

Commonwealth of Kentucky
Division for Air Quality
STATEMENT OF BASIS / SUMMARY

Title V, Operating
Permit: V-26-033

Tennessee Gas pipeline, L.L.C. – Station 871
8690 New Columbia Rd
Campbellsville, Kentucky 42718

July 30, 2026
Dylan Sears, Reviewer

SOURCE ID:	21-217-00034
AGENCY INTEREST:	44057
ACTIVITY:	APE20260001

Table of Contents

SECTION 1 – SOURCE DESCRIPTION	2
SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM.....	3
SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS	4
SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS	7
SECTION 5 – COMPLIANCE ASSURANCE MONITORING	8
SECTION 6 – PERMITTING HISTORY	9
SECTION 7 – PERMIT APPLICATION HISTORY	10
APPENDIX A – ABBREVIATIONS AND ACRONYMS	11

SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 4922, Natural Gas Transmission

Single Source Det. ☐ Yes ☒ No If Yes, Affiliated Source AI:

Source-wide Limit ☐ Yes ☒ No If Yes, See Section 4, Table A

28 Source Category ☐ Yes ☒ No If Yes, Category:

County: Taylor

Nonattainment Area ☒ N/A ☐ PM₁₀ ☐ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ Ozone ☐ Lead

If yes, list Classification:

PTE* greater than 100 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☐ PM₁₀ ☐ PM_{2.5} ☒ CO ☒ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 250 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☐ PM₁₀ ☐ PM_{2.5} ☒ CO ☒ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP) ☒ Yes ☐ No

If yes, list which pollutant(s): Formaldehyde

PTE* greater than 25 tpy for combined HAP ☒ Yes ☐ No

*PTE does not include self-imposed emission limitations.

Description of Facility:

Tennessee Gas Pipeline Company L.L.C.'s Station 871 is located near Campbellsville, Kentucky in Taylor County. The station receives natural gas via pipeline from upstream sources, compresses it using reciprocating internal combustion engines (RICE), and then transmits it via pipeline to downstream compressor stations.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: V-26-033

Activities: APE20260001

Received: March 26, 2026

Application Complete Date(s): June 16, 2026

Permit Action: ☐ Initial ☒ Renewal ☐ Significant Rev ☐ Minor Rev ☐ Administrative

Construction/Modification Requested? ☐ Yes ☒ No NSR Applicable? ☐ Yes ☒ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action ☐ Yes ☒ No

Description of Action:

- Renewal of permit.
- Update of applicable requirements to units contained in permit, and screening for hexane was conducted for the fugitives.

V-26-033 Emission Summary		
Pollutant	2025 Actual (tpy)	V-26-033 (tpy)
CO	159.30	432.34
NO _x	848.59	2,261.02
PT	4.61	13.6
PM ₁₀	4.61	13.6
PM _{2.5}	4.61	13.6
SO ₂	0.12	0.31
VOC	24.34	62.54
Lead	0.0009	0.0025
Greenhouse Gases (GHGs)		
Carbon Dioxide	22,946	61,214.5
Methane	0.43	1.15
Nitrous Oxide	0.04	0.12
CO ₂ Equivalent (CO ₂ e)	22,969	61,277.4
Hazardous Air Pollutants (HAPs)		
Acetaldehyde	1.55	4.21
Acrolein	1.14	3.2
Benzene	0.19	0.55
Formaldehyde	10.02	27.46
Hexane; N-Hexane	0.18	0.44
Methanol	0.47	1.27
Toluene	0.11	0.33
Xylene	0.04	0.11
Combined HAPs:	13.7	37.87

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

- **Emission Unit #EP001 and EP002, 4 Stroke Lean Burn (4SLB) Reciprocating Compression Engines [871-A-01 and 871-A-02]**

Initial Construction Date: EP001: 1963 and EP002: 1964

Process Description:

4 Stroke Lean Burn (4SLB) Reciprocating Compression Engines

Model: Ingersoll Rand KVT-616
Primary Fuel: Natural Gas
Power Output: 4,000 hp each
Max Operating Rate: 33.07 mmBtu/hr (0.032 mmscf/hr) each
Controls: None

Applicable Regulation:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (**Subpart ZZZZ**), *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

Comments:

NO_x and CO emissions are calculated using emission factors from similar units in the Tennessee gas production database. Greenhouse gases are calculated using 40 CFR 98, Subpart C, Tables 1 and 2 for natural gas. All other pollutants are calculated using AP-42, Table 3.2-2 for four stroke lean burn engines.

