

From: [Parker Merrill](#)
To: [DEQ AQD APU](#)
Subject: FW: Dept. of Env. Quality - Courtesy Review, Permit #: 2025-0257-O
Date: Thursday, December 4, 2025 11:06:15 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[2025-0257-O DRAFT #2 redline.docx](#)
[Foster CALC-Revised 2025-12-03.pdf](#)

From: Walker, Sean P <sean.walker@energytransfer.com>
Sent: Wednesday, December 3, 2025 8:31 AM
To: Parker Merrill <Parker.Merrill@deq.ok.gov>
Cc: Fullingim, Shawn M <shawn.fullingim@energytransfer.com>; Lee, Jason M <jason.lee2@energytransfer.com>
Subject: [EXTERNAL] RE: Dept. of Env. Quality - Courtesy Review, Permit #: 2025-0257-O

Parker,

Based on going to the 100% capture, this changed the flare emissions slightly. I have attached the revised calcs for this change. I also made the corresponding revisions to the draft permit. Please find attached my redline comments. Let me know if you have any questions or concerns with these changes.

Please note that I will be having shoulder surgery next Monday and therefore will be out of the office for the rest of the year. If any issues come up while I am on leave, please contact my manager, Shawn Fullingim (shawn.fullingim@energytransfer.com), or Jason Lee (jason.lee2@energytransfer.com).

Thanks,

Sean Walker
Senior Specialist, Environmental
Energy Transfer
O: 405.557.5235
M: 405.226.8190



From: Parker Merrill <Parker.Merrill@deq.ok.gov>
Sent: Tuesday, December 2, 2025 4:27 PM
To: Walker, Sean P <sean.walker@energytransfer.com>
Subject: Dept. of Env. Quality - Courtesy Review, Permit #: 2025-0257-O

Good Afternoon,

Please see attached for the approved FESOP for Foster Compressor Station. Please look and let me know if you have any comments regarding the draft within 5 business days (12/8/2025).

If no comments are received, the FESOP will be signed and issued accordingly.

Thank you,

Parker Merrill

Air Quality Division

Phone: (405) 702-4202

Email: parker.merrill@deq.ok.gov



We continuously evaluate how we can better serve you. To that end we would appreciate feedback through the linked survey. You are welcome to provide specific permit information to aid us in follow-up or respond anonymously.

<https://forms.office.com/g/bTfAQ3jiLr>

Private and confidential as detailed [here](#). If you cannot access hyperlink, please e-mail sender.

ATTACHMENT 6
TABLE 1
REVISED 12/3/2025

POTENTIAL EMISSIONS SUMMARY
CONDENSATE STORAGE TANKS (TANK1 - TANK4)
FOSTER COMPRESSOR STATION
ET GATHERING & PROCESSING LLC

Source	Annual Throughput (gallons/year)	Tank Capacity (gallons)	Potential VOC Emissions ¹					
			Annual Breathing Losses ² (T/yr)	Annual Working Losses ² (T/yr)	Annual Flash Losses ³ (T/yr)	Potential Annual Emissions (T/yr)	Flare Capture Efficiency ⁴ (%)	Total Annual Emissions ⁵ (T/yr)
Condensate Storage Tank (400 bbl)	315,000	16,800	0.67	1.38	9.08	11.12	100%	0.00
Condensate Storage Tank (400 bbl)	315,000	16,800	0.67	1.38	9.08	11.12	100%	0.00
Condensate Storage Tank (400 bbl)	315,000	16,800	0.67	1.38	9.08	11.12	100%	0.00
Condensate Storage Tank (400 bbl)	315,000	16,800	0.67	1.38	9.08	11.12	100%	0.00

Notes:

1. Based on maximum annual condensate throughput value of 30,000-bbls/yr.
2. Annual working and breathing losses were determined using AP-42, Section 7.1. Refer to Attachment 6, Table 2.
3. Annual flash losses were based on the HYSYS process simulation method. Emission factors predicted by simulation model equals 2.42 lbs VOC/bbl condensate throughput. Copy of HYSYS output files available upon request.
4. Breathing/working/flash emissions from the storage tanks are routed to the condensate flare which has a capture efficiency of 100%. Refer to Attachment 6, Tables 3 and 4 for condensate flare emission calculations.
5. ETGP is requesting federally enforceable limits of less than six (6) tons per year (T/yr) of VOC for each of the four (4) condensate storage tanks.

ATTACHMENT 6

TABLE 2

POTENTIAL EMISSIONS SUMMARY
AP-42 SECTION 7 FIXED-ROOF TANK EMISSIONS
FOSTER COMPRESSOR STATION
ET GATHERING & PROCESSING LLC

Tank Identification	TANK1	TANK2	TANK3	TANK4
Actual Location	FOSTER COMPRESSOR STATION	FOSTER COMPRESSOR STATION	FOSTER COMPRESSOR STATION	FOSTER COMPRESSOR STATION
Location for Calculation Purposes	Oklahoma City, Oklahoma	Oklahoma City, Oklahoma	Oklahoma City, Oklahoma	Oklahoma City, Oklahoma
Contents of Tank	Gasoline (RVP 10)	Gasoline (RVP 10)	Gasoline (RVP 10)	Gasoline (RVP 10)
Tank/Roof Type	Dome	Dome	Dome	Dome
Underground?	Aboveground	Aboveground	Aboveground	Aboveground
Will flashing occur at the tank?	Yes	Yes	Yes	Yes
Are the tanks vapor balanced?	Yes	Yes	Yes	Yes
Diameter, ft	12.0	12.0	12.0	12.0
Shell Height or Length, ft	20.0	20.0	20.0	20.0
Nominal Capacity, gal	16,800	16,800	16,800	16,800
Throughput, gallons/yr	315,000	315,000	315,000	315,000
Tank Paint Color	Beige/Cream	Beige/Cream	Beige/Cream	Beige/Cream
Tank Paint Condition	Average	Average	Average	Average
Effective Diameter, ft	12.0	12.0	12.0	12.0
Geometric Capacity, gal	16,074	16,074	16,074	16,074
Maximum Liquid Height, ft	19.0	19.0	19.0	19.0
Average Liquid Height, ft	14.25	14.25	14.25	14.25
Minimum Liquid Height, ft	1	1	1	1
Cone Tank Roof Slope, ft/ft	0.0625	0.0625	0.0625	0.0625
Dome Tank Roof Radius, ft	12.00	12.00	12.00	12.00
Dome Tank Roof Height, ft	1.608	1.608	1.608	1.608
Roof Outage, ft	0.823	0.823	0.823	0.823
Vapor Space Outage, ft	6.57	6.57	6.57	6.57
Vapor Space Volume, ft ³	743	743	743	743
Average Daily Minimum Ambient Temperature, F	50.30	50.30	50.30	50.30
Average Daily Maximum Ambient Temperature, F	71.10	71.10	71.10	71.10
Daily Maximum Ambient Temperature, F	92.80	92.80	92.80	92.80
Daily Total Solar Insolation Factor, Btu/ft ² /day	1479	1479	1479	1479
Daily Average Ambient Temperature, F	60.7	60.7	60.7	60.7
Tank Paint Solar Absorbance, dimensionless	0.420	0.420	0.420	0.420
Daily Vapor Temperature Range, R	27.3	27.3	27.3	27.3
Daily Average Liquid Surf. Temperature, F	64.1	64.1	64.1	64.1
Daily Minimum Liquid Surf. Temperature, F	57.3	57.3	57.3	57.3
Daily Maximum Liquid Surf. Temperature, F	71.0	71.0	71.0	71.0
Liquid Bulk Temperature	62.56	62.56	62.56	62.56
Vapor Molecular Weight, lb/lbmol	66.0	66.0	66.0	66.0
Antoine's Coefficient A	0.0	0.0	0.0	0.0
Antoine's Coefficient B	0.0	0.0	0.0	0.0
Antoine's Coefficient C	0.000	0.000	0.000	0.000
Type of Substance (for use in calculations)	Gas	Gas	Gas	Gas
Vapor Pressure at Daily Av. Liquid Surf. Temp., psia	5.617	5.617	5.617	5.617
Vapor Pressure at Daily Min. Liquid Surf. Temp., psia	4.921	4.921	4.921	4.921
Vapor Pressure at Daily Max. Liquid Surf. Temp., psia	6.389	6.389	6.389	6.389
Vapor Pressure Calculation Method	AP-42 Figure 7.1-14b: RVP=10 ASTM Slope=3	AP-42 Figure 7.1-14b: RVP=10 ASTM Slope=3	AP-42 Figure 7.1-14b: RVP=10 ASTM Slope=3	AP-42 Figure 7.1-14b: RVP=10 ASTM Slope=3
Vapor Density, lb/ft ³	0.065950	0.065950	0.065950	0.065950
Daily Vapor Pressure range, psi	1.467	1.467	1.467	1.467
Breather Vent Pressure Setting, psig	0.0300	0.0300	0.0300	0.0300
Breather Vent Vacuum Setting, psig	-0.0300	-0.0300	-0.0300	-0.0300
Breather Vent Pressure Setting Range, psi	0.0600	0.0600	0.0600	0.0600
Ambient Pressure, psia	14.0	14.0	14.0	14.0
Vapor Space Expansion Factor	0.2198	0.2198	0.2198	0.2198
Vented Vapor Saturation Factor	0.338	0.338	0.338	0.338
Annual Turnovers	20.68	20.68	20.68	20.68
Turnover Factor	1.00	1.00	1.00	1.00
Working Loss K _g Factor	0.99	0.99	0.99	0.99
Working Loss Product Factor	1.00	1.00	1.00	1.00
Standing Storage Loss, lb/yr	1,330.57	1,330.57	1,330.57	1,330.57
Working Loss, lb/yr	2,758.58	2,758.58	2,758.58	2,758.58
Total Losses, lb/yr	4,089.16	4,089.16	4,089.16	4,089.16
Standing Storage Loss, TPY	0.66529	0.66529	0.66529	0.66529
Working Loss, TPY	1.37929	1.37929	1.37929	1.37929
Total Losses, TPY	2.04458	2.04458	2.04458	2.04458

Based on AP-42, June 2020, Section 7.1.3.1.

