RACT COMPLIANCE REPORT

BHE GT&S

A BERKSHIRE HATHAWAY ENERGY COMPANY

BHE Eastern Gas Transmission and Storage, Inc. /
Punxsutawney Compressor Station

Revised January 12, 2024

Trinity Consultants

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1. INTRODUCTION

BHE Eastern Gas Transmission and Storage, Inc. (EGTS) is submitting this report to the Pennsylvania Department of Environmental Protection (PADEP) for their Compressor Station located in Jefferson County, Pennsylvania (Punxsutawney Compressor Station).

The Punxsutawney Compressor Station is located at 88 Laska Rd, Jefferson County, Pennsylvania. The Punxsutawney Compressor Station operates under Title V Permit No. 33-00140, which was most recently revised on February 22, 2021. The facility is currently a major source with respect to nitrogen oxides (NO_X) and volatile organic compounds (VOC). As such, the Punxsutawney Compressor Station is subject to the Reasonably Available Control Technology (RACT) requirements in 25 Pa. Code §§129.111-129.115. This report includes the applicable notifications and submittals to comply with the RACT requirements and is submitted prior to the compliance date of December 31, 2022, referenced in 25 Pa. Code §129.115(a)(1)(i).

This report contains a Plan Approval application for the installation of selective catalytic reduction (SCR) controls on Engines 1 and 2 (Sources 131 and 132) to comply with RACT requirements. As such, this report contains a petition for an alternative compliance schedule in accordance with 25 Pa. Code §129.114(l). This report also contains an alternative RACT proposal for fugitive emissions in accordance with 25 Pa. Code §129.114(c).

This report is organized as follows:

- Section 2: RACT Applicability
- Section 3: Regulation Review
- Section 4: Compliance Schedule
- Section 5: Alternative RACT Requirement
- Appendix A: Emission Calculations
- Appendix B: General Information Form
- Appendix C: Plan Approval Forms
- Appendix D: Compliance Review Form
- Appendix E: Municipal Notifications

2. RACT APPLICABILITY

This section contains a summary of RACT applicability for the Punxsutawney Compressor Station

2.1 RACT Notification

This section contains the information required by the RACT notification in 25 Pa. Code §129.115(a) outlined as follows:

- Tables 2-1 and 2-2 contain the required information for the applicable equipment to satisfy 25 Pa. Code 129.115(a)(5) and (7). Table 2-3 summarizes each RACT III citation referenced in Tables 2-1 and 2-2.
- For sources exempt per 25 Pa. Code 129.111(c), Appendix A contains potential to emit calculations to satisfy 25 Pa. Code 129.115(a)(7)(ii).

This submittal also includes the proposed project to install SCR (and associated ammonia storage tank) to meet the presumptive limits for Engines 1 and 2.

Table 2-1. NO_x RACT Information

Source ID[1]	Source Description	Equipment Make	Equipment Model	NO_x RACT Requirement	Citation	NO_x RACT Compliance Demonstration	Citation
034	Boiler 1 (5.5 MMBtu/Hr)	AJAX	WGFD-5500	N/A - Rating less than 20 MMBtu/hr	129.112(c)(4)	N/A - Work practices	129.112(c)(4)
035	Misc. Combustion Units (<2.5 MMBtu/Hr)	N/A	N/A	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)
131	Compressor Engine 1 (4200 HP)	Dresser Rand	TV-10	0.6 g/bhp-hr	129.112(g)(3)(ii)(A)	Emissions source test	129.115(b)(6) 129.115(e)(3)
132	Compressor Engine 2 (4200 HP)	Dresser Rand	TV-10	0.6 g/bhp-hr	129.112(g)(3)(ii)(A)	Emissions source test	129.115(b)(6) 129.115(e)(3)
133	Auxiliary Gen 1 (550 HP)	Caterpillar	SR-4 G3508TA	N/A - Emergency generator	129.112(c)(10)	N/A - Work practices	129.112(c)(10)
134	Misc. Storage Tanks	N/A	N/A	N/A – Not a NOx Source			
136	Compressor Engine 3 (4735 HP)	Caterpillar	G3616	0.6 g/bhp-hr	129.112(g)(3)(ii)(A)	Emissions source test	129.115(b)(6) 129.115(e)(3)
137	Compressor Turbine	Solar Centaur	50-6200LS	42 ppmvd @ 15% oxygen	129.112(g)(2)(v)(A)	Emissions source test	129.115(b)(6) 129.115(e)(3)
139	Line Heater	Bruest Hot Cat	HC-2800	N/A - Rating less than 20 MMBtu/hr	129.112(c)(4)	N/A - Work practices	129.112(c)(4)
P101	Facility Pumps, Valves, Flanges, etc.	N/A	N/A	N/A – Not a NOx Source			
P102	Parts Washer (Degreasing Unit)	N/A	N/A	N/A – Not a NOx Source			

1. All sources located at the Punxsutawney Compressor Station.

Table 2-2. VOC RACT Information

Source ID[1]	Source Description	Equipment Make	Equipment Model	VOC RACT Requirement	Citation	VOC RACT Compliance Demonstration	Citation
034	Boiler 1 (5.5 MMBtu/Hr)	AJAX	WGFD-5500	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)
035	Misc. Combustion Units (<2.5 MMBtu/Hr)	N/A	N/A	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)
131	Compressor Engine 1 (4200 HP)	Dresser Rand	TV-10	0.5 g/bhp-hr	129.112(g)(3)(ii)(B)	Emissions source test	129.115(b)(6) 129.115(e)(3)
132	Compressor Engine 2 (4200 HP)	Dresser Rand	TV-10	0.5 g/bhp-hr	129.112(g)(3)(ii)(B)	Emissions source test	129.115(b)(6) 129.115(e)(3)
133	Auxiliary Gen 1 (550 HP)	Caterpillar	SR-4 G3508TA	N/A - Emergency engine	129.112(c)(10)	N/A - Work practices	129.112(c)(10)
134	Misc. Storage Tanks	N/A	N/A	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)
136	Compressor Engine 3 (4735 HP)	Caterpillar	G3616	0.5 g/bhp-hr	129.112(g)(3)(ii)(B)	Emissions source test	129.115(b)(6) 129.115(e)(3)
137	Compressor Turbine	Solar Centaur	50-6200LS	9 ppmvd @ 15% oxygen	129.112(g)(2)(v)(B)	Emissions source test	129.115(b)(6) 129.115(e)(3)
139	Line Heater	Bruest Hot Cat	HC-2800	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)
P101	Facility Pumps, Valves, Flanges, etc.	N/A	N/A	N/A - < 2.7 TPY VOC	129.111(c)(3)	N/A - Work Practices	129.111(c)(3)
P102	Parts Washer (Degreasing Unit)	N/A	N/A	N/A - Exempt	129.111(c)	N/A - Exempt	129.111(c)

1. All sources located at the Punxsutawney Compressor Station.

Table 2-4. RACT Citation Summary

RACT Citation	Citation Summary
129.111(c)	Sections 129.112—129.114 do not apply to the owner and operator of a NOx (or VOC) air contamination source that has the potential to emit less than 1 TPY of NOx (or VOC) located at a major NOx (or VOC) emitting facility subject to subsection (a) or (b).
129.112(c)(2)	A VOC air contamination source located at a major VOC emitting facility that has the potential to emit less than 2.7 TPY of VOC and is subject to 129.111 shall install, maintain, and operate the source in accordance with the manufacturer's specification with good operating practices.
129.112(c)(4)	A boiler or other combustion source with a rated heat input less than 20 million Btu/hr located at a major NOx emitting facility or major VOC emitting facility and is subject to 129.111 shall install, maintain, and operate the source in accordance with the manufacturer's specification with good operating practices.
129.112(c)(10)	An emergency standby engine operating less than 500 hours in a 12-month rolling period located at a major NOx emitting facility or major VOC emitting facility and is subject to 129.111 shall install, maintain, and operate the source in accordance with the manufacturer's specification with good operating practices.
129.112(g)(2)(v)(A)	A combined cycle or combined heat and power combustion turbine with a rated output equal to or greater than 4,100 bhp and less than 60,000 bhp shall comply with the presumptive RACT emission limitation of 42 ppmvd NO_x @ 15% oxygen when firing natural gas or a noncommercial gaseous fuel.
129.112(g)(2)(v)(B)	A simple cycle or regenerative cycle combustion turbine with a rated output equal to or greater than 4,100 bhp and less than 60,000 bhp shall comply with the presumptive RACT emission limitation of 9 ppmvd VOC (as propane) @ 15% oxygen when firing natural gas or a noncommercial gaseous fuel.
129.112(g)(3)(ii)(A)	A lean burn stationary internal combustion engine with a rating equal to or greater than 3,500 bhp shall comply with the presumptive RACT emission limitation of 0.6 grams NOx/bhp-hr when firing natural gas or a noncommercial gaseous fuel.
129.112(g)(3)(ii)(B)	A lean burn stationary internal combustion engine with a rating equal to or greater than 3,500 bhp shall comply with the presumptive RACT emission limitation of 0.5 grams VOC /bhp-hr when firing natural gas or a noncommercial gaseous fuel, liquid fuel, or dual-fuel.
129.114(c)	The owner or operator of a VOC air contamination source with a potential emission rate equal to or greater than 2.7 tons of VOC per year that is not subject to § 129.112 located at a major VOC emitting facility subject to § 129.111 shall propose a VOC RACT requirement or RACT emission limitation in accordance with subsection (d).
129.115(b)(6)	For an air contamination source without a CEMS, monitoring and testing in accordance with an approved emissions source test that meets the requirements of Chapter 139, Subchapter A. The source test shall be conducted to demonstrate initial compliance and subsequently on a schedule set forth in the applicable permit.
129.115(e)(3)	An owner or operator of an air contamination source subject to this section and §§ 129.111, 129.112 and 129.113 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements) may request a waiver from the requirement to demonstrate compliance with the applicable emission limitation listed in § 129.112 if the request for a waiver demonstrates to the satisfaction of the Department or appropriate approved local air pollution control agency that the test results show that the source's rate of emissions is in compliance with the source's applicable NOx emission limitation or VOC emission limitation.

2.2 Source Test Waiver

For sources at the Punxsutawney Compressor Station subject to emissions source testing per 25 Pa. Code 129.115(b)(6), a source test shall be conducted to demonstrate initial compliance and subsequently on a schedule set forth in the applicable permit. Alternatively, an owner or operator may request a waiver from the requirement to demonstrate compliance with the applicable emission limitations.

EGTS is submitting this waiver to fulfill requirements of 25 Pa. Code 129.115(e)(1) by the deadline (December 31, 2022) in 25 Pa. Code 129.115(e)(1)(i).

This waiver contains the emissions source test results that were performed in accordance with the requirements of Chapter 139, Subchapter A. The emissions source test results are listed in Table 2-4, which demonstrate compliance with the applicable emission limits. .

Table 2-4 Source Test Summary

Source ID	Source Description	Emissions Source Test Date	NO_X Result (g/bhp-hr)	NO_X Limit (g/bhp-hr)	VOC Result (g/bhp-hr)	VOC Limit (g/bhp-hr)
131	Engine 1	9/17/2021	1.3	2.0[1]	<0.1	0.5
132	Engine 2	9/16/2021	1.1	2.0[1]	<0.1	0.5
136	Engine 3	9/15/2021	0.45	0.6	<0.1	0.5
137	Turbine 1	9/14/2021	10.4 ppm	42 ppm	<0.1 ppm	9 ppm

1. The limit referenced is the proposed interim emission limit. See Section 4.

3. REGULATION REVIEW

This section of the report addresses the applicability of the proposed project at the Punxsutawney Compressor Station to permitting programs and emission standards, including the following:

- Prevention of Significant Deterioration (PSD) and/or Non-attainment New Source Review (NNSR) [both parts of the federal New Source Review (NSR) as incorporated by reference under 25 PA Code 127.81-127.83 for PSD and implemented under 25 PA Code 127.291-127.218for NNSR];
- Title V of the 1990 Clean Air Act Amendments (as incorporated and implement under 25 PA Code 127.501-127.543);
- New Source Performance Standards (NSPS);
- National Emission Standards for Hazardous Air Pollutants (NESHAP); and
- Pennsylvania State Implementation Plan (SIP) regulations.

3.1 PSD and NNSR Analysis

The Federal NSR program applies to major stationary sources. The NSR permitting regulations are comprised of two programs: 1) PSD for projects located in areas where specified pollutant levels have met National Ambient Air Quality Standards (NAAQS); and 2) NNSR for projects located in areas where pollutant levels have not attained the corresponding NAAQS.

The proposed project includes the installation of SCR on Engines 1 and 2. As the proposed project is limited to the installation of a control device to meet RACT and the existing engines will not be modified (nor is the proposed project intended to increase utilization or horsepower of the engines), there is no projected emission increase for the project. Emissions of NO_X will be decreased to meet the RACT emission limits. Given the location of the SCR controls (i.e., downstream of the oxidation catalyst), there is not expected to be an increase in particulate emissions from the engines as a result of the project.

Since the proposed project results in an overall emission decrease, federal NSR permitting is not trigger by this project.

3.2 Title V Permitting

The Punxsutawney Compressor Station will remain a Title V facility after the proposed project. EGTS will modify the Title V permit as necessary in corporate the RACT project and applicability once the project is completed.

3.3 Federal Emissions Standards

Two types of federal emission standards could apply to certain operations being permitted as part of this project. These emission standards are: New Source Performance Standards (NSPS) codified in 40 CFR 60 and National Emission Standards for Hazardous Air Pollutants (NESHAP) standards codified in 40 CFR 63.

3.3.1 National Emission Standards for Hazardous Air Pollutants (NESHAP or MACT)

The original NESHAPs promulgated prior to the Clean Air Act Amendments (CAAA) of 1990 are found in 40 CFR Part 61 and apply to specific HAPs. The Punxsutawney Compressor Station is not subject to any Part 61

requirements and there are no new proposed or promulgated Part 61 requirements triggered by this application.

NESHAP promulgated under 40 CFR Part 63, also referred to as Maximum Achievable Control Technology (MACT) standards, apply to specific source categories that are considered major sources or area sources of HAP. A major source of HAP is defined as a source with the facility-wide potential to emit any single HAP of 10 tons per year or more or with a facility-wide potential to emit total HAP of 25 tons per year or more. The Punxsutawney Compressor Station is classified as a major HAP facility.

The proposed project is the installation of controls on Engines 1 and 2. The only potentially applicable NESHAP for these units is Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines Stationary (RICE). The proposed project does not constitute reconstruction of either engine as the project is the installation of controls. Therefore, no change in applicability is triggered by the proposed project.

3.3.2 New Source Performance Standards

Pennsylvania has received delegation from EPA to regulate facilities subject to NSPS. Regulatory requirements for facilities subject to NSPS are contained in Pennsylvania SIP in 25 Pa Code §122 and 40 CFR Part 60.

