STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1217-AOP-R7 AFIN: 54-00120

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Enable Gas Transmission, LLC - Helena Compressor Station
2875 Highway 20
Helena-West Helena, Arkansas 72342-8997

3. PERMIT WRITER:

Bart Patton

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 |
|---|---|---|
| 1/12/2021 | Renewal | Some emission factors changed; several tanks added to the I.A. List, and a portable electric incinerator was removed from the I.A. List |

6. REVIEWER'S NOTES:

This Title V renewal approves the following changes:

- Revise the fuel sulfur limit (Plantwide Condition #6) and $SO_2$ emissions rates at all sources, to be commensurate with the facility's current Federal Energy Regulatory Commission (FERC) gas quality tariff,

- Revise the permit's "Total HAP" limits to include all HAPs listed in AP-42, not just those speciated in this facility's earlier permits,
- Replace manufacturer's emission factors for CO and NOx at SN-12 with AP-42 emission factors,
- Recalculate all emissions using the latest AP-42 factors,
- Correct annual NOx emissions at SN-03, from 131.6 to 131.9 tpy, due to a typographical error in a previous permit,
- Replace the 700-gallon Antifreeze Mix Storage Tank with a 565-gallon Antifreeze Storage Tank in category A-3 of the Insignificant Activities List,
- Add 3 New Oil Tanks (265, 120, and 120 gallons) and one Diesel Storage Tank (565 gallons) in category A-3 of the Insignificant Activities List,
- Remove the Smart Ash Incinerator from category A-13 of the Insignificant Activities List,
- Recalculate emissions from blowdowns, fugitives, and truck loading using current AP-42 factors and current facility equipment and practices in category A-13 of the Insignificant Activities List

The Plantwide Conditions and General Provisions were updated to ADEQ's current standard usage. Plantwide Condition #11, about commencement of construction within 18 months of approval, was added.

Annual emissions increased as follows: $SO_2$, +1.5 tpy; $NO_x$, +0.6 tpy; and Total Combustion HAP, +0.38 tpy.

Annual emissions decreased as follows: CO, -3.9 tpy.

Changes to the permit were considered sufficient to consider this a renewal with changes, rather than a renewal without changes.

The content labeling of some tanks in category A-3 of the Insignificant Activities List was changed. The Entrained Liquids (Slop) Storage Tank was re-identified as Produced Water Tank. The 6,000-gallon Lube Oil Storage Tank was re-identified as a New Oil Storage Tank, and its volume was recalculated starting from its barrel capacity (140 bbl x 42 gal/bbl = 5,880 gallons). The 500-gallon Lube Oil Storage Tank was re-identified as a New Oil Storage Tank.

Replacing manufacturer's data for CO and $NO_x$ at SN-12 with AP-42 data increased $NO_x$ from 0.2 to 0.5 tpy, but decreased CO emissions from 4.6 to 0.7 tpy.

7. COMPLIANCE STATUS:

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

The facility was last inspected on January 4, 2018. There are no active/pending enforcement actions or compliance issues.

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/A

b) Is the facility categorized as a major source for PSD? Y
- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

This permit modification is not PSD because this is a Title V renewal without physical changes or changes to method operation. Emission changes due to new emission factors and recalculation also did not cause a significant increase in emissions.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

| Source | Pollutant | Regulation (NSPS, NESHAP or PSD) |
|---|---|---|
| SN-01, SN-02, SN-03, SN-12 | Formaldehyde | NESHAP ZZZZ |

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 |
|---|---|---|
| Facility | 40 CFR Part 63 Subpart HH— National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities | Compressors are exempt. |
| Facility | 40 CFR Part 63 Subpart HHH— National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities | A compressor station that transports natural gas prior to the point of custody transfer or to a natural gas processing plant (if present) is not considered a part of the natural gas transmission and storage source category. |
| Facility | 40 CFR Part 60 Subpart GG— Standards of Performance for Stationary Gas Turbines | No stationary gas turbines at the facility. |
| Facility | 40 CFR Part 60 Subpart IIII— Standards of Performance for Stationary Compression Ignition Internal Combustion Engines | No compression ignition internal combustion engines. |
| Facility | 40 CFR Part 60 Subpart JJJJ— Standards of Performance for Stationary Spark Ignition Internal Combustion Engines | The latest installation/construction date is 2006. The engines have not been modified or reconstructed. |
| Facility | 40 CFR Part 60 Subpart KKKK— Standards of Performance for Stationary Combustion Turbines | No stationary combustion turbines at the facility. |
| Facility | 40 CFR Part 60 Subpart OOOO— Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution | There has been no construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015. |
| Facility | 40 CFR Part 60 Subpart OOOOa— Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution | There has been no construction, modification, or reconstruction after September 18, 2015. |
| Facility | 40 CFR Part 62— State Plans for Designated Facilities | Plans for Arkansas are not for facilities of this type (natural gas compressor stations). |
| Facility | 40 CFR Part 64— Compliance Assurance Monitoring | The only control device used is to achieve compliance with a standard under the Clean Air Act |
| Facility | 40 CFR Part 68— Chemical Accident Prevention Provisions/Risk Management | The facility does not have authorization to have a threshold quantity of a regulated substance under this Part. |
| Facility | 40 CFR Part 79— Registration of Fuels and Fuel Additives | The facility is not a fuel manufacturer as defined in this Part. |
| Facility | 40 CFR Part 80— Registration of Fuels and Fuel Additives | The facility does not process the kind of fuel regulated under this Part. |

| Source | Inapplicable Regulation | Reason |
|---|---|---|
| Facility | 40 CFR Part 81.304—Non-Attainment | At issuance of this permit, the facility was not in a nonattainment area for any pollutant. |

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:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality 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? |
|---|---|---|---|---|
| Acrolein | 0.23 | 0.0252 | 0.1497 | N |
| Formaldehyde | 1.50* | 0.165 | 0.9417 | N |

* Surrogate screening value adopted by ADEQ (see Steve Patrick memo of October 19, 1998).

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 Division of Environmental Quality 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? |
|---|---|---|---|
| Acrolein | 2.29 | 0.663 | Y |
| Formaldehyde | 15.0 | 3.98 | Y |

c) No other modeling was required.

15. CALCULATIONS:

| SN | Emission Factor Source (AP-42, testing, etc.) | Emission Factor (lb/ton, lb/hr, etc.) | Control Equipment | Control Equipment Efficiency | Comments |
|---|---|---|---|---|---|
| 01, 02 | 2008 Testing | **lb/hr**<br>9.2 CO<br>26.7 $NO_x$ | None | N/A | 8,760 op hr/yr |
| 01, 02 | AP-42 Table 3.2-1 (2-stroke lean burn) | **lb/MMBtu**<br>$PM/PM_{10} = PM_{filterable} + PM_{condensable}$<br>0.04831 $PM/PM_{10}$<br>0.0147 $SO_2$<br>0.12 VOC<br>Total Combustion HAP<br>0.0795 | None | N/A | 8,760 op hr/yr; 8 MMBtu/hr. Site-specific sulfur content, 0.2 gr / 100scf, or 25x std AP-42 factor. |
| 03, 12 | AP-42 Table 3.2-3 (4-stroke rich burn) | **lb/MMBtu**<br>$PM/PM_{10} = PM_{filterable} + PM_{condensable}$<br>0.01941 $PM/PM_{10}$<br>0.0147 $SO_2$<br>0.0296 VOC | None | N/A | SN-03: 8,760 op hr/yr; 8.83 MMBtu/hr. SN-12: 500 op hr/yr; 0.732 MMBtu/hr. |
| 03 | Testing | **lb/hr**<br>53.8 CO | None | N/A | 8,760 op hr/yr; 8.83 MMBtu/hr |
| 03 | Testing | **lb/hr**<br>30.1 $NO_x$ | NSCR | 26% | 8,760 op hr/yr; 8.83 MMBtu/hr |
| 03 | AP-42 Table 3.2-3 (4-stroke rich burn) | **lb/MMBtu**<br>0.0205 Formaldehyde (before control factor)<br><br>Total Combustion HAP 0.01684 | NSCR | 76% (formaldehyde only) | 8,760 op hr/yr; 8.83 MMBtu/hr |
| 12 | Testing | **g/hp-hr**<br>130.1 CO<br>3.4 $NO_x$ | None | N/A | 500 op hr/yr; 0.732 MMBtu/hr |

| SN | Emission Factor Source (AP-42, testing, etc.) | Emission Factor (lb/ton, lb/hr, etc.) | Control Equipment | Control Equipment Efficiency | Comments |
|---|---|---|---|---|---|
| 12 | AP-42 Table 3.2-3 (4-stroke rich burn) | **lb/MMBtu** 3.72 CO 2.27 $NO_x$ Total Combustion HAP 0.03242 | None | N/A | 500 op hr/yr; 0.732 MMBtu/hr |

