DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **September 7, 2021**

TO: Phillip Fielder, P.E., Chief Engineer

THROUGH: Rick Groshong, Compliance and Enforcement Group Manager

THROUGH: Eric L. Milligan, P.E., Engineering Manager, Engineering Section

THROUGH: Jian Yue, P.E., New Source Permits Section

FROM: David Schutz, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application No. **2017-0595-C (M-1)**
ONEOK Field Services Company, LLC
Canadian Valley Gas Plant (FAC ID 9481)
Latitude 35.59130° N, Longitude 98.13940° W
NE/4 Section 22, Township 13N, Range 9W, Canadian County
Driving Directions: From Calumet at the intersection of US-270 (Calumet Rd.) and 122nd Street, go 1.2 miles west on 122nd Street, go south into facility entrance.

SECTION I. INTRODUCTION

ONEOK Field Services Company, LLC (OFS) has requested a modified construction permit for their Canadian Valley Gas Plant (facility, NAICS 211130, SIC 1321). The facility is currently operating under Permit No. 2017-0595-TV, issued October 23, 2019. The facility was initially constructed under Permit No. 2012-987-C issued April 11, 2013, then expanded to a major source under Permit No. 2017-0595-C issued August 13, 2018. The facility is a minor source for Prevention of Significant Deterioration (PSD) and a minor source of Hazardous Air Pollutants (HAPs).

The operator has requested the following changes to the facility's construction permit:

- The allowable throughput to the flares will be increased from 200 MMSCFY to 250 MMSCFY.

- The components currently shown as being subject to NSPS Subpart OOOO will now be shown as subject to Subpart OOOOa.

- VOC emissions from the produced water tanks will be updated according to the latest AQD guidance.

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) in Section III.

SECTION II. PROCESS DESCRIPTION

The facility is a natural gas processing plant that employs a cryogenic process to extract natural gas liquids from pipeline natural gas. The facility receives and processes pipeline gas with little or no hydrogen sulfide content. Raw sweet field gas enters the plant via pipeline through the facility inlet (pig receiver/slug catcher and separator) where free-phase liquids are removed from the inlet gas stream and routed to the condensate stabilizer. The gas stream is routed through an amine unit (A-1) which removes carbon dioxide (CO_2) and any trace amount of hydrogen sulfide (H_2S). The capacity of the amine unit is 250 MMSCFD. All compression is supplied by electrically-powered units.

Next, the gas stream is filtered and dehydrated using mole sieve dehydration. A cryogenic turbo-expander process separates natural gas liquids (NGL) from the inlet gas stream. Electrically-driven compressors are used to compress overheads, methane product, propane refrigerant, and to recompress residue gas which exits the facility via pipeline. NGLs are stored in pressure vessels and exit the facility via pipeline and electrically driven pumps. Methanol, lube oil, and used oil are stored in pressurized tanks equipped with small electric heaters.

By design, the condensate stabilizer separates components of the liquids routed to it. The stabilizer uses heat from the hot oil heater to separate liquid hydrocarbons from water and to drive-off lighter hydrocarbons (vapors). Vapors from the stabilizer are returned to the facility's pipeline inlet. Liquid hydrocarbons (stable condensate) and water are routed from the stabilizer to respective storage tanks. Stable condensate is stored in four 25,000-gallon tanks TK-1 to TK-4 until trucked offsite. Water (produced water) is stored in TK-5 and TK-6 until trucked offsite. The "stable condensate" is natural gasoline, which is mostly pentane.

Additional condensate is trucked into the facility and received into the 30,000-gallon truck receiving tank (TK-7). From TK-7, the condensate is fed into the stabilizer. All gaseous hydrocarbons (vapors from condensate) inside TK-7 are sent to the stabilizer. No emissions are expected from TK-7 due to vapor handling.

