Tennessee Gas Pipeline Company, L.L.C.
a Kinder Morgan company

TITLE V AIR PERMIT RENEWAL APPLICATION

Tennessee Gas Pipeline Company, LLC
Compressor Station 107A
Jeffersonville, KY

Prepared By:

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June 2024

Trinity Consultants

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1. APPLICATION SUMMARY

1.1 Purpose of Application

Tennessee Gas Pipeline Company, LLC (TGP) owns and operates a natural gas transmission station in Jeffersonville, Montgomery County, Kentucky (identified herein as Station 107A). This natural gas transmission facility is classified as a major source under the Title V operating permit program and currently operates in accordance with permit V-19-004, issued by Kentucky Division for Air Quality (KDAQ) on December 21, 2019. As the permit expires on December 21, 2024, a renewal application for the permit must be submitted at least six months prior to the permit expiration date, or by June 21, 2024. This document and its appendices constitute the renewal application for Station 107A, as required under Condition G.2.a. of the existing permit and 401 KAR 52:020, Section 12.

1.2 Summary of Application Contents

Following this introduction, Section 2 presents summary information about Station 107A including its location and a brief description of operations. Section 3 provides an overview of applicable regulatory requirements under state and federal air quality programs with a focus on the regulatory implications of any updates made to applicable regulations since permit V-19-004 was issued.

Appendix A presents an aerial map that shows the location of Station 107A relative to nearby geographic features, as well as a simplified process flow diagram (PFD) representing the facility's primary gas transmission operation. Appendix B provides the required DEP7007 series application forms. Appendix C includes red-line strike-out (RLSO) mark-ups of select pages of the current permit, which identify TGP's requested permit changes. TGP has not installed, shutdown, or modified any emissions-generating equipment since the issuance of the current permit, and no underlying emissions calculation methodologies have been revised during the permit term. As such, the current facility-wide potential-to-emit (PTE) is equal to the PTE listed on the Permit Application Summary Form for V-19-004, and detailed emission unit-specific PTE calculations are not included with this application.

The application forms included in Appendix B are limited to the 7007AI and DD forms required to be submitted with all Title V permit renewal applications. Other application forms addressing specific emission unit categories (e.g., 7007EE form for internal combustion engines) and the emissions, stacks, and controls information on the 7007N form have previously been provided to KDAQ. TGP understands that in such cases, KDAQ does not require re-submittal of the emission unit-specific application forms within the renewal application, as these application forms can be readily obtained from the permit record. Similarly, the 7007CC form was provided to KDAQ in January 2024 as part of the annual compliance certification, and as such is not duplicated in this application.

2. FACILITY AND OPERATIONS DESCRIPTION

2.1 Facility Location

Station 107A is located in Montgomery County approximately 2.5 miles northeast of Jeffersonville. The property encompasses an area of approximately 2 acres and is bordered primarily by undeveloped farmland. The approximate Universal Transverse Mercator (UTM) coordinates for the center of the facility are 253.7 km East and 4,208.9 km North in Zone 17. Figure A-1 provides an aerial view of the main site operations.

2.2 Facility Summary of Operations

Station 107A is a natural gas transmission facility that is used to increase natural gas transmission pressures by compressing low-pressure transmission gas and directing it into a high-pressure transmission line. This primary operation at Station 107A is conducted via two natural gas-fired stationary turbines (EU 001 and EU 002). EU 001 – constructed in 1987 – is rated for 37.07 million British thermal units per hour (MMBtu/hr) of heat input. EU 002 – constructed in 1996 – is rated for 13.02 MMBtu/hr of heat input. Additionally, the facility's operations are supported by an emergency use generator powered by a 130-brake horsepower (bhp) natural gas-fired reciprocating internal combustion engine (RICE), which was constructed in 1987. Lastly, there are piping components (valves, pump seals, connectors, etc.) throughout the property that are sources of fugitive volatile organic compound (VOC) emissions which are permitted as insignificant activities (IAs) in Section C of the Title V permit. A PFD depicting the emission units is provided in Figure A-2.

2.3 Title V Permit History Summary

The current Title V operating permit for Station 107A was issued on December 21, 2019. This permit has not been revised since its issuance, and no permit actions (e.g., Section 502(b)(10) change notifications, off-permit change notifications, etc.) have been submitted during the lifetime of the current permit.

3. APPLICABLE REQUIREMENTS SUMMARY

Section 3.1 provides general air quality regulatory information for Station 107A, including the facility's status with respect to the Prevention of Significant Deterioration (PSD) and Title V permitting programs. This section also discusses the facility's status as an area source of hazardous air pollutants (HAP). In accordance with the regulatory requirements for a Title V renewal application established by 401 KAR 52:020 ,Section 4(2)(c), Sections 3.2 and 3.3 of this application focus on describing potential newly applicable or modified requirements that could impact Station 107A since the issuance of the current Title V permit on December 21, 2019.