The potential applicability of NSPS standards to the proposed project at the Punxsutawney Compressor Station are:

- 40 CFR Part 60 Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engine
- 40 CFR Part 60 Subpart OOOOa – Crude Oil and Natural Gas Production, Transmission, and Distribution

3.3.2.1 NSPS Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engines

Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, applies to manufacturers, owners, and operators of stationary spark (SI) engines. The requirements for SI engines with a maximum power rating greater than or equal to 500 hp (except lean burn engines 500 hp ≤ hp < 1,350) apply to owner/operators of such engines ordered on or after July 1, 2007. All the engines at the Punxsutawney Compressor Station were installed prior to the applicability date and thus are not currently subject to Subpart JJJJ. The proposed project is the installation of controls on Engines 1 and 2 and no emission increase is occurring as a result of the project. Therefore, the proposed project does not trigger modification or reconstruction under Subpart JJJJ.

3.3.2.2 NSPS Subpart OOOOa — Crude Oil and Natural Gas Facilities

Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution, establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO_2) emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after September 18, 2015. This rule applies to:

- Gas wellheads
- Centrifugal compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment
- Reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment

- Continuous bleed natural gas-driven pneumatic controllers with a bleed rate of > 6 scfh located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment (excluding natural gas processing plants)
- Continuous bleed natural gas-driven pneumatic controllers located at natural gas processing plants
- Storage vessels
- Sweetening units located onshore that process natural gas produced from either onshore or offshore wells

The proposed project does not include any affected facilities under the Subpart OOOOa. Therefore, the regulation does not apply to the proposed project.

EPA has recently proposed revisions to Subpart OOOOa, as well as new Subparts OOOOb and OOOOc. Applicability to those regulations will be evaluated at a later date once they are finalized.

3.4 Pennsylvania SIP Regulations

The Pennsylvania Code contains regulations that fall under two (2) main categories: the regulations that are generally applicable (e.g., permitting requirements), and those that have specific applicability (e.g., sulfur compound emissions from combustion units). The generally applicable requirements are straightforward (e.g., filing of emission statements) and, as such, are not discussed in further detail. The specific requirements associated with the proposed project at the Punxsutawney Compressor Station are discussed in the following section.

3.4.1 25 Pa Code §123.1 and 123.2

25 Pa Code §123.1 and 123.2 *Prohibition of Certain Fugitive Emissions* and *Fugitive Particulate Matter*, both state exceptions to fugitive emissions sources and methods for controlling fugitive emissions. This regulation applies to the facility in general.

3.4.2 25 Pa Code §123.11 and 123.13

25 Pa Code §123.11 *Particulate Emissions: Combustion Units* defines particulate matter emissions for combustion units. Combustion units are defined in §121.1 as stationary equipment used to burn fuel primarily for the purpose of producing power or heat by indirect heat transfer such as boilers. This definition does not apply to the engines at the Punxsutawney Compressor Station. As such, the particulate matter emissions limitations for processes in 25 Pa Code §123.13 *Particulate Emissions*: *Processes* apply to these units instead. EGTS will comply with this regulation as incorporated into the Title V permit.

3.4.3 25 Pa Code § 123.21

25 Pa Code §123.21 *Sulfur Compound Emissions: General* states that the concentration of sulfur oxides in the effluent gas may not exceed 500 ppmvd. The engines at Punxsutawney Compressor Station combust pipeline quality natural gas and the sulfur oxide emissions are expected to be well below this concentration level in the combustion exhaust.

3.4.4 25 Pa Code § 123.31

25 Pa Code §123.31 *Odor Emissions* prohibits the emission of malodorous air contaminants from any source that are detectable outside the facility fence line. This regulation applies to the facility in general. EGTS will

take measures to minimize odor from the Punxsutawney Compressor Station operations by combusting pipeline quality natural gas fuel only and using good engineering practices.

3.4.5 25 Pa Code § 123.41 and 123.43

25 Pa Code §123.41 *Visible Emissions: Limitations* states that a facility may not emit visible emissions equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour, or equal to or greater than 60% at any time. This standard applies to the proposed combustion units at the Punxsutawney Compressor Station. The use of pipeline quality natural gas as fuel will ensure compliance with this requirement.

3.4.6 25 Pa Code § 127.11

25 Pa Code §127.11 outlines requirements for Plan Approvals required to authorize construction or modification of air contamination sources. Construction, installation, modification, or reactivation of air contaminant sources or air pollution control devices is prohibited unless otherwise approved by the Department. The installation of SCR at the Punxsutawney Compressor Station is subject to Plan Approval permitting requirements under this requirement. As the proposed project is limited to installing controls and the sources are not being modified, BAT is not applicable.

3.4.7 25 Pa Code § 129.111

25 PA Code §129.111 establishes control standards for major stationary sources of NO_X and VOC under the Reasonably Available Control Technology (RACT) program. Major stationary sources of NO_X and VOC are defined in 25 PA Code §121.1. The Punxsutawney Compressor Station is located in the Ozone Transport Region (OTR), and therefore the applicable major source thresholds are 100 tons per year of NO_X and 50 tons per year of VOC.

The Punxsutawney Compressor Station has potential VOC emissions greater 50 tons per year and NO_X in excess of 100 tpy. Therefore, the Punxsutawney Compressor Station is considered a "major NOx and VOC emitting facility" pursuant to 25 Pa Code §121.1. The requirements for RACT are outlined in Section 2 of this report.

This Plan Approval application is being submitted to:

- Comply with presumptive RACT standards through the installation of controls and propose an alternative compliance schedule in accordance with 25 Pa Code §129.114(l), which is included in Section 4 of this report and
- Propose a case-by-case RACT requirement for fugitive emissions in accordance with 25 Pa Code §129.114(c), which is included in Section 5.

4. COMPLIANCE SCHEDULE

Per 25 Pa Code §129.114(l),the owner and operator of a facility proposing to comply with the applicable RACT requirement or RACT emission limitation through the installation of an air cleaning device may submit a petition requesting an alternative compliance schedule. This section contains the required elements in the petition for the alternative compliance schedule and is submitted by December 31, 2022, in accordance with 25 Pa Code §129.114(l)(1)(i).

The required elements in the petition are:
(i) A description, including make, model and location, of each air contamination source subject to a RACT requirement or RACT emission limitation in one or more of subsections (a)—(c).
The sources subject to this petition are Engines 1 and 2, which are 4,200 horsepower (hp) Dresser Rand TV-10 natural gas fired engines located at the Punxsutawney Compressor Station.

(ii) A description of the proposed air cleaning device to be installed.
Selective catalytic reduction (SCR) systems will be installed on both units to meet the NO_X RACT limit. The system will inject ammonia into the exhaust stream between the oxidation catalyst and SCR, which will react with the NO_X in the exhaust over a catalyst. The SCR system also includes an ammonia storage tank.

(iii) A schedule containing proposed interim dates for completing each phase of the required work to install the air cleaning device described in subparagraph (ii).
EGTS has proposed the following schedule (note that EGTS requests that changes to the schedule be allowed with written approval by the Department):

- Commencement of Construction of SCR System: By date in notification submitted by EGTS no later than 60 days from Plan Approval Issuance
- Startup and commissioning of engines with SCR installed: By date in notification submitted by EGTS no later than 120 days from Plan Approval Issuance
- Stack Testing: No later than 180 days of completion of construction and first fire

(iv) A proposed interim emission limitation that will be imposed on the affected air contamination source until compliance is achieved with the applicable RACT requirement or RACT emission limitation.
EGTS proposes the existing NO_X emission limit in the Title V permit for the engines (2.0 g/bhp-hr) as the interim emission limitation. Note that the proposed limit is lower than the presumptive RACT 2 limit.

(v) A proposed final compliance date that is as soon as possible but not later than 3 years after the approval of the petition by the Department or the appropriate approved local air pollution control agency. If the petition is for the replacement of an existing source, the final compliance date will be determined on a case-by-case basis. The approved petition shall be incorporated in an applicable operating permit or plan approval.
EGTS is proposing a final compliance date (i.e., the completion of testing to demonstrate compliance) of May 31, 2025. Note that this assume a Plan Approval authorizing the proposed project can be issued by November 12, 2023.

5. ALTERNATIVE RACT REQUIREMENT

This section contains the alternative RACT requirement (i.e., case by case RACT) for source P101 (facility fugitive emissions from pumps, valves, flanges, etc.). Note that the definition of natural gas compression and transmissions facility fugitive VOC air contamination source in 25 Pa Code §121.1 defines the fugitive source as group of components associated with an individual stationary source. As such, applicability is limited to those sources greater than 2.7 tpy VOC as noted in Appendix A. This alternative RACT requirement proposal is being submitted by December 31, 2022, in accordance with 25 Pa Code §129.114(d)(i).

As the emission source in question is fugitive emissions at a compressor station, EGTS is accepting the analysis conducted for the recently finalized rules for existing sources in the natural gas industry (specifically, the fugitive emissions components for compressor stations in 25 Pa Code §129.127). This analysis is consistent with the procedures in 25 Pa Code §129.92(b) to meet the requirements of 25 Pa Code §129.114(d)(3).

As the alternative RACT requirement proposal to meet 25 Pa Code §129.114(d)(6) and (7), EGTS will implement a leak detection and repair program consistent with 25 Pa Code §129.127(e)-(l). Recordkeeping consistent with 25 Pa Code §129.130(g) is proposed. Reporting will align with existing Title V compliance reporting.

EGTS will conduct an initial inspection within 60 days of approval of the alternative RACT requirement or November 12, 2023, whichever is earlier. There is no interim schedule required as compliance can be demonstrated in a timely manner after approval and no equipment or process changes are required.

APPENDIX A. EMISSION CALCULATIONS

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Contact: Glenn S. Boutillier
Address: 6603 West Broad Street
Richmond, VA 232303
Phone: 804-356-1364

Facility Summary - Punxsutawney Station (Tons/Year)

Source	Source ID	NOx	CO	VOC (No HAPs)	VOCs (Includes HAPs) *	PM10**	SOx	Total HAPS	PM2.5**	NH3	CO2	CH4	N2O	Annual Fuel Use (Mcf)
Boiler 1	034	2.41	2.02	0.13	0.18	0.05	0.01	0.05	0.05	0.01	2,818.05	0.05	0.01	48,180.00
Misc Combustion Units	035	0.17	0.14	0.01	0.01	0.00	0.00	0.00	0.00	0.00	194.70	0.00	0.00	3,328.80
Engine #1	131	24.33	113.44	20.28	29.87	4.94	0.08	9.59	4.94	0.49	15,063.75	0.28	0.03	257,544.00
Engine #2	132	24.33	113.44	20.28	29.87	4.94	0.08	9.59	4.94	0.49	15,063.75	0.28	0.03	257,544.00
Auxiliary Generator 1	133	1.23	0.96	0.04	0.06	0.00	0.00	0.02	0.00	0.00	35.39	0.00	0.00	605.00
Tank Emissions ***	134	---	---	0.10	0.10	---	---	---	---	---	---	---	---	---
Engine #3	136	25.35	11.40	11.40	20.59	0.01	0.08	9.19	0.01	0.00	15,691.40	0.30	0.03	268,275.00
New Turbine	137	13.86	2.84	1.44	1.70	1.67	1.42	0.26	1.67	0.00	29,558.76	0.56	0.06	505,364.40
Line Heater	139	1.21	1.02	0.07	0.09	0.02	0.01	0.02	0.02	0.00	1,416.61	0.03	0.00	24,219.65
Fugitive Emissions	P101	---	---	1.98	1.98	---	---	0.22	---	---	---	---	---	---
Blowdown Emissions	P201	---	---	2.70	3.70	---	---	1.00	---	---	---	---	---	---
Totals (ton/year)		**92.90**	**245.26**	**67.59**	**95.01**	**11.64**	**1.67**	**31.12**	**11.64**	**0.99**	**79,842.41**	**1.50**	**0.15**	**1,365,060.85**

** Insignificant Source, emissions captured in fugitive emissions.

Speciated HAPs (Tons/Year)

Source	Source ID	Formaldehyde	Benzene	Toluene	Ethylbenzene	Xylene	n-Hexane	Acetaldehyde	Acrolein	Methanol	Total
Boiler1	034	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.05
Misc Combustion Units	035	Negligible									0.00
Engine1	131	7.11	0.25	0.12	0.01	0.03	0.06	1.00	1.00	0.00	9.59
Engine2	132	7.11	0.25	0.12	0.01	0.03	0.06	1.00	1.00	0.00	9.59
AuxGen	133	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Tank Emissions ***	134	Unable to speciate HAPs.									---
Engine3	136	7.08	0.06	0.05	0.01	0.02	0.15	1.12	0.69	0.00	9.19
New Turbine	137	0.18	0.00	0.03	0.01	0.02	0.01	0.01	0.01	0.00	0.27
Line Heater	139	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
Fugitive Emissions	P101	Unable to speciate HAPs.									0.22
Blowdown Emissions	P201	Unable to speciate HAPs.									1.00
Totals (ton/year)		**21.50**	**0.56**	**0.34**	**0.04**	**0.11**	**0.31**	**3.13**	**2.70**	**0.00**	**30.13**

Note:

* VOCs (includes HAPs) calculated for AIMS and Fee Calculation only. This total is not to be used to determine compliance with permitted VOC emission limits unless specifically defined as such in the station's operating permit.