The stable condensate storage vessels have a total 100,000-gal storage capacity. Note that TK-BL consists of four (4) 25,000-gal horizontal bullet tanks (TK-1, TK-2, TK-3, and TK-4) that are parallel-connected to a common header, and thus has a 100,000-gal total capacity. Pressure is equalized among the bullet tanks by a single regulator. As condensate enters the tanks, vapor in the tanks is compressed and the pressure at the regulator increases. The condensate is then loaded into trucks which causes the pressure within the tanks to lower back down. To ensure that the pressure does not decrease to the point of creating a vacuum and impacting the integrity of the tanks, TK-BL utilizes a blanketing gas (tank blanket gas) that is a residue gas drawn from the plant fuel line into each head space. The regulator is actuated if internal tank pressure exceeds the pressure relief setting of approximately 10 psig, and flow rate is calculated using *Fisher Bulletin 74.1:98*, the regulator manufacturer's data for pressure setting. In the event that tank pressure exceeds the regulator set point, blanket gas passes through the regulator and is routed to the combustor (COMB-1, also referred to as the "Shielded Flare") for control. Because the pressure at the regulator is monitored, the duration at which the regulator set point is exceeded can be totaled and used to calculate emissions.

The stable condensate storage tanks utilize a blanket gas and pressure regulator to prevent further volatilization of the stored stable condensate. Vapors generated by the loading of stable condensate (natural gasoline) into tank trucks are captured and routed to the combustor, also.

A hot oil heater (H-1) heats the oil that is used as a heat transfer medium throughout the facility for promoting separation of condensate from water, for regenerating amine solution, and for NGL processing. The amine still vent is equipped with a thermal oxidizer. Regeneration heaters (H-2 and H-3) heat the natural gas that is used to regenerate mole sieves. The heated natural gas passes through the mole sieves to release moisture, and the heated natural gas with moisture is routed back to the inlet separator. Two plant flares (FL-1 and FL-2) are used for blowdowns, safety, maintenance, emergencies, and process flaring, as needed.

SECTION III. EQUIPMENT

EUG-1: Hot Oil Heater

EU	Unit Description	MMBTUH	Construction Date
H-1	Hot Oil Heater	58.32	2012

H-1 is subject to NSPS Subpart Dc.

EUG-2: Regeneration Heaters

EU	Unit Description	MMBTUH	Construction Date
H-2	Regeneration heater	38.78	2012
H-3	Regeneration heater	19.00	2018

EUG-3: Produced Water Storage Tanks

EU ID	Unit Description	Construction Date /Modification Date
TK-5	400-bbl Produced Water Storage Tank	2012
TK-6	400-bbl Produced Water Storage Tank	2012

EUG-4: Condensate Storage Tanks

EU ID	Unit Description	Construction Date /Modification Date
TK-1	25,000-gal Stable Condensate Storage Tank	2012/2015*
TK-2	25,000-gal Stable Condensate Storage Tank	2012/2015*
TK-3	25,000-gal Stable Condensate Storage Tank	2012/2015*
TK-4	25,000-gal Stable Condensate Storage Tank	2012/2015*
TK-7	30,000-gal Condensate Receiving Tank	2012

* Originally constructed in 2012, pressure relief setting modified in 2015.

EUG-5: Truck Loading

EU	Unit Description	Construction Date
TL-1	Condensate Truck Loading (270-GPM rated pump capacity)	2012
	70% capture efficiency (Vapor Capture System)	2015
	98% destruction efficiency (by COMB-1)	2015
TL-2	Produced Water Truck Loading	2012

Vapors generated during truck loading of stable condensate (natural gasoline, pentane) are captured and routed to the combustor (COMB-1). A conservative 70% efficiency was assumed for the vapor capture system. (NOTE: AP-42 (6/08), Section 5.2 recommends 70% for trucks which have not had vapor-tightness testing and 90-99% for trucks whose vapor-tightness have been verified.) The maximum transfer rate is 270 gal/min (8,400 gals/hr) based on pump capacity.

EUG-6: Control Device – VOC Shielded Flare

EU	Unit Description	Construction Date
COMB-1	Enclosed Combustor (19.2-MMBTUH)	2015

The combustor (COMB-1) is used to control vapors routed from both truck loading (TL-1) and stable condensate storage (TK-1, TK-2, TK-3, and TK-4). COMB-1 has a 19.2-MMBTUH total combined heat input capacity based on its two burners rated at 9.6 MMBTUH, each.

EUG-7: Process Flares

EU	Unit Description	Construction Date
FL-1	Plant Flare (250 MMSCFY with 1,066 BTU/SCF)	2012
FL-2	Plant Flare (250 MMSCFY with 1,066 BTU/SCF)	2018

The plant flares (FL-1 and FL-2) are used for blowdowns, safety, maintenance, emergencies and process flaring, as needed.

EUG-8: Amine Unit

EU	Description	Construction Date
A-1	250 MMSCFD Amine Unit Still Vent w/ 8.5 MMBTUH Thermal Oxidizer (TO-01)	2012

The amine unit is equipped with a thermal oxidizer (TO-01). The amine unit has a 250-MMSCFD capacity, and TO-01 has an 8.5-MMBTUH capacity. Amine is regenerated by the hot oil heater. The unit has a flash tank between the contactor and regenerator vent which vents to the flare.

Emissions are estimated for each of two (2) operating scenarios. **Scenario 1** assumes continuous (8,760 hours/year) operation of TO-01. VOC is based on 95% VOC destruction. SO_2 is based on 100% conversion of 4 ppmv H_2S and 250 MMSCFD through the amine unit. Emissions from consumption of pilot fuel for SO_2, NO_X, CO, VOC, and PM are estimated using factors taken from AP-42 Section 1.4 (7/98), and assuming 72.43 MMSCF/year. **Scenario 2** assumes 438 hrs/yr operation of the amine unit at its maximum process rate of 250 MMSCFD and 0.32 ppmv H_2S, without control by TO-01 or sulfur removal; VOC discharges from the amine unit (3.97 lb/hr) are uncontrolled at these times. (NOTE: since the facility monitors H_2S concentrations and flows, it can confirm compliance with the 0.3 lb/hr limit of Subchapter 31.)

EUG-9: Fugitive Emissions Exempt from NSPS

Equipment	Type of Service	Number of Items	VOC %wt	Construction Date
Valves	Gas/Vapor	780	0.028	2012
Flanges	Gas/Vapor	1,272	0.028	
Compressor Seals	Gas/Vapor	20	0.028	
Other	Gas/Vapor	796	0.028	

EUG-10: Fugitive Emissions Subject to NSPS Subpart OOOO

These emissions points have been moved into EUG-11.

EUG-11: Fugitive Emissions Subject to NSPS Subpart OOOOa

Equipment	Type of Service	Number of Items	VOC %wt	Construction Date
Valves	Gas/Vapor	2,672	14.67	2012 - 2018
Flanges	Gas/Vapor	1,728	14.67	
Compressor Seals	Gas/Vapor	8	14.67	
Other	Gas/Vapor	7,284	14.67	
Valves	Light Liquid	2,290	93.44	
Flanges	Light Liquid	1,770	93.44	
Open-Ended Lines	Light Liquid	0	93.44	
Other	Light Liquid	4,528	93.44	
Pump Seals	Light Liquid	26	93.44	

SECTION IV. FACILITY-SPECIFIC OR REPRESENTATIVE SAMPLE

The applicant did not request any emission changes for the dehydration units and fugitive components from the last operating permit; therefore, no facility-specific or representative sample is needed for these units. However, the VOC emissions from the water tanks are being updated.

The representative sample is from the ICE Compressor Station, which is four miles away and feeds the Canadian Valley plant. The sampling date was January 15, 2021.

No.	Natural Gas Compressor Station (Transmission) Considerations	Yes	No
6c	Is Representative Facility upstream from the Actual Facility and on the same pipeline?	X	
If any of the above answers are no, a facility-specific sample is required.			

The facility submitted a Representative Sample in accordance with the guidance.

No.	All Sample Considerations	Yes	No
1	Is sample more than three (3) calendar years old?		X
If the above answer is yes, a new sample is required or the sample shall be evaluated on a case-by-case basis.			

No.	Calculated Emission Considerations	Yes	No
2	For true minor and synthetic minor facilities, are VOC emissions more than 80 TPY and then do storage tank and truck loading VOC emissions account for more than 50% of facility-wide VOC emissions?		X
3	Are individual storage tank emissions, not controlled by a combustion device, more than 4 TPY VOC?		X
4	Are facility-wide emissions of a single HAP greater than 8 TPY or are total HAP emissions greater than 20 TPY? (Excluding HAP emissions from engines)		X
If any of the above answers are yes, a facility-specific sample is required.			

SECTION V. EMISSIONS

EUG-1: Hot Oil Heater

Potential emissions from the hot oil heater (H-1) are based on estimated heat input, emission factors converted to heat basis, and continuous operation (8,760 hours/year). Factors are taken from AP-42 (7/98) Section 1.4, and are converted to a heat basis by assuming 1,020 BTU/SCF fuel heat value.