3.1 Source Classification

3.1.1 Prevention of Significant Deterioration

Station 107A is located in Montgomery County, which has been designated by EPA as unclassified/ attainment for all criteria pollutants. Therefore, with respect to the federal New Source Review (NSR) permitting program, only PSD requirements could potentially apply to the source.

Kentucky has incorporated the requirements of the PSD permitting program into its State Implementation Plan (SIP) at 401 KAR 51:017. These PSD regulations specifically define 28 industrial source categories for which the major source threshold of any regulated NSR pollutant is 100 tons per year (tpy). For all unlisted sources, the major source threshold of any regulated NSR pollutant is 250 tpy. As a natural gas transmission facility, Station 107A is not included under one of these 28 industrial source categories. Thus, the major source threshold under the PSD program for any regulated NSR pollutant emitted at Station 107A is 250 tpy. Since the potential emissions of all regulated NSR pollutants potentially subject to the PSD program fall below the applicable 250 tpy major source threshold, Station 107A is classified as a true minor source under the PSD program for these pollutants.

As a renewal application for an operating permit, this submittal is not associated with a construction project or a facility modification that involves PSD applicability considerations. Accordingly, new PSD requirements are not triggered by this permit action, and Station 107A will continue to be a true minor source for all regulated NSR pollutants under the PSD program.

3.1.2 Title V Permitting Program

40 CFR Part 70 contains the regulations implementing the federal Title V operating permit program. Kentucky has incorporated the provisions of this federal program in its Title V operating program at 401 KAR 52:020. As specified in 401 KAR 52:001, Section 1(46), a major source with respect to the Title V regulations encompasses facilities with potential emissions of 100 tpy of any regulated pollutant, 10 tpy of any single HAP, and/or 25 tpy of any combination of HAP. Station 107A is an existing major source as potential emissions of nitrogen oxides (NO_X) exceed 100 tpy. Station 107A will continue to operate as a major source under the Title V operating permit program upon permit renewal.

3.1.3 Hazardous Air Pollutants

A major source of HAP is a source with potential emissions in excess of 25 tpy for total combined HAP and/or potential emissions in excess of 10 tpy for any individual HAP. Neither the potential emissions of an individual HAP nor those of total HAP from Station 107A exceed the major source thresholds; therefore, Station 107A is classified as an area source of HAP. Station 107A is not requesting a revision to any HAP

emission calculation methodologies with this permit renewal; as such, Station 107A will remain an area source of HAP emissions.

3.2 Regulatory Applicability from Recent Permit Actions

There were no permit actions submitted during the lifetime of the current Title V permit; as such, no newly applicable regulations have been triggered due to permit actions since the issuance of V-19-004 on December 21, 2019.

3.3 Analysis of Updated Regulatory Applicability

The following subsections provide high-level analyses of various applicable or potentially applicable federal and state regulations with respect to revisions made since the issuance of V-19-004.

3.3.1 40 CFR 60, Subpart GG – Standards of Performance for Stationary Gas Turbines

40 CFR 60, Subpart GG (NSPS GG) applies to stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the lower heating value of the fuel fired, that commenced construction, modification, or reconstruction after October 3, 1977, except as provided in 40 CFR 60.332(e) and (j). Both EU 001 and EU 002 exceed the heat input threshold of 10 MMBtu/hr, and both units commenced construction after October 3, 1977. Additionally, neither EU 001 nor EU 002 meets the exceptions in 40 CFR 60.332(e) or (j). As such, both turbines at Station 107A are subject to NSPS GG.

NSPS GG has not been revised since the issuance of V-19-004 on December 21, 2019, and TGP has not modified either turbine in a way that would change the applicability of the specific requirements from NSPS GG. TGP has, however, included one suggested addition to the Compliance Demonstration Method for the applicable emission limitations. Pursuant to 40 CFR 60.335, TGP has demonstrated compliance with the NO_X emission limitations via initial performance testing. Through this permit renewal application, and as indicated in the permit RLSO in Appendix C, TGP is requesting that additional language be added to this Compliance Demonstration Method detailing that no additional performance testing is required. This requested addition mirrors the language in the comments for EU 001 and EU 002 on the Statement of Basis for V-19-004.

3.3.2 40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR 60, Subpart JJJJ (NSPS JJJJ) applies to owners and operators of stationary spark ignition (SI) internal combustion engines (ICE) that commence construction, modification, or reconstruction after June 12, 2006. Station 107A operates one 130-bhp stationary SI ICE (EU 003) which was constructed on January 1, 1987, and has not been modified or reconstructed since at least June 12, 2006. As such, NSPS JJJJ is not applicable and will continue to be inapplicable to Station 107A upon permit renewal.

3.3.3 40 CFR 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines

40 CFR 60, Subpart KKKK (NSPS KKKK) applies to combustion turbines with peak load heat input greater than 10 MMBtu/hr that commenced construction, modification, or reconstruction after February 18, 2005. The two combustion turbines at Station 107A have not been modified or reconstructed since at least

February 18, 2005; therefore, NSPS KKKK is not applicable and will continue to be inapplicable to Station 107A upon permit renewal.

3.3.4 40 CFR 60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015

40 CFR 60, Subpart OOOO (NSPS OOOO) regulates VOC emissions from specific sources within the oil and natural gas industry which include the following:

1. Each natural gas well affected facility;
2. Each centrifugal compressor affected facility;
3. Each reciprocating compressor affected facility;
4. Each continuous bleed natural gas-driven pneumatic controller affected facility;
5. Each storage vessel affected facility with a VOC PTE greater than or equal to 6 tpy;
6. Each group of equipment (pump, pressure relief device, open-ended valve or line, valve, and flange or other connector in VOC service or wet gas service) within a process unit located at onshore natural gas processing plants except compressors; and
7. Sweetening units located at onshore natural gas processing plants.

All equipment potentially subject to NSPS OOOO was installed prior to August 23, 2011, and has not been modified or reconstructed since at least that date. As such, NSPS OOOO is not applicable and will continue to be inapplicable to Station 107A upon permit renewal.

3.3.5 40 CFR 60, Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After September 18, 2015, and on or Before December 6, 2022

40 CFR 60, Subpart OOOOa (NSPS OOOOa) applies to affected facilities that commenced construction, reconstruction, or modification after September 18, 2015, and before December 6, 2022. The specific sources covered by NSPS OOOOa include the following:

1. Each well affected facility, which is a single well that conducts a well completion operation following hydraulic fracturing or refracturing;
2. Each centrifugal compressor affected facility;
3. Each reciprocating compressor affected facility;
4. Each pneumatic controller affected facility;
5. Each storage vessel affected facility with VOC PTE greater than or equal to 6 tpy;
6. Each group of equipment within a process unit at an onshore natural gas processing plant;
7. Sweetening units located at an onshore natural gas processing plants;
8. Each pneumatic pump affected facility;
9. All fugitive emissions components at a well site; and
10. All fugitive emissions at a compressor station.

Per 40 CFR 60.5430a, a compressor station is defined as "any permanent combination of one or more compressors that move natural gas at increased pressure through gathering pipelines." Station 107A meets the definition of a compressor station under NSPS OOOOa. However, no potentially subject equipment at

Station 107A has been constructed, modified, or reconstructed since at least September 18, 2015; therefore, NSPS OOOOa is not applicable to Station 107A and will remain inapplicable upon permit renewal.

3.3.6 40 CFR 60, Subpart OOOOb – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After December 6, 2022

40 CFR 60, Subpart OOOOb (NSPS OOOOb) applies to affected facilities that commenced construction, reconstruction, or modification after December 6, 2022. The specific sources covered by NSPS OOOOb include the following:

1. Each well affected facility, which is a single well drilled for the purpose of producing oil or natural gas;
2. Each centrifugal compressor affected facility;
3. Each reciprocating compressor affected facility;
4. Each process controller affected facility;
5. Each storage vessel affected facility with VOC PTE greater than or equal to 6 tpy or methane PTE greater than or equal to 20 tpy;
6. Each group of equipment within a process unit at an onshore natural gas processing plant;
7. Each sweetening unit affected facility;
8. Each pump affected facility; and
9. All fugitive emissions components at a well site, centralized production facility, or a compressor station.

Similarly to NSPS OOOOa, Station 107A meets the definition of a "compressor station" under NSPS OOOOb and is potentially subject to this regulation. However, no potentially subject equipment at Station 107A has been constructed, modified, or reconstructed since at least December 6, 2022. As such, NSPS OOOOb is not applicable to Station 107A and will remain inapplicable upon permit renewal.

3.3.7 40 CFR 63, Subpart YYYY – National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

40 CFR 63, Subpart YYYY (NESHAP YYYY) applies to stationary combustion turbines located at major sources of HAP emissions. As discussed in Section 3.1.3 of this application, Station 107A is an area source of HAP and will continue to be an area source of HAP upon permit renewal. As such, the provisions of NESHAP YYYY are not and will not be applicable.

3.3.8 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 63, Subpart ZZZZ (RICE MACT) applies to any existing, new, or reconstructed stationary RICE at major or area sources of HAP emissions, excluding stationary RICE tested at a stationary RICE test cell/stand. Pursuant to 40 CFR 63.6590(a)(1)(iii), for stationary RICE located at an area source of HAP like Station 107A, a stationary RICE is existing if construction or reconstruction commenced before June 12, 2006. As stated previously, EU 003 was constructed on January 1, 1987, and therefore meets the definition of an existing stationary RICE. Additionally, EU 003 does not meet any of the criteria in 40 CFR 63.6590(b) which would otherwise limit the applicable requirements.