**All references to PM2.5 and PM10 are filterable.

*** Tank emissions are maximum potential emissions. Calculations were included with the operating permit application.

Potential Emissions Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 131

Engine #1 - 4,200 HP Dresser Rand TV-10

Date Installed:	1991	Fuel:	Natual Gas	2L
SCC:	20300201	*Note: Fuel average heating value of 1000Btu/cf		

Annual fuel usage	**257,544.00 MCF**
Annual operating hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Rated horsepower	**4,200 bhp**

Max Fuel Rate : **29.4 mmBtu/hr**

					Potential Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	0.6	g/bhp-hr	5.56	24.33	--	18.5	81.03
CO	n/a	1	--	--	--	--	--	25.9	113.44
VOC	n/a	1	0.5	g/bhp-hr	4.63	20.28	--	8.3	36.35
PM 10	n/a	2	0.0384	lb/MMBtu	1.13	4.94	15	---	---
SO2	n/a	2	0.000588	lb/MMBtu	0.02	0.08	15	---	---
Formaldehyde	50-00-0	2	0.0552	lb/MMBtu	1.62	7.11	15	---	---
Benzene	71-43-2	2	0.00194	lb/MMBtu	0.06	0.25	15	---	---
Toluene	108-88-3	2	0.000963	lb/MMBtu	0.03	0.12	15	---	---
Ethylbenzene	100-41-4	2	0.000108	lb/MMBtu	0.00	0.01	15	---	---
Xylene	1330-20-7	2	0.000268	lb/MMBtu	0.01	0.03	15	---	---
n-Hexane	110-54-3	2	0.000445	lb/MMBtu	0.01	0.06	15	---	---
Acetaldehyde	75-07-0	2	0.00776	lb/MMBtu	0.23	1.00	15	---	---
Acrolein	107-02-8	2	0.00778	lb/MMBtu	0.23	1.00	15	---	---
PM2.5	n/a	2	0.0384	lb/MMBtu	1.13	4.94	15	---	---
PM-CON	n/a	2	0.00991	lb/MMBtu	0.29	1.28	15	---	---
CO2	124389	3	116.98	lb/MMBtu	3,439.21	15,063.75	15	---	---
CH4	74828	4	0.0022	lb/MMBtu	0.06	0.28	15	---	---
N2O	10024972	4	0.00022	lb/MMBtu	0.01	0.03	15	---	---
NH3		5	10	ppmvd	0.11	0.49		---	---

Total Criteria :	**242.95**	**tons/yr**
Total HAPS:	**9.59**	**tons/yr**

Notes: 1. TVOP Limits/RACT Limits. PTE based on most stringent
2. From US EPA's AP-42 Table 3.2-1
3. From 40 CFR 98 Subpart C Table C-1
1 kg = 2.20462 lb
4. From 40 CFR 98 Subpart C Table C-2
1 kg = 2.20462 lb
5. Ammonia slip rate

Potential Emissions Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 132

Engine #2 - 4,200 HP Dresser Rand TV-10

Date Installed:	1991	Fuel:	Natual Gas	2L
SCC:	20300201	*Note: Fuel average heating value of 1000Btu/cf		

Annual fuel usage	**257,544.00 MCF**
Annual operating hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Rated horsepower	**4,200 bhp**

Max Fuel Rate : **29.4 mmBtu/hr**

					Potential Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	0.6	g/bhp-hr	5.56	24.33	--	18.5	81.03
CO	n/a	1	--	--	--	--	--	25.9	113.44
VOC	n/a	1	0.5	g/bhp-hr	4.63	20.28	--	8.3	36.35
PM 10	n/a	2	0.0384	lb/MMBtu	1.13	4.94	15	---	---
SO2	n/a	2	0.000588	lb/MMBtu	0.02	0.08	15	---	---
Formaldehyde	50-00-0	2	0.0552	lb/MMBtu	1.62	7.11	15	---	---
Benzene	71-43-2	2	0.00194	lb/MMBtu	0.06	0.25	15	---	---
Toluene	108-88-3	2	0.000963	lb/MMBtu	0.03	0.12	15	---	---
Ethylbenzene	100-41-4	2	0.000108	lb/MMBtu	0.00	0.01	15	---	---
Xylene	1330-20-7	2	0.000268	lb/MMBtu	0.01	0.03	15	---	---
n-Hexane	110-54-3	2	0.000445	lb/MMBtu	0.01	0.06	15	---	---
Acetaldehyde	75-07-0	2	0.00776	lb/MMBtu	0.23	1.00	15	---	---
Acrolein	107-02-8	2	0.00778	lb/MMBtu	0.23	1.00	15	---	---
PM2.5	n/a	2	0.0384	lb/MMBtu	1.13	4.94	15	---	---
PM-CON	n/a	2	0.00991	lb/MMBtu	0.29	1.28	15	---	---
CO2	124389	3	116.98	lb/MMBtu	3,439.21	15,063.75	15	---	---
CH4	74828	4	0.0022	lb/MMBtu	0.06	0.28	15	---	---
N2O	10024972	4	0.00022	lb/MMBtu	0.01	0.03	15	---	---
NH3		5	10	ppmvd	0.11	0.49		---	---

Total Criteria :	**235.85**	**tons/yr**
Total HAPS:	**9.59**	**tons/yr**

Notes: 1. TVOP Limits/RACT Limits. PTE based on most stringent
2. From US EPA's AP-42 Table 3.2-1
3. From 40 CFR 98 Subpart C Table C-1
1 kg = 2.20462 lb
4. From 40 CFR 98 Subpart C Table C-2
1 kg = 2.20462 lb
5. Ammonia slip rate

Potential to Emissit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 136

Engine #3 - 4,735 HP Caterpillar G3616

Date Installed:	2002	Fuel:	Natual Gas	4L
SCC:	20300201	*Note: Fuel average heating value of 1000Btu/cf		

Annual fuel usage	**268,275.00 MCF**
Annual operating hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Rated horsepower	**4,375 bhp**

Max Fuel Rate : 30.625 mmBtu/hr

					Potential Emissions			Permit Limits *	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	0.6	g/bhp-hr	5.79	25.35	--	8.35	36.6
CO	n/a	1	--	--	--	--	--	2.61	11.4
VOC	n/a	1	0.5	g/bhp-hr	4.82	21.12	--	2.61	11.4
PM 10	n/a	2	0.0000771	lb/MMBtu	0.00	0.01	15	---	---
SO2	n/a	2	0.000588	lb/MMBtu	0.02	0.08	15	---	---
Formaldehyde	50-00-0	3	0.0528	lb/MMBtu	1.62	7.08	15	---	---
Benzene	71-43-2	3	0.00044	lb/MMBtu	0.01	0.06	15	---	---
Toluene	108-88-3	3	0.000408	lb/MMBtu	0.01	0.05	15	---	---
Ethylbenzene	100-41-4	3	0.0000397	lb/MMBtu	0.00	0.01	15	---	---
Xylene	1330-20-7	3	0.000184	lb/MMBtu	0.01	0.02	15	---	---
n-Hexane	110-54-3	3	0.00111	lb/MMBtu	0.03	0.15	15	---	---
Acetaldehyde	75-07-0	3	0.00836	lb/MMBtu	0.26	1.12	15	---	---
Acrolein	107-02-8	3	0.00514	lb/MMBtu	0.16	0.69	15	---	---
PM2.5	n/a	2	0.0000771	lb/MMBtu	0.00	0.01	15	---	---
PM-CON	n/a	2	0.00991	lb/MMBtu	0.30	1.33	15	---	---
CO2	124389	4	116.98	lb/MMBtu	3,582.51	15,691.40	15	---	---
CH4	74828	5	0.0022	lb/MMBtu	0.07	0.30	15	---	---
N2O	10024972	5	0.00022	lb/MMBtu	0.01	0.03	15	---	---

Total Criteria :	**59.49**	**tons/yr**
Total HAPS:	**9.19**	**tons/yr**

Notes:

1. TVOP Limits/RACT Limits. PTE based on most stringent
2. From US EPA's AP-42 Table 3.2-2
3. From US EPA's AP-42 Table 3.2-2.
4. From 40 CFR 98 Subpart C Table C-1
   1 kg = 2.20462 lb
5. From 40 CFR 98 Subpart C Table C-2
   1 kg = 2.20462 lb

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-67

Source ID - P137

Turbine 1 - Solar Centaur 50-6200LS

Date Installed:	2012	Fuel:	Natual Gas	T
SCC:	20300202	*Note: Fuel average heating value of 1000Btu/cf		

Annual fuel usage	**505,364.40 MCF**
Annual SOLONOX hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Rated Input	**57.69 MMBtu/hr**

					Potential Emissions			Permit Limits	Permit Limits	Permit Limits
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/MMBtu[a]**	**lb/MMBtu[b]**	**tons/yr[c]**
NOx	n/a	1	--	--	--	--	--	0.0541	0.1515	13.86
CO	n/a	1	--	--	--	--	--	0.011	0.044	2.84
VOC	n/a	1	--	--	--	--	--	0.0057	0.0113	1.44
PM 10	n/a	1	--	--	--	--	--	0.0066	0.0066	1.67
SO2	n/a	1	--	--	--	--	--	0.0056	0.0056	1.42
Formaldehyde	50-00-0	5	0.00071	lb/MMBtu	0.041	0.18	15	---	---	---
Benzene	71-43-2	5	1.20E-05	lb/MMBtu	0.001	0.00	15	---	---	---
Toluene	108-88-3	5	1.30E-04	lb/MMBtu	0.007	0.03	15	---	---	---
Ethylbenzene	100-41-4	5	3.20E-05	lb/MMBtu	0.002	0.01	15	---	---	---
Xylene	1330-20-7	5	6.40E-05	lb/MMBtu	0.004	0.02	15	---	---	---
n-Hexane	110-54-3	6	---	---	1.36E-03	0.01	15	---	---	---
Acetaldehyde	75-07-0	5	4.00E-05	lb/MMBtu	0.002	0.01	15	---	---	---
Acrolein	107-02-8	5	6.40E-06	lb/MMBtu	0.000	0.00	15	---	---	---
PM2.5	n/a	4	0.0066	lb/MMBtu	0.38	1.67	15	---	---	---
PM-CON	n/a	4	0.0047	lb/MMBtu	0.27	1.19	15	---	---	---
CO2	124389	7	116.98	lb/MMBtu	6,748.58	29,558.76	15	---	---	---
CH4	74828	8	0.0022	lb/MMBtu	0.13	0.56	15	---	---	---
N2O	10024972	8	0.00022	lb/MMBtu	0.01	0.06	15	---	---	---

a. SoloNox Mode, b. non- SoloNox Mode c. total emissions as rolling average

Total Criteria :	**0.00**	**tons/yr**
Total HAPS:	**0.26**	**tons/yr**

Notes: 1. TVOP Limits

4. From US EPAs AP-42 Table 3.1-2a

5. From US EPAs AP-42 Table 3.1-3

6. From GRI HAPCalc 3.0. Catalyst removal efficiency 93%

7. From 40 CFR 98 Subpart C Table C-1, 1 kg = 2.20462 lb

8. From 40 CFR 98 Subpart C Table C-2, 1 kg = 2.20462 lb

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 139

Line Heater - 2.7648 mmBtu/hr Bruest Hot Cat Model HC-2800

Date Installed:	2012	Fuel:	Natual Gas
SCC:	10300603	*Note: Fuel average heating value of 1000Btu/cf	

Annual fuel usage	**24,219.65**	**MCF**
Annual operating hours	**8,760.00**	**Hours**
Annual operating days	**365**	**Days**
Fuel Rating	**2.8**	**MMBtu/hr**

					Actual Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	100	lb/MMcf	0.28	1.21	15	---	---
CO	n/a	1	84	lb/MMcf	0.23	1.02	15	---	---
VOC	n/a	2	5.5	lb/MMcf	0.02	0.07	15	---	---
PM 10	n/a	2	1.9	lb/MMcf	0.01	0.02	15	---	---
SO2	n/a	2	0.6	lb/MMcf	0.00	0.01	15	---	---
Formaldehyde	50-00-0	3	0.000075	lb/MMBtu	0.00	0.00	15	---	---
Benzene	71-43-2	3	0.0000021	lb/MMBtu	0.00	0.00	15	---	---
Toluene	108-88-3	3	0.0000034	lb/MMBtu	0.00	0.00	15	---	---
Ethylbenzene	100-41-4	3	0	lb/MMBtu	0.00	0.00	15	---	---
Xylene	1330-20-7	3	0	lb/MMBtu	0.00	0.00	15	---	---
n-Hexane	110-54-3	3	0.0018	lb/MMBtu	0.00	0.02	15	---	---
Acetaldehyde	75-07-0	3	0	lb/MMBtu	0.00	0.00	15	---	---
Acrolein	107-02-8	3	0	lb/MMBtu	0.00	0.00	15	---	---
PM2.5	n/a	2	1.9	lb/MMcf	0.01	0.02	15	---	---
PM-CON	n/a	2	5.7	lb/MMcf	0.02	0.07	15	---	---
NH3	7664417	4	0.49	lb/MMcf	0.00	0.01	15	---	---
CO2	124389	5	116.98	lb/MMBtu	323.43	1,416.61	15	---	---
CH4	74828	6	0.0022	lb/MMBtu	0.01	0.03	15	---	---
N2O	10024972	6	0.00022	lb/MMBtu	0.00	0.00	15	---	---

Total Criteria :	**2.33**	**tons/yr**
Total HAPS:	**0.02**	**tons/yr**

Notes: 1. From US EPA's AP-42 Table 1.4-1
2. From US EPA's AP-42 Table 1.4-2
3. From US EPA's AP-42 Table 1.4-3
4. FIRE Database
5. From 40 CFR 98 Subpart C Table C-1
1 kg = 2.20462 lb
6. From 40 CFR 98 Subpart C Table C-2
1 kg = 2.20462 lb

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 133

Auxiliary Generator - 550 HP Caterpillar SR-4 G3508TA

Date Installed:	1991	Fuel:	Natual Gas	4L
SCC:	20300201	*Note: Fuel average heating value of 1000Btu/cf		

Annual fuel usage	**605.00 MCF**
Annual operating hours	**100.00 Hours**
Annual operating days	**4.2 Days**
Rated horsepower	**550 bhp**

Max Fuel Rate : **6.05 mmBtu/hr**

					Actual Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	4.08	lb/MMBtu	24.68	1.23	15	---	---
CO	n/a	1	3.17	lb/MMBtu	19.18	0.96	15	---	---
VOC	n/a	1	0.118	lb/MMBtu	0.71	0.04	15	---	---
PM 10	n/a	4	0.0095	lb/MMBtu	0.06	0.00	15	---	---
SO2	n/a	1	0.000588	lb/MMBtu	0.00	0.00	15	---	---
Formaldehyde	50-00-0	1	0.0528	lb/MMBtu	0.32	0.02	15	---	---
Benzene	71-43-2	1	0.00044	lb/MMBtu	0.00	0.00	15	---	---
Toluene	108-88-3	1	0.000408	lb/MMBtu	0.00	0.00	15	---	---
Ethylbenzene	100-41-4	1	0.0000397	lb/MMBtu	0.00	0.00	15	---	---
Xylene	1330-20-7	1	0.000184	lb/MMBtu	0.00	0.00	15	---	---
n-Hexane	110-54-3	1	0.00111	lb/MMBtu	0.01	0.00	15	---	---
Acetaldehyde	75-07-0	1	0.00836	lb/MMBtu	0.05	0.00	15	---	---
Acrolein	107-02-8	1	0.00514	lb/MMBtu	0.03	0.00	15	---	---
PM2.5	n/a	4	0.0095	lb/MMBtu	0.06	0.00	15	---	---
PM-CON	n/a	4	0.00991	lb/MMBtu	0.06	0.00	15	---	---
CO2	124-38-9	2	116.98	lb/MMBtu	707.73	35.39	15	---	---
CH4	74-82-8	3	0.0022	lb/MMBtu	0.01	0.00	15	---	---
N2O	1002-497-2	3	0.00022	lb/MMBtu	0.00	0.00	15	---	---

Total Criteria :	**2.23**	**tons/yr**
Total HAPS:	**0.02**	**tons/yr**

Notes: 1. From US EPA's AP-42 Table 3.2-2
2. From 40 CFR 98 Subpart C Table C-1
1 kg = 2.20462 lb
3. From 40 CFR 98 Subpart C Table C-2
1 kg = 2.20462 lb
4. From US EPA's AP-42 Table 3.2-3

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 034

Boiler #1 - 5.5 mmBtu/hr Ajax WGFD-5500

Date Installed:	1964	Fuel:	Natual Gas
SCC:	10300603	*Note: Fuel average heating value of 1000Btu/cf	

Annual fuel usage	**48,180.00 MCF**
Annual operating hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Fuel Rating	**5.5 MMBtu/hr**