The existing 4SLB engines do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ or 40 CFR 63, Subpart A. [40 CFR 63.6590(b)(3)]

Emission Unit EP003, 2 Stroke Lean Burn (2SLB) Reciprocating Compression Engine [871-A-03]

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
NO _x	*82% reduction during control period	401 KAR 51:150, Section 3	3287 lb/mmscf, Tennessee Gas Pipeline database for similar engine	Operate according to the compliance plan submitted to the Division

*See Comments for further clarification on emission limitation.

Initial Construction Date: 1964

Process Description:

2 Stroke Lean Burn (2SLB) Reciprocating Compression Engine

Model: Dresser Clark TCV-16
Primary Fuel: Natural Gas
Power Output: 5,500 hp
Max Operating Rate: 50.0 mmBtu/hr (0.049 mmscf/hr)
Controls: None

**Emission Unit EP003, 2 Stroke Lean Burn (2SLB) Reciprocating Compression Engine
[871-A-03]**

Applicable Regulation:

401 KAR 51:150, *NO_x Requirements for Stationary Internal Combustion Engines*.

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (**Subpart ZZZZ**), *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

Comments:

NO_x and CO emissions are calculated using emission factors from similar units in the Tennessee gas production database. Greenhouse gases are calculated using 40 CFR 98, Subpart C Table 1 and 2 for natural gas. All other pollutants are calculated using AP-42, Table 3.2-1 for two stroke lean burn engines.

Compliance with 401 KAR 51:150 NO_x emission limitation is demonstrated by reducing the past NO_x emission rate by at least 82% or by complying with the compliance plan submitted to the Division.

The existing 2SLB engine does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ or 40 CFR 63, Subpart A. [40 CFR 63.6590(b)(3)]

Emission Unit EP04, 4SLB Reciprocating Emergency Engine (871-Aux-A-02)

Initial Construction Date: 2001

Process Description:

4SLB Reciprocating Emergency Engine (871-Aux-A-02)

Model: Caterpillar G3412TA
Primary Fuel: Natural Gas
Power Output: 690 hp
Max Operating Rate: 5.88 mmBtu/hr (0.00576 mmscf/hr)
Controls: None

Applicable Regulation:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (**Subpart ZZZZ**), *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

Comments:

NO_x and CO are calculated based on manufacturer's specifications. GHG's are calculated from 40 CFR 98, Subpart C Tables 1 and 2. All other emissions are calculated from AP-42, Table 3.2-2.

The existing emergency engine does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ or 40 CFR 63, Subpart A. [40 CFR 63.6590(b)(3)(iii)]

Therefore, the permittee shall comply with 40 CFR 63, Subpart ZZZZ for the 690 HP emergency engine by meeting the requirements to be considered an emergency engine as defined in 40 CFR 63.6675.