TGP has reviewed the updates made to RICE MACT since issuance of V-19-004 on December 21, 2019, and determined that there are no significant updates to RICE MACT that affect the applicability of the limitations and requirements therein. However, there are some minor revisions needed to the RICE MACT requirements within the Title V permit [such as the removal of emergency demand response as an allowed operation for

emergency stationary RICE provided by 40 CFR 63.6640(f)]. TGP has included these requested updates within the permit RLSO in Appendix C to this application.

3.3.9 401 KAR 63:020 – Potentially Hazardous Matter or Toxic Substances

Kentucky regulates the emissions of toxic air pollutant emissions through 401 KAR 63:020. KDAQ can require that dispersion modeling or other analyses be completed by facilities at permit renewal or when constructing equipment when there is an increase in toxic pollutant emissions, as defined under 401 KAR 63:020, Section 2(2), deemed to be "significant." This is done so that there is a documented basis for affirming that a facility does not cause an adverse impact.

As indicated in the Statement of Basis for V-19-004, KDAQ performed an air toxics screening model analysis on February 14, 2019, for Station 107A. This screening model was built based upon process rates, material formulations, and stack heights provided by TGP in the 2019 Title V permit renewal application. From this analysis, KDAQ concluded that the conditions outlined in the Title V permit are sufficient to ensure compliance with 401 KAR 63:020. Since TGP has not modified existing equipment in any way that would increase the potential emissions of air toxics or installed any new equipment that are sources of air toxics during the permit term, TGP does not anticipate that any additional air dispersion modeling will need to be performed.

APPENDIX A. FACILITY AERIAL MAP AND PFD

- Figure A-1: Aerial Map Showing Property Line of Station 107A
- Figure A-2: Station 107A PFD

