

## STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1102-AOP-R5 AFIN: 30-00081

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Enable Gas Transmission, LLC (Malvern Compressor Station)  
Ridge Road, 6 Mile South of Malvern  
Malvern, Arkansas 72104

3. PERMIT WRITER:

Jeremy Antipolo

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Pipeline Transportation of Natural Gas  
NAICS Code: 486210

5. ALL SUBMITTALS:

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
9/26/2016	Administrative Amendment	Addition of a dry line heater (0.14 MMBtu/hr) to the Insignificant Activity List

6. REVIEWER'S NOTES:

Enable Gas Transmission, LLC (EGT) currently operates a natural gas compressor station located approximately six (6) miles south of Malvern, Arkansas. This permit action adds a dry line heater (0.14 MMBtu/hr) to the facility's Insignificant Activities List. The total permitted emission rate limits do not change with this action.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are currently no enforcement actions for this facility.

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes, explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-01,02,03,04,05,12	HAPs (CO as surrogate)	40 CFR 63, Subpart ZZZZ: “National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines”

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

1<sup>st</sup> Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m<sup>3</sup>), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Formaldehyde	1.5	0.165	3.013688713	NO
Acrolein	0.2	0.03	0.673693122	NO

2<sup>nd</sup> Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ( $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Formaldehyde	15.00	3.34*	YES
Acrolein	2.29	0.504*	YES

\*Previous modeling. No changes to the non-emergency engines.

c) H<sub>2</sub>S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H<sub>2</sub>S Standards Y/N  
 If exempt, explain: \_\_\_\_\_

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H <sub>2</sub> S	20 parts per million (5-minute average*)		
	80 parts per billion (8-hour average) residential area		
	100 parts per billion (8-hour average) nonresidential area		

\*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C<sub>p</sub> = 5-minute average concentration

C<sub>m</sub> = 1-hour average concentration

t<sub>m</sub> = 60 minutes

t<sub>p</sub> = 5 minutes

## 12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01-04	NO <sub>x</sub> , CO, VOC— Manufacturer data SO <sub>2</sub> , PM—AP-42 HAPs—From GRI—all in g/hp-hr	NO <sub>x</sub> —1.7 g/hp-hr CO—1.5 g/hp-hr VOC—0.225 g/hp-hr SO <sub>2</sub> —5.88E-04 lb/MM Btu PM <sub>10</sub> —0.04831 lb/MM Btu Acetaldehyde— 0.00727 Acrolein—0.02052 Benzene—0.00100 Formaldehyde— 0.09072 Methanol—0.00723	None	N/A	SN-01 6,600 BTU/HP-hr 02 thru 04 6,800 BTU/HP-hr
05	NO <sub>x</sub> , CO, VOC— Manufacturer data SO <sub>2</sub> , PM—AP-42 HAPs—From GRI—all in g/hp-hr	NO <sub>x</sub> —15.0 g/hp-hr CO—0.83 g/hp-hr VOC—0.83 g/hp-hr SO <sub>2</sub> —5.88E-04 lb/MM Btu PM <sub>10</sub> —0.0194 lb/MM Btu Acetaldehyde— 0.00921 Acrolein—0.00868 Benzene—0.00521 Formaldehyde— 0.06766 Methanol—0.01010	None	N/A	8000 BTU/HP-hr
12	NO <sub>x</sub> , CO, VOC, PM— Manufacturer data SO <sub>2</sub> —AP-42 HAPs—From GRI—all in g/hp-hr	NO <sub>x</sub> —7.07 g/hp-hr CO—0.6 g/hp-hr VOC—0.1 g/hp-hr SO <sub>2</sub> —0.290 lb/MM Btu PM <sub>10</sub> —0.0275 g/hp-hr Acetaldehyde— 0.00077 Acrolein—0.00009 Benzene—0.00093	None	N/A	7,000 BTU/HP-hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		Formaldehyde— 0.00118			

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01-04	CO, NO <sub>x</sub>	7E, 10	½ of each type of engine every 5 years	Compliance with Emission limits

14. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
None				

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
05, 12	Hours of Operation	500 hrs per calendar	Monthly	Y
	Hours of Operation	500 hours per calendar	Monthly	Y
	Oil & Filter Changes/hoses and belt inspection	Every 500 hrs operation or annually	As Conducted	N
	Air Cleaner Inspection/Spark Plug Inspection	Every 1000 hrs or annually	As Conducted	Y
	Malfunction	N/A	Upon Occurrence	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	Hours for maintenance checks and readiness testing	100 per rolling twelve month period	Monthly	Y

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01-04, 05	5%	18.501	Burning Natural Gas and Inspection
12	20%	19.503	Observations

17. DELETED CONDITIONS:

Former SC	Justification for removal
	None

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub> <sup>1</sup>	HAPs	
							Single	Total
Boiler 1—3.25 MM Btu/hr boiler	A-1	0.11	0.01	0.08	1.14	1.356	0.005	0.005
Boiler 2—3.25 MM Btu/hr boiler	A-1	0.11	0.01	0.08	1.14	1.356	0.005	0.005
Heater 1—0.15 MM Btu/hr heater	A-1	0.01	0.01	0.01	0.06	0.063	0.001	0.001
Dry Line Heater—0.14 MM Btu/hr heater	A-1	0.01	0.01	0.01	0.05	0.059	0.001	0.001
A-1 Totals		0.24	0.04	0.18	2.39	2.834	0.012	0.012
TK-WO1—8820 Gal Waste Oil Storage Tank	A-3			0.0076			0.0076	0.0076
TK-LO1—7520 Gal Lube Oil Storage Tank	A-3			0.0066			0.0066	0.0066
TK-DIES—1000 Gal Diesel Storage Tank	A-3			0.00052			0.00052	0.00052
TK-OS1—1000 Gal Oil Settling Tank	A-3			0.0014			0.0014	0.0014
TK-AF3—2068 Gallon Antifreeze Tank	A-3			0.00001			0.00001	0.00001

TK-WW1—8820 Gal Wastewater Tank	A-3			0.005			0.005	0.005
TK-AF1—7520 Gal Antifreeze Tank	A-3			0.00005			0.00005	0.00005
A-3 Totals				0.023			0.023	0.023
Uncontrolled Piping Emissions	A-13			0.67				
A-13 Totals				0.67				

<sup>1</sup>NO<sub>x</sub> emissions are below 250 tpy when combined with sources SN-1, SN-2, SN-3, SN-4, SN-5 and SN-12. Summing actual emissions, prior to rounding up, result with a total NO<sub>x</sub> emission of 249.99 tpy.

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1102-AOP-R4





## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Facility Name:  
Permit Number:  
AFIN:

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	306.59
Permit Type	AA	Permit Fee \$	0

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	0
Initial Title V Permit Fee Chargeable Emissions (tpy)	

*HAPs not included in VOC or PM:*

*Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride*

*Air Contaminants:*

*All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)*

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		21.3	21.3	0		
PM <sub>10</sub>		21.3	21.3	0	0	21.3
PM <sub>2.5</sub>		0	0	0		
SO <sub>2</sub>		0.9	0.9	0	0	0.9
VOC		37.2	37.2	0	0	37.2
CO		214.1	214.1	0		
NO <sub>x</sub>		247.19	247.19	0	0	247.19
Formaldehyde	<input type="checkbox"/>	12.98	12.98	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total Other HAP	<input type="checkbox"/>	5.18	5.18	0		