Emission Unit E05, Jacket Water Heater (871-HEATER-01)				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.80 lb/mmBtu	401 KAR 61:015, Section 4(1)(a)	7.6 lb/mmscf, AP-42 1.4-1	Compliance assumed while burning natural gas
	40% Opacity	401 KAR 61:015, Section 4(1)(c)	NA	
SO2	6.0 lb/mmBtu	401 KAR 61:015, Section 5(1)	0.6 lb/mmscf, AP-42 1.4-1	
Initial Construction Date: 1964				
Process Description: [871-HEATER-01] Model: NATCO T-4197101-01 Primary Fuel: Natural Gas Max Operating Rate: 3.0 mmBtu/hr Controls: None				
Applicable Regulation: 401 KAR 61:015, Existing Indirect Heat Exchangers.				
401 KAR 63:002, Section 2(4)(iii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 13 (Subpart DDDDD), National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.				
Comments: Greenhouse gas emissions are calculated using 40 CFR 98, Subpart C, Table 1 and 2. All other emissions are calculated using AP-42 Chapter 1.4 Tables 1 through 4.				
APE20200001: 40 CFR 63, Subpart DDDDD energy assessment was conducted on September 28, 2020 and received on January 7, 2021. The permit has been updated to remove the one-time energy assessment requirement from the heater.				

Testing Requirements/Results

N/A

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

N/A

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 51:150, NO _x Requirements for Stationary Internal Combustion Engines.	EP003
401 KAR 61:015, Existing Indirect Heat Exchangers.	E05
401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	EP001, EP002, EP003, EP04
401 KAR 63:002, Section 2(4)(iiii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 13 (Subpart DDDDD), National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.	E05
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances.	FUG001

Table C - Summary of Precluded Regulations:

N/A

Table D - Summary of Non Applicable Regulations:

N/A

Air Toxic Analysis

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances.

The Division for Air Quality (Division) has performed SCREEN View on June 16, 2026 of potentially hazardous matter or toxic substances (Hexane) that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant. Based upon this information, the Division has determined that the conditions outlined in this permit will assure compliance with the requirements of 401 KAR 63:020.

Single Source Determination

N/A

SECTION 5 – COMPLIANCE ASSURANCE MONITORING

40 CFR 64, *Compliance assurance monitoring* (CAM) applies to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:

- (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under 40 CFR 64.2(b)(1);
- (2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- (3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Emission Unit	Criteria 1 (Y/N)	Criteria 2 (Y/N)	Criteria 3 (Y/N)	Does CAM apply? If Y for criteria 1, 2, AND 3, then Yes, Otherwise, No.
EP001	N	N	Y	No
EP002	N	N	Y	No
EP003	Y	N	Y	No
EP04	N	N	N	No
E05	N	N	N	No

* If Yes, CAM applies for any of the emission units above, then see further clarification for each listed emission unit in **Section 3**.

SECTION 6 – PERMITTING HISTORY

Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
G-04-001 R1	Renewal	APE20040001	6/26/2006	11/10/2006	Renewal	No
G-09-002	Renewal	APE20090001	2/11/2010	10/4/2010	Renewal	No
G-09-002 R1	Admin Amend	APE20120001	6/14/2012	6/25/2012	Admin Amend	No
V-15-050	Renewal	APE20150002	9/24/2015	2/4/2016	Renewal	No
V-20-034	Renewal	APE20200001	11/18/2020	9/26/2021	Renewal	No

SECTION 7 – PERMIT APPLICATION HISTORY

N/A

APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS	– Ambient Air Quality Standards
BACT	– Best Available Control Technology
Btu	– British thermal unit
CAM	– Compliance Assurance Monitoring
CO	– Carbon Monoxide
Division	– Kentucky Division for Air Quality
ESP	– Electrostatic Precipitator
GHG	– Greenhouse Gas
HAP	– Hazardous Air Pollutant
HF	– Hydrogen Fluoride (Gaseous)
MSDS	– Material Safety Data Sheets
mmHg	– Millimeter of mercury column height
NAAQS	– National Ambient Air Quality Standards
NESHAP	– National Emissions Standards for Hazardous Air Pollutants
NO _x	– Nitrogen Oxides
NSR	– New Source Review
PM	– Particulate Matter
PM ₁₀	– Particulate Matter equal to or smaller than 10 micrometers
PM _{2.5}	– Particulate Matter equal to or smaller than 2.5 micrometers
PSD	– Prevention of Significant Deterioration
PTE	– Potential to Emit
SO ₂	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds