STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1102-AOP-R7 AFIN: 30-00081

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Enable Gas Transmission, LLC - Malvern Compressor Station
5151 Ridge Road
Malvern, Arkansas 72104-7124

3. PERMIT WRITER:

Elliott Marshall

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

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
3/18/2021	Renewal	-Update calculations at SN-01 through SN-05 based on revised EF -Update SO_2 emissions at SN-01 through SN-12 to be commensurate FERC gas quality tariff -Remove SN-08 and SN-09 as permitted sources -Update and add IA's

6. REVIEWER'S NOTES:

This permitting action is necessary to renew the existing Title V permit. In addition to renewing the Title V permit, the following changes were made:

1. Update compressor engine hazardous air pollutant (HAP) emission calculations using emission factors based on HAP/Volatile Organic Compound (VOC) ratios.
2. Revise the fuel sulfur limit and associated emission calculations to be commensurate with EGT's current FERC gas quality tariff.
3. Update emission calculations for the emergency generator (SN-05) using manufacturer's data for NO_x, CO, VOC, and formaldehyde and using the EPA AP-42 emission factors for Total Other HAPs.
4. Update emission calculations for facility and compressor blowdowns and reclassify SN-08 and SN-09 as insignificant activities (IA). Blowdowns were previously listed as sources because A-13 IA totals would have been greater than 5.0 tpy VOC.
5. Update the emission calculations for all insignificant activities. Additionally, add two produced water storage tanks (6,300 gal and 3,780 gal) and tank truck loading as A-3 and A-13 IA's respectively.
6. Remove previous Specific Condition (SC) #13 and revise SC #12 to allow compliance with the opacity limit at SN-12 to be demonstrated by using No. 2 diesel fuel only.

Permitted emission rates are increasing/decreasing by 5.9 tpy SO_2, -4.9 tpy VOC, 2.6 tpy CO, -0.7273 tpy NO_x, 1.80 tpy Formaldehyde and 1.40 tpy Total Other HAP.

Added Methylene Chloride to fee sheet. This pollutant was not accounted for, on the fee sheet, in previous revisions.

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 no active or pending enforcement actions.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? 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 for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)

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. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? Y
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? Y
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
01-04	40 CFR Part 60 Subpart GG - Standards of Performance for Stationary Gas Turbines	No affected sources. SN-01 through 04 are compressor engines.
Facility	40 CFR Part 63 Subpart HH - National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities	This facility does not have glycol dehydrators at this site.
Facility	40 CFR Part 63 Subpart HHH - National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities	This facility does not have glycol dehydrators at this site.
12	40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Engine was installed 1991.

Source	Inapplicable Regulation	Reason
05	40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Engine was installed 1991.
01-04	40 CFR Part 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines	No affected sources. SN-01 through 04 are compressor engines.
Facility	40 CFR Part 60 Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution	Engines were installed 1991.
Facility	40 CFR Part 60 Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution	Engine were installed 1991.
Facility	40 CFR Part 52.21 - Prevention of Significant Deterioration of Air Quality	Facility is not a major stationary source.
Facility	40 CFR Part 64 - Compliance Assurance Monitoring	No emission controls at the facility.
Facility	40 CFR Part 68 - Chemical Accident Prevention Provisions/Risk Management	Enable Gas Transmission, LLC does not store ammonia at this site.
Facility	40 CFR Part 79 and 80 - Registration of Fuels and Fuel Additives	No affected sources.

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

1st 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^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Formaldehyde	1.5	0.165	3.41518	NO
Acrolein	0.2	0.022	0.48	NO
PAH	0.2	0.022	0.0091	YES

2nd 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 ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Formaldehyde	15.00	2.57	YES
Acrolein	2.29	0.42	YES