Hot Oil Heater Emission Factors

ID#	NO_X	CO	VOC
	lb/MMSCF	lb/MMSCF	lb/MMSCF
H-1	0.098	0.082	0.0054

Heater/Reboiler Emissions

ID#	Rating	NO_X		CO		VOC	
	MMBTUH	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-1	58.32	5.72	24.85	4.78	20.87	0.31	1.37

EUG-2: Regeneration Heaters

Potential emissions from the regeneration heaters (H-2 and H-3) are based on estimated heat inputs, emission factors converted to heat basis, and continuous operation (8,760 hours/year). Factors are taken from AP-42 (7/98) Section 1.4, and are converted to a heat basis by assuming 1,020 BTU/SCF fuel heat value.

Regeneration Heater Emissions Factors

ID#	NO_X	CO	VOC
	lb/MMSCF	lb/MMSCF	lb/MMSCF
H-2	0.098	0.082	0.0054
H-3	0.098	0.082	0.0054

Regeneration Heater Emissions

ID#	Rating	NO_X		CO		VOC	
	MMBTUH	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-1	38.78	3.80	16.52	3.18	13.88	0.21	0.91
H-3	19.0	1.86	8.10	1.56	6.80	0.10	0.45

EUG-3: Produced Water Storage Tanks

Emissions from produced water storage tanks are due to vapor losses assuming produced water is 1% condensate (for flashing losses) and 1,875,000-GPY per tank (3,750,000-GPY total facility throughput). Working and breathing losses are estimated using ProMax. Flashing loss is estimated using Promax simulation software, an analysis of facility condensate, and a 10% safety factor. A total of 0.21-TPY combined HAP from both tanks is based on 5.3%wt HAP content of the VOC. VOC from each produced water tank (TK-5, TK-6) is well below the requested 5.99-TPY emission limit.

Tank Emissions (per tank)

Parameter	TK 5 & TK-6 Data
Throughput, gal/yr	1,875,000
Liquid in Tank(s)	Produced Water
Working/Breathing Method/Tool	ProMax®
Flash Calculation Method/Tool	ProMax®
Working/Breathing Emissions, TPY	5.69
Flashing Emissions, TPY	0.30
Control Type	None
Capture Efficiency, %	N/A
Control Efficiency, %	N/A
Tank VOC Emitted at Tank, TPY	5.99

EUG-4: Condensate Storage Tanks

Potential emissions of tank blanket gas from the condensate storage vessels (TK-BL) is 5.99 TPY VOC, per the requested FELs. Controlled VOC emission from TK-BL is based on tank vapor mass flow rate and 98% destruction efficiency of the combustor. A mass flow rate of 299-lb/hr VOC is calculated based on VOC composition taken from blanket gas analysis and actual flow rate (TK-BL vent rate) at the pressure regulator pressure setting. Actual flow rate is calculated to be 4,672-SCFH tank blanket gas (vent rate) based on the regulator manufacturer's data for a 10-psig setting, and 95°F temperature and 1.23 specific gravity of the blanket gas. VOC density of the blanket gas is 0.064-lb/SCF based on 24.3-lb/lb-mol, (69.1%wt VOC content) and API standard conditions (379.5-SCF/lb-mol). Short term controlled emission of 5.98-lb/hr VOC is calculated based on the assumption that the regulator is sending vapors to the combustor for a continuous one hour period with a 98% control efficiency. Long term controlled emission of 5.98-TPY VOC assumes that the blanket gas is vented by the regulator to the combustor for 2,000 hours/year excluding any combustor downtime. Since the system is pressurized and the pressure regulator vent is hard piped to the control device, 100% capture was used. Because the pressure at the regulator is monitored, the duration in which the regulator set point is exceeded can be totaled and used to calculate emissions.

TK-1 – TK-4 Emissions, per tank

Parameter	Data
Throughput, gal/yr	N/A*
Flash Calculation Method/Tool	ProMax
Working/Breathing Method/Tool	ProMax
Control Type	Combustor
Capture Efficiency	100%
Control Efficiency	98%
VOC Emissions Emitted at Tank, TPY	0
VOC Emissions, TPY	1.49

*Emissions were based on blanket gas composition and flows rather than throughputs.