					Actual Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	100	lb/MMcf	0.55	2.41	15	---	---
CO	n/a	1	84	lb/MMcf	0.46	2.02	15	---	---
VOC	n/a	2	5.5	lb/MMcf	0.03	0.13	15	---	---
PM 10	n/a	2	1.9	lb/MMcf	0.01	0.05	15	---	---
SO2	n/a	2	0.6	lb/MMcf	0.00	0.01	15	---	---
Formaldehyde	50-00-0	3	0.000075	lb/MMBtu	0.00	0.00	15	---	---
Benzene	71-43-2	3	0.0000021	lb/MMBtu	0.00	0.00	15	---	---
Toluene	108-88-3	3	0.0000034	lb/MMBtu	0.00	0.00	15	---	---
Ethylbenzene	100-41-4	3	0	lb/MMBtu	0.00	0.00	15	---	---
Xylene	1330-20-7	3	0	lb/MMBtu	0.00	0.00	15	---	---
n-Hexane	110-54-3	3	0.0018	lb/MMBtu	0.01	0.04	15	---	---
Acetaldehyde	75-07-0	3	0	lb/MMBtu	0.00	0.00	15	---	---
Acrolein	107-02-8	3	0	lb/MMBtu	0.00	0.00	15	---	---
PM2.5	n/a	2	1.9	lb/MMcf	0.01	0.05	15	---	---
PM-CON	n/a	2	5.7	lb/MMcf	0.03	0.14	15	---	---
NH3	7664417	4	0.49	lb/MMcf	0.00	0.01	15	---	---
CO2	124389	5	116.98	lb/MMBtu	643.39	2,818.05	15	---	---
CH4	74828	6	0.0022	lb/MMBtu	0.01	0.05	15	---	---
N2O	10024972	6	0.00022	lb/MMBtu	0.00	0.01	15	---	---

Total Criteria :	**4.63**	**tons/yr**
Total HAPS:	**0.05**	**tons/yr**

Notes:

1. From US EPA's AP-42 Table 1.4-1
2. From US EPA's AP-42 Table 1.4-2
3. From US EPA's AP-42 Table 1.4-3
4. FIRE Database
5. From 40 CFR 98 Subpart C Table C-1
   1 kg = 2.20462 lb
6. From 40 CFR 98 Subpart C Table C-2
   1 kg = 2.20462 lb

Potential to Emit Worksheet - Punxsutawney Station

Eastern Gas Transmission and Storage, Inc.
Facility ID# 55-0629203-13

Source ID - 035

Hot Water Heater - 0.38 MMBtu/hr

Date Installed:	2015	Fuel:	Natual Gas
SCC:		*Note: Fuel average heating value of 1000Btu/cf	

Annual fuel usage	**3,328.80 MCF**
Annual operating hours	**8,760.00 Hours**
Annual operating days	**365 Days**
Fuel Rating	**0.38 MMBtu/hr**

					Actual Emissions			Permit Limits	
Pollutant	**CAS**	**REF**	**Emission Factor**	**Units**	**lb/hr**	**tons/yr**	**Calc Method**	**lb/hr**	**tons/yr**
NOx	n/a	1	100	lb/MMcf	0.04	0.17	15	---	---
CO	n/a	1	84	lb/MMcf	0.03	0.14	15	---	---
VOC	n/a	2	5.5	lb/MMcf	0.00	0.01	15	---	---
PM 10	n/a	2	1.9	lb/MMcf	0.00	0.00	15	---	---
SO2	n/a	2	0.6	lb/MMcf	0.00	0.00	15	---	---
Formaldehyde	50-00-0	3	0.000075	lb/MMBtu	0.00	0.00	15	---	---
Benzene	71-43-2	3	0.0000021	lb/MMBtu	0.00	0.00	15	---	---
Toluene	108-88-3	3	0.0000034	lb/MMBtu	0.00	0.00	15	---	---
Ethylbenzene	100-41-4	3	0	lb/MMBtu	0.00	0.00	15	---	---
Xylene	1330-20-7	3	0	lb/MMBtu	0.00	0.00	15	---	---
n-Hexane	110-54-3	3	0.0018	lb/MMBtu	0.00	0.00	15	---	---
Acetaldehyde	75-07-0	3	0	lb/MMBtu	0.00	0.00	15	---	---
Acrolein	107-02-8	3	0	lb/MMBtu	0.00	0.00	15	---	---
PM2.5	n/a	2	1.9	lb/MMcf	0.00	0.00	15	---	---
PM-CON	n/a	2	5.7	lb/MMcf	0.00	0.01	15	---	---
NH3	7664417	4	0.49	lb/MMcf	0.00	0.00	15	---	---
CO2	124389	5	116.98	lb/MMBtu	44.45	194.70	15	---	---
CH4	74828	6	0.0022	lb/MMBtu	0.00	0.00	15	---	---
N2O	10024972	6	0.00022	lb/MMBtu	0.00	0.00	15	---	---

Total Criteria :	**0.32**	**tons/yr**
Total HAPS:	**0.00**	**tons/yr**

Notes:

1. From US EPA's AP-42 Table 1.4-1
2. From US EPA's AP-42 Table 1.4-2
3. From US EPA's AP-42 Table 1.4-3
4. FIRE Database
5. From 40 CFR 98 Subpart C Table C-1
   1 kg = 2.20462 lb
6. From 40 CFR 98 Subpart C Table C-2
   1 kg = 2.20462 lb

Eastern Gas Transmission and Stoarge, Inc. - Punxsutawney Compressor Station
Fugitive Emisisons PTE Component Beakdown

Major Fugitive Emissions Source	Equipment Category	Facility-Wide Inventory	Componenet Type	Total Component Count	Annual Hours	EF, kg THC/hr/comp.[2]	EF, lb THC/hr/comp.	VOC[4] lbs/hr/comp.	VOC lbs/hr total	VOC TPY	Major FUG Source Total
Compressor Station[1]											
	Separators	3	Valves[3]	3	8,760	1.969E-02	4.341E-02	9.001E-04	0.190	0.83	
			Connectors	18	8,760	2.732E-04	6.023E-04	1.249E-05	0.000	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	
	Meters/Piping	2	Valves[3]	24	8,760	1.969E-02	4.341E-02	9.001E-04	0.022	0.09	
			Connectors	90	8,760	2.732E-04	6.023E-04	1.249E-05	0.001	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	**1.38**
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	
	In-Line Heaters	3	Valves[3]	42	8,760	1.969E-02	4.341E-02	9.001E-04	0.038	0.17	
			Connectors	195	8,760	2.732E-04	6.023E-04	1.249E-05	0.002	0.01	
			Open-ended lines	6	8,760	8.355E-02	1.842E-01	3.819E-03	0.023	0.10	
			Pressure relief valves	3	8,760	2.795E-01	6.162E-01	1.278E-02	0.038	0.17	
Engine 1											
	Compressor	1	Valves[3]	12	8,760	1.969E-02	4.341E-02	9.001E-04	0.011	0.05	
			Connectors	57	8,760	2.732E-04	6.023E-04	1.249E-05	0.001	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	**0.18**
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	
			Seal - Centrifugal	1	8,760	6.616E-01	1.459E+00	3.024E-02	0.030	0.13	
Engine 2											
	Compressor	1	Valves[3]	12	8,760	1.969E-02	4.341E-02	9.001E-04	0.011	0.05	
			Connectors	57	8,760	2.732E-04	6.023E-04	1.249E-05	0.001	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	**0.18**
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	
			Seal - Centrifugal	1	8,760	6.616E-01	1.459E+00	3.024E-02	0.030	0.13	
Engine 3											
	Compressor	1	Valves[3]	12	8,760	1.969E-02	4.341E-02	9.001E-04	0.011	0.05	
			Connectors	57	8,760	2.732E-04	6.023E-04	1.249E-05	0.001	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	**0.18**
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	
			Seal - Centrifugal	1	8,761	6.616E-01	1.459E+00	3.024E-02	0.030	0.13	
Turbine											
	Compressor	1	Valves[3]	12	8,760	1.969E-02	4.341E-02	9.001E-04	0.011	0.05	
			Connectors	57	8,760	2.732E-04	6.023E-04	1.249E-05	0.001	0.00	
			Open-ended lines	0	8,760	8.355E-02	1.842E-01	3.819E-03	0.000	0.00	**0.05**
			Pressure relief valves	0	8,760	2.795E-01	6.162E-01	1.278E-02	0.000	0.00	

Total PTE VOC (TPY) **1.98**

Table W-1B Subpart W Part 98 - Default Average Component Counts for Major Onshore Natural Gas Production Equipment and Onshore Petroleum and Natural Gas Gathering and Boosting Equipment

Major Equipment	Valve	Connectors	Open-Ended Lines	PRV's
Wellheads	8	38	0.5	0
Separators	1	6	0	0
Meters/Piping	12	45	0	0
Compressors	12	57	0	0
In-Line Heaters	14	65	2	1
Dehydrators	24	90	2	2

[1] Components not associated with a compressor/engine or compressor/turbine

[2] EF from Table 6-18 *Natural Gas Transmission and Storage Average Emission Factors* - 2009 GHG Compendium

[3] Assumed all valves are control valves to get most conservative value

[4] Based on most conservative site specific gas sample 2.07% of the THC is VOC, see gas analysis below.

Gas Analysis

Constituent	MW	Compsition	Density of Constituent Gases	Contribution to Overall Sample Density by Species	Composition		
	(g/g mole)	(mole %)	(g/l)	(g/l)	(weight %)		
Methane	16	96.679%	0.675	0.653	1.15%		
Ethane	30	2.283%	1.266	0.029	0.05%		
Propane	44	0.222%	1.857	0.004	0.01%		
Butane(s)	58	0.079%	2.448	0.002	0.00%		
Pentane(s)	72	0.222%	3.039	0.007	0.01%		
Hexanes+	86	0.045%	3.630	0.002	0.00%	0.6963	Total Hydrocarbons (g/l)
Nitrogen	28	0.510%	1.182	0.006	0.01%	0.014	Total VOC (g/l)
CO2	44	0.142%	1.857	0.003	0.00%	**2.0735%**	**VOC percent by weight**
TOTAL		100.182%		0.705			

1. From gas analysis #103626 Ardell 2 to TL-477/478 9/11/2018

APPENDIX B. GENERAL INFORMATION FORM

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This form is used by the Department of Environmental Protection (DEP) to inform our programs regarding what other DEP permits or authorizations may be needed for the proposed project or activity. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the DEP.

Related ID#s (If Known)				DEP USE ONLY
Client ID#	81074	**APS ID#**		Date Received & General Notes
Site ID#		**Auth ID#**		
Facility ID#	283701			

CLIENT INFORMATION

DEP Client ID#	Client Type / Code	Dun & Bradstreet ID#
81074		

Legal Organization Name or Registered Fictitious Name	Employer ID# (EIN)	Is the EIN a SSN?
Eastern Gas Transit and Storage Inc	55-0629203	☐ Yes ☒ NO

State of Incorporation or Registration of Fictious Name

☒ Corporation ☐ LLC ☐ Partnership ☐ LLP ☐ LP
☐ Sole Proprietorship ☐ Association/Organization
☐ Estate/Trust ☐ Other

Individual Last Name	First Name	MI	Suffix

Additional Individual Last Name	First Name	MI	Suffix

Mailing Address Line 1	Mailing Address Line 2
6603 West Broad Street	

Address Last Line – City	State	ZIP+4	Country
Richmond	Virginia	23230	USA

Client Contact Last Name	First Name	MI	Suffix
Boutillier	Glenn		

Client Contact Title	Phone	Ext	Cell Phone
Enviromental Specialist III	804-356-1364		

Email Address	FAX
Glenn.Boutillier@bhegts.com	

SITE INFORMATION

DEP Site ID#	Site Name
	Punxsutawney Compressor Station

EPA ID# **Estimated Number of Employees to be Present at Site**

Description of Site
Natural Gas Compressor Station

Tax Parcel ID(s):

County Name(s)	Municipality(ies)	City	Boro	Twp	State
Jefferson	Perry	☐	☐	☒	
		☐	☐	☐	
		☐	☐	☐	
		☐	☐	☐	

Site Location Line 1	Site Location Line 2
88 Laska Rd	

Site Location Last Line – City	State	ZIP+4
Punxsutawney	PA	15767

Detailed Written Directions to Site
From PA-28 N, after 13.5 miles take exit towards Kittanning/Indiana . Continue onto PA-28 N for 4 miles and turn right onto PA-85 E. Stay on PA-85 E for 19 miles then turn left onto PA-210 N. Stay on PA-210 N for 12 miles then turn left ontoer Yoder Rd. Turn right onto Kachmar Rd, and after 0.3 miles turn into compressor station.

Site Contact Last Name	**First Name**	**MI**	**Suffix**
Boutillier	Glenn		

Site Contact Title	**Site Contact Firm**
Enviromental Specialist III	

Mailing Address Line 1	**Mailing Address Line 2**
6603 West Broad Street	

Mailing Address Last Line – City	**State**	**ZIP+4**
Richmond	**VA**	**23230**

Phone	**Ext**	**FAX**	**Email Address**
804-356-1364			Glenn.Boutillier@bhegts.com

NAICS Codes (Two- & Three-Digit Codes – List All That Apply): 486 — **6-Digit Code** (Optional)

Client to Site Relationship
Owner/Operator

FACILITY INFORMATION

Modification of Existing Facility	**Yes**	**No**
1. Will this project modify an existing facility, system, or activity?	☒	☐
2. Will this project involve an addition to an existing facility, system, or activity?	☒	☐

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

	Facility Type	**DEP Fac ID#**		**Facility Type**	**DEP Fac ID#**
☒	Air Emission Plant	283701	☐	Industrial Minerals Mining Operation	
☐	Beneficial Use (water)		☐	Laboratory Location	
☐	Blasting Operation		☐	Land Recycling Cleanup Location	
☐	Captive Hazardous Waste Operation		☐	Mine Drainage Treatment / Land Recycling Project Location	
☐	Coal Ash Beneficial Use Operation		☐	Municipal Waste Operation	
☐	Coal Mining Operation		☐	Oil & Gas Encroachment Location	
☐	Coal Pillar Location		☐	Oil & Gas Location	
☐	Commercial Hazardous Waste Operation		☐	Oil & Gas Water Poll Control Facility	
☐	Dam Location		☐	Public Water Supply System	
☐	Deep Mine Safety Operation -Anthracite		☐	Radiation Facility	
☐	Deep Mine Safety Operation -Bituminous		☐	Residual Waste Operation	
☐	Deep Mine Safety Operation -Ind Minerals		☐	Storage Tank Location	
☐	Encroachment Location (water, wetland)		☐	Water Pollution Control Facility	
☐	Erosion & Sediment Control Facility		☐	Water Resource	
☐	Explosive Storage Location		☐	Other:	

Latitude/Longitude Point of Origin	**Latitude**			**Longitude**		
	Degrees	**Minutes**	**Seconds**	**Degrees**	**Minutes**	**Seconds**
	40	54	36	-79	**1**	9

Horizontal Accuracy Measure: Feet *--or--* Meters

Horizontal Reference Datum Code
- ☐ North American Datum of 1927
- ☒ North American Datum of 1983
- ☐ World Geodetic System of 1984

Horizontal Collection Method Code

Reference Point Code

Altitude: Feet *--or--* Meters

Altitude Datum Name
- ☐ The National Geodetic Vertical Datum of 1929
- ☐ The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code

Geometric Type Code

Data Collection Date

Source Map Scale Number: Inch(es) = Feet
--or-- Centimeter(s) = Meters

PROJECT INFORMATION

Project Name
RACT Compliance

Project Description
Installation of SCR and alternative RACT requirements for compressor station

Project Consultant Last Name	First Name	MI	Suffix
Muscenti	Tom		

Project Consultant Title	Consulting Firm
Regional Manager	Trinity Consultants

Mailing Address Line 1	Mailing Address Line 2
4500 Brooktree Rd.	Suite 310

Address Last Line – City	State	ZIP+4
Wexford	PA	15090

Phone	Ext	FAX	Email Address
724-935-2611			tmuscenti@trinityconsultants.com

Time Schedules	Project Milestone (Optional)

1. Is the project located in or within a 0.5-mile radius of an Environmental Justice community as defined by DEP? ☒ Yes ☐ No

To determine if the project is located in or within a 0.5-mile radius of an environmental justice community, please use the online Environmental Justice Areas Viewer.

2. Have you informed the surrounding community prior to submitting the application to the Department? ☐ Yes ☒ No

Method of notification: _____

3. Have you addressed community concerns that were identified? ☐ Yes ☐ No ☒ N/A

If no, please briefly describe the community concerns that have been expressed and not addressed.

4. Is your project funded by state or federal grants? ☐ Yes ☒ No

Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.

Aspect of Project Related to Grant
Grant Source: _____
Grant Contact Person: _____
Grant Expiration Date: _____

5. Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions) ☐ Yes ☒ No

Note: If "No" to Question 5, the application is not subject to the Land Use Policy.
If "Yes" to Question 5, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

LAND USE INFORMATION – NOT APPLICABLE

Note: Applicants should submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1.	**Is there an adopted county or multi-county comprehensive plan?**	☐	Yes	☐	No
2.	**Is there a county stormwater management plan?**	☐	Yes	☐	No
3.	**Is there an adopted municipal or multi-municipal comprehensive plan?**	☐	Yes	☐	No
4.	**Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?** **Note:** If the Applicant answers "No" to either Questions 1, 3 or 4, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 5 and 6 below. If the Applicant answers "Yes" to questions 1, 3 and 4, the Applicant should respond to questions 5 and 6 below.	☐	Yes	☐	No
5.	**Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval?** If zoning approval has been received, attach documentation.	☐	Yes	☐	No
6.	**Have you attached Municipal and County Land Use Letters for the project?**	☐	Yes	☐	No

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 utilizing the Project Review Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	**Is this a coal mining project?** If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	☐	Yes	☒	No
1.1	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?**	☐	Yes	☐	No
1.2	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?**	☐	Yes	☐	No
1.3	**Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?**	☐	Yes	☐	No
1.4	**For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
1.5	**Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
1.6	**Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?**	☐	Yes	☐	No
2.0	**Is this a non-coal (industrial minerals) mining project?** If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	☐	Yes	☒	No
2.1	**Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?**	☐	Yes	☐	No
2.2	**Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?**	☐	Yes	☐	No

2.3	**Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?**	☐	Yes	☐	No
2.4	**For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
2.5	**Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
3.0	**Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well?** If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	☐	Yes	☒	No
3.1	**Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?**	☐	Yes	☐	No
3.2	**Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system?** If "Yes", discuss in *Project Description*.	☐	Yes	☐	No
3.3	**Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☐	No
4.0	**Will the project involve a construction activity that results in earth disturbance?** If "Yes", specify the total disturbed acreage.	☐	Yes	☒	No
4.0.1	**Total Disturbed Acreage**				
4.0.2	**Will the project discharge or drain to a special protection water (EV or HQ) or an EV wetland?**	☐	Yes	☐	No
4.0.3	**Will the project involve a construction activity that results in earth disturbance in the area of the earth disturbance that are contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively?**	☐	Yes	☐	No
5.0	**Does the project involve any of the following: water obstruction and/or encroachment, wetland impacts, or floodplain project by the Commonwealth/political subdivision or public utility?** If "Yes", respond to 5.1-5.7. If "No", skip to Question 6.0.	☐	Yes	☒	No
5.1	**Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?**	☐	Yes	☐	No
5.2	**Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?**	☐	Yes	☐	No
5.3	**Floodplain Projects by the Commonwealth, a Political Subdivision of the Commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?**	☐	Yes	☐	No
5.4	**Is your project an interstate transmission natural gas pipeline?**	☐	Yes	☐	No

5.5	**Does your project consist of linear construction activities which result in earth disturbance in two or more DEP regions AND three or more counties?**	☐	Yes	☐	No
5.6	**Does your project utilize Floodplain Restoration as a best management practice for Post Construction Stormwater Management?**	☐	Yes	☐	No
5.7	**Does your project utilize Class V Gravity / Injection Wells as a best management practice for Post Construction Stormwater Management?**	☐	Yes	☐	No
6.0	**Will the project involve discharge of construction related stormwater to a dry swale, surface water, ground water or separate storm water system?**	☐	Yes	☒	No
6.1	**Will the project involve discharge of industrial waste stormwater or wastewater from an industrial activity or sewage to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?**	☐	Yes	☒	No
7.0	**Will the project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☒	No
8.0	**Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations?** If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the *Project Description*, where applicable. **8.0.1 Estimated Proposed Flow (gal/day)**	☐	Yes	☒	No
9.0	**Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?**	☐	Yes	☒	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	☐	Yes	☐	No
10.0	**Is this project for the beneficial use of biosolids for land application within Pennsylvania?** If "Yes" indicate how much (i.e. gallons or dry tons per year). **10.0.1 Gallons Per Year (residential septage)** _____ **10.0.2 Dry Tons Per Year (biosolids)**	☐	Yes	☒	No
11.0	**Does the project involve construction, modification or removal of a dam?** If "Yes", identify the dam. **11.0.1 Dam Name**	☐	Yes	☒	No
12.0	**Will the project interfere with the flow from, or otherwise impact, a dam?** If "Yes", identify the dam. **12.0.1 Dam Name**	☐	Yes	☒	No
13.0	**Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?**	☒	Yes	☐	No
	13.0.1 If "Yes", is the operation subject to the agricultural exemption in 35 P.S. § 4004.1?	☐	Yes	☒	No
	13.0.2 If the answer to 13.0.1 is "No", identify each type of emission followed by the estimated amount of that emission. **Enter all types & amounts of emissions; separate each set with semicolons.** See Emission Calcs				

14.0	**Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year?** If "Yes", check all proposed sub-facilities.	☐	Yes	☒	No
	14.0.1 Number of Persons Served _____				
	14.0.2 Number of Employee/Guests _____				
	14.0.3 Number of Connections _____				
	14.0.4 Sub-Fac: Distribution System	☐	Yes	☐	No
	14.0.5 Sub-Fac: Water Treatment Plant	☐	Yes	☐	No
	14.0.6 Sub-Fac: Source	☐	Yes	☐	No
	14.0.7 Sub-Fac: Pump Station	☐	Yes	☐	No
	14.0.8 Sub Fac: Transmission Main	☐	Yes	☐	No
	14.0.9 Sub-Fac: Storage Facility	☐	Yes	☐	No
15.0	**Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?**	☐	Yes	☒	No
16.0	**Is your project to be served by an existing public water supply?** If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	☐	Yes	☒	No
	16.0.1 Supplier's Name _____				
	16.0.2 Letter of Approval from Supplier is Attached	☐	Yes	☐	No
17.0	**Will this project be served by on-lot drinking water wells?**	☐	Yes	☒	No
18.0	**Will this project involve a new or increased drinking water withdrawal from a river, stream, spring, lake, well or other water bod(ies)?** If "Yes", reference Safe Drinking Water Program.	☐	Yes	☒	No
	18.0.1 Source Name				
19.0	**Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste?** If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	☐	Yes	☒	No
	19.0.1 Type & Amount				
20.0	**Will your project involve the removal of coal, minerals, contaminated media, or solid waste as part of any earth disturbance activities?**	☐	Yes	☒	No
21.0	**Does your project involve installation of a field constructed underground storage tank?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	21.0.1 Enter all substances & capacity of each; separate each set with semicolons.				
22.0	**Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	22.0.1 Enter all substances & capacity of each; separate each set with semicolons.				
23.0	**Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	23.0.1 Enter all substances & capacity of each; separate each set with semicolons.				

24.0	**Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **24.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☒	Yes	☐	No

NOTE: If the project includes the installation of a regulated storage tank system, including diesel emergency generator systems, the project may require the use of a Department Certified Tank Handler. For a full list of regulated storage tanks and substances, please go to www.dep.pa.gov search term storage tanks

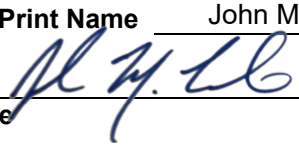
25.0	**Will the intended activity involve the use of a radiation source?**	☐	Yes	☒	No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

For applicants supplying an EIN number: I am applying for a permit or authorization from the Pennsylvania Department of Environmental Protection (DEP). As part of this application, I will provide DEP with an accurate EIN number for the applicant entity. By filing this application with DEP, I hereby authorize DEP to confirm the accuracy of the EIN number provided with the Pennsylvania Department of Revenue. As applicant, I further consent to the Department of Revenue discussing the same with DEP prior to issuance of the Commonwealth permit or authorization.

Type or Print Name John M. Lamb

	Vice President, Eastern Pipeline Operations	12/13/2022
Signature	**Title**	**Date**

APPENDIX C. PLAN APPROVAL FORMS

2700-PM-AQ0007 Rev. 7/2004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Submit in Triplicate

PROCESSES

Application for Plan Approval to Construct, Modify or Reactivate an Air Contamination Source and/or Install an Air Cleaning Device

This application must be submitted with the General Information Form (GIF).

Before completing this form, read the instructions provided for the form.

Section A - Facility Name, Checklist And Certification

Organization Name or Registered Fictitious Name/Facility Name: Eastern Gas Transmission and Storage/Punxsutawney

DEP Client ID# (if known): 81074

Type of Review required and Fees:

- ☒ Source which is not subject to NSPS, NESHAPs, MACT, NSR and PSD: $2,500
- ☐ Source requiring approval under NSPS or NESHAPS or both: ..... $N/A to project
- ☐ Source requiring approval under NSR regulations: ..... $N/A to project
- ☐ Source requiring the establishment of a MACT limitation: ..... $N/A to project
- ☐ Source requiring approval under PSD: ..... $N/A to project

Applicant's Checklist

Check the following list to make sure that all the required documents are included.

- ☒ **General Information Form (GIF)**
- ☒ **Processes Plan Approval Application**
- ☒ **Compliance Review Form** or provide reference of most recently submitted compliance review form for facilities submitting on a periodic basis: _____
- ☒ **Copy and Proof of County and Municipal Notifications**
- ☒ **Permit Fees**
- ☒ **Addendum A:** Source Applicable Requirements (only applicable to existing Title V facility)

Certification of Truth, Accuracy and Completeness by a Responsible Official

I, John M. Lamb, certify under penalty of law in 18 Pa. C. S. A. §4904, and 35 P.S. §4009(b) (2) that based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate and complete.

(Signature): _____ Date: 12/13/2022

Name (Print): John M. Lamb Title: Vice President, Eastern Pipeline Operations

OFFICIAL USE ONLY

Application No. _____ Unit ID _____ Site ID _____

DEP Client ID #: _____ APS. ID _____ AUTH. ID _____

Date Received _____ Date Assigned _____ Reviewed By _____

Date of 1st Technical Deficiency _____ Date of 2nd Technical Deficiency _____

Comments: _____

Eastern Gas Transmission and Storage, Inc.
6603 W Broad St.
Richmond, VA 23230

DATE: November 29, 2022
Document Number: 20000175341004
CHECK NUMBER: 339885
AMOUNT PAID: $2,500.00

33351000220100002000307000020

00002 6413 CKS SB 22333 - 0000339885 NNNNNNNNNNN 333510000220l X697A4 C
PENNSYLVANIA COMMONWEALTH OF
CLEAN AIR FUND
ENVIRONMENTAL PROTECTION DEPT
NORTHWEST REGIONAL OFFICE
230 CHESTNUT ST
MEADVILLE PA 16335-3481

Vendor Number: 300014805

Invoice Date	Invoice Number	Purchase Order	Description	Gross Amount	Discount	Net Amount
11/28/22	EF0000150049		Plan Approval Fee for Punxsutawney Compressor	$2,500.00	$0.00	$2,500.00
			TOTALS	**$2,500.00**	**$0.00**	**$2,500.00**

PLEASE DETACH BEFORE DEPOSITING CHECK

Eastern Gas Transmission and Storage, Inc.
6603 W Broad St.
Richmond, VA 23230

CHECK NUMBER 339885

50-937
213

November 29, 2022

*** VOID AFTER 90 DAYS ***

Vendor Number: 300014805

Document No: 20000175341004

CHECK AMOUNT
$2,500.00

PAY TO THE ORDER OF:
PENNSYLVANIA COMMONWEALTH OF
CLEAN AIR FUND
ENVIRONMENTAL PROTECTION DEPT
NORTHWEST REGIONAL OFFICE
230 CHESTNUT ST
MEADVILLE, PA 16335-3481

EXACTLY *********2,500 DOLLARS AND 00 CENTS

Security features included. Details on back.

JPMORGAN CHASE BANK, N.A.
Syracuse, NY

Eastern Gas Transmission and Storage, Inc

Authorized Signature

⑈339885⑈ ⑆021309379⑆ 601839988⑈

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Manufacturer	Model No.	Number of Sources
Dresser Rand	TV-10	1
Source Designation	Maximum Capacity	Rated Capacity
131	4,200 hp	

Type of Material Processed
Natural Gas

Maximum Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
24	7	365	8760

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour	Per Day	Per Week	Per Year
29.4 MMBtu/hr	705.6 MMBtu/d	4939.2 MMBtu/week	257,544 MMBtu/yr

Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
24	7	365	8760

Seasonal variations (Months) From to

If variations exist, describe them

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	2.94E-02 SCFH	257.5 X 10^6 SCF	grain/100 SCF		1000 Btu/SCF
Gas (other) _____	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Coal _____	TPH	Tons	% by wt		Btu/lb
Other * _____					
_____					
_____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Manufacturer	Model No.	Number of Sources
Dresser Rand	TV-10	1
Source Designation	**Maximum Capacity**	**Rated Capacity**
132	4,200 hp	

Type of Material Processed
Natural Gas

Maximum Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
24	7	365	8760

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour	Per Day	Per Week	Per Year
29.4 MMBtu/hr	705.6 MMBtu/d	4939.2 MMBtu/week	257,544 MMBtu/yr

Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
24	7	365	8760

Seasonal variations (Months) From to

If variations exist, describe them

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	2.94E-02 SCFH	257.5 X 10^6 SCF	grain/100 SCF		1000 Btu/SCF
Gas (other) _____	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Coal _____	TPH	Tons	% by wt		Btu/lb
Other * _____					
_____					
_____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner - NA

Manufacturer	Type and Model No.	Number of Burners

Description:

Rated Capacity	Maximum Capacity

4. Process Storage Vessels

A. For Liquids:

Name of material stored
Ammonia

Tank I.D. No.	Manufacturer	Date Installed
TBD		TBD

Maximum Pressure	Capacity (gallons/Meter^3)
	10,000

Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)

Relief valve/vent set pressure (psig)	Vapor press. of liquid at storage temp. (psia/kPa)

Type of Roof: Describe:

Total Throughput Per Year	Number of fills per day (fill/day): Filling Rate (gal./min.): Duration of fill hr./fill):

B. For Solids

Type: ☐ Silo ☐ Storage Bin ☐Other, Describe	Name of Material Stored

Silo/Storage Bin I.D. No.	Manufacturer	Date Installed

State whether the material will be stored in loose or bags in silos	Capacity (Tons)

Turn over per year in tons	Turn over per day in tons

Describe fugitive dust control system for loading and handling operations

Describe material handling system

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? ☐ Yes ☐ No
If yes, include justification for confidentiality. Place such information on separate pages marked **"confidential"**.