Figure A-1: Aerial Map of Station 107A and Surrounding Area

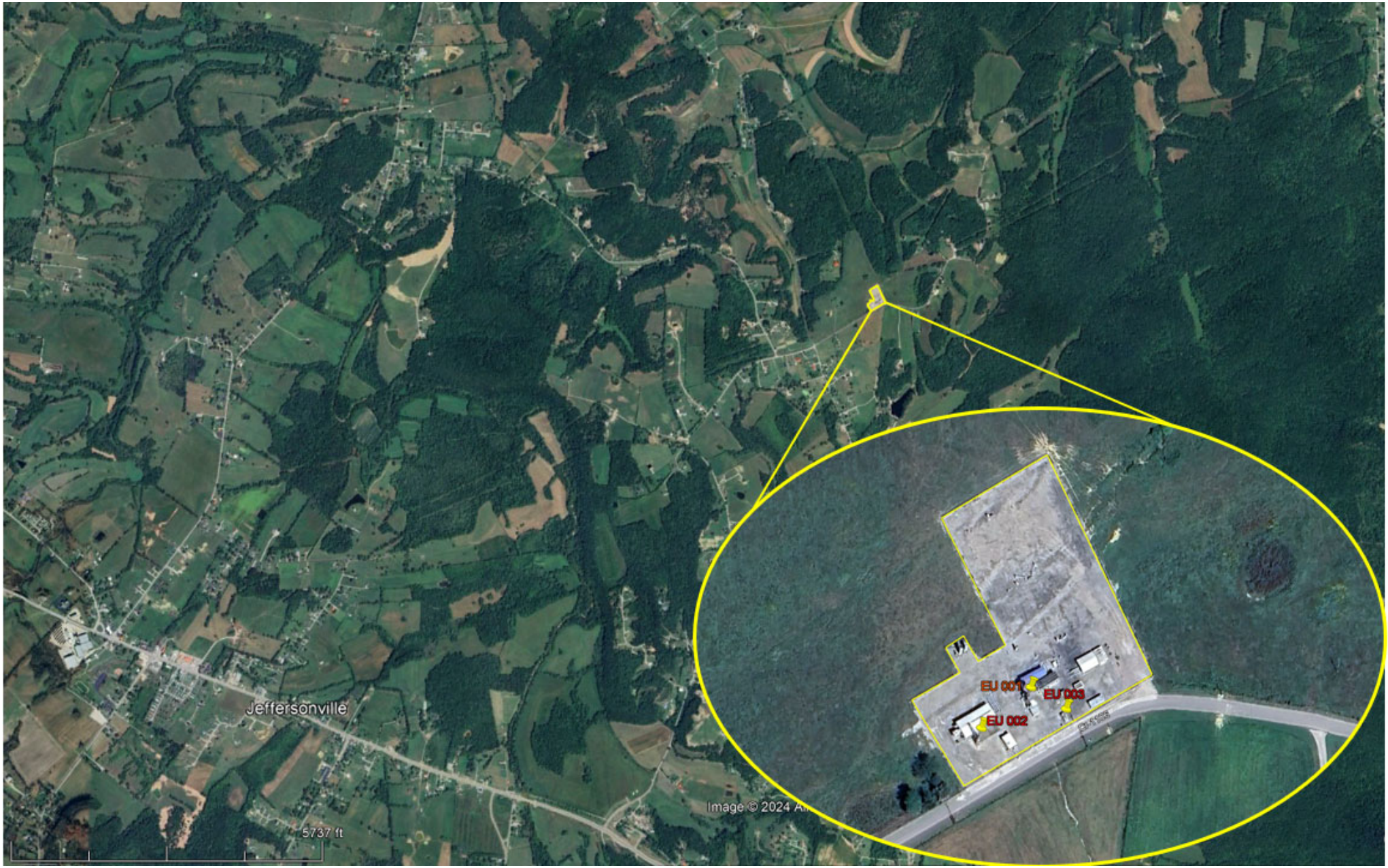
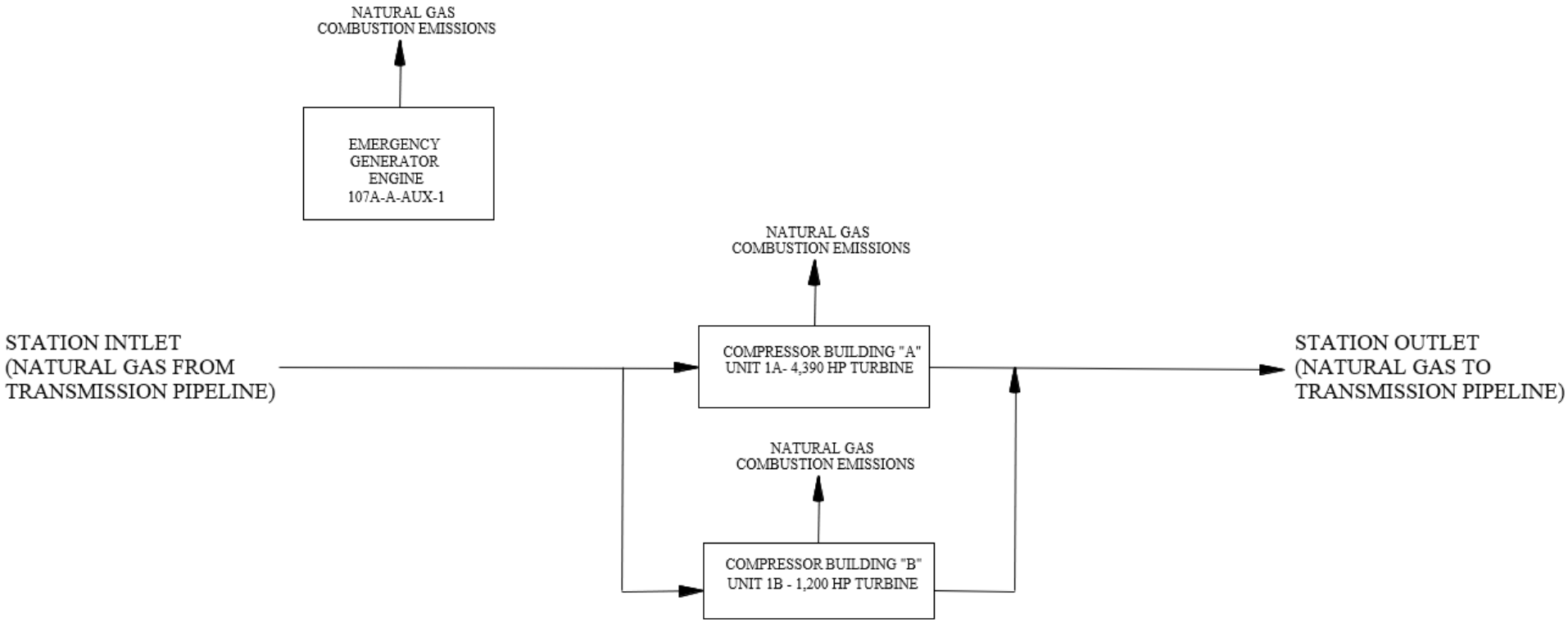


Figure A-2: Station 107A Process Flow Diagram



APPENDIX B. DEP7007 APPLICATION FORMS

- **7007AI** – Administrative Information
- **7007DD** – Insignificant Activities

