Commonwealth of Kentucky
Division for Air Quality

STATEMENT OF BASIS / SUMMARY

Title V, Operating
Permit: V-26-018

ANR Pipeline Company - Madisonville Compressor Station
7500 Nebo Road
Madisonville, KY 42431

March 31, 2026
Dakota Ross, Reviewer

SOURCE ID:	21-107-00134
AGENCY INTEREST:	44049
ACTIVITY:	APE20250001

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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: N/A

County: Hopkins
Nonattainment Area ☒ N/A ☐ PM_{10} ☐ $PM_{2.5}$ ☐ CO ☐ NO_X ☐ SO_2 ☐ Ozone ☐ Lead
If yes, list Classification: N/A

PTE* greater than 100 tpy for any criteria air pollutant ☒ Yes ☐ No
If yes, for what pollutant(s)?
☐ PM_{10} ☐ $PM_{2.5}$ ☒ CO ☐ NO_X ☐ SO_2 ☐ VOC

PTE* greater than 250 tpy for any criteria air pollutant ☐ Yes ☒ No
If yes, for what pollutant(s)?
☐ PM_{10} ☐ $PM_{2.5}$ ☐ CO ☐ NO_X ☐ SO_2 ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP) ☐ Yes ☒ No
If yes, list which pollutant(s): N/A

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

*PTE does not include self-imposed emission limitations.

Description of Facility:
ANR's Madisonville Compressor Station is located in Hopkins County, KY. The station transports natural gas along a natural gas pipeline by receiving inlet natural gas and compressing the gas to increase the pressure in the pipeline and maintaining the downstream flow.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: V-26-018 Activities: APE20250001

Received: September 9, 2025 Application Complete Date(s): November 24, 2025

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:

- On September 9, 2025 ANR Pipelines company applied for renewal of their Title V permit for the Madisonville Compressor Station. Along with the renewal, ANR acknowledged the fugitive piping components (EU FUG) at the facility are subject to 40 CFR 60, Subpart OOOOa. Additionally, the Division has determined that 59:185 New solvent metal cleaning equipment applies to the cold cleaner at the facility (EU CC#1).

V-26-018 Emission Summary		
Pollutant	2024 Actual (tpy)	PTE V-26-018 (tpy)
CO	42.47	182.12
NO_X	40.27	86.01
PT / PM_{10} / $PM_{2.5}$	3.65	8.66
SO_2	0.35	72.32
VOC	7.71	29.34
Greenhouse Gases (GHGs)		
Carbon Dioxide	64,874	155,097
Methane	124.80	723.78
Nitrous Oxide	0.12	0.29
CO_2 Equivalent (CO_2e)	68,400	175,439
Hazardous Air Pollutants (HAPs)		
Formaldehyde	0.39	1.01
Hexane; N-Hexane	0.76	0.79
Combined HAPs:	1.41	2.24

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Unit 011 (711) and 012 (712), Compression Turbines				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
[1]NO_X	25 ppm (1.2 lb/MWh) at 15% O_2	Table 1 of 40 CFR 60, Subpart KKKK	EU 011 and EU 012: 0.06 lb/mmBtu, Manufacturer Data	Initial and annual testing as outlined in 40 CFR 60.4400(a)
[2]NO_X	150 ppm (8.7 lb/MWh) at 15% O_2			Keep records of Manufacturer Emissions profile at operating loads
SO_2	0.060 lb/mmBtu	40 CFR 60.4330(a)(2)	EU 011 and EU 012: 20 gr S/100 scf, emission limit	The permittee shall monitor and record the fuel quality

[1]NO_X: Normal operation; [2]NO_X: <75% of peak load or at temperatures less than 0 °F.