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

Natural gas fired engines will be controlled by SCR (injection of ammonia and reaction with NOx over catalyst)

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Ammonia slip will be limited to 10 ppmvd and existing Title V monitoring will be continued.

Describe each proposed modification to an existing source.

Installation of SCR system on Engines 1 and 2

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

See Appendix A for fugitive emissions.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

Emissions are minimized by following manufacturer's specifications and minimizing downtime.

Anticipated Milestones:

i. Expected commencement date of construction/reconstruction/installation: See Section 4

ii. Expected completion date of construction/reconstruction/installation: See Section 4

iii. Anticipated date of start-up: See Section 4

Section C - Air Cleaning Device

1. Precontrol Emissions* - 131

Pollutant	Maximum Emission Rate				Calculation/ Estimation Method
	Specify Units	Pounds/Hour	Hours/Year	Tons/Year	
PM		See Appendix A			
PM_{10}					
SO_x					
CO					
NO_x	2.0 g/bhp-hr				
VOC					
Others: (e.g., HAPs)	-----				

Precontrol Emissions* - 132

Pollutant	Maximum Emission Rate				Calculation/ Estimation Method
	Specify Units	Pounds/Hour	Hours/Year	Tons/Year	
PM		See Appendix A			
PM_{10}					
SO_x					
CO					
NO_x	2.0 g/bhp-hr				
VOC					
Others: (e.g., HAPs)	-----				

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling - NA

Water quenching ☐ Yes ☐ No Water injection rate _____ GPM

Radiation and convection cooling ☐ Yes ☐ No	Air dilution ☐ Yes ☐ No If yes, _____CFM
Forced Draft ☐ Yes ☐ No	Water cooled duct work ☐ Yes ☐ No
Other	
Inlet Volume _____ACFM @ _____°F _____% Moisture	Outlet Volume _____ACFM @ _____°F _____% Moisture
Describe the system in detail.	

Section C - Air Cleaning Device (Continued)

3. Settling Chambers - NA

Manufacturer	Volume of gas handled _____ACFM @ _____°F	Gas velocity (ft/sec.)

Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays

Water injection ☐ Yes ☐ No	Water injection rate (GPM)

Emissions Data

Inlet	Outlet	Removal Efficiency (%)

4. Inertial and Cyclone Collectors - NA

Manufacturer	Type	Model No.
Pressure drop (in. of water)	Inlet volume _____ACFM @ _____°F	Outlet volume _____ACFM @ _____°F

Number of individual cyclone(s)	Outlet straightening vanes used? ☐ Yes ☐ No

Length of Cyclone(s) Cylinder (ft.)	Diameter of Cyclone(s) Cylinder (ft.)	Length of Cyclone(s) cone (ft.)

Inlet Diameter (ft.) or duct area ($ft.^2$) of cyclone(s)	Outlet Diameter (ft.) or duct area ($ft.^2$) of cyclone(s)

If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off?

Describe any exhaust gas recirculation loop to be employed.

Attach particle size efficiency curve

Emissions Data

Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

5. Fabric Collector- NA

Equipment Specifications

Manufacturer	Model No.	☐ Pressurized Design ☐ Suction Design
Number of Compartments	Number of Filters Per Compartment	Is Baghouse Insulated? ☐ Yes ☐ No

Can each compartment be isolated for repairs and/or filter replacement? ☐ Yes ☐ No

Are temperature controls provided? (Describe in detail) ☐ Yes ☐ No

Dew point at maximum moisture _____ °F | Design inlet volume _____ SCFM

Type of Fabric

Material _____ ☐ Felted ☐ Membrane

Weight _____ oz/sq.yd ☐ Woven ☐ Others: List: _____

Thickness _____ in ☐ Felted-Woven

Fabric permeability (clean) @ ½" water-Δ P _____ CFM/sq.ft.

Filter dimensions Length _____ Diameter/Width _____

Effective area per filter _____ | Maximum operating temperature (°F) _____

Effective air to cloth ratio Minimum _____ Maximum _____

Drawing of Fabric Filter

A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.

Operation and Cleaning

Volume of gases handled _____ ACFM @ _____ °F	Pressure drop across collector (in. of water). Describe the equipment to be used to monitor the pressure drop.

Type of filter cleaning

☐ Manual Cleaning ☐ Bag Collapse ☐ Reverse Air Jets

☐ Mechanical Shakers ☐ Sonic Cleaning ☐ Other: _____

☐ Pneumatic Shakers ☐ Reverse Air Flow

Describe the equipment provided if dry oil free air is required for collector operation

Cleaning Initiated By

☐ Timer Frequency if timer actuated _____

☐ Expected pressure drop range _____ in. of water ☐ Other Specify _____

Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe.

Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

6. Wet Collection Equipment- NA

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Relative Particulate/Gas Velocity (ejector scrubbers only)

Describe the internal features (e.g., variable throat, gas/liquid diffusion plates, spray nozzles, liquid redistributors, bed limiters, etc.).

Describe pH monitoring and pH adjustment systems, if applicable.

Describe mist eliminator or separator (type, configuration, backflush capability, frequency).

Attach particulate size efficiency curve.

Operating Parameters

Inlet volume of gases handled _____ (ACFM) @ _____ °F	Outlet volume of gases handled _____ (ACFM) @ _____ °F _____% Moisture

Liquid flow rates. Describe equipment provided to measure liquid flow rates to scrubber (e.g., quenching section, recirculating solution, makeup water, bleed flow, etc.)

Describe scrubber liquid supply system (amount of make-up and recirculating liquid, capacity of recirculating liquid system, etc.)

State pressure drop range (in water) across scrubber (e.g., venturi throat, packed bed, etc.) only. Describe the equipment provide to measure the pressure drop. Do not include duct or de-mister losses.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

7. Electrostatic Precipitator- NA

Equipment Specifications

Manufacturer	Model No.	☐ Wet ☐ Dry ☐ Single-Stage ☐ Two-Stage

Gas distribution grids ☐ Yes ☐ No	Design Inlet Volume (SCFM) _____ Maximum operating temperature (°F) _____

Total collecting surface area _____ sq. ft. Collector plates size length _____ ft. x width _____ ft.

Number of fields _____ Number of collector plates/field _____

Spacing between collector plates _____ inches.

Maximum gas velocity _____ ft./sec. Minimum gas treatment time: _____ sec.

Total discharge electrode length _____ ft.

Number of discharge electrodes _____ Number of collecting electrode rappers _____

Rapper control ☐ Magnetic ☐ Pneumatic ☐ Other _____ Describe in detail

Operating Parameters

Inlet gas temperature (°F) _____ Outlet gas temperature (°F) _____	State pressure drop range (inches water gauge) across collector only _____ Describe the equipment
Volume of gas handled (ACFM) _____	Dust resistivity (ohm-cm). Will resistivity vary?

Power requirements

Number and size of Transformer Rectifier sets by electrical field

Field No.	No. of Sets	Each Transformer KVA	Each Rectifier KV Ave./Peak	Each Rectifier Ma DC

Current Density _____ Micro amperes/ft^2.	Corona Power _____ Watts/1000 ACFM	Corona Power Density _____ Watts/ft^2.

Will a flue gas conditioning system be employed? If yes, describe it.

Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

8. Adsorption Equipment- NA

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Adsorbent charge per adsorber vessel and number of adsorber vessels

Length of Mass Transfer Zone (MTZ), supplied by the manufacturer based upon laboratory data.

Adsorber diameter (ft.) and area ft^2.)	Adsorption bed depth (ft.)

Adsorbent information

Adsorbent type and physical properties.

Working capacity of adsorbent (%)	Heel percent or unrecoverable solvent weight % in the adsorbent after regeneration.

Operating Parameters

Inlet volume of gases handled _____ (ACFM) @ _____ °F

Adsorption time per adsorption bed	Breakthrough capacity: Lbs. of solvent / 100 lbs. of adsorbent = _____
Vapor pressure of solvents at the inlet temperature	Available steam in pounds to regenerate carbon adsorber (if applicable)

Percent relative saturation of each solvent at the inlet temperature

Attach any additional data including auxiliary equipment and operation details to thoroughly evaluate the control equipment.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

9. Absorption Equipment- NA

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Tower height (ft.) and inside diameter (ft.)
Packing type and size (if applicable)	Height of packing (ft.) (if applicable)
Number of trays (if applicable)	Number of bubble caps (if applicable)

Configuration

☐ Counter-current ☐ Cross flow ☐ Cocurrent flow

Describe pH and/or other monitoring and controls.

Absorbent information

Absorbent type and concentration.	Retention time (sec.)

Attach equilibrium data for absorption (if applicable)

Attach any additional information regarding auxiliary equipment, absorption solution supply system (once through or recirculating, system capacity, etc.) to thoroughly evaluate the control equipment. Indicate the flow rates for makeup, bleed and recirculation.

Operating Parameters

Volume of gas handled (ACFM)	Inlet temperature (°F)	Pressure drop (in. of water) and liquid flow rate. Describe the monitoring equipment.

State operating range for pH and/or absorbent concentration in scrubber liquid.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

10. ☒ **Selective Catalytic Reduction (SCR) – Engine 1 (131)**
☐ **Selective Non-Catalytic Reduction (SNCR)**
☐ **Non-Selective Catalytic Reduction (NSCR)**

Equipment Specifications

Manufacturer	Type	Model No.
AeriNOx		

Design Inlet Volume (SCFM)	Design operating temperature (°F)

Is the system equipped with process controls for proper mixing/control of the reducing agent in gas stream? If yes, give details.

Yes, equipped with an ammonia dosing panel which includes; steel dosing valve, magnetic valves, and shut-off valves.

Attach efficiency and other pertinent information (e.g., ammonia slip)

10 ppmvd

Operating Parameters

Volume of gases handled _____ (ACFM) @ _____ °F

Operating temperature range for the SCR/SNCR/NSCR system (°F) From 450 °F To 950 (approx.) °F

Reducing agent used, if any	Oxidation catalyst used, if any
19% Aqueous NH3	Oxidation Catalyst

State expected range of usage rate and concentration.

Service life of catalyst	Ammonia slip (ppm)
16,000 hours	10

Describe fully with a sketch giving locations of equipment, controls systems, important parameters and method of operation. The proposed AeriNOx system will measure pre-SCR with a NOx sensor and then using fuel flow and fuel composition to calculate the dosing rate. The post- SCR NOx sensor will trim/bias the dosing command. The system will also be monitoring the pre/post SCR temperature as well as the differential pressure across the SCR reactor

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

SCR Control is a single PLC based control system that includes Siemens Programmable Logic Controller (Simatic 1200). Parameters measures: SCR inlet/outlet, delta P, and flow measurement

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)
NOx	2.0 g/bhp-hr	0.6 g/bhp-hr	70%

Section C - Air Cleaning Device (Continued)

10. ☒ **Selective Catalytic Reduction (SCR) – Engine 2 (132)**
☐ **Selective Non-Catalytic Reduction (SNCR)**
☐ **Non-Selective Catalytic Reduction (NSCR)**

Equipment Specifications

Manufacturer	Type	Model No.
AeriNOx		

Design Inlet Volume (SCFM)	Design operating temperature (°F)

Is the system equipped with process controls for proper mixing/control of the reducing agent in gas stream? If yes, give details.

Yes, equipped with an ammonia dosing panel which includes; steel dosing valve, magnetic valves, and shut-off valves.

Attach efficiency and other pertinent information (e.g., ammonia slip)

10 ppmvd

Operating Parameters

Volume of gases handled _____ (ACFM) @ _____ °F

Operating temperature range for the SCR/SNCR/NSCR system (°F) From 450 °F To 950 (approx.) °F

Reducing agent used, if any	Oxidation catalyst used, if any
19% Aqueous NH3	Oxidation Catalyst

State expected range of usage rate and concentration.

Service life of catalyst	Ammonia slip (ppm)
16,000 hours	10

Describe fully with a sketch giving locations of equipment, controls systems, important parameters and method of operation. The proposed AeriNOx system will measure pre-SCR with a NOx sensor and then using fuel flow and fuel composition to calculate the dosing rate. The post- SCR NOx sensor will trim/bias the dosing command. The system will also be monitoring the pre/post SCR temperature as well as the differential pressure across the SCR reactor

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

SCR Control is a single PLC based control system that includes Siemens Programmable Logic Controller (Simatic 1200). Parameters measures: SCR inlet/outlet, delta P, and flow measurement

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)
NOx	2.0 g/bhp-hr	0.6 g/bhp-hr	70%

Section C - Air Cleaning Device (Continued)

11. Oxidizer/Afterburners - NA

Equipment Specifications

Manufacturer	Type ☐ Thermal ☐ Catalytic	Model No.
Design Inlet Volume (SCFM)	Combustion chamber dimensions (length, cross-sectional area, effective chamber volume, etc.)	

Describe design features, which will ensure mixing in combustion chamber.

Describe method of preheating incoming gases (if applicable).	Describe heat exchanger system used for heat recovery (if applicable).

Catalyst used	Life of catalyst	Expected temperature rise across catalyst (°F)	Dimensions of bed (in inches). Height: _____ Diameter or Width: _____ Depth: _____

Are temperature sensing devices being provided to measure the temperature rise across the catalyst? ☐ Yes ☐ No

If yes, describe.

Describe any temperature sensing and/or recording devices (including specific location of temperature probe in a drawing or sketch.

Burner Information

Burner Manufacturer	Model No.	Fuel Used
Number and capacity of burners	Rated capacity (each)	Maximum capacity (each)

Describe the operation of the burner	Attach dimensioned diagram of afterburner

Operating Parameters

Inlet flow rate (ACFM) _____ @ _____°F	Outlet flow rate (ACFM) _____@ _____°F
State pressure drop range across catalytic bed (in. of water).	Describe the method adopted for regeneration or disposal of the used catalyst.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

12. Flares- NA

Equipment Specifications

Manufacturer	Type ☐ Elevated flare ☐ Ground flare ☐ Other _____ Describe	Model No.
Design Volume (SCFM)	Dimensions of stack (ft.) Diameter _____ Height _____	
Residence time (sec.) and outlet temperature (°F)	Turn down ratio	Burner details

Describe the flare design (air/steam-assisted or nonassisted), essential auxiliaries including pilot flame monitor of proposed flare with a sketch.