**ATTACHMENT 6
TABLE 3
REVISED 12/3/2025**

**POTENTIAL EMISSIONS SUMMARY
CONDENSATE FLARE (FLARE1)
FOSTER COMPRESSOR STATION
ET GATHERING & PROCESSING LLC**

Pollutant	Emission Factors ¹ (lb/MMBtu)	Potential Emissions ²	Flare Destruction Efficiency	Total Controlled Emission Rates ³	
		lb/hr	%	lb/hr	T/yr
NO _x	0.068	--	--	0.03	0.11
CO	0.31	--	--	0.11	0.50
VOC	--	10.59	98%	0.21	0.93

Notes:

1. Emission factors for NO_x and CO obtained from AP-42 Table 13.5-1 for industrial flares.
2. VOC emissions estimated based on the flare pilot feed rate, gas analysis, and emissions routed to flare from the condensate storage tanks. Refer to Attachment 6, Table 4.
3. NO_x and CO emissions based on AP-42 emission factors and a heat value of 0.37 MMBtu/hr (refer to Attachment 6 Table 4). Controlled emissions for VOC based on flare pilot feed rate, emissions routed to flare from the condensate storage tanks, a 98% destruction efficiency from the flare, and 8,760 hrs/yr.

ATTACHMENT 6
TABLE 4
REVISED 12/3/2025

POTENTIAL EMISSIONS SUMMARY
CALCULATION OF VOC/HAP TO CONDENSATE FLARE
FOSTER COMPRESSOR STATION
ET GATHERING & PROCESSING LLC

				Waste Streams to Flare				Flare Capture Efficiency 100%			
Flare Pilot Gas - Inlet Gas Composition				Condensate Storage Tanks: (4) 400 bbl ¹ (working/breathing/flash losses)				Total Streams Burned (Pilot + Waste Streams)		Pure Component Heat Value	Gross Btu Value ² (if burned)
30 SCFH				TANK1	TANK2	TANK3	TANK4	lb/hr	scfd	Btu/scf	Btu/hr
	Mol Wt	Mole %	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr				
N2	28.01	2.7455	0.061	0.000	0.000	0.000	0.000	0.0607	19.8	0.00	0.00
CO2	44.01	0.8023	0.028	0.051	0.051	0.051	0.051	0.2330	48.3	0.00	0.00
H2S	34.076	0.0000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0	637.02	0.00
C1	16.04	72.2962	0.915	0.508	0.508	0.508	0.508	2.9470	1,675.6	1,009.70	70,494.05
C2	30.07	13.4528	0.319	0.760	0.760	0.760	0.760	3.3594	1,018.9	1,768.70	75,087.92
C3	44.1	7.0652	0.246	0.785	0.785	0.785	0.785	3.3847	700.0	2,517.20	73,414.23
iC4	58.12	0.4870	0.022	0.141	0.141	0.141	0.141	0.5871	92.1	3,252.60	12,484.75
nC4	58.12	1.9537	0.090	0.442	0.442	0.442	0.442	1.8578	291.5	3,262.00	39,622.30
iC5	72.15	0.2948	0.017	0.154	0.154	0.154	0.154	0.6346	80.2	3,999.70	13,368.26
nC5	72.15	0.4743	0.027	0.252	0.252	0.252	0.252	1.0359	130.9	4,008.70	21,871.43
C6	84.162	0.2492	0.017	0.000	0.000	0.000	0.000	0.0166	1.8	4,481.60	335.04
C7+	100.2	0.1790	0.014	0.765	0.765	0.765	0.765	3.0745	279.8	5,503.00	64,163.87
Totals								17.19	4,339	Btu/hr	370,841.85
				Total Potential VOC				10.591		Heat Value ³ (Btu/scf)	2,051

Notes:

- Working/breathing losses were determined using AP-42, Section 7.1 and a maximum annual condensate throughput of 30,000-bbls/yr. Unspecified working/breathing components were included with C7+. Flash losses from the four (4) condensate storage tanks are based on HYSYS process simulation method using the maximum annual condensate throughput value. Emission factor predicted by simulation model equals 2.42 lbs VOC/bbl condensate throughput. Copy of HYSYS output files available upon request.
- Gross Btu Value (Btu/hr) = Total Streams Burned in Flare (lb/hr) / Mol Wt (lb/mol) * 380 (scf/mol) * Pure Component Heat Value (Btu/scf)
- Heat Value (Btu/scf) = Total Gross Btu Value (Btu/hr) / Total Streams Burned (scfd) * 24 (hrs/day)

DRAFT

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

MEMORANDUM

December 2, 2025

TO: Lee Warden, P.E., Permits and Engineering Group Manager

THROUGH: Phillip Martin, P.E., Engineering Manager, Existing Source Permits

THROUGH: Junru Wang, P.E., Existing Source Permits Section

FROM: Parker Merrill, Existing Source Permits Section

SUBJECT: Evaluation of Permit Application No. **2025-0257-O**
ET Gathering & Processing, LLC
Foster Compressor Station (SIC 4922/NAICS 486210)
Facility ID: 9948
Section 20, Township 2N, Range 3W, Garvin County, Oklahoma
Latitude 34.63062° N and Longitude 97.54297° W
Driving Directions: From the junction of SH-74 and SH-29 in Elmore City,
travel approximately eight (8) miles west. The facility is located on the
north side of the road.

SECTION I. INTRODUCTION

ET Gathering & Processing LLC (ETGP) has requested a minor source operating permit modification for their Foster compressor station in Garvin county, Oklahoma. The facility is currently operating under minor source individual operating permit No. 2012-1198-O (M-1) issued on October 22, 2013, and General Permit for Oil and Gas Facilities (GP-OGF) NOI to construct Authorization No. 2024-0330-NOI, received and issued on May 1, 2024. This permit will replace three of the compressor engines located at the facility whose construction was authorized by Authorization No. 2024-0330-NOI. There are no other as-built changes from the construction permit.

Based on data provided by ETGP, the facility has controlled emissions of 89.62 TPY NO_x, 77.47 TPY CO, 86.17 TPY VOC, and 10.42 TPY HAPs, the most significant being 7.86 TPY H₂CO. The total emissions from the facility are below the major source thresholds. This facility therefore qualifies for a “synthetic minor” permit because the controlled emissions of each of the criteria pollutants are below the major source threshold of 100 TPY and the HAP emissions are below the 10 TPY threshold for a single HAP and below the 25 TPY threshold for any combination of HAPs. On issuance, this permit will be a FESOP.

SECTION II. FACILITY DESCRIPTION

The facility is a natural gas gathering compressor station responsible for the compression of natural gas into a pipeline. Natural gas dehydration and storage of condensate occur on-site as well. Natural gas is transported to the facility via a pipeline gathering system. The gas stream enters the facility through an inlet separator, where water and condensate are removed from the inlet stream. The liquids then flow from the inlet separator into the four (4) 400-bbl condensate storage tanks (TANK1, TANK2, TANK3, and TANK4). The atmospheric tank vents of the condensate storage tanks are routed to the condensate flare (FLARE1), which destructs most working, breathing, and flashing losses. The liquids are removed from the facility via trucks (LOAD1).

The gas stream is then compressed by four (4) 1,380- Hp Caterpillar 3516B LE natural gas-fired engines (COMP1, COMP2, COMP3, and COMP4) and two 1,340-HP (2) Caterpillar 3516TALE natural gas-fired engines (COMP5 and COMP6). Each compressor engine is equipped with an oxidation catalyst. After the inlet gas passes through the compressors, the gas then enters the glycol dehydration unit before exiting the facility for transmission via pipeline. The glycol dehydration unit is used to remove water from the gas before the gas exits the facility.

In the dehydration process, gas passes through the contactor vessel where water will be absorbed by the glycol. The “rich” glycol containing water goes to the TEG reboiler, where heat is used to boil off the water. The heat in the reboiler is supplied by a 1.0-MMBTUH burner, which exhausts to the atmosphere (HEAT1). The dehydrator still vent (DEHY1) is equipped with a condenser and combustion device to reduce VOC and HAP emissions.

SECTION III. EQUIPMENT

ID#	Equipment Type	Size/Rating	Control	Capture/ Control Eff %	Manufacture Date	Subject to NSPS or NESHAP
COMP1	Caterpillar 3516B LE	1,380-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	11/6/2017	NSPS JJJJ & NESHAP ZZZZ
COMP2	Caterpillar 3516B LE	1,380-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	11/17/2012	NSPS JJJJ & NESHAP ZZZZ
COMP3	Caterpillar 3516B LE	1,380-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	11/9/2017	NSPS JJJJ & NESHAP ZZZZ
COMP4	Caterpillar 3516B LE	1,380-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	12/12/2011	NSPS JJJJ & NESHAP ZZZZ
COMP5	Caterpillar 3516 TALE	1,340-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	10/31/2006	NSPS JJJJ & NESHAP ZZZZ
COMP6	Caterpillar 3516 TALE	1,340-hp	Oxidation Catalyst	CO – 70 H ₂ CO – 70	8/2/2007	NSPS JJJJ & NESHAP ZZZZ
COMP1	Reciprocating Compressor	-	-	-	2/2018	NSPS OOOOa
COMP2	Reciprocating Compressor	-	-	-	4/2013	NSPS OOOO