EUG-5: Truck Loading

VOC emissions from loading stable condensate and produced water into tank trucks are estimated using AP-42 (6/08), Section 5.2, Equation 1, and the following parameters. The application used a vapor pressure of 6.0 psia, temperature of 520^{o}R, saturation factor of 0.6, and molecular weight of 74.75 lb/lb-mol

Loading Parameters and Emissions

Parameter	TL-1	TL-2
Liquids Loaded	Stable Condensate	Produced Water
Throughput, gal/yr	30,000,000	3,750,000
Saturation Factor	0.6	0.6
Temp., ^{o}F	60	60
TVP, psia	6.0	9.64
MW, lb/lbmol	74.75	39
VOC, wt.%	100	99.7
Emission Factor, lb/10^3 gal (1)	6.45	0.054
Control Method	Flare	None
Capture Efficiency, %	70	N/A
VOC Emitted at Truck, TPY	29.02	0.10
VOC Routed to Control, TPY	67.72 (2)	N/A

(1) Final factor considering any VOC reduction stated for methane/ethane.
(2) Emissions routed to the flare are represented at the tank flare.

EUG-6: Control Device – VOC Shielded Flare

COMB-1, Enclosed Combustor, emissions were based on 9.83 MMBTUH combustion from condensate tank blanket gas and truck loading (VOC emissions are accounted for in operations served). Calculations used flare factors from AP-42 (2/18) Section 13.5. VOC emissions from the shielded flare are based on the calculated flow rate and composition of the gas, with a 98% destruction efficiency.

Combustor COMB-1 Combustion Emissions

Heat Input MMBTUH	Pollutant	Emission Factor, lb/MMBTU	Emissions	
			lb/hr	TPY
9.83	NOx	0.068	0.67	2.93
	CO	0.31	3.05	13.35

Combustor COMB-1 Emissions

ID#	Process Point(s)	VOC Emissions, TPY
TK-1 – TK-4	Storage Tanks Blanket Gas	6.60
TL-1	Condensate Loading	1.35

EUG-7: Process Flares

FL-1 and FL-2, Plant flares: emissions were based on 250 MMSCFY waste gases with 1,099 BTU/SCF for FL-1 and 250 MMSCFY waste gases with 1,099 BTU/SCF for FL-2. Total heat input for FL-1 = 275,000 MMBTU/yr. Total heat input for FL-2 = 275,000 MMBTU/yr. Calculations used flare factors from AP-42 (2/18) Section 13.5. VOC was based on PROMAX runs showing 1,174 lb/hr TPY VOC in waste gases going to each flare and a 98% destruction efficiency.

Flare/Combustor Combustion Emissions

ID#	Total Gas Combusted MMBTUH	Emission Factor lb/MMBTU		NO_X TPY	CO TPY
		NOx	CO		
FL-1	275,000	0.068	0.31	10.84	43.84
FL-2	275,000	0.068	0.31	10.84	43.84

Flare/Combustor Emissions

ID#	Process Point(s)	VOC Emissions, TPY
FL-1	Maintenance Flaring, Process Flaring, Emergencies	23.56
FL-2		23.56

EUG-8: Amine Unit

A-1, Amine Unit and 8.5 MMBTUH Thermal Oxidizer. For Scenario 1, combustion emissions were calculated using AP-42 (7/98), Section 1.4. SO_2 emissions were calculated based on 250 MMSCFD gas with 4 ppm H_2S:

(250 MMSCFD * 4 ppm) / (380 SCF/lb-mole * 24 hours/day) * 64 lb/lb-mole SO_2 = 7.02 lb/hr

For Scenario 2, emissions are based on 0.32 ppm H_2S in inlet gas, up to 436 hours per year, Amine Unit