Describe the operation of the flare's ignition system.

Describe the provisions to introduce auxiliary fuel to the flare.

Operation Parameters

Detailed composition of the waste gas	Heat content	Exit velocity
Maximum and average gas flow burned (ACFM)	Operating temperature (°F)	

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

13. Other Control Equipment- NA

Equipment Specifications

Manufacturer	Type	Model No.

Design Volume (SCFM)	Capacity

Describe pH monitoring and pH adjustment, if any.

Indicate the liquid flow rate and describe equipment provided to measure pressure drop and flow rate, if any.

Attach efficiency curve and/or other efficiency information.

Attach any additional date including auxiliary equipment and operation details to thoroughly evaluate the control equipment.

Operation Parameters

Volume of gas handled

_____ ACFM @ _____ °F _____ % Moisture

Describe fully giving important parameters and method of operation.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Section D - Additional Information

Will the construction, modification, etc. of the sources covered by this application increase emissions from other sources at the facility? If so, describe and quantify.

No

If this project is subject to any one of the following, attach a demonstration to show compliance with applicable standards.

a. Prevention of Significant Deterioration permit (PSD), 40 CFR 52? ☐ YES ☒ NO

b. New Source Review (NSR), 25 Pa. Code Chapter 127, Subchapter E? ☐ YES ☒ NO

c. New Source Performance Standards (NSPS), 40 CFR Part 60? ☐ YES ☒ NO
(If Yes, which subpart) _____

d. National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61? (If Yes, which subpart) _____ ☐ YES ☒ NO

e. Maximum Achievable Control Technology (MACT) 40 CFR Part 63? ☒ YES ☐ NO
(If Yes, which part) ZZZZ – no change

Attach a demonstration showing that the emissions from any new sources will be the minimum attainable through the use of best available technology (BAT).

No new sources – BAT is not applicable.

Provide emission increases and decreases in allowable (or potential) and actual emissions within the last five (5) years for applicable PSD pollutant(s) if the facility is an existing major facility (PSD purposes).

N/A – no projected increase in emissions.

Section D - Additional Information (Continued)

Indicate emission increases and decreases in tons per year (tpy), for volatile organic compounds (VOCs) and nitrogen oxides (NOx) for NSR applicability since January 1, 1991 or other applicable dates (see other applicable dates in instructions). The emissions increases include all emissions including stack, fugitive, material transfer, other emission generating activities, quantifiable emissions from exempted source(s), etc.

Permit number (if applicable)	Date issued	Indicate ***Yes*** or ***No*** if emission increases and decreases were used previously for netting	Source I. D. or Name	**VOCs**		**NOx**	
				Emission increases in potential to emit (tpy)	Creditable emission decreases in actual emissions (tpy)	Emission increases in potential to emit (tpy)	Creditable emission decreases in actual emissions (tpy)

If the source is subject to 25 Pa. Code Chapter 127, Subchapter E, New Source Review requirements,

a. Identify Emission Reduction Credits (ERCs) for emission offsets or demonstrate ability to obtain suitable ERCs for emission offsets.

b. Provide a demonstration that the lowest achievable emission rate (LAER) control techniques will be employed (if applicable).

c. Provide an analysis of alternate sites, sizes, production processes and environmental control techniques demonstrating that the benefits of the proposed source outweigh the environmental and social costs (if applicable).

Attach calculations and any additional information necessary to thoroughly evaluate compliance with all the applicable requirements of Article III and applicable requirements of the Clean Air Act adopted thereunder The Department may request additional information to evaluate the application such as a standby plan, a plan for air pollution emergencies, air quality modeling, etc.

Section E - Compliance Demonstration – NA TITLE V

Note: Complete this section if source is not a Title V facility. Title V facilities must complete Addendum A.

Method of Compliance Type: Check all that apply and complete all appropriate sections below

☐ Monitoring ☐ Testing ☐ Reporting

☐ Recordkeeping ☐ Work Practice Standard

Monitoring:

a. Monitoring device type (Parameter, CEM, etc):

b. Monitoring device location:

c. Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Testing:

a. Reference Test Method: Citation

b. Reference Test Method: Description

Recordkeeping:

Describe what parameters will be recorded and the recording frequency:

Reporting:

a. Describe what is to be reported and frequency of reporting:

b. Reporting start date: _____

Work Practice Standard:

Describe each:

Section F - Flue and Air Contaminant Emission

1. Estimated Atmospheric Emissions* (131 & 132) (each)

Pollutant	Maximum emission rate			Calculation/ Estimation Method
	specify units	lbs/hr	tons/yr.	
PM				
PM_{10}				
SO_x				
CO				
NO_x	0.6 g/bhp-hr	5.56	24.33	RACT III Limits
VOC	0.5 g/bhp-hr	4.63	20.28	RACT III Limits
Others: (e.g., HAPs)	-----	-----	-----	-----

* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Stack and Exhauster (131)

Stack Designation/Number S131

List Source(s) or source ID exhausted to this stack:	% of flow exhausted to stack: 100%

Stack height above grade (ft.) Grade elevation (ft.)	Stack diameter (ft) or Outlet duct area (sq. ft.)	f. Weather Cap ☐ YES ☐ NO

Distance of discharge to nearest property line (ft.). Locate on topographic map.

Does stack height meet Good Engineering Practice (GEP)?

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions.

Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

Stack exhaust
Volume _____ ACFM Temperature _____ °F Moisture _____ %

Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.

Exhauster (attach fan curves 7.1 in. of water 4,200 HP @ _____ RPM.

2. Stack and Exhauster (132)

Stack Designation/Number S132

List Source(s) or source ID exhausted to this stack:	% of flow exhausted to stack: 100

Stack height above grade (ft.) Grade elevation (ft.)	Stack diameter (ft) or Outlet duct area (sq. ft.)	f. Weather Cap ☐ YES ☐ NO

Distance of discharge to nearest property line (ft.). Locate on topographic map.

Does stack height meet Good Engineering Practice (GEP)?

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions.

Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

Stack exhaust
Volume _____ ACFM Temperature _____ °F Moisture _____ %

Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.

Exhauster (attach fan curves) 7.1 in. of water 4,200 HP @ _____ RPM.

** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.

Section G - Attachments

Number and list all attachments submitted with this application below:

Appendix A: Emission Calculations
Appendix B: General Information Form
Appendix C: Plan Approval Forms
Appendix D: Compliance Review Form
Appendix E: Municipal Notifications

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum A: Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.
Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

Citation Number	Citation Limitation	Limitation Used
129.112	See Sections 2, 4, 5	See Sections 2, 4, 5

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 55-0629203 **Firm Name:** EGTS

Plant Code: 13 **Plant Name:** Punxsutawney Compressor Station

Applicable Requirement for: (please check only one box below)

☐ **The entire site**

☒ **A group of sources, Group ID:** 131, 132

☐ **A single source, Unit ID:**

☐ **Alternative Scenario, Scenario Name:**

Citation #: 129.112, 129.114

Compliance Method based upon: ☒ **Applicable Requirement** ☐ **Gap Filling Requirement**

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

☒ **Monitoring** ☒ **Testing** ☒ **Reporting**

☒ **Record Keeping** ☐ **Work Practice Standard**

Section 2: Monitoring

1. **Monitoring device type (stack test, CEM, etc.):** Stack test
2. **Monitoring device location:** Outlet of control device

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Periodic source testing

3. **How will data be reported:**

Section 3: Testing

1. Reference Test Method Description:	129.115
2. Reference Test Method Citation:	129.115

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

129.115 as applicable

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

129.115 as applicable

1. Reporting start date:	129.115 as applicable

Section 6: Work Practice Standard

Describe any work practice standards:

N/A

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum A: Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.
Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

Citation Number	Citation Limitation	Limitation Used
129.112	See Sections 2, 4, 5	See Sections 2, 4, 5

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id:	55-0629203	**Firm Name:**	EGTS
Plant Code:	13	**Plant Name:**	Punxsutawney Compressor Station

Applicable Requirement for: (please check only one box below)

☐ **The entire site**

☐ **A group of sources, Group ID:**

☒ **A single source, Unit ID:** P101

☐ **Alternative Scenario, Scenario Name:**

Citation #: 129.112, 129.114

Compliance Method based upon: ☒ **Applicable Requirement** ☐ **Gap Filling Requirement**

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

☒ **Monitoring** ☐ **Testing** ☒ **Reporting**

☒ **Record Keeping** ☒ **Work Practice Standard**

Section 2: Monitoring

1. **Monitoring device type (stack test, CEM, etc.):** OGI, Method 21, or equivalent
2. **Monitoring device location:** Fugitive emission sources

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

See Section 5

3. **How will data be reported:**

Section 3: Testing

1. Reference Test Method Description:	See Section 5
2. Reference Test Method Citation:	See Section 5

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

See Section 5

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

See Section 5

1. Reporting start date:	See Section 5

Section 6: Work Practice Standard

Describe any work practice standards:

Leak detection and
repair program with
quarterly inspections

APPENDIX D. COMPLIANCE REVIEW FORM

EASTERN
GAS TRANSMISSION AND STORAGE
A BERKSHIRE HATHAWAY ENERGY COMPANY

Eastern Gas Transmission and Storage, Inc.
6603 West Broad Street
Richmond, VA 23230

November 1, 2022

SUBMITTED VIA ONBASE

Eric Gustafson
Air Quality Program Manager
Northwest Regional Office
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481

RE: Eastern Gas Transmission and Storage, Inc.
Air Pollution Control Act Compliance Review Supplemental Form

Dear Mr. Gustafson:

Please find enclosed Eastern Gas Transmission and Storage, Inc.'s (EGTS) PADEP Air Pollution Control Act Compliance Review Supplemental Form. EGTS has elected to submit this document every six months in May and November for the previous six-month period.

If you have any questions regarding this submittal, please contact Glenn Boutillier at (804) 356-1364 or via email at Glenn.Boutillier@bhegts.com.

Sincerely,

Jeffrey Zehner, P.E.
Manager, Environmental Services

Enclosure – Compliance Review Supplemental Form and Attachments

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Compliance Review Form Submittal (check all that apply)

☒ Original Filing
☐ Amended Filing

Date of Last Compliance Review Form Filing:
05/02/2022

Type of Submittal

☐ New Plan Approval ☐ New Operating Permit ☐ Renewal of Operating Permit
☐ Extension of Plan Approval ☐ Change of Ownership ☒ Periodic Submission (@ 6 mos)
☐ Other: _____

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant")
(non-corporations-attach documentation of legal name)
EASTERN GAS TRANSMISSION AND STORAGE, INC.

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

Telephone (804) 356-1364 **Taxpayer ID#** 55-0629203

Permit, Plan Approval or Application ID# N/A

Identify the form of management under which the applicant conducts its business (check appropriate box)

☐ Individual ☐ Syndicate ☐ Government Agency
☐ Municipality ☐ Municipal Authority ☐ Joint Venture
☐ Proprietorship ☐ Fictitious Name ☐ Association
☐ Public Corporation ☐ Partnership ☐ Other Type of Business, specify below:
☒ Private Corporation ☐ Limited Partnership

Describe below the type(s) of business activities performed.
No changes since previous submittal.

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
See Attachment A				

SECTION C. SPECIFIC INFORMATION REGARDING APPLICANT AND ITS "RELATED PARTIES"

Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of applicant and all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

Unit Name	Street Address	County and Municipality	Telephone No.	Relationship to Applicant
See Attachment B				

Provide the names and business addresses of all general partners of the applicant and parent and subsidiary corporations, if any.

Name	Business Address
No changes since previous submittal.	

List the names and business address of persons with overall management responsibility for the process being permitted (i.e. plant manager).

Name	Business Address
See Attachment C	

Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time 5 years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

Air Contamination Source	Plan Approval/ Operating Permit#	Location	Issuance Date	Expiration Date
See Attachment D				

Compliance Background. (Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.) List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status: Litigation Existing/Continuing or Corrected/Date	Dollar Amount Penalty
11/17/2022	J.B. Tonkin Compressor Station	TVOP 65-00634	Formaldehyde emissions exceeded	COA	Corrected/Completed 7/12/2022	$TBD
						$
						$
						$
						$
						$
						$
						$
						$
						$

List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Litigation Existing/Continuing Or Corrected/Date
See Attachment E				

<u>CONTINUING OBLIGATION</u>. Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional deviations occur between the date of submission and Department action on the application.

VERIFICATION STATEMENT
Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Form.
 Signature — 10/17/2022 Date
John M. Lamb Name (Print or Type)
VP, Eastern Pipeline Operations Title

ATTACHMENT A - General Information (Section B)

NAME	FEDERAL TAX ID	PRIMARY ADDRESS	PRIMARY CITY	PRIMARY STATE	STATE OF INCORPORATION	RELATIONSHIP TO DETI
Eastern Gas Transmission and Storage, Inc.	55-0629203	6603 West Broad Street	Richmond	PA	DE	Applicant
Eastern Gathering and Processing, Inc.	47-5154245	6603 West Broad Street	Richmond	PA	VA	Affiliated
NiCHe LNG, LLC	82-3638191	6603 West Broad Street	Richmond	PA	PA	Affiliated
REV LNG SSL BC, LLC	38-3944800	6603 West Broad Street	Richmond	PA	PA	Affiliated
BHE GT&S, LLC	85-1944244	6603 West Broad Street	Richmond	VA	VA	Parent Company
Berkshire Hathaway Energy	94-2213782	666 Grand Avenue	Des Moines	IA	IA	Parent Company to BHE GT&S, LLC
Berkshire Hathaway, Inc	47-0813844	3555 Farnam Street	Omaha	NE	DE	**Ultimate Parent Company**

ATTACHMENT B

Air Pollution Control Act Compliance Review Form – November 2022

Eastern Gas Transmission and Storage, Inc.
Southcentral Region (Region III) – Harrisburg

Applicants

Facility	Address	County	Township	Telephone #
Chambersburg	1894 Warm Springs Rd, Chambersburg	Franklin	Hamilton	717-261-0144
Perulack	2980 Pumping Station Rd, East Waterford	Juniata	Lack	717-734-1083

ATTACHMENT B (Cont.)

Air Pollution Control Act Compliance Review Form – November 2022

Eastern Gas Transmission and Storage, Inc.
Northcentral Region (Region IV) – Williamsport

Applicants

Facility	Address	County	Township	Telephone #
Boom	86 Pumpstation Road Lawrenceville	Tioga	Lawrence	570-827-2401
Centre	670 Witherite Road Pleasant Gap	Centre	Spring	814-359-4535
Ellisburg	685 Pump Station Road Genesee	Potter	Genesee	814-228-3293
Finnefrock	4600 Tamarack Road Renovo	Clinton	Leidy	570-923-5074
Greenlick	1211 Shephard Road Cross Fork	Potter	Stewardson	570-923-1716
Harrison	1001 Pleasant Valley Road Harrison Valley	Potter	Harrison	814-334-5686
Helvetia	527 Kriner Road Helvetia	Clearfield	Brady	814-583-7246
Leidy	91 Gas Plant Lane Renovo	Clinton	Leidy	570-923-0800
Luther	654 Carson Hill Road Luthersburg	Clearfield	Brady	724-387-5535
Sabinsville	123 Pump Station Rd Westfield	Tioga	Clymer	814-628-5100
State Line	671 O'Donnell Road Genesee	Potter	Genesee	814-228-3695
Tioga	576 Palmer Road Lawrenceville	Tioga	Lawrenceville	570-835-5635

ATTACHMENT B (Cont.)