Initial Construction Date: March 2021

Process Description:

Emission Unit 011(711), Solar Mars 100 Compressor Turbine [Facility ID 710]
Model: Solar Mars 100-16000S with SoLoNOx burners.
Power: 15,473 hp (11.54 MW) (@ 32ºF)
Maximum Operating Rate: 114.47 mmBtu/hr (LHV @ 32ºF)
127.06 mmBtu/hr (HHV @ 32ºF)
Primary Fuel: Natural Gas
Controls: None

Emission Unit 012 (712), Solar Titan 130 Compressor Turbine [Facility ID 709]
Model: Solar Titan 130-23502S with SoLoNOx burners.
Power: 22,759 hp (16.97 MW) (@ 32ºF)
Maximum Operating Rate: 155.46 mmBtu/hr (LHV @ 32ºF)
172.56 mmBtu/hr (HHV @ 32ºF)
Primary Fuel: Natural Gas
Controls: None

Natural Gas Compressors
Compressor Type: Centrifugal with Dry Seals

Applicable Regulation:
401 KAR 60:005, Section 2(2)(ffff), 40 C.F.R. 60.4300 through 60.4420, Table 1 (**Subpart KKKK**), *Standards of Performance for Stationary Combustion Turbines*

State-Origin Requirements:
401 KAR 63:020, *Potentially Hazardous matter or toxic substances*

Comments:
401 KAR 51:210. CAIR NO_X annual trading program, 401 KAR 51:220. CAIR NO_X ozone season trading program, and 401 KAR 51:230. CAIR SO_2 trading program do not apply as there are no units at

Emission Unit 011 (711) and 012 (712), Compression Turbines

the facility that drive generators that produce electricity for sale, and the turbines do not meet the definition of an "Industrial boiler or turbine" in 401 KAR 51:001 by having a maximum design heat input of 250 MMBTU per hour or more.

401 KAR 63:002, Section 2(4)(dddd), 40 C.F.R. 63.6080 through 63.6175, Tables 1 through 7 (**Subpart YYYY**), *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*, do not apply as the source is not a major source for HAPs.

40 CFR 64, *Compliance assurance monitoring*, does not apply because the proposed turbines will not use any add-on emission controls.

NO_X, CO and VOC are calculated based on the SoLoNO_X burner guarantee for both normal, low temp, low load, and startup/shutdown. PT/PM_{10}/$PM_{2.5}$ and HAP emissions are calculated based on AP-42 Chapter 3.1 Table 2a. SO_2 emissions are calculated based on 20 gr S/100scf emission limitation. The maximum low temp operating hours are calculated as a conservative 200 hrs per year, based on historical weather data. Low load maximum operational hours are calculated at 100 hours per year, based on projected operations, and there are an estimated 200 startup/shutdown events.

To meet the requirements of 40 CFR 60, Subpart KKKK the permittee shall perform annual NO_X (no more than 14 calendar months following the previous performance test) testing, and monitor the fuel quality for S in accordance with 40 CFR 60.4365(a). If NO_X test is less than or equal to 75 percent of the NO_X limit, the permittee may reduce the subsequent performance test to once every 2 years (no more than 26 calendar months following the previous performance test). The facility may use the fuel monitoring tariffs to calculate and report actual SO_2 emissions.

The permittee shall record the hours of each turbine that is operated at low temperature (defined as < 0ºF), low load (defined as < 40%) and each startup shutdown event.

Emission Unit 013 (713), Emergency Generator				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
NO_X	2.0 g/hp-hr	40 CFR 60, Subpart JJJJ, Table 1	2.0 g/hp-hr, Manufacturer Guarantee	Initial performance testing, and every 8760 hours or 3 years, whichever comes first.
CO	4.0 g/hp-hr		1.6 g/hp-hr, Manufacturer Guarantee	
VOC	1.0 g/hp-hr		0.02 g/hp-hr, Manufacturer Guarantee	

Initial Construction Date: March 2021

Process Description:

Model:	Waukesha VGF-L36GL (non-certified)
Model Year:	2020
Power:	880 hp
Primary Fuel:	Natural Gas
Controls:	None

Applicable Regulation:
401 KAR 60:005, Section 2(2)(eeee), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (**Subpart JJJJ**), *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*
401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 to 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, CO, VOC, CO_2, CH_4 and Formaldehyde are all calculated based on manufacturer guarantee. Nitrous oxide is calculated using Table C-2 from 40 CFR 98, Subpart C. All other pollutants are calculated using AP-42 Chapter 3.2 Table 2.