ID#	Equipment Type	Size/Rating	Control	Capture/ Control Eff %	Manufacture Date	Subject to NSPS or NESHAP
COMP3	Reciprocating Compressor	-	-	-	2/2018	NSPS OOOOa
COMP4	Reciprocating Compressor	-	-	-	12/2012	NSPS OOOO
COMP5	Reciprocating Compressor	-	-	-	Pre-8/2011	-
COMP6	Reciprocating Compressor	-	-	-	Pre-8/2011	-
DEHY1	Glycol Dehydrator	50- MMSCFD	Condenser/ Combustion Device	95 Control	-	NESHAP HH
DEHY1	Glycol Dehydrator (uncontrolled 125 hours)	50- MMSCFD	-	0 Control	-	NESHAP HH
HEAT1	Glycol Dehydrator Reboiler	1.0 - MMBTUH	-	-	-	-
TANK1	Condensed Storage Tank	400-bbl	FLARE	98 Capture 98 Control	12/2012	-
TANK2	Condensed Storage Tank	400-bbl	FLARE	98 Capture 98 Control	12/2012	-
TANK3	Condensed Storage Tank	400-bbl	FLARE	98 Capture 98 Control	12/2012	-
TANK4	Condensed Storage Tank	400-bbl	FLARE	98 Capture 98 Control	12/2012	-
FLARE1	Condensate Flare	0.36- MMBTUH	-	-	-	-
LOAD1	Condensate Truck Loading	-	-	-	-	-
FUG1	Process Piping Fugitives	-	-	-	Before 9/18/2015	-
MSS	MSS Emissions	-	-	-	-	-
MSS-BD	Compressor Blowdowns	-	-	-	-	-

SECTION IV. FACILITY-SPECIFIC OR REPRESENTATIVE SAMPLE

TANK

The applicant did not request any emission changes for the tanks' flashing emissions from the last operating permit; therefore, no facility-specific or representative sample is needed for these units.

DEHYDRATION UNIT

Glycol Dehydrator Considerations	Yes	No
The facility submitted a facility-specific extended gas analysis of the inlet gas.	X	
The sample was no older than three (3) calendar years at the time of submittal.	X	

FUGITIVES

Natural Gas Compressor Station (Transmission) Fugitive Considerations	Yes	No
The facility submitted a facility-specific sample of the inlet gas or sales gas.	X	
The facility submitted a representative facility sample of the inlet gas or sales gas from a representative facility that is upstream on the same pipeline from the actual facility.		X
The facility did not submit a liquid sample and assumed 100% VOC content for the liquid service components.	X	
The facility submitted a facility-specific sample of the VOC containing liquid.		X
The sample was no older than three (3) calendar years at the time of submittal.	X	

SECTION V. EMISSIONS

All emissions are calculated based on 8,760 hours per year except for when the dehydration unit is uncontrolled, which has been estimated based on 125 hours per year.

ENGINES

Emissions of NO_x, CO, VOC, and H₂CO are calculated based on manufacturer data and a control efficiency of 70% for CO and H₂CO. VOC emission factor includes H₂CO.

Engine Emission Factors

ID#	NO_x	CO	VOC ⁽¹⁾	H₂CO
	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr
COMP1 ⁽²⁾	0.70	1.00	0.70	0.105
COMP2 ⁽²⁾	0.70	1.00	0.70	0.105
COMP3 ⁽²⁾	0.70	1.00	0.70	0.105
COMP4 ⁽²⁾	0.70	1.00	0.70	0.105
COMP5 ⁽³⁾	2.00	0.90	0.50	0.087
COMP6 ⁽³⁾	2.00	0.90	0.50	0.087

⁽¹⁾ Includes formaldehyde emissions.

⁽²⁾ Equipped with an oxidation catalyst. Fuel consumption is 7,989 Btu/hp-hr.

⁽³⁾ Equipped with an oxidation catalyst. Fuel consumption is 8,496 Btu/hp-hr.

Engine Emissions

ID#	NO_x		CO		VOC ⁽¹⁾		H₂CO	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
COMP1	2.13	9.33	3.04	13.33	2.13	9.33	0.32	1.40
COMP2	2.13	9.33	3.04	13.33	2.13	9.33	0.32	1.40
COMP3	2.13	9.33	3.04	13.33	2.13	9.33	0.32	1.40

ID#	NO _x		CO		VOC ⁽¹⁾		H ₂ CO	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
COMP4	2.13	9.33	3.04	13.33	2.13	9.33	0.32	1.40
COMP5	5.91	25.88	2.66	11.65	1.48	6.47	0.26	1.13
COMP6	5.91	25.88	2.66	11.65	1.48	6.47	0.26	1.13

⁽¹⁾ Includes formaldehyde emissions.

GLYCOL DEHYDRATOR AND REBOILER

The TEG dehydration unit has three components which are emission sources: the reboiler exhaust stack, the flash tank, and the still vent. Emissions estimates from the reboiler were based on factors from AP-42 (7/98), Section 1.4; these emissions are uncontrolled. The emissions from the flash tank and the still vent were based on GRI-GLYCalc Version 4.0, , extended gas analysis data, a maximum natural gas throughput of 50.0 MMSCFD, a maximum glycol circulation rate of 15 gpm, and a safety factor of 100%. The glycol dehydrator still vent is equipped with a condenser with uncondensed vapors directed to a combustion device. The controlled still vent emissions were calculated with 95% overall combustion efficiency to reflect the combustion of uncondensed vapors in the reboiler or, when the reboiler is not firing, by the glow plugs/igniters. Controlled VOC and HAP emissions were calculated with 100% safety factor to account for variability in the gas composition.

Flash tank emissions are routed to fuel the reboiler and, when the reboiler is not firing, the emissions are recycled upstream to the inlet station. The applicant assumed this to be the equivalent of 100% control efficiency for VOC and HAP emissions. The use of the 100% control efficiency for VOC is justified, because the flash tank emissions are used as fuel for the reboiler heater.

Glycol dehydration unit emits benzene, toluene, ethyl benzene, xylene (BTEX), and n-hexane from the glycol dehydrator still vent. These compounds are regulated as hazardous air pollutants.

Glycol Dehydrator Emissions

Parameter	Data
Type of Glycol	TEG
Gas Flow Rate, MMSCFD	50
Glycol Pump Type	Gas Injection
Lean Glycol Pump Design Capacity, gpm	15
Lean Glycol Circulation Rate Input, gpm	15
Regenerator Vent	
Control Type or Recycle	Condenser/Combustion Device
Condenser Outlet Temperature, °F	100
Uncontrolled Emissions, TPY	191.12
Overall Combustion Efficiency, %	95
VOC Emissions, TPY	7.99 ⁽¹⁾
Flash Tank	

Parameter	Data
Flash Tank Temperature, °F	100
Flash Tank Pressure, psig	75
Uncontrolled VOC Emissions, TPY	487.68
Control Type or Recycle	Route to Inlet
Overall Control Efficiency, %	100
VOC Emissions, TPY	0
Total Emissions, TPY ⁽¹⁾	
VOC	7.99 ⁽¹⁾

⁽¹⁾ Includes a 100% factor of safety.

Global Uncontrolled Dehydrator Emissions

Pollutant	Uncontrolled Still Vent (lb/hr)	Uncontrolled Flash Tank (lb/hr)	Uncontrolled	Total Emission Rates (TPY)
n-Hexane	1.14	1.81	125 hrs/yr	0.18
Benzene	2.97	0.14	125 hrs/yr	0.19
Toluene	5.34	0.15	125 hrs/yr	0.34
Ethyl Benzene	0.15	0.002	125 hrs/yr	0.01
Xylene	9.81	0.10	125 hrs/yr	0.62
Total HAPs	19.40	2.21	125 hrs/yr	1.34
Total VOC	43.64	111.34	125 hrs/yr	9.69

Dehydration Unit Still Vent HAPs Emissions

Pollutant	Uncontrolled Emissions, TPY	Overall Combustion Efficiency, %	Controlled ⁽¹⁾ Emissions, TPY
Benzene	12.99	95%	0.44
Toluene	23.38	95%	0.34
Ethylbenzene	0.67	95%	0.004
Xylene	42.95	95%	0.19
n-Hexane	4.97	95%	0.24
Total HAP	84.97	95%	1.21

⁽¹⁾ Includes a 100% factor of safety.

Reboiler Emissions Factors

ID#	Pollutant	Emission Factors (lb/MMSCF)	Emission Factors (lb/MMBtu)	Burner Rate (MMBtu/hr)	Emissions (TPY)
HEAT1	NO _x	100.0	0.10	1.00	0.43
	CO	84.0	0.08	1.00	0.36
	VOC	5.5	0.01	1.00	0.02

TANKS

Working and breathing losses for the four (4) 400-bbl condensate storage tanks were calculated as gasoline RVP 10 using AP-42 (6/20) Ch. 7.1. Flash losses were based on the HYSYS process simulation method.

Tank Emissions

Parameter	TANK1 Data	TANK2 Data	TANK3 Data	TANK4 Data
Throughput, gal/yr	315,000	315,000	315,000	315,000
Liquid in Tank	Condensate	Condensate	Condensate	Condensate
Flash Calculation Method/Tool	HYSYS process	HYSYS process	HYSYS process	HYSYS process
Working/Breathing Method/Tool	AP-42 (6/20) Ch. 7.1	AP-42 (6/20) Ch. 7.1	AP-42 (6/20) Ch. 7.1	AP-42 (6/20) Ch. 7.1
Turnover Factor (K_N)	1.00	1.00	1.00	1.00
Working/Breathing Emissions, TPY	2.05	2.05	2.05	2.05
Flashing Emissions, TPY	9.08	9.08	9.08	9.08
Control Type	FLARE1	FLARE1	FLARE1	FLARE1
Capture Efficiency, %	100	100	100	100
Control Efficiency, %	98	98	98	98
Tank VOC Emitted at Tank, TPY ⁽¹⁾	0.22	0.22	0.22	0.22
Tank VOC Emitted at Flare, TPY	0.22	0.22	0.22	0.22
Total VOC Emissions, TPY	0.22	0.22	0.22	0.22

⁽¹⁾ These are fugitive emissions from the thief hatches.