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007AI

Administrative Information

___ Section AI.1: Source Information

___ Section AI.2: Applicant Information

___ Section AI.3: Owner Information

___ Section AI.4: Type of Application

___ Section AI.5: Other Required Information

___ Section AI.6: Signature Block

___ Section AI.7: Notes, Comments, and Explanations

Additional Documentation

___ Additional Documentation attached

Source Name: Tennessee Gas Pipeline Company, LLC - Compressor Station 107A

KY EIS (AFS) #: 21-173-0021

Permit #: V-19-004

Agency Interest (AI) ID: 44053

Date: 6/14/2024

Section AI.1: Source Information

Physical Location Address:	**Street:**	260 Double Gate Rd.				
	City:	Jeffersonville	**County:**	Montgomery	**Zip Code:**	40337
Mailing Address:	**Street or P.O. Box:**	1001 Louisiana St., Suite 1000				
	City:	Houston	**State:**	TX	**Zip Code:**	77002

Standard Coordinates for Source Physical Location

Longitude: -83.80478 (decimal degrees) **Latitude:** 37.99406 (decimal degrees)

Primary (NAICS) Category: Pipeline Transportation of Natural Gas **Primary NAICS #:** 486210

Classification (SIC) Category: Natural Gas Transmission **Primary SIC #:** 4922

Briefly discuss the type of business conducted at this site: Station 107A boosts natural gas transmission pressures by compressing low-pressure transmission gas and directing it into a high-pressure transmission line.

Description of Area Surrounding Source: ☑ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☐ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: Unmanned

Approximate distance to nearest residence or commercial property: ~ 0.1 miles **Property Area:** ~ 2 acres **Is this source portable?** ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☐ Currently Hold	☐ Need	☑ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☑ N/A
RCRA:	☐ Currently Hold	☐ Need	☑ N/A
UST:	☐ Currently Hold	☐ Need	☑ N/A

Type of Regulated Waste Activity:

☐ Mixed Waste Generator ☐ Generator ☐ Recycler ☐ Other: _____

☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☑ N/A

Section AI.2: Applicant Information

Applicant Name: Tennessee Gas Pipeline Company, LLC

Title: (if individual)

Mailing Address:
Street or P.O. Box: 1001 Louisiana St., Suite 1000
City: Houston **State:** TX **Zip Code:** 77002

Email: (if individual)

Phone:

Technical Contact

Name: Walter Collier

Title: Air Permitting and Compliance

Mailing Address:
Street or P.O. Box: 1001 Louisiana St., Suite 1445J
City: Houston **State:** TX **Zip Code:** 77002

Email: Walter_Collier@kindermorgan.com

Phone: (713) 420-6360

Air Permit Contact for Source

Name: Same as Technical Contact

Title:

Mailing Address:
Street or P.O. Box:
City: **State:** **Zip Code:**

Email:

Phone:

Section AI.3: Owner Information

☑ **Owner same as applicant**

Name:

Title:

Mailing Address: **Street or P.O. Box:**

City: **State:** **Zip Code:**

Email:

Phone:

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position

Section AI.4: Type of Application

Current Status: ☑ Title V ☐ Conditional Major ☐ State-Origin ☐ General Permit ☐ Registration ☐ None

Requested Action: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☑ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 502(b)(10)Change	☐ Extension Request	☐ Addition of New Facility	☐ Portable Plant Relocation Notice
☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☐ Modification of Existing Facilities
☐ Ownership Change	☐ Closure		

Requested Status: ☑ Title V ☐ Conditional Major ☐ State-Origin ☐ PSD ☐ NSR ☐ Other: _____

Is the source requesting a limitation of potential emissions? ☐ Yes ☑ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☐ Volatile Organic Compounds (VOC)		☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* N/A

Proposed Operation Start-Up Date: *(MM/YYYY)* N/A

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* N/A

Proposed Operation Start-Up Date: *(MM/YYYY)* N/A

Applicant is seeking coverage under a permit shield. ☐ **Yes** ☑ **No**

Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.

Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

- ☐ DEP7007A Indirect Heat Exchangers and Turbines
- ☐ DEP7007B Manufacturing or Processing Operations
- ☐ DEP7007C Incinerators and Waste Burners
- ☐ DEP7007F Episode Standby Plan
- ☐ DEP7007J Volatile Liquid Storage
- ☐ DEP7007K Surface Coating or Printing Operations
- ☐ DEP7007L Mineral Processes
- ☐ DEP7007M Metal Cleaning Degreasers
- ☐ DEP7007N Source Emissions Profile
- ☐ DEP7007P Perchloroethylene Dry Cleaning Systems
- ☐ DEP7007R Emission Offset Credit
- ☐ DEP7007S Service Stations
- ☐ DEP7007T Metal Plating and Surface Treatment Operations
- ☐ DEP7007V Applicable Requirements and Compliance Activities
- ☐ DEP7007Y Good Engineering Practice and Stack Height Determination
- ☐ DEP7007AA Compliance Schedule for Non-complying Emission Units
- ☐ DEP7007BB Certified Progress Report
- ☐ DEP7007CC Compliance Certification RY23 7007CC Form on file with KDAQ
- ☑ DEP7007DD Insignificant Activities
- ☐ DEP7007EE Internal Combustion Engines
- ☐ DEP7007FF Secondary Aluminum Processing
- ☐ DEP7007GG Control Equipment
- ☐ DEP7007HH Haul Roads
- ☐ Confidentiality Claim
- ☐ Ownership Change Form
- ☐ Secretary of State Certificate
- ☑ Flowcharts or diagrams depicting process
- ☐ Digital Line Graphs (DLG) files of buldings, roads, etc.
- ☐ Site Map
- ☑ Map or drawing depicting location of facility
- ☐ Safety Data Sheet (SDS)
- ☐ Emergency Response Plan
- ☐ Other: _____