Parameter	Scenario 1	Scenario 2
Type of Amine	MDEA	MDEA
Inlet Gas Flow Rate, MMSCFD	250	250
Inlet Gas H_2S Concentration, ppmv	4	0.32
Outlet Gas H_2S Concentration, ppmv	0.055	0.055
Lean Amine Pump Design Capacity, gpm	385	385
Lean Amine Recirculation Rate Input, gpm	200	200
Amine Unit Inlet Gas Temperature, °F	91	91
Amine Unit Inlet Gas Pressure, psig	870	870
Amine Solution Concentration, wt. %	40	40
Regenerator Vent		
Control Method	Thermal Oxidizer	None
VOC/H_2S Control Efficiency, %	95	0
Flash Tank		
Flash Tank Temperature, °F	123	123
Flash Tank Pressure, psig	70	70
Control Method	Thermal Oxidizer or Flare	none
VOC/H_2S Control Efficiency, %	95	95
Total Emissions, TPY		
VOC	1.29	0.86
H_2S, lb/hr	0.35	0.30
SO_2	29.96	0

Amine Unit Emission Factors

ID#	NO_X	CO	VOC
	lb/MMSCF	lb/MMSCF	lb/MMSCF
A-1	0.098	0.082	0.0054

Heater/Reboiler Emissions

ID#	Rating	NO_X		CO		VOC	
	MMBTUH	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
A-1	8.5	0.83	3.62	0.70	3.05	0.29	1.29*

*Includes VOC discharged from process unit, controlled by thermal oxidizer. When the combustor is not operating, VOC discharges from the Amine Unit were shown by the process simulator at 0.55 lb/hr

EUG-9: Fugitive Emissions Exempt from NSPS

Potential VOC emissions from process piping fugitives (FUG-3 & FUG-5) are based on EPA's *1995 Protocol for Equipment Leak Emission Estimates* (EPA-453/R-95-017), "Oil and Gas Production Operations Average Emission Factors" and respective gas analyses.

FUG-3 Emission (Exempt from NSPS)

Equipment	Type of Service	Number of Items	VOC %wt	Factor lb/hr/source	VOC (TPY)
Valves	Gas/Vapor	780	0.028	0.00992	0.005
Flanges	Gas/Vapor	1272	0.028	0.00086	0.001
Compressor Seals	Gas/Vapor	20	0.028	0.0194	0.001
Other	Gas/Vapor	796	0.028	0.0194	0.01
Total FUG-3 Emission					**0.03**

EUG-11: Fugitive Emissions Subject to NSPS Subpart OOOOa

FUG-6 represents fugitive emission sources that are subject to Leak Detection and Repair (LDAR) program monitoring and includes appropriate emission reductions for the various types of components. Emission reductions are taken from the "Control Efficiencies for TRNCC Leak Detection and Repair Programs" table listed in the document, "Air Permit Technical Guidance for Chemical Source: Equipment Leak Fugitives" (October 2000).

FUG-6 Emissions (Subject to NSPS Subpart OOOOa)

Equipment	Type of Service	Number of Items	VOC %wt	Factor lb/hr/source	LDAR Reduction	VOC (TPY)
Valves	Gas/Vapor	2,672	17.96	0.00992	75%	5.21
Flanges	Gas/Vapor	1,728	17.96	0.00086	30%	0.82
Compressor Seals	Gas/Vapor	8	17.96	0.0194	75%	0.03
Other	Gas/Vapor	7,284	17.96	0.0194	97%	3.34
Valves	Light Liquid	2,290	100	0.0055	75%	13.79
Flanges	Light Liquid	1,770	100	0.0002	30%	1.09
Other	Light Liquid	4,528	100	0.0165	97%	9.82

Equipment	Type of Service	Number of Items	VOC %wt	Factor lb/hr/source	LDAR Reduction	VOC (TPY)
Pump Seals	Light Liquid	26	100	0.0287	75%	0.82
Total FUG-6 Emissions						**34.92**