TRUCK LOADING

Emissions from condensate storage tanks loading into tank trucks were estimated using AP-42 (6/08), Section 5.2-4, Equation 1 with characteristics of condensate from AP-42 (6/20) Ch. 7.1 results, and maximum condensate throughput of 1,260,000 gallons per year.

Loading Parameters and Emissions

Parameter	LOAD1
Liquids Loaded	Condensate
Throughput, gal/yr	1,260,000
Saturation Factor	0.6
Temp., °F	62.56
TVP, psia	6.39
MW, lb/lbmol	66
Emission Factor, lb/10 ³ gal	6.032
VOC Emissions, TPY	3.80

FLARE

Flare emissions factors for NO_x and CO are based on AP-42 (02/18), Table 13.5-1 with a 0.37 MMBTUH burner rating. VOC emissions are estimated based on the flare pilot feed rate, gas analysis, and emissions routed to flare from the condensate storage tanks with a 98% capture and destruction efficiency.

Flare Combustion Emissions

ID#	Total Gas Combusted MMBTUH	Emission Factor lb/MMBTU			NO _x TPY	CO TPY	VOC TPY
		NO _x	CO	VOC			
FLARE1	0.36	0.068	0.31	-	0.11	0.50	-

Flare Emissions

ID#	Process Point(s)	VOC Emissions, TPY
FLARE1	TANK1-TANK4	0.88
FLARE1	Flare Pilot ⁽¹⁾	0.05 ⁽¹⁾

⁽¹⁾ Calculated based on the pilot gas flow of 30 SCFH.

FUGITIVE

Emissions from fugitive equipment leaks (FUG1) are based on EPA's "Protocol for Equipment Leak Emission Estimates" (11/95, EPA-453/R-95-017), an estimated number of components, and the VOC (C₃₊) content of the materials handled. Additionally, fugitive tank emissions from thief hatches are calculated based on a conservatively assumed 2% of the total tank emissions prior to controls.

Fugitive Emissions

ID#	VOC, TPY
FUG1	8.71

MAINTENANCE, STARTUPS, AND SHUTDOWN

Maintenance, startup, and shutdown (MSS) events consist of blowdown emissions from various processes, pipeline pigging and purging activities, and maintenance activities from various processes. Emissions are based on TCEQ Oil and Gas Emissions Workbook dated October 2014 <https://www.tceq.texas.gov/permitting/air/newsourcereview/chemical/og-req5.html>. Within the workbook ET has relied on the defaults from the MSS Defaults spreadsheet tab and the facility gas analysis.

Maintenance, Startup, and Shutdown Emissions

ID#	VOC, TPY
MSS	0.27
MSS-BD	4.52

FACILITY-WIDE EMISSIONS**Facility Wide Emissions of Criteria Pollutants**

ID#	Description	NO_x (lb/hr)	NO_x (TPY)	CO (lb/hr)	CO (TPY)	VOC (lb/hr)	VOC (TPY)
COMP1	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹
COMP2	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹
COMP3	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹
COMP4	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹
COMP5	1,340 Hp Caterpillar 3516 TALE Engine w/ Oxidation Catalyst	5.91	25.88	2.66	11.65	1.48 ¹	6.47 ¹
COMP6	1,340 Hp Caterpillar 3516 TALE Engine w/ Oxidation Catalyst	5.91	25.88	2.66	11.65	1.48 ¹	6.47 ¹
DEHY1	50.0 MMSCFD TEG Glycol Dehydrator ²	---	---	---	---	1.82	7.99
DEHY1	50.0 MMSCFD TEG Glycol Dehydrator ³	---	---	---	---	154.98	9.69
HEAT1	1.0 MMBTUH Dehydrator Reboiler	0.10	0.43	0.01	0.36	0.01	0.02
TANK1	400 bbl Condensate Storage Tank	100% Capture ⁴					
TANK2	400 bbl Condensate Storage Tank						
TANK3	400 bbl Condensate Storage Tank						
TANK4	400 bbl Condensate Storage Tank						
FLARE1	0.37 MMBTUH Flare	0.03	0.11	0.11	0.50	0.21	0.93 ⁵
LOAD1	Condensate Truck Loading	---	---	---	---	---	3.80
FUG1	Fugitive Emissions ⁴	---	---	---	---	1.99	8.71
MSS	Maintenance, Startup, and Shutdown	---	---	---	---	---	0.27
MSS-BD	Compressor Blowdowns	---	---	---	---	---	4.52
Total Emissions		20.47	89.62	17.67	77.48	170.49	86.19
Previous Total Emissions		20.22	88.61	20.12	88.17	20.51	89.90
Change in Emissions		0.25	1.01	-2.45	-10.69	149.98	-3.71

1 Includes H₂CO.

2 Glycol dehydrator with condenser and combustion device.

3 Glycol dehydrator emissions based on 125 hours per year operating without any control.

4 Thief hatch emissions are considered to be fugitive.

5 Uncombusted VOC emissions from the tanks and released at the flare are represented at FLARE1.

HAP EMISSIONS

Pollutant	TPY
Formaldehyde (H ₂ CO) ⁽¹⁾	7.86
Benzene ⁽²⁾	0.63
Toluene ⁽²⁾	0.68
Ethylbenzene	0.01
Xylene ⁽²⁾	0.81
n-Hexane	0.42
Total HAP⁽²⁾	10.41

⁽¹⁾Engines are equipped with an oxidation catalyst. Formaldehyde emissions as represented are synthetic minor.

⁽²⁾Uncontrolled Benzene, Toluene, and Xylene emissions from the dehydration unit exceed the major source threshold and these pollutants along with Total HAP are synthetic minor.

Since controlled emissions of any criteria pollutant are less than 100 TPY, controlled emissions of any single HAP are less than 10 TPY, and controlled emissions of total HAP are less than 25 TPY, the facility is not a major source. The engines will have limits on Formaldehyde emissions establishing the synthetic minor status. Total HAP emissions from the dehydration unit will be limited to less than 10 TPY; therefore, individual HAP limits for BTEX and n-Hexane emissions will be constrained to synthetic minor status by the total HAP emission limit.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories have been submitted and fees paid for previous years as required.

OAC 252:100-7 (Permits for Minor Facilities) [Applicable]
Subchapter 7 sets forth the permit application fees and the basic substantive requirements of permits for minor facilities. Since controlled criteria pollutant emissions are less than 100 TPY for each pollutant, and emissions of HAP will not exceed 10 TPY for any one HAP or 25 TPY for any aggregate of HAP, the facility is defined as a “synthetic minor” source.

OAC 252:100-9 (Excess Emission Reporting Requirements) [Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning)

[Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter)

[Applicable]

Section 19-4 regulates emissions of PM from fuel-burning equipment. Particulate emission limits are based on maximum design heat input rating. Appendix C specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from fuel-burning equipment with a rated heat input of 10 MMBTUH or less. OAC 252:100, Appendix C specifies a PM emission limitation for all equipment at this facility with a heat input rating of greater than 10-MMBTUH, but less than 1,000-MMBTUH based on the following calculation: $E = 1.0428080X^{-0.238561}$, where E is the allowable emission rate and X is the maximum heat input. AP-42, Table 1.4-2 (7/98) lists the total PM emissions for natural gas to be 7.6 lb/MMft³ or about 0.0076 lb/MMBTU. AP-42 (7/00), Table 3.2, list the total PM emissions for natural gas to be 0.00991 lb/MMBTU for four-cycle rich burn engines and 0.00991 lb/MMBTU for four-cycle lean-burn engines. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

ID#	Equipment	Maximum Heat Input (MMBTUH)	Emissions (lb/MMBTU)	
			Appendix C	Potential
COMP1	1,380-hp Caterpillar 3516B LE ⁽¹⁾	11.02	0.59	0.01
COMP2	1,380-hp Caterpillar 3516B LE ⁽¹⁾	11.02	0.59	0.01
COMP3	1,380-hp Caterpillar 3516B LE ⁽¹⁾	11.02	0.59	0.01
COMP4	1,380-hp Caterpillar 3516B LE ⁽¹⁾	11.02	0.59	0.01
COMP5	1,340-hp Caterpillar 3516TALE ⁽¹⁾	11.38	0.58	0.01
COMP6	1,340-hp Caterpillar 3516TALE ⁽¹⁾	11.38	0.58	0.01
HEAT1	1.0-MMBTUH Glycol Dehydrator Reboiler	1.0	0.60	<0.01

⁽¹⁾ Equipped with an oxidation catalyst.

OAC 252:100-25 (Visible Emissions and Particulates)

[Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed

60% opacity. When burning natural gas there is very little possibility of exceeding these standards.

OAC 252:100-29 (Fugitive Dust)

[Applicable]

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. Under normal operating conditions, this facility has negligible potential to violate this requirement; therefore, it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds)

[Applicable]

Part 2 limits the ambient air concentration of H₂S emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 µg/m³. Based on modeling conducted for the general permit for oil and gas facilities, the ambient impacts of H₂S from oil and gas facilities combusting natural gas with a maximum H₂S content of 162 ppmv and storing condensate or sweet crude oil will be in compliance with the H₂S ambient air concentration limit. Part 5 limits sulfur dioxide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000-BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. Gas produced from oil and gas wells having 162 ppmv or less total sulfur will ensure compliance with Subchapter 31. The permit requires the use of pipeline-grade natural gas or field gas with a maximum sulfur content of 162 ppmv for all fuel-burning equipment to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides)

[Not Applicable]

This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NO_x per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide)

[Not Applicable]

None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds)

[Applicable]

Part 3 requires new storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and containing a VOC with a vapor pressure greater than 1.5-psia at maximum storage temperature to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The condensate tanks are subject to this requirement.

Part 3 requires loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. The facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.

Part 5 limits the VOC content of coatings used in coating operations. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment which is exempt.

Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The equipment at this location is subject to this requirement.