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

Joseph Simonsen — **Authorized Signature**

6/14/2024 — **Date**

Joseph Simonsen — **Type or Printed Name of Signatory**

Director - Operations — **Title of Signatory**

*Responsible official as defined by 401 KAR 52:001.

Section AI.7: Notes, Comments, and Explanations

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

___ Section DD.1: Table of Insignificant Activities
___ Section DD.2: Signature Block
___ Section DD.3: Notes, Comments, and Explanations

Source Name: Tennessee Gas Pipeline Company, LLC - Compressor Station 107A

KY EIS (AFS) #: 21-173-0021

Permit #: V-19-004

Agency Interest (AI) ID: 44053

Date: 6/14/2024

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3… etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
N/A	Fugitive Equipment Component Leaks	N/A	None	2.61 tpy VOC

Section DD.2: Signature Block

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

By:

Joseph Simonsen
Authorized Signature

6/14/2024
Date

Joseph Simonsen
Type/Print Name of Siguatory

Director - Operations
Title of Siguatory

Section DD.3: Notes, Comments, and Explanations

APPENDIX C. REQUESTED CHANGES TO EXISTING PERMIT

This appendix contains redline-strikeout mark-ups of select pages of Title V operating permit number V-19-004, which represent TGP's requested changes to the existing permit language.

SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit 001: Natural Gas-Fired Stationary Gas Turbine 1A

Model:	Solar Centaur T-4500
Construction Date:	August 26, 1987
Maximum rated heat input capacity:	37.07 mmBtu/hr
Maximum rated power:	4390 Hp
40 CFR 60, Subpart GG – Y value:	11.94 kJ/W-hr

Emission Unit 002: Natural Gas-Fired Stationary Gas Turbine 1B

Model:	Solar Saturn T-1200
Construction Date:	September 15, 1996
Maximum rated heat input capacity:	13.02 mmBtu/hr
Maximum rated power:	1200 Hp
40 CFR 60, Subpart GG – Y value:	14.4 kJ/W-hr

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 2(2)(pp), 40 C.F.R. 60.330 to 60.335 (Subpart GG), Standards of Performance for Stationary Gas Turbines

STATE-ORIGIN REQUIREMENTS:
401 KAR 63:020, Potentially hazardous matter or toxic substances

1. **Operating Limitations**:
   a. Pursuant to 401 KAR 63:020, Section 3, persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to the adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Division.

   b. Pursuant to 40 CFR 60.333(b) the permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

   Compliance Demonstration Method:
   a. The source shall be in compliance with 401 KAR 63:020 based on the rates of emissions of airborne toxics provided in the application submitted by the source.

   b. The gaseous fuel shall be certified as meeting the definition of natural gas in 40 CFR 60.331(u). See **4. Specific Monitoring Requirements**.

2. **Emission Limitations**:
   a. Pursuant to 40 CFR 60.332(c) and 60.332(a)(2) for natural gas fired non-regenerative cycle units constructed on or after October 3, 1982, designated for non-emergency use, emissions

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of nitrogen oxides shall be less than that resulting from the following calculation:

STD = 0.0150 * (14.4) / Y + F, where
STD = Allowable ISO corrected NO_X emission concentration (% by volume at 15% oxygen and on a dry basis),

Y = Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_X emission allowance for fuel-bound nitrogen as defined in the following table

Fuel-bound nitrogen (% by weight)	F (NO_X % by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	0.004+0.0067(N-0.1)
$N > 0.25$	0.005

Where: N = the nitrogen content of the fuel (percent by weight).

b. For the value of the fuel bound nitrogen (F) equal to zero, emissions of NO_X from Turbine 1A shall not exceed 181 ppmvd at 15% oxygen, and emissions of NO_X from Turbine 1B shall not exceed 150 ppmvd at 15% oxygen, as per **2. Emission Limitations:** a.