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

| SN | Pollutants | Test Method | Test Interval | Justification |
|---|---|---|---|---|
| 01 and 02 | CO $NO_X$ | 10 7E | One of two compressor engines every five years | See Plantwide Condition (PWC) #7 |
| 03 | CO $NO_X$ | 10 7E | Every five years | See PWC #7 |
| 03 | CO or THC | CO: §63.6630(e)(3) THC: §63.6630(e)(4) | Initial Compliance Demonstration | 40 C.F.R. § 63.6630(e) |
| 03 | CO or THC | CO: §63.6640(c)(3) THC: §63.6640(c)(4) | Annual Compliance Demonstration | 40 C.F.R. § 63.6640(c) |

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) |
|---|---|---|---|---|
| 03 | Catalyst Inlet Temperature | Thermocouple | At least once every 15 minutes, reducing the data to 4-hour rolling averages, or immediately shutting down the engine if the catalyst inlet temperature exceeds 1250°F | N |

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) |
|---|---|---|---|---|
| 01 and 02 | Required Maintenance | Plantwide Condition (PWC) #32 | Every 4,320 hours, annually, or other as applicable | N |
| 01 and 02 | Failure to Meet Requirements | PWC #28 | N/A | Y |
| 01 and 02 | Records required by 63.6655 | PWC #29 | N/A | N |
| 03 | Failure to Meet Requirements | PWC #28 | N/A | Y |
| 03 | Records required by 63.6655 | PWC #29 | N/A | Y |
| 12 | Operating Hours | 500 hours | Year | Y |
| 12 | Required Maintenance | PWC #39 | N/A | N |
| 12 | Records required by 63.6655 | PWC #41 | N/A | N |

19. OPACITY:

| SN | Opacity | Justification for limit | Compliance Mechanism |
|---|---|---|---|
| 01, 02, 03, 12 | 5% | Department Guidance | Burn only pipeline-quality natural gas |

20. DELETED CONDITIONS:

| Former SC | Justification for removal |
|---|---|
| N/A | |

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 | $NO_x$ | HAPs | |
| | | | | | | | Single | Total |
| 8,820-gallon Used Oil Storage Tank | A-3 | | | 0.34 | | | | |
| 8,820-gallon Produced Water Storage Tank | A-3 | | | 0.01 | | | | |
| 5,880-gallon New Oil Storage Tank | A-3 | | | 0.28 | | | | |
| 500-gallon New Oil Storage Tank | A-3 | | | 0.03 | | | | |
| 265-gallon New Oil Storage Tank | A-3 | | | 0.01 | | | | |
| 120-gallon New Oil Storage Tank | A-3 | | | 0.004 | | | | |
| 120-gallon New Oil Storage Tank | A-3 | | | 0.004 | | | | |
| 565-gallon Diesel Storage Tank | A-3 | | | 0.0002 | | | | |
| 565-gallon Antifreeze Storage Tank | A-3 | | | 0.00001 | | | | |
| A-13 Total | | | | 0.68 | | | | |
| Compressor and Facility Blowdowns | A-13 | | | 0.115 | | | | |
| Piping Component Fugitive Emissions | A-13 | | | 0.093 | | | | |
| Truck Loading | A-13 | | | 0.144 | | | | |
| A-13 Total | | | | 0.352 | | | | |

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 # |
| --- |
| 1217-AOP-R6 |

# APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

# Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Enable Gas Transmission Company, LLC – (Helena Compressor Station)
Permit Number: 1217-AOP-R7
AFIN: 54-00120

| | | | |
|---|---|---|---|
| $/ton factor | 23.93 | Annual Chargeable Emissions (tpy) | 382.5 |
| 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) | 2.1 |
| 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 | | 4.3 | 4.3 | 0 | | |
| $PM_{10}$ | | 4.3 | 4.3 | 0 | 0 | 4.3 |
| $PM_{2.5}$ | | 0 | 0 | 0 | | |
| $SO_2$ | | 0.4 | 1.9 | 1.5 | 1.5 | 1.9 |
| VOC | | 9.9 | 9.9 | 0 | 0 | 9.9 |
| CO | | 320.9 | 317 | -3.9 | | |
| $NO_X$ | | 365.8 | 366.4 | 0.6 | 0.6 | 366.4 |
| Total Combustion HAP | ☐ | 5.87 | 6.25 | 0.38 | | |