c) H_2S Modeling: N/A

15. 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_x, CO, VOC—Manufacturer data SO_2, PM—AP-42 3.2-1 AP-42 VOC:HAP Ratio applied to Manufacturer EF for HAPs.	NO_x—1.7 g/hp-hr CO—1.5 g/hp-hr VOC—0.225 g/hp-hr SO_2—0.0147 lb/MM Btu PM_{10}—0.04831 lb/MM Btu AP-42 (lb/MMBtu) VOC: 0.12 Formaldehyde: 0.0552 Formaldehyde EF—0.1035 g/hp-hr	None	N/A	SN-01 8,000 HP and 52.8 MMBtu/hr SN-02 thru 04 2,250 HP and 15.3 MMBtu/hr HAP/VOC Ratio Ex: 0.0552/0.12=0.46 0.468(0.225 g-hp/hr) = 0.1035 g/hp-hr Formaldehyde
05	NO_x, CO, VOC—Manufacturer data SO_2, PM—AP-42 3.2-3 HAPs from AP-42 and Manufacturer	NO_x—12.0 g/hp-hr CO—12 g/hp-hr VOC—0.35 g/hp-hr SO_2—0.0147 lb/MMBtu PM_{10}—0.0194 lb/MM Btu Formaldehyde—0.05 g/hp-hr	None	N/A	420 HP and 3.36 MMBtu/hr
12	NO_x, CO, VOC, PM—Manufacturer data SO_2 and HAPs—from AP-42 3.3-2	NO_x—7.07 g/hp-hr CO—0.6 g/hp-hr VOC—0.1 g/hp-hr SO_2—0.290 lb/MM Btu PM_{10}—0.0275 g/hp-hr Formaldehyde—1.18E-03	None	N/A	400 HP and 2.80 MMBtu/hr

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01-04	CO, NO_x	7E, 10	½ of each type of engine every 5 years	Compliance with Emission limits

17. 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				

18. 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
	Hours for maintenance checks and readiness testing	100 per rolling twelve month period	Monthly	Y

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01-04, 05	5%	18.501	Burning Natural Gas and Inspection
12	20%	19.503	No. 2 Diesel Fuel Only

20. DELETED CONDITIONS:

Former SC	Justification for removal
13	Changed opacity condition to require burning No. 2 diesel fuel only so an observation is not required.
16 through 18	Previous sources SN-08 and 09, compressor and facility blowdowns, have been moved to A-13 IA list. Blowdowns were previously listed as IA's but were moved to sources in R4 to make space in A-13 IA list.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x[1]	HAPs	
							Single	Total
Boiler 1—3.25 MM Btu/hr boiler	A-1	0.13	0.01	0.09	1.44	1.7032		
Boiler 2—3.25 MM Btu/hr boiler	A-1	0.13	0.01	0.09	1.44	1.7032		
Heater 1—0.15 MM Btu/hr heater	A-1	<0.01	<0.01	<0.01	0.05	0.0644		
Dry Line Heater—0.14 MM Btu/hr heater	A-1	<0.01	<0.01	<0.01	0.05	0.0601		
A-1 Totals		**0.27**	**0.02**	**0.20**	**2.99**	**3.5309**		
TK-WO1—8820 Gal Waste Oil Storage Tank	A-3			0.28			<0.01	
TK-LO1—7520 Gal Lube Oil Storage Tank	A-3			0.36			<0.01	
TK-DIES—1000 Gal Diesel Storage Tank	A-3			<0.01			<0.01	
TK-OS1—1000 Gal Oil Settling Tank	A-3			0.05			<0.01	
TK-AF3—2068 Gallon Antifreeze Tank	A-3			<0.01			<0.01	
TK-WW1—8820 Gal Wastewater Tank	A-3			1.95			<0.01	

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x[1]	HAPs	
							Single	Total
TK-AF1—7520 Gal Antifreeze Tank	A-3			<0.01			<0.01	
6300 Gal Produced Water Storage Tank	A-3			1.39			<0.01	
3780 Gal Produced Water Storage Tank	A-3			0.84			<0.01	
A-3 Totals				**4.87**			**<0.01**	
Uncontrolled Piping Emissions	A-13			0.13			<0.01	
Compressor and Facility Blowdowns	A-13			4.54			<0.01	
Tank Truck Loading				0.01			<0.01	
A-13 Totals				**4.68**			**<0.01**	

[1]NO_x emissions are below 250 tpy when combined with sources SN-01, SN-02, SN-03, SN-04, SN-05 and SN-12. Summing actual emissions, prior to rounding up, result with a total NO_x emission of 249.99 tpy.

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1102-AOP-R6

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Enable Gas Transmission, LLC - Malvern Compressor Station
Permit Number: 1102-AOP-R7
AFIN: 30-00081

$/ton factor	23.93	Annual Chargeable Emissions (tpy)	306.9027
Permit Type	Modification	Permit Fee $	1000

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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	0.3127
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_{10}		21.3	21.3	0	0	21.3
$PM_{2.5}$		0	0	0		
SO_2		0.9	6.8	5.9	5.9	6.8
VOC		37.2	32.3	-4.9	-4.9	32.3
CO		214.1	216.7	2.6		
NO_X		247.19	246.4627	-0.7273	-0.7273	246.4627
Formaldehyde	☐	12.98	14.78	1.8		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total Other HAP	☐	5.18	6.58	1.4		
Methylene Chloride	☑	0	0.04	0.04	0.04	0.04