Part 7 requires all effluent water separator openings, which receive water containing more than 200 gallons per day of any VOC, to be sealed or the separator to be equipped with an external floating roof or a fixed roof with an internal floating roof or a vapor recovery system. No effluent water separators are located at this facility.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]

This subchapter regulates TAC that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no AOC has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Sampling and Testing Methods) [Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

SECTION VII. FEDERAL REGULATIONS

NSPS, 40 CFR Part 60 [Subparts JJJJ & OOOO Applicable]

Subpart K, Ka, Kb, VOL Storage Vessels. This subpart regulates hydrocarbon storage tanks larger than 19,813 gallons capacity and built after July 23, 1984. The four 400-bbl condensate tanks at the site have capacities less than the threshold, 19,813 gallons. Therefore, this subpart is not applicable.

Subpart GG, Stationary Gas Turbines. This subpart sets standards for stationary gas turbines; however, the compressors here are powered by reciprocating engines.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI). This facility is not a SOCMI plant.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. This subpart sets standards for natural gas processing plants which are defined as any site engaged in the extraction of natural gas liquids from field gas, fractionation of natural gas liquids, or both.

This facility is not a gas plant.

Subpart LLL, Onshore Natural Gas Processing: SO₂ Emissions. This subpart sets standards for natural gas sweetening units. There are no sweetening units at this facility.

Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). This subpart affects CI ICE manufactured after 2007. There are no CI ICE located at this facility.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE), promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and manufacture date. SI ICE with a maximum engine power greater than 500 Hp that are manufactured on or after July 1, 2010 will be subject to the following standards: 1.0 g/hp-hr NO_x, 2.0 g/hp-hr CO, and 0.7 g/hp-hr VOC. Compliance with the emission limitations can be achieved by purchasing a certified engine, installing and operating the engine according to the manufacturer's written instructions, and using fuels within the fuel specifications allowed by the manufacturer. In lieu of purchasing a certified engine, an owner or operator can conduct performance testing in accordance with §60.4243(b)(2). All six engines, COMP1 to COMP6, were manufactured after June 12, 2006, and are subject to this subpart; but because COMP5 and COMP6 were manufactured before July 1, 2008, there are no applicable requirements under this subpart.

Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Facilities. This subpart affects the following onshore affected facilities that commence construction, reconstruction, or modification after August 23, 2011, and on or before September 18, 2015:

- (a) Each gas well affected facility, which is a single natural gas well.
- (b) Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.
- (c) Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.
- (d) Each pneumatic controller affected facility, which is:
 - (1) For the oil production segment (between the wellhead and the point of custody transfer to an oil pipeline): a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 SCFH.
 - (2) For the natural gas production segment (between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not including natural gas processing plants): a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 SCFH.
 - (3) For natural gas processing plants: a single continuous bleed natural gas-driven pneumatic controller.
- (e) Each storage vessel affected facility, which is a single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment. On April 12, 2013, EPA proposed revisions to NSPS, Subpart OOOO

revising the affected facilities to only those storage vessels that have a potential to emit more than 6 TPY and revising the definition to only include those storage vessels that contain crude oil, condensate, intermediate hydrocarbon liquids, or produced water.

- (f) The group of all equipment, except compressors, within a process unit is an affected facility.
 - (1) Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
 - (2) Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§ 60.5400, 60.5401, 60.5402, 60.5421, and 60.5422 if it is located at an onshore natural gas processing plant.
- (g) Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.
 - (1) Each sweetening unit that processes natural gas is an affected facility; and
 - (2) Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.
 - (3) Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and §§60.5410(g) and 60.5415(g) of this subpart.

There are no gas wells at this facility, there are no natural gas-driven pneumatic controllers operating at a natural gas bleed rate greater than 6 SCFH at this facility, this facility is not a gas plant, and there are no sweetening units at this facility. All (4) condensate storage tanks commenced construction after August 23, 2011, but before September 18, 2015; however, per the application for a GP-OGF Authorization No. 2024-0330-NOI, the applicant requested an enforceable limit on the storage tanks (TANK1-TANK4) to avoid applicability under NSPS Subpart OOOO. The two (2) reciprocating compressors associated with COMP2 and COMP4 commenced construction after August 23, 2011, but before September 18, 2015, and are subject to this Subpart. Additionally, the two (2) reciprocating compressors associated with COMP1 and COMP3 commenced construction after September 18, 2015, and are not subject to this Subpart. Finally, the two (2) reciprocating compressors associated with COMP5 and COMP6 commenced construction prior to August 23, 2011, and are also not subject to this Subpart.

Subpart OOOOa, Crude Oil and Natural Gas Facilities for which construction, modification, or reconstruction commenced after September 18, 2015, and on or before December 6, 2022. This subpart affects the following onshore affected facilities:

- (a) Each well affected facility, which is a single well that conducts a well completion operation following hydraulic fracturing or refracturing.
- (b) Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.
- (c) Each reciprocating compressor affected facility, which is a single reciprocating compressor. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

- (d) Each pneumatic controller affected facility:
 - (1) Each pneumatic controller affected facility not located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 SCFH.
 - (2) Each pneumatic controller affected facility located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller.
- (e) Each storage vessel affected facility, which is a single storage vessel with the potential for VOC emissions equal to or greater than 6 TPY as determined according to §60.5365a(e).
- (f) The group of all equipment within a process unit located at an onshore natural gas processing plant is an affected facility. Equipment within a process unit of an affected facility located at onshore natural gas processing plants are exempt from this subpart if they are subject to and controlled according to Subparts VVa, GGG, or GGGa.
- (g) Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.
- (h) Each pneumatic pump affected facility:
 - (1) For natural gas processing plants, each pneumatic pump affected facility, which is a single natural gas-driven diaphragm pump.
 - (2) For well sites, each pneumatic pump affected facility, which is a single natural gas-driven diaphragm pump.
- (i) The collection of fugitive emissions components at a well site, as defined in §60.5430a, is an affected facility, except as provided in § 60.5365a(i)(2).
- (j) The collection of fugitive emissions components at a compressor station, as defined in § 60.5430a, is an affected facility.

There are no wells at this facility, there are no natural gas-driven pneumatic controllers operating at a natural gas bleed rate greater than 6 SCFH at this facility, this facility is not a gas plant, and there are no sweetening units at this facility. There are no storage tanks commenced construction on-site after September 18, 2015. The two (2) reciprocating compressors associated with COMP1 and COMP3 commenced construction after September 18, 2015, and before December 6, 2022; therefore, they are subject to this Subpart.

Additionally, since the facility commenced construction prior to September 18, 2015, the fugitive emission components located at the facility are not subject to the applicable requirements of this Subpart.

Subpart OOOOb, Crude Oil and Natural Gas Facilities. NSPS Subpart OOOOb was signed on November 30, 2023, and published in the Federal Register on March 8, 2024. The rule became effective on May 7, 2024. NSPS Subpart OOOOb is applicable to affected facilities in the crude oil and natural gas source category that commenced construction, modification, or reconstruction on or after December 6, 2022. The facility commenced operation prior to December 6, 2022, and with no subsequent modifications or reconstructed after the applicability date. Therefore, the facility is not subject to the subpart.

At the time of permit issuance, NSPS Subpart OOOOb is currently under review by EPA. If federal legislation, rulemaking, or a court ruling invalidates all, or part of, OOOOb, the invalidated portions will no longer be applicable through this permit. In the interim, DEQ will exercise enforcement discretion as appropriate.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, only applies to process streams which contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63

[Subparts HH & ZZZZ Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities that are major and area sources of HAPs and either process, upgrade, or store hydrocarbons prior to the point of custody transfer or prior to which the natural gas enters the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant. If no natural gas plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer. TEG dehydration units with an actual annual average flow rate of less than 3 MMSCFD or less than 1 TPY of benzene emissions are exempt from control standards, but are subject to recordkeeping. GRI-GLYCalc Version 4.0 or higher may be used to show that benzene emissions are less than 1 TPY, or a direct measurement can be made. Even though the new TEG dehydration unit at this facility is considered an affected area source it is exempt from the requirements of § 63.764(d)(2) since the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 1 TPY, as determined by the procedures specified in § 63.772(b)(2). However, the facility must maintain records of the de minimis determination as required in § 63.774(d)(1). All applicable requirements have been incorporated into the permit.

Subpart HHH, Natural Gas Transmission and Storage. This subpart was published in the Federal Register on June 17, 1999, and affects Natural Gas Transmission and Storage Facilities. It applies to affected emission points that are located at facilities that are major sources of HAPs, as defined in this subpart, and that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user. This facility is a minor source of HAPs.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of the following new or reconstructed RICE must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines). The six engines were constructed after June 12, 2006, and will comply with this subpart by complying with 40 CFR Part 60, Subpart JJJJ requirements. All applicable requirements have been incorporated into the permit.

Subpart DDDDD, Industrial Boilers and Process Heaters. Subpart DDDDD regulated HAP emissions from industrial boilers and process heaters. Not subject to this subpart because this facility is an area source.

Subpart JJJJJ, Industrial, Commercial, and Institutional Boilers. This subpart affects new and existing boilers located at area sources of HAP, except for gas-fired boilers. Boiler means an enclosed device using controlled flame combustion in which water is heated to recover thermal

energy in the form of steam or hot water. The reboiler at this facility meets the definition of gas-fired boilers and is not subject to this subpart.

SECTION VIII. COMPLIANCE

TIER CLASSIFICATION AND PUBLIC REVIEW

This application has been determined to be **Tier I** based on the request for a modification of a minor operating permit that did not undergo the FESOP Enhanced NSR Process. Information on all permit actions is available for review by the public in the Air Quality Section of the DEQ web page: <https://oklahoma.gov/deq.html>.

The draft permit will undergo public notice on the DEQ's website as required in OAC 252:4-7-13(g). The public, tribal governments, and the EPA will have 30 days to comment on the draft permit. Permits available for public review and comment are found at this location: <https://applications.deq.ok.gov/PermitsPublicReview/>.

The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land used to accomplish the permitted purpose.

FEE PAID

The applicant submitted a total of \$2,250 in fees to cover the difference between the individual minor facility construction permit application fee (\$2,000) and the minor facility general permit authorization to construct application fee (\$500) and to cover the individual minor facility operating permit application fee (\$750).

COMPLIANCE AND ENFORCEMENT CASE

There are no active Air Quality compliance or enforcement issues concerning this facility.

INSPECTION

A full compliance evaluation was conducted on February 6, 2024. Bobbi Franklin met with Sean Walker, Sr. Environmental Specialist, for the on-site inspection from 0945 hours to 1010 hours. No violations of Air Quality rules were noted. Since the modification did not increase the criteria pollutants by 50 TPY, an inspection was not necessary for the issuance of the permit.

TESTING RESULTS

The applicant submitted semi-annual engine test results for COMP1-COMP6. The emissions test results are listed in the following table and results demonstrate that engine emissions are within the authorized limits.

Sources	Serial #	Test Date	NOx (lb/hr)		CO (lb/hr)	
			Test	Limit	Test	Limit
COMP1	N6E00540	10/9/2024	0.94	2.13	0.35	3.04
COMP2	JEF02003	10/9/2024	1.12	2.13	0.24	3.04
COMP3	N6E00541	10/14/2024	1.09	2.13	0.20	3.04

COMP4	JEF01446	7/17/2024	0.76	2.13	0.20	3.04
COMP5	WPW00475	7/17/2024	2.41	5.91	0.19	2.66
COMP6	WPW01546	8/26/2024	4.02	5.91	0.06	2.66

SECTION IX. SUMMARY

The applicant has demonstrated the ability to comply with the requirements of the applicable Air Quality rules and regulations. Ambient air quality standards do not appear to be threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the FESOP is recommended, contingent on public review.

**PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

**ET Gathering & Processing LLC
Foster Compressor Station**

FESOP No. 2025-0257-O

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on March 26, 2025. The Evaluation Memorandum dated December 2, 2025, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operation under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and emissions limitations for each point:

ID#	Description	NO _x		CO		VOC		H ₂ CO	Total HAPs
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY	TPY
COMP1	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹	1.40	1.40
COMP2	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹	1.40	1.40
COMP3	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹	1.40	1.40
COMP4	1,380 Hp Caterpillar 3516B LE Engine w/ Oxidation Catalyst	2.13	9.33	3.04	13.33	2.13 ¹	9.33 ¹	1.40	1.40
COMP5	1,340 Hp Caterpillar 3516 TALE Engine w/ Oxidation Catalyst	5.91	25.88	2.66	11.65	1.48 ¹	6.47 ¹	1.13	1.13
COMP6	1,340 Hp Caterpillar 3516 TALE Engine w/ Oxidation Catalyst	5.91	25.88	2.66	11.65	1.48 ¹	6.47 ¹	1.13	1.13
DEHY	50.0 MMSCFD TEG Dehydrator ²	---	---	---	---	---	7.99	---	1.21
DEHY (uncontrolled)	50.0 MMSCFD TEG Dehydrator ³	---	---	---	---	---	9.69	---	1.34
HEAT1	1.0 MMBTUH Dehydrator Reboiler	---	0.43	---	0.36	---	0.02	---	---
FLARE1	0.37 MMBTUH Flare	---	0.11	---	0.50	---	0.93	---	---
LOAD1	Condensate Truck Loading	---	---	---	---	---	3.80	---	---
MSS	MSS Emissions	---	---	---	---	---	4.79	---	---

1 Includes H₂CO.

2 Glycol dehydrator with condenser and combustion device.

3 Glycol dehydrator emissions based on 125 hours per year operating without any control.

(a) Compliance with the CO emission limits for the engines in this permit is deemed compliance with the formaldehyde emission limits. This permit requires periodic testing of CO emissions from the engines to demonstrate compliance with the H₂CO limits.

Tank FEL and Flare Emissions

	Tank Release Point (TPY)	FLARE1 Release Point (TPY)
TANK1	100% Capture ¹	0.22 ²
TANK2		0.22 ²
TANK3		0.22 ²
TANK4		0.22 ²
FLARE1	Uncombusted Pilot Gas	0.05
Total		0.93

1 Thief hatch emissions are fugitive

2 Uncombusted emissions from the tanks that are released at the flare are represented at FLARE1.

2. The fuel-burning equipment shall use pipeline-grade natural gas or other gaseous fuel with a maximum sulfur content of 162 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once every calendar year.
3. The permittee shall be authorized to operate the facility 24 hours per day, every day of the year (8,760 hours).
4. Each engine shall have permanent identification plates attached, which show the make, model number, and serial number.
5. Each engine shall be operated with exhaust gas passing through a properly functioning oxidation catalyst.
6. The permittee shall conduct an initial test of NO_x and CO emissions from any engine listed in S.C. #1 or any replacement engine; other than (1) an Emergency Use Engine (i.e., any engine that drives a generator or firewater pump, or other emergency use equipment and operates no more than 500 hours per year), or (2) any engine equal to or less than 250 horsepower (hp). The initial test must be performed within 180 days of engine startup. Testing shall be conducted using EPA reference methods, if applicable, or a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD "Portable Analyzer Guidance" document, or an equivalent method approved by AQD.

At least twice per calendar year, the permittee shall conduct tests of NO_x and CO emissions from any controlled engine greater than 250 hp. Testing shall be conducted using EPA reference methods, if applicable, or a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD "Portable Analyzer Guidance" document, or an equivalent method approved by AQD. Testing is required for any controlled engine greater than 250 hp that runs for more than 440 hours during a semi-annual period. A semi-annual period is defined as a calendar semi-annual period (i.e., January through June & July through December). Each semi-annual test shall be separated by at least 120 days. In the first year of operation, any engine started after March 31st only requires one test regardless of hours operated. The initial test may be counted as the first semi-annual test of an engine.

Replacement of any equipment with emissions specified in this permit are authorized under OAC 252:100-7-15(a)(2)(C), provided the replacement unit does not require a change in any emission limit and the owner or operator notifies the DEQ in writing within fifteen (15) days of the startup of the replacement unit. The replacement unit shall meet the definition under OAC 252:100-7-1.1. Installation of an "affected facility," "affected source," or "new source" as those terms are defined in 40 CFR Section 60.2, 40 CFR Section 63.2, and 40 CFR Section 61.02, respectively, that is subject to an emission standard, equipment standard, work practice standard or recordkeeping requirement in a federal NSPS (40 CFR Part 60) or a federal NESHAP (40 CFR Parts 61 and 63) shall comply with all applicable requirements.

7. When periodic compliance testing shows engine exhaust emissions in excess of the lb/hr limits in Specific Condition Number 1, the permittee shall comply with the provisions of OAC 252:100-9 for excess emissions.
8. The permittee shall comply with all applicable requirements of the NSPS for Stationary Spark Ignition Internal Combustion Engines, Subpart JJJJ, for each affected engine including but not limited to the following:
 - a. 60.4230 Am I subject to this subpart?
 - b. 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?
 - c. 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?
 - d. 60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?
 - e. 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?
 - f. 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?
 - g. 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - h. 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?
 - i. 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - j. 60.4246 What parts of the General Provisions apply to me?
 - k. 60.4248 What definitions apply to this subpart?
9. Permittee shall comply with NSPS, 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, for all affected facilities located at this site.
 - a. § 60.5360 What is the purpose of this subpart?
 - b. § 60.5365 Am I subject to this subpart?

- c. § 60.5370 When must I comply with this subpart?
- d. § 60.5375 What standards apply to gas well affected facilities?
- e. § 60.5380 What standards apply to centrifugal compressor affected facilities?
- f. § 60.5385 What standards apply to reciprocating compressor affected facilities?
- g. § 60.5390 What standards apply to pneumatic controller affected facilities?
- h. § 60.5395 What standards apply to storage vessel affected facilities?
- i. § 60.5400 What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?
- j. § 60.5401 What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plants?
- k. § 60.5402 What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?
- l. § 60.5405 What standards apply to sweetening units at onshore natural gas processing plants?
- m. § 60.5406 What test methods and procedures must I use for my sweetening units affected facilities at onshore natural gas processing plants?
- n. § 60.5407 What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?
- o. § 60.5408 What is an optional procedure for measuring hydrogen sulfide in acid gas-Tutwiler Procedure?
- p. § 60.5410 How do I demonstrate initial compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?
- q. § 60.5411 What additional requirements must I meet to determine initial compliance for my closed vent systems routing emissions from storage vessels or centrifugal compressor wet seal fluid degassing systems?
- r. § 60.5412 What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my storage vessel or centrifugal compressor affected facility?
- s. § 60.5413 What are the performance testing procedures for control devices used to demonstrate compliance at my storage vessel or centrifugal compressor affected facility?
- t. § 60.5415 How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?
- u. § 60.5416 What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my storage vessel or centrifugal compressor affected facility?
- v. § 60.5417 What are the continuous control device monitoring requirements for my storage vessel or centrifugal compressor affected facility?
- w. § 60.5420 What are my notification, reporting, and recordkeeping requirements?
- x. § 60.5421 What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?

- y. § 60.5422 What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
 - z. § 60.5423 What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?
 - aa. § 60.5425 What parts of the General Provisions apply to me?
 - bb. § 60.5430 What definitions apply to this subpart?
10. The permittee shall comply with all applicable requirements in 40 CFR Part 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, for all affected facilities located at this site.
- a. § 60.5360a What is the purpose of this subpart?
 - b. § 60.5365a Am I subject to this subpart?
 - c. § 60.5370a When must I comply with this subpart?
 - d. § 60.5375a What GHG and VOC standards apply to well affected facilities?
 - e. § 60.5380a What GHG and VOC standards apply to centrifugal compressor affected facilities?
 - f. § 60.5385a What GHG and VOC standards apply to reciprocating compressor affected facilities?
 - g. § 60.5390a What GHG and VOC standards apply to pneumatic controller affected facilities?
 - h. § 60.5393a What GHG and VOC standards apply to pneumatic pump affected facilities?
 - i. § 60.5395a What VOC standards apply to storage vessel affected facilities?
 - j. § 60.5397a What fugitive emissions GHG and VOC standards apply to the affected facility which is the collection of fugitive emissions components at a well site and the affected facility which is the collection of fugitive emissions components at a compressor station?
 - k. § 60.5398a What are the alternative means of emission limitations for GHG and VOC from well completions, reciprocating compressors, the collection of fugitive emissions components at a well site and the collection of fugitive emissions components at a compressor station?
 - l. § 60.5400a What equipment leak GHG and VOC standards apply to affected facilities at an onshore natural gas processing plant?
 - m. § 60.5401a What are the exceptions to the equipment leak GHG and VOC standards for affected facilities at onshore natural gas processing plants?
 - n. § 60.5402a What are the alternative means of emission limitations for GHG and VOC equipment leaks from onshore natural gas processing plants?
 - o. § 60.5405a What standards apply to sweetening unit affected facilities at onshore natural gas processing plants?
 - p. § 60.5406a What test methods and procedures must I use for my sweetening unit affected facilities at onshore natural gas processing plants?
 - q. § 60.5407a What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?
 - r. § 60.5408a What is an optional procedure for measuring hydrogen sulfide in acid gas-Tutwiler Procedure?

- s. § 60.5410a How do I demonstrate initial compliance with the standards for my well, centrifugal compressor, reciprocating compressor, pneumatic controller, pneumatic pump, storage vessel, collection of fugitive emissions components at a well site, collection of fugitive emissions components at a compressor station, and equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?
 - t. § 60.5411a What additional requirements must I meet to determine initial compliance for my covers and closed vent systems routing emissions from centrifugal compressor wet seal fluid degassing systems, reciprocating compressors, pneumatic pumps and storage vessels?
 - u. § 60.5412a What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my centrifugal compressor, and storage vessel affected facilities?
 - v. § 60.5413a What are the performance testing procedures for control devices used to demonstrate compliance at my centrifugal compressor and storage vessel affected facilities?
 - w. § 60.5415a How do I demonstrate continuous compliance with the standards for my well, centrifugal compressor, reciprocating compressor, pneumatic controller, pneumatic pump, storage vessel, collection of fugitive emissions components at a well site, and collection of fugitive emissions components at a compressor station affected facilities, and affected facilities at onshore natural gas processing plants?
 - x. § 60.5416a What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my centrifugal compressor, reciprocating compressor, pneumatic pump, and storage vessel affected facilities?
 - y. § 60.5417a What are the continuous control device monitoring requirements for my centrifugal compressor and storage vessel affected facilities?
 - z. § 60.5420a What are my notification, reporting, and recordkeeping requirements?
 - aa. § 60.5421a What are my additional recordkeeping requirements for my affected facility subject to GHG and VOC requirements for onshore natural gas processing plants?
 - bb. § 60.5422a What are my additional reporting requirements for my affected facility subject to GHG and VOC requirements for onshore natural gas processing plants?
 - cc. § 60.5423a What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?
 - dd. § 60.5425a What parts of the General Provisions apply to me?
 - ee. § 60.5430a What definitions apply to this subpart?
 - ff. § 60.5432a How do I determine whether a well is a low pressure well using the low pressure well equation?
11. The permittee shall comply with all applicable requirements of the NESHAP for Oil and Natural Gas Production, Subpart HH, for each affected dehydration unit including but not limited to the following:
- a. An owner or operator of a glycol dehydration unit that meets the exemption criteria of §63.764(e)(1) shall maintain the records specified in §63.774(d)(1) for that glycol dehydration unit.

12. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE), Subpart ZZZZ, for each affected engine, including but not limited to:
 - a. § 63.6580 What is the purpose of subpart ZZZZ?
 - b. § 63.6585 Am I subject to this subpart?
 - c. § 63.6590 What parts of my plant does this subpart cover?
 - d. § 63.6595 When do I have to comply with this subpart?
 - e. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
 - f. § 63.6605 What are my general requirements for complying with this subpart?
 - g. § 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations?
 - h. § 63.6615 When must I conduct subsequent performance tests?
 - i. § 63.6620 What performance tests and other procedures must I use?
 - j. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
 - k. § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?
 - l. § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
 - m. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?
 - n. § 63.6645 What notifications must I submit and when?
 - o. § 63.6650 What reports must I submit and when?
 - p. § 63.6655 What records must I keep?
 - q. § 63.6660 In what form and how long must I keep my records?
 - r. § 63.6665 What parts of the General Provisions apply to me?
 - s. § 63.6670 Who implements and enforces this subpart?
 - t. § 63.6675 What definitions apply to this subpart?
13. Throughput at the facility shall not exceed 1,260,000 gallons of condensate (12-month rolling total). The condensate storage tanks shall be bottom filled or operated with submerged fill pipes. Emissions from the condensate tanks shall be routed to the condensate flare (FLARE1). The flare shall be operated as follows:
 - a. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
 - b. Records of pilot flame(s) outages shall be maintained along with the time and duration of all periods during which the pilot flame is/was absent.
14. The glycol dehydration unit shall be installed and operated as follows:
 - a. Maximum throughput of natural gas (monthly average) shall be no greater than 50-MMSCFD.
 - b. Glycol circulation rate shall be 15 gallons/minute (GPM) or less.

- c. The glycol dehydrator still vent shall be equipped with a condenser/combustion device.
- d. All emissions from the glycol dehydration unit's still vent shall be routed to the condenser, with the uncondensed vapors from the condenser routed to the reboiler firebox when it is firing, an igniter when the reboiler is not firing, or an approved, equally-effective (overall combustion efficiency of 95%) VOC/HAP emissions control system, except as allowed by Specific Condition No. 14(g).
- e. The glycol dehydrator shall be equipped with a flash tank on the rich glycol stream.
- f. The off-gasses from the flash tank shall be routed to the process (i.e., facility inlet), or an approved, equally effective emission control system (100% control efficiency), except as allowed by Specific Condition No. 14(g).
- g. The glycol dehydration unit may be operated up to 125 hours per year without emissions controls.
- h. The permittee shall monitor and record the lean glycol circulation rate at least once a month. When three consecutive months show no exceedance of the limit, the frequency may be reduced to quarterly. Upon any showing of non-compliance, the monitoring and recordkeeping frequency shall revert to monthly. With each inspection the lean glycol circulation rate shall be recorded as follows:

Circulation rate, as found (gal/min, strokes/min)	_____
Circulation rate, as left (gal/min, strokes/min)	_____
Date of inspection	_____
Inspected by	_____

The requirement to monitor and record glycol circulation rate shall not apply if the pump capacity does not exceed 15 GPM. If so, the manufacturer's rating or the performance data for the model of pump that verifies the maximum pump rate at any operational conditions shall be maintained and available for inspection.

- 15. The permittee shall maintain records of operations as listed below. These records shall be stored on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request.
 - a. Periodic testing for NO_x and CO emissions for each engine.
 - b. Operating hours for each engine if less than 440 hours per semi-annual period and not tested.
 - c. For the fuel(s) burned, the appropriate document(s) as specified in S.C. No. 2.
 - d. Facility condensate throughput (monthly and 12-month rolling total).
 - e. Uncontrolled operating hours for the glycol dehydration unit, if operated without emissions controls (monthly and 12-month rolling total).
 - f. Lean glycol pump circulation rate (monthly / quarterly) if applicable, based on S.C. No. 14(h).
 - g. Natural gas throughput for the glycol dehydration unit, MMSCFD (monthly average).
 - h. Records of the volume of gas released from compressor blowdowns (monthly and 12-month rolling total) as required by Specific Condition No. 16.
 - i. Records required under NSPS 40 CFR Part 60, Subparts JJJJ, OOOO, and OOOOa.
 - j. Records required under NESHAP 40 CFR Part 63, Subparts HH and ZZZZ.

16. The permittee shall comply with the MSS requirements and limits listed below:
 - a. During blowdowns, the gas vented to atmosphere shall not exceed 624,000 cubic feet of gas annually. Compliance will be demonstrated by recording the volume of gas vented to the atmosphere (monthly and 12-month rolling total).
 - b. Emissions from maintenance, repairs, cleaning, replacement, piping bypass, or pipeline pigging/purging shall be based on calculation methods as documented in the memorandum.
17. Upon issuance, FESOP No. 2025-0257-O replaces and supersedes all previous Air Quality authorizations and/or permits issued to this facility, which are now cancelled.

Mr. Sean Walker
Sr. Specialist – Env.
ET GATHERING PROCESSING, LLC
499 W. Sheridan, Suite 1500, M/C 700
Oklahoma City, OK 73012

SUBJECT: FESOP No. **2025-0257-O**
Foster Compressor Station
Section 20, Township 2N, Range 3W, Garvin County, Oklahoma

Dear Mr. Walker:

Enclosed is the modified permit authorizing operation of the referenced facility. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at (405)702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me at (405) 702-4202.

Sincerely,

Parker Merrill

Parker Merrill
Engineering Section
AIR QUALITY DIVISION

Enclosures

Date: September 16, 2025

Chickasaw Nation
Attn: Bill Anoatubby, Governor
P.O. Box 1548
Ada, OK 74821

Re: Permit Application No. 2025-0257-O
ET GATHERING PROCESSING, LLC, Foster Compressor Station (FAC ID 9948)
Section 20, Township 2N, Range 3W (Latitude 34.63062° N and Longitude 97.54297° W)
Garvin County
Date Received: March 26, 2025

Dear Mr. Anoatubby:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier I application referenced above. A Tier I application requires AQD to provide a 30-day public comment period on the draft Tier I permit on the ODEQ website. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to email notifications provided to tribal contacts on record.