Air Pollution Control Act Compliance Review Form – November 2022

REV LNG SSL BC, LLC
Northcentral Region (Region IV) – Williamsport

General Partner

Facility	Address	County	Township	Telephone #
Towanda	1002 Empson Road Ulysses	Potter	Ulysses	585-662-5738

ATTACHMENT B (cont.)

Air Pollution Control Act Compliance Review Form – November 2022

Eastern Gas Transmission and Storage, Inc.
Southwest Region (Region V) – Pittsburgh

Applicants

Facility	Address	County	Township	Telephone #
Beaver	398 Thompson Run Road Beaver Falls	Beaver	North Sewickley	412-847-9334
Crayne	657 Jefferson Road Waynesburg	Greene	Franklin	724-627-8622
J. B. Tonkin	4385 Hills Church Road Murrysville	Westmoreland	Murrysville	724-733-5448
Lincoln Heights	700 Beaver Road Jeannette	Westmoreland	Hempfield	724-523-2311
North Summit	252 Jumonville Road Hopwood	Fayette	North Union	724-438-8791
Oakford	6814 Route 22 W. Delmont	Westmoreland	Salem	724-468-4145
Rock Springs	304 Rock Springs Road Greensburg	Westmoreland	Salem	724-468-7709
South Oakford	267 McIlvaine Road Greensburg	Westmoreland	Hempfield	724-836-2755

ATTACHMENT B (cont.)

Air Pollution Control Act Compliance Review Form – November 2022

Eastern Gas Transmission and Storage, Inc. (Operator)
Eastern Gathering and Processing, Inc. (Owner)
Southwest Region (Region V) – Pittsburgh

Applicants

Facility	Address	County	Township	Telephone #
Charleroi Propane Terminal	1875 Grange Road Charleroi	Washington	Fallowfield	814-636-3893
Rabbit Pen Gate Site	891 Weigles Hill Road	Allegheny	Elizabeth	N/A

ATTACHMENT B (cont.)

Air Pollution Control Act Compliance Review Form – November 2022

Eastern Gas Transmission and Storage, Inc.
Northwest Region (Region VI) – Meadville

Applicants

Facility	Address	County	Township	Telephone #
Ardell	389 Crissman Road Weedville	Elk	Benezette	814-787-4817
Big Run	1892 Bowers Road Big Run	Jefferson	Gaskill	814-427-2669
Cherry Tree	3075 Arcadia Road Cherry Tree	Indiana	Montgomery	814-743-5372
Punxsutawney	88 Laska Road Punxsutawney	Jefferson	Perry	814-939-0415
Rochester Mills	64 Yoder Rd. Punxsutawney	Indiana	North Mahoning	814-938-0416
Rural Valley	10612 State Route 85 Kittanning	Armstrong	Valley	814-938-0417
South Bend	104 CNG Street Shelocta	Armstrong	South Bend	724-354-3433
Stoney Run	Strip Mine Road at Route 36 Bowersville	Jefferson	Gaskill	814-771-1165

ATTACHMENT C
BHE GT&S, LLC - Directors and Officers – November 2022

Name	Title	Business Address
Ruppert, Paul	President, BHE GT&S	6603 West Broad Street, Richmond, VA 23230
Bomar, Anne E.	Senior Vice President, General Counsel	6603 West Broad Street, Richmond, VA 23230
Miller, Scott	Vice President, Chief Financial Officer	6603 West Broad Street, Richmond, VA 23230
Neller, Cristie	Vice President, Administrative Services	6603 West Broad Street, Richmond, VA 23230
Sheppard, Brian	Senior Vice President, Pipeline Operations	925 White Oaks Blvd., Bridgeport, WV 26330
Lamb, John M.	Vice President, Eastern Pipeline Operations	925 White Oaks Blvd., Bridgeport, WV 26330
Vermullen, Tommy	General Manager, Southern Pipeline Operations	121 Moore Hopkins Lane, Columbia, SC 29210
Miller, Shawn	Vice President, Engineering & Construction	925 White Oaks Blvd., Bridgeport, WV 26330
Wilson, Brian	Vice President, Commercial Services	6603 West Broad Street, Richmond, VA 23230
Woods, Daniel L.	Vice President, LNG Operations	2100 Cove Point Road, Lusby, MD 20657
Williams, Roger T.	Vice President, Commercial LNG & Gas Development	6603 West Broad Street, Richmond, VA 23230

ATTACHMENT D

Air Pollution Control Act Compliance Review Form

Eastern Gas Transmission and Storage, Inc.
Plan Approvals/Operation Permits

Southcentral Region (Region III), Harrisburg

Permit	Location	Issuance Date	Expiration Date	Submitted Date
SOOP 28-03045	Chambersburg	March 31, 2021	March 31, 2026	
SOOP 34-03007	Perulack	April 15, 2020	April 30, 2025	

SOOP – State-Only Operating Permit

ATTACHMENT D

Air Pollution Control Act Compliance Review Form

Eastern Gas Transmission and Storage, Inc.
Plan Approvals/Operation Permits

Northcentral Region (Region IV), Williamsport

Permit	Location	Issuance Date	Expiration Date	Submitted Date
SOOP 59-00006	Boom	March 18, 2019	March 17, 2024	
NMOP 14-00040	Centre	March 19, 2019	March 18, 2024	
TVOP 53-00006	Ellisburg	April 5, 2021	April 4, 2026	
TVOP 18-00005	Finnefrock	March 26, 2019	March 25, 2024	
P.A. 18-00005E	Finnefrock	June 26, 2018	December 25, 2022	
TVOP 53-00005	Greenlick	August 4, 2021	August 3, 2026	
TVOP 53-00004	Harrison	October 22, 2020	October 21, 2025	
GP-1 53-00004A	Harrison	July 23, 2021	July 23, 2026	
NMOP 17-00002	Helvetia	April 2, 2018	April 1, 2023	
TVOP 18-00006	Leidy	May 27, 2021	May 26, 2026	
TVOP 17-00003	Luther	September 21, 2020	September 20, 2025	
TVOP 59-00005	Sabinsville	April 13, 2018	April 12, 2023	
GP-1 59-00005A	Sabinsville	September 21, 2021	September 21, 2026	
TVOP-53-00007	State Line	January 21, 2021	January 20, 2026	
TVOP-59-00002	Tioga	February 27, 2020	February 26, 2025	
NMOP 08-00052	Towanda*	September 14, 2021	September 13, 2026	

*REV LNG SSL BC, LLC (General Partner)
P.A. – Plan Approval
TVOP – Title V Permit
SOOP – State-Only Operating Permit
NMOP – State-Only Natural Minor Operating Permit
GP – General Permit

ATTACHMENT D

Air Pollution Control Act Compliance Review Form

Eastern Gas Transmission and Storage, Inc.
Plan Approvals/Operation Permits

Southwest Region (Region V), Pittsburgh

Permit	Location	Issuance Date	Expiration Date	Submitted Date
TVOP 04-00490	Beaver	June 1, 2017	June 1, 2022	September 27, 2021
SOOP 63-00943	Charleroi Propane*	June 2, 2022**	June 2, 2027	
SOOP 30-00089	Crayne	March 11, 2021	March 11, 2026	
P.A. 30-00089D	Crayne	12/27/2017	November 28, 2022	
TVOP 65-00634	J.B. Tonkin	October 16, 2017	October 16, 2022	March 14, 2022 (renewal)
P.A. 65-00634A	J.B. Tonkin	June 21, 2018	March 28, 2023	August 25, 2022 (extension)
P.A. 65-00634B	J.B. Tonkin	April 28, 2022	March 28, 2023	August 25, 2022 (extension)
SOOP 65-00799	Lincoln Heights	March 3, 2021	March 3, 2026	
TVOP 26-00405	North Summit	April 21, 2021	April 21, 2026	
TVOP 65-00837	Oakford	October 15, 2018	October 15, 2023	
ACHD 0958-I001	Rabbit Pen	April 4, 2019	April 4, 2024	
TVOP 65-00983	Rock Springs	October 19, 2018	June 19, 2024	
TVOP 65-00840	South Oakford	June 22, 2018	June 22, 2023	

* Location is operated by Eastern Gas Transmission and Storage, Inc. and owned by Eastern Gathering and Processing, Inc.
** Permit was not received by EGTS until September 19, 2022.
ACHD – Allegheny County Health Department
P.A. – Plan Approval
TVOP – Title V Permit
SOOP – State-Only Operating Permit

ATTACHMENT D
Air Pollution Control Act Compliance Review Form

Eastern Gas Transmission and Storage, Inc.
Plan Approvals/Operation Permits

Northwest Region (Region VI), Meadville

Permit	Location	Issuance Date	Expiration Date	Submitted Date
TVOP 24-00120	Ardell	October 1, 2019	September 30, 2024	
NMOP 33-00147	Big Run	March 16, 2020	February 28, 2025	
NMOP 32-00303	Cherry Tree	April 4, 2022	March 31, 2027	
TVOP 33-00140	Punxsutawney	October 23, 2017	October 31, 2022	April 25, 2022 (renewal)
SMOP 32-00129	Rochester Mills	April 4, 2022	March 31, 2027	
SOOP 03-00244	Rural Valley	August 21, 2019	August 21, 2024	
TVOP 03-00180	South Bend	September 23, 2016	September 23, 2021	February 26, 2021 (renewal)
NMOP 33-00152	Stoney Run	October 30, 2017	October 31, 2022	April 18, 2022 (renewal)

P.A. – Plan Approval
TVOP – Title V Permit
SOOP – State-Only Operating Permit
NMOP – Natural Minor Operating Permit
SMOP – Synthetic Minor Operating Permit

Attachment E - Incidents of Deviations

Air Pollution Control Act Compliance Review Form - November 2022

Eastern Gas Transmission and Storage, Inc.

(Incidents since previous submission)

Date of Deviation	Station/Source	Permit Number	Nature of Deviation	Incident Status/Action Taken
6/1/2022	Harrison Compressor Station / Source ID P103	TVOP 53-00004	Missed Portable Monitoring Event	Due to unplanned maintenance, Engine 3 (Source ID P103) was unavailable to complete portable emissions monitoring between March 1 and May 31, 2022. EGTS plans to complete maintenance and have the engine available for second half 2022 portable emissions monitoring.

APPENDIX E. MUNICIPAL NOTIFICATIONS

BHE GT&S
A BERKSHIRE HATHAWAY ENERGY COMPANY

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

December 21, 2022

SUBMITTED VIA UPS
Jefferson County Commissioners
155 Main Street, 2nd Floor
Brookville, PA 15825

SUBMITTED VIA UPS
Perry Township Supervisors
PO Box 50
Hamilton, PA 15774

RE: Eastern Gas Transmission and Storage, Inc.
Punxsutawny Compressor Station – TVOP #33-00140
RACT III Plan Approval Application

Dear Commissioners:

BHE Eastern Gas Transmission and Storage, Inc. (EGTS) is providing this notification to the county and township regarding EGTS's request to obtain a Plan Approval Permit from the Pennsylvania Department of Environmental Protection's (DEP) Air Quality Program to install new equipment at its' natural gas compressor station located in Perry Township, Jefferson County, Pennsylvania (Punxsutawney Compressor Station). The site operates under Title V Operating Permit #33-00140 which was most recently revised on February 22, 2021.

Specifically, the permit application seeks to add Selective Catalytic Reduction (SCR) equipment to Engines 1 and 2 (Source ID 131 and 132) to comply with PA RACT III NOx emission limitations. EGTS is also proposing an alternative RACT limitation and alternative compliance schedule to comply with RACT requirements due to the installation of controls.

Pennsylvania Code Title 25 (Environmental Protection – Air Resources) Section 127.43a requires county notification including a 30-day comment period regarding the permit application, which begins upon receipt of this formal notification. During this comment period, DEP will accept such comments. Comments are to be sent to:

Air Quality Program
PADEP – Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335

Should you have any questions pertaining to this matter, please contact me by phone at (804) 356-1364 or by email at glenn.boutillier@bhegts.com.

Sincerely,

Jeffrey R. Zehner, P.E.
Manager, Environmental Services

From: UPS
To: Boutillier, Glenn (BHE GT&S)
Subject: [EXTERNAL] UPS Delivery Notification, Tracking Number 1Z0R855X0111250833
Date: Thursday, December 22, 2022 11:12:55 AM

Hello, your package has been delivered.

Delivery Date: Thursday, 12/22/2022
Delivery Time: 11:08 AM
Signed by: DIENES

BHE GT&S - HQ

Tracking Number:	**1Z0R855X0111250833**
Ship To:	JEFFERSON COUNTY COMMISSIONERS 155 MAIN STREET 2ND FLOOR BROOKVILLE, PA 158251281 US
Number of Packages:	1
UPS Service:	UPS Next Day Air®
Package Weight:	0.0 LBS
Reference Number:	TVOP #33-00140

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9489009000276351468267

Usps Tracking

Get Update by Email?

DELIVERED

December 27, 2022 11:18 am

Delivered
HAMILTON,PA-15744

December 27, 2022 11:17 am

Arrived at Post Office
HAMILTON,PA-15744

December 26, 2022

In Transit to Next Facility

December 24, 2022 10:04 pm

Arrived at USPS Regional Facility
JOHNSTOWN PA DISTRIBUTION CENTER,

December 23, 2022 12:18 am

Departed USPS Regional Facility
RICHMOND VA DISTRIBUTION CENTER,

December 22, 2022 11:35 pm

Arrived at USPS Regional Facility

From:	donotreply@pa.gov
To:	Boutillier, Glenn (BHE GT&S)
Cc:	RA-EP-ONBASENOT@pa.gov
Subject:	[EXTERNAL] [RECEIVED] Scanned Forms review - Reference ID: 80680
Date:	Thursday, December 29, 2022 9:54:41 AM
Attachments:	ATT00001.png

Dear Glenn Boutillier,

Thank you for submitting the AQ GENERAL CORRESPONDENCE form to DEP.

Region: NORTHWEST REGIONAL OFFICE
County: JEFFERSON
Municipality: PERRY TOWNSHIP
Permit #/Project #: TVOP 33-00140
RPCO Reference ID#:

DEP Processing Comments (if any):
"EGTS Punxsutawney Compressor Station TVOP 33-00140 RACT III Compliance Report and Plan Approval"

We will review the document and associated information and notify you with any concerns.

Your form reference # is 80680. Please use this reference # for future inquiries to DEP and include on the check memo when remitting payment.

The DEP receipt date is 12/29/2022.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

* This is an automated email from OnBase - DO NOT REPLY *