Compliance Demonstration Method:
Pursuant to 40 CFR 60.335, compliance with the NO_X emission limits is demonstrated through an initial performance test. Performance tests were conducted for Turbine 1A on 1/29/1987 and for Turbine 1B on 3/12/1997. These tests provided values of average NO_X emission concentrations of 114.6 ppmvd and 63.4 ppmvd, respectively, corrected to 15% O_2, which are below the calculated NO_X emission limits. No further testing is required.

3. Testing Requirements:
Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. Specific Monitoring Requirements:

a. Pursuant to 40 CFR 60.334(h)(1), the permittee shall monitor the total sulfur content of the fuel being fired in each turbine, except as provided in 40 CFR 60.334(h)(3).

b. Pursuant to 40 CFR 60.334(h)(3), not withstanding 40 CFR 60.334(h)(1), the permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Division for 40 CFR 60, Subpart GG requires such monitoring. The permittee shall use one of the

SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 003: Natural Gas-Fired Emergency Generator

Description:

Model:	Caterpillar 3306
Kind of Unit:	4-cycle rich burn, spark ignition
Construction Date:	January 1, 1987
Power Output:	130 bhp
Primary Fuel:	Natural Gas
Maximum rated fuel input capacity:	1.59 mmBtu/hr

APPLICABLE REGULATIONS:

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

Note: D.C. Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

1. **Operating Limitations:**
   a. Pursuant to 40 CFR 63.6603(a), the permittee shall comply with the requirements in 40 CFR 63, Subpart ZZZZ, Table 2d that apply. Per 40 CFR 63, Subpart ZZZZ, Table 2d, item 5, the permittee shall:
      (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
      (2) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
      (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   b. Pursuant to 40 CFR 63.6605(a), the permittee must be in compliance with the operating limitations in 40 CFR 63, Subpart ZZZZ at all times.

   c. Pursuant to 40 CFR 63.6605(b), at all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

   d. Pursuant to 40 CFR 63.6625(e)(3) and 40 CFR 63.6640(e), the permittee must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or the permittee shall develop their own maintenance plan which shall provide

SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

e. Pursuant to 40 CFR 63.6625(h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to 40 CFR 63, Subpart ZZZZ applies.

f. Pursuant to 40 CFR 63.6625(j), the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to 40 CFR 63, Subpart ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2d to 40 CFR 63, Subpart ZZZZ. The analysis program shall at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within 2 business days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine.

g. Pursuant to 40 CFR 63.6640(f), the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, ~~emergency demand response~~, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of 40 CFR 63.6640, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640, the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must meet all requirements for non-emergency engines.
   (1) Pursuant to 40 CFR 63.6640(f)(1), there is no time limit on the use of emergency stationary RICE in emergency situations.
   (2) Pursuant to 40 CFR 63.6640(f)(2), the permittee may operate an emergency stationary RICE for the purpose specified in paragraph~~s~~ (f)(2)(i) ~~through (iii)~~ of 40 CFR 63.6640 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (f)(4) of 40 CFR 63.6640 counts as part of the 100 hours per calendar year allowed by paragraph (f)(2).
      (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or

SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(3) Pursuant to 40 CFR 63.6640(f)(4), emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing ~~and emergency demand response~~ provided in 40 CFR 63.6640(f)(2). Except as provided in 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

D. The power is provided only to the facility itself or to support the local transmission and distribution system.

E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

2. Emission Limitations:

None

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. Specific Monitoring Requirements:

Pursuant to 40 CFR 63.6625(f), the existing emergency stationary RICE shall install a non-resettable hour meter if one is not already installed.

SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements** and 40 CFR 63.6655(e). These records shall include the following:
   (1) Oil and filter change dates and corresponding engine hours of operation (determined using hour meter, fuel consumption data, or other appropriate methods);
   (2) Inspection and replacement dates for spark plugs, hoses, and belts; ~~and~~
   (3) Records of other emission-related repairs and maintenance performed~~.~~; and
   (4) Records of the maintenance conducted on the stationary RICE and after-treatment control device (if any) in order to demonstrate that the stationary RICE was operated and maintained the according to the maintenance plan.

b. Pursuant to 40 CFR 63.6655(a), the permittee shall keep the following records described in paragraphs 40 CFR 63.6655(a)(1) through (5):
   (1) A copy of each notification and report that the permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
   (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
   (3) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
   (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
   (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

c. All records shall be maintained in accordance with **SECTION F.2**.

d. Pursuant to 40 CFR 63.6655(d), the permittee shall keep the records required in Table 6 of 40 CFR 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation.

e. Pursuant to 40 CFR ~~64~~63.6655(f), the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose~~s~~ specified in 40 CFR 63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

6. Specific Reporting Requirements:

a. Pursuant to 40 CFR 63.6640(b), the permittee shall report each instance in which the source did not meet each applicable operating limitation in Table 2d to 40 CFR 63, Subpart ZZZZ.