – Semi-annual analysis of fuel sulfur content will be conducted in the 1st and 3rd quarter of each applicable year (TV 3.2.2)
45 CSR 13 – If a fuel change occurs, the Administrator will be notified.
45 CSR 13 – Records will be kept of fuel analysis for a three year period.

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**.