To meet the requirements of 40 CFR 60, Subpart JJJJ, the permittee shall monitor to verify that the engine meets the requirements for an emergency engine, and keep records of the maintenance and compliance demonstration (required initial and subsequent testing) for the emissions limitations in Table 1.

Emission Unit 014 (714), Fuel Gas Heater				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
PM	0.56 lb/mmBtu	401 KAR 59:015, Section 4(1)(a)	7.6 lb/mmscf, AP-42 1.4-1	Assumed while burning natural gas
	20% Opacity	401 KAR 59:015, Section 4(2)		
SO_2	3.0 lb/mmBtu	401 KAR 59:015, Section 5(1)(a)1.	0.6 lb/mmscf, AP-42 1.4-1	

Initial Construction Date: March 2021

Process Description:
Heat Input Capacity: 1.6 MMBtu/hr
Fuel: Natural Gas
Controls: None

Applicable Regulation:
401 KAR 59:015, *New indirect heat exchangers*

State-Origin Requirements:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Comments:
401 KAR 60:005, Section 2(2)(d), 40 C.F.R. 60.40c through 60.48c (**Subpart Dc**), *Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units*, does not apply to the fuel gas heater, as it is rated at less than 10 MMBtu/hr.

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*, does not apply as the facility is an area source of HAPs.

401 KAR 63:002, Section 2(4)(jjjjj), 40 C.F.R. 63.11193 through 63.11237, Tables 1 through 8 (**Subpart JJJJJJ**), *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, does not apply as this heater is only capable of firing natural gas.

GHG's are calculated using 40 CFR 98, Subpart C Tables 1 and 2, all other emissions are calculated using AP-42 Chapter 1.4 Tables 1, 2 and 3.

To comply with 401 KAR 59:015, Section 7, the permittee shall keep records of recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the Cabinet.

Emission Unit FUG, Fugitive Piping Components

Initial Modification Date: March 2021

Process Description:

Pipe Component	*Number of Components
Connections	11,175
Open Ended Lines	128
Pump Seals	7
Valves	2,330
Other	42

* NOTE - The pipeline equipment count listed above reflects an accurate count of the equipment as of the date of issuance of this permit but is not intended to limit the permittee to the exact numbers specified. The permittee may add or remove pipeline equipment without a permit revision as long as the equipment continues to comply with the applicable requirements listed below, and the changes do not cause a significant increase of emissions or potential to emit.

Applicable Regulation:
401 KAR 60:005, Section 2(2)(iiii), 40 C.F.R. 60.5360a through 60.5432a, Tables 1 through 3 (**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*

State-Origin Requirements:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Comments:
Fugitive emissions are calculated using emission factors from EPA 453/R-95-017 Table 2-4, and Mass balance is used to calculate the total VOC and individual HAPs.

40 CFR OOOOa was added as an applicable regulation as part of the APE20250001 renewal.

Emission Unit CC#1, Cold Cleaner

Initial Modification Date: After 1992

Process Description:
Safety-Kleen Premium Solvent (Virgin and Recycled) SDS ID 82658
Composition: Petroleum distillates, hydrotreated light CAS 64742-47-8
Maximum Vapor Pressure @ 68°F: <1 mmHg

Applicable Regulations:
401 KAR 59:185, *New solvent metal cleaning equipment*

Comments:
Fugitive emissions are conservatively calculated assuming all solvent used evaporates. The facility has indicated that up to 60 gallons of solvent may be used per year.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