Copies of draft permits and comment opportunities are provided to the public on the ODEQ website at the following location:

<https://www.deq.ok.gov/permits-for-public-review/>

If you prefer a copy of the draft permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify our Chief Engineer, Phillip Fielder, by e-mail at phillip.fielder@deq.ok.gov, or by letter at:

Department of Environmental Quality, Air Quality Division
Attn: Phillip Fielder, Chief Engineer
P.O. Box 1677
Oklahoma City, OK, 73101-1677

Thank you for your cooperation. If you have any questions, I can be contacted at (405) 702-4237 and Mr. Fielder may be reached at (405) 702-4185.

Sincerely,

Lee Warden, P.E.
Permits and Engineering Group Manager
AIR QUALITY DIVISION



PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON STREET, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

FESOP Number: 2025-0257-O

ET Gathering Processing, LLC

having complied with the requirements of the law, is hereby granted permission to operate the Foster Compressor Station located at Section 20, Township 2N, Range 3W, Garvin County, Oklahoma, subject to Standard Conditions dated February 13, 2020, and Specific Conditions, both attached.

DRAFT

Lee Warden, P.E.

Permits and Engineering Group Manager

Issuance Date

**MINOR SOURCE PERMIT TO OPERATE / CONSTRUCT
AIR POLLUTION CONTROL FACILITY
STANDARD CONDITIONS
(February 13, 2020)**

- A. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ) in accordance with and under the authority of the Oklahoma Clean Air Act. The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. This specifically includes compliance with the rules of the other Divisions of DEQ: Land Protection Division and Water Quality Division.
- B. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-7-15(g)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced.
[OAC 252:100-7-15(f)]
- C. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation.
[OAC 252:100-7-18(a)]
- D. Unless specified otherwise, the term of an operating permit shall be unlimited.
- E. Notification to the Air Quality Division of DEQ of the sale or transfer of ownership of this facility is required and shall be made in writing by the transferor within 30 days after such date. A new permit is not required.
[OAC 252:100-7-2(f)]
- F. The following limitations apply to the facility unless covered in the Specific Conditions:
1. No person shall cause or permit the discharge of emissions such that National Ambient Air Quality Standards (NAAQS) are exceeded on land outside the permitted facility.
[OAC 252:100-3]
 2. All facilities that emit air contaminants are required to file an emission inventory and pay annual operating fees based on the inventory. Instructions are available on the Air Quality section of the DEQ web page. www.deq.ok.gov
[OAC 252:100-5]
 3. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements.
[OAC 252:100-9]
 4. Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning subchapter.
[OAC 252:100-13]
 5. No particulate emissions from new fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lbs/MMBTU.
[OAC 252:100-19]
 6. No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity.
[OAC 252:100-25]

7. No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
 8. No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lbs/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
 9. Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with an organic material vapor-recovery system. [OAC 252:100-37-15(b)]
 10. All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]
- G. Any owner or operator subject to provisions of NSPS shall provide written notification as follows: [40 CFR 60.7 (a)]
1. A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 2. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
 3. A notification of the actual date of initial start-up of an affected facility postmarked within 15 days after such date.
 4. If a continuous emission monitoring system is included in the construction, a notification of the date upon which the test demonstrating the system performance will commence, along with a pretest plan, postmarked no less than 30 days prior to such a date.
- H. Any owner or operator subject to provisions of NSPS shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment. [40 CFR 60.7 (b)]
- I. Any owner or operator subject to the provisions of NSPS shall maintain a file of all measurements and other information required by this subpart recorded in a permanent file suitable for inspection. This file shall be retained for at least five years following the date of such measurements, maintenance, and records. [40 CFR 60.7 (f)]
- J. Any owner or operator subject to the provisions of NSPS shall conduct performance test(s) and furnish to AQD a written report of the results of such test(s). Test(s) shall be conducted within

60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial start-up. [40 CFR 60.8]

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
9-8-2025

ACFM	Actual Cubic Feet per Minute	GACT	Generally Achievable Control Technology
AD	Applicability Determination	GAL	Gallon (gal)
AFRC	Air-to-Fuel Ratio Controller	GDF	Gasoline Dispensing Facility
API	American Petroleum Institute	GEP	Good Engineering Practice
ASTM	American Society for Testing and Materials	GHG	Greenhouse Gases
AVO	Audio, Visual, or Olfactory	GR	Grain(s) (gr)
BACT	Best Available Control Technology	H₂CO	Formaldehyde
BAE	Baseline Actual Emissions	H₂S	Hydrogen Sulfide
BBL	Barrel(s)	HAP	Hazardous Air Pollutants
BHP	Brake Horsepower (bhp)	HC	Hydrocarbon
BTEX	Benzene, Toluene, Ethylbenzene, Xylene	HCFC	Hydrochlorofluorocarbon
BTU	British thermal unit (Btu)	HFR	Horizontal Fixed Roof
C&E	Compliance and Enforcement	HON	Hazardous Organic NESHAP
CAA	Clean Air Act	HP	Horsepower (hp)
CAM	Compliance Assurance Monitoring	HR	Hour (hr)
CAS	Chemical Abstract Service	I&M	Inspection and Maintenance
CAAA	Clean Air Act Amendments	IBR	Incorporation by Reference
CC	Catalytic Converter	ICE	Internal Combustion Engine
CCR	Continuous Catalyst Regeneration	LAER	Lowest Achievable Emission Rate
CD	Consent Decree	LB	Pound(s) [Mass] (lb, lbs, lbm)
CEM	Continuous Emission Monitor	LB/HR	Pound(s) per Hour (lb/hr)
CFC	Chlorofluorocarbon	LDAR	Leak Detection and Repair
CFR	Code of Federal Regulations	LNG	Liquefied Natural Gas
CI	Compression Ignition	LT	Long Ton(s) (metric)
CNG	Compressed Natural Gas	LTPD	Long Tons per Day
CO	Carbon Monoxide or Consent Order	LPE	Legally and Practicably Enforceable
COA	Capable of Accommodating	M	Thousand (Roman Numeral)
COM	Continuous Opacity Monitor	MAAC	Maximum Acceptable Ambient Concentration
D	Day	MACT	Maximum Achievable Control Technology
DEF	Diesel Exhaust Fluid	MM	Prefix used for Million (Thousand-Thousand)
DG	Demand Growth	MMBTU	Million British Thermal Units (MMBtu)
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)	MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
EGU	Electric Generating Unit	MMSCF	Million Standard Cubic Feet (MMscf)
EI	Emissions Inventory	MMSCFD	Million Standard Cubic Feet per Day
EPA	Environmental Protection Agency	MSDS	Material Safety Data Sheet
ESP	Electrostatic Precipitator	MWC	Municipal Waste Combustor
EUG	Emissions Unit Group	MWe	Megawatt Electrical
EUSGU	Electric Utility Steam Generating Unit	NA	Nonattainment
FCE	Full Compliance Evaluation	NAAQS	National Ambient Air Quality Standards
FCCU	Fluid Catalytic Cracking Unit	NAICS	North American Industry Classification System
FEL	Federally Enforceable Limit(s)	NESHAP	National Emission Standards for Hazardous Air Pollutants
FESOP	Federally Enforceable State Operating Permit		
FIP	Federal Implementation Plan		
FR	Federal Register		

NH₃	Ammonia
NMHC	Non-methane Hydrocarbon
NGL	Natural Gas Liquids
NO₂	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NOI	Notice of Intent
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
NSR	New Source Review
O₃	Ozone
O&G	Oil and Gas
O&M	Operation and Maintenance
O&NG	Oil and Natural Gas
OAC	Oklahoma Administrative Code
OC	Oxidation Catalyst
OGI	Optical Gas Imaging
PAH	Polycyclic Aromatic Hydrocarbons
PAE	Projected Actual Emissions
PAL	Plant-wide Applicability Limit
Pb	Lead
PBR	Permit by Rule
PCB	Polychlorinated Biphenyls
PCE	Partial Compliance Evaluation
PEA	Portable Emissions Analyzer
PFAS	Per- and Polyfluoroalkyl Substance
PM	Particulate Matter
PM_{2.5}	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers
PM₁₀	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers
POM	Particulate Organic Matter or Polycyclic Organic Matter
ppb	Parts per Billion
ppm	Parts per Million
ppmv	Parts per Million Volume
ppmvd	Parts per Million Dry Volume
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
psia	Pounds per Square Inch Absolute
psig	Pounds per Square Inch Gage
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RAP	Regulated Air Pollutant or Reclaimed Asphalt Pavement
RFG	Refinery Fuel Gas
RICE	Reciprocating Internal Combustion Engine
RO	Responsible Official
ROAT	Regional Office at Tulsa
RVP	Reid Vapor Pressure
SCC	Source Classification Code
SCF	Standard Cubic Foot
SCFD	Standard Cubic Feet per Day

SCFM	Standard Cubic Feet per Minute
SCR	Selective Catalytic Reduction
SEP	Supplemental Environmental Project
SER	Significant Emission Rate
SI	Spark Ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO₂	Sulfur Dioxide
SO_x	Sulfur Oxides
SOP	Standard Operating Procedure
SRU	Sulfur Recovery Unit
T	Tons
TAC	Toxic Air Contaminant
TEG	Triethylene Glycol
THC	Total Hydrocarbons
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulates
TV	Title V of the Federal Clean Air Act
µg/m³	Micrograms per Cubic Meter
US EPA	U. S. Environmental Protection Agency
VFR	Vertical Fixed Roof
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRT	Vapor Recovery Tower
VRU	Vapor Recovery Unit
YR	Year
2SLB	2-Stroke Lean Burn
4SLB	4-Stroke Lean Burn
4SRB	4-Stroke Rich Burn