Testing Requirements\Results

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
011	SoLoNO$_X$ Burner	NO$_X$	40 CFR 60.4400(a)	Initial and annual[1]	7E	25ppm, 15% O$_2$ or 150 ng/J (1.2 lb/MWh)	18.54 ppm, 15% O$_2$	7,559 HP	CMN20220002	9/28/22
012	SoLoNO$_X$ Burner	NO$_X$	40 CFR 60.4400(a)	Initial and annual[1]	7E		9.42 ppm, 15% O$_2$	2,180 HP		
013	None	NO$_X$	40 CFR 60.4243(b)(2)(ii)	Initial and every 8760 hours or 3 years, whichever is first	7E	160 g/hp-hr	57.66 g/hp-hr	789 HP		
		CO			10	540 g/hp-hr	171.08 g/hp-hr			
		VOC			18, 25A	86 g/hp-hr	10.72 g/hp-hr			
011	SoLoNO$_X$ Burner	NO$_X$	40 CFR 60.4400(a)	Initial and annual[1]	7E	25ppm, 15% O$_2$ or 150 ng/J (1.2 lb/MWh)	8.35 ppm, 15% O$_2$	10,279 HP	CMN20240001	9/25/24
012	SoLoNO$_X$ Burner	NO$_X$	40 CFR 60.4400(a)	Initial and annual[1]	7E		9.91 ppm, 15% O$_2$	19,980 HP		
013	None	NO$_X$	40 CFR 60.4243(b)(2)(ii)	Initial and every 8760 hours or 3 years, whichever is first	7E	160 g/hp-hr	93.39 ppm, 15% O$_2$	798.1 HP	CMN20250001	9/16/25
		CO			10	540 g/hp-hr	159.57 ppm, 15% O$_2$			
		VOC			18, 25A	86 g/hp-hr	16.72 ppm, 15% O$_2$			

Footnotes:

[1] If the NOX emission result from the performance test is less than or equal to 75 percent of the NOX emission limit for the turbine, the permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, the permittee must resume annual performance tests. [40 CFR 60.4340(a)(1)]

[2] See V-20-028 SOB and Summary for 401 KAR 51:150 testing results for EUs 004, 006, 007, & 008 (since removed).

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

N/A

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 59:015, *New indirect heat exchangers*	014
401 KAR 59:185, *New solvent metal cleaning equipment*	CC#1
401 KAR 60:005, Section 2(2)(eeee), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (**Subpart JJJJ**), *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*	013
401 KAR 60:005, Section 2(2)(ffff), 40 C.F.R. 60.4300 through 60.4420, Table 1 (**Subpart KKKK**), *Standards of Performance for Stationary Combustion Turbines*	011 and 012
401 KAR 60:005, Section 2(2)(iiii), 40 C.F.R. 60.5360a through 60.5432a, Tables 1 through 3 (**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*	FUG
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*	013
401 KAR 63:020, *Potentially hazardous matter or toxic substances*	011, 012 and 014

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 modeling using SCREEN View on March 31, 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.
011 (711)	N	N	N	No
012 (712)	N	N	N	No
013 (713)	N	N	N	No
014 (714)	Y	N	N	No
FUG	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	Renewal	APE20040001	NA	5/27/2005	Renewal	NA
G-04-001 R1	Sig Rev	APE20050001	NA	NA	Low Emission Combustion Modification on Engines 706, 707 and 708	No
G-09-002	Renewal	APE20090001	2/11/2010	10/4/2010	Renewal	NA
V-15-038	Renewal	APE20150001	6/25/2015	1/4/2016	Renewal	NA
V-15-038 R1	Minor Revision	APE20170002	10/11/2017	2/3/2018	Emergency Engine Status and Incorp 502(b)(10)	No
V-20-028	Renewal	APE20200001	10/27/2020	4/13/2021	Move EU001 through 009 and CB001 to Section H, addition of EU011 through 014. Update to fugitives	No
	Significant Revision	APE20200002				
V-20-028 R1	Admin Amendment	APE20220001	4/26/2022	5/10/2022	Update descriptions for EU011 and EU012 to include facility IDs	V-20-028 R1

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

APPENDIX B – INDIRECT HEAT EXCHANGER EMISSIONS LIMITATIONS

EU	Fuel	Capacity (MMBtu/hr)	Construction Date	Notes/ Removal Date	Basis for PM Limit	Total Heat Input Capacity for PM Limit (MMBtu/hr)	Basis for SO_2 Limit	Total Heat Input Capacity for SO_2 Limit (MMBtu/hr)
CB001	Natural Gas	6.695	1990	Removed March 2021	401 KAR 59:015, Section 4(1)(a)	6.695	401 KAR 59:015, Section 5(1)(a.)1.	6.695
014	Natural Gas;	1.6	March 2021			8.295		8.295