Facility-wide Emissions

EU ID	Sources	NO_X		CO		VOC		SO_2		PM	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-1	Hot Oil Heater	5.67	24.85	4.78	20.87	0.31	1.37	0.03	0.15	0.44	1.89
H-2	Regenerator Htr.	3.80	16.52	3.18	13.88	0.21	0.91	0.02	0.10	0.29	1.26
H-3	Regenerator Htr.	1.86	8.10	1.56	6.80	0.10	0.45	0.01	0.05	0.14	0.62
TK-5, -6	Water Tanks [1]	-	-	-	-	-	11.97	-	-	-	-
TL-1	Condensate Truck Loading [2]	-	-	-	-	-	29.02	-	-	-	-
TL-2	Produced Water Truck Loading	-	-	-	-	-	0.10	-	-	-	-
COMB-1	Enclosed Combustor [3]	-	2.93	-	13.35	-	7.95	-	-	-	-
FL-1	Plant Flare w/pilot [4]	-	10.84	-	43.84	-	23.56	-	0.09	-	0.11
FL-2	Process Flare	-	10.84	-	43.84	-	23.56	-	0.09	-	0.11
A-1	Amine Unit w/ Thermal Oxidizer	0.83	3.62	0.70	3.04	0.29	1.29	6.84	29.96	0.06	0.28
FUG-3	Fugitives (NSPS exempt)	-	-	-	-	-	0.03	-	-	-	-
FUG-6	Fugitive OOOOa	-	-	-	-	-	34.92	-	-	-	-
TOTAL EMISSIONS		**12.16**	**77.70**	**10.22**	**145.62**	**0.91**	**135.13**	**6.90**	**30.44**	**0.93**	**4.27**
PREVIOUS TOTALS		**29.78**	**75.32**	**88.15**	**134.81**	**55.95**	**110.42**	**7.06**	**30.42**	**0.97**	**4.27**
CHANGES		**-17.62**	**2.38**	**-77.93**	**10.81**	**-55.04**	**24.71**	**-0.16**	**0.02**	**-0.04**	**0**

1 Combined TK-5, TK-6 subject to an emission limit of 5.99 TPY VOC.
2 TL-1 assumes 68.60% overall control achieved (70% capture, 98% destruction, no combustor downtime).
3 COMB-1 based on 9.83-MMBTUH combustor stream.
4 FL-1 based on blowdowns and process flaring but does not include upset/malfunction/emergency flaring.

Hazardous Air Pollutants (HAP)

Based on stream compositions, a total 6.98 TPY combined HAP is estimated facility-wide of which is 4.76 TPY n-hexane. HAP emissions are below the 10/25 thresholds.

SECTION VI. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Records are available to confirm the insignificance of the activities. Appropriate recordkeeping of activities indicated below with "*" is specified in the Specific Conditions. Any activity to which a state or federal requirement applied is not insignificant.

1. * Storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature.

2. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature.

3. * Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant.

SECTION VII. 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. Required annual information (Turn-Around Document) shall be provided to Air Quality.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant; and
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule.

Emission limitations and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the existing permit or from the current permit application, or are developed from the applicable requirement.

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 specifies allowable PM emissions from fuel-burning units based on heat input and Appendix C. For fuel-burning equipment with a heat input of greater than 10 MMBTUH but less than 1,000 MMBTUH, the PM limitation is derived by the following equation.

$$\mathbf{E = 1.0428080X^{-0.238561}}$$

Where:

E = allowable total particulate matter emissions in pounds per MMBTU and
X = the maximum heat input in MMBTU per hour.

Therefore, the 58.32-MMBTUH hot oil heater (H-1) is subject to a 0.3953-lb/MMBTU PM limitation, the 38.78-MMBTUH regeneration heater (H-2) is subject to a 0.4357-lb/MMBTU PM limitation, and the 19.0-MMBTUH regeneration heater is subject to a 0.516-lb/MMBTU PM limitation. For external combustion units burning natural gas, AP-42 Table 1.4-2 (7/98) lists total PM emission to be 7.6 lb/MMft^3, which is approximately 0.0076 lb/MMBTU based on 1,000-BTU/SCF natural gas heating value, which is in compliance. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

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. The facility has little possibility of exceeding these standards when burning natural gas.

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 impact of hydrogen sulfide (H_2S) emissions from any new or existing source to an ambient air concentration of not more than 0.2 ppm at standard conditions, 24-hour average (equivalent to 280 $\mu g/m^3$). Based on AERMOD modeling, the ambient impacts of H_2S were determined at 4.5 $\mu g/m^3$ for the facility with the flare operating and 16.7 $\mu g/m^3$ with the amine unit vent operating (i.e., uncontrolled), which are in compliance with the ambient air concentration limit.
Part 5 limits sulfur dioxide emissions from new fuel-burning 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. The permit requires the use of gaseous fuel with sulfur content less than 343 ppmv to ensure compliance with Subchapter 31.
Part 5 establishes the requirements for reduction of H_2S contained in the waste gas stream from any petroleum or natural gas process equipment and requirements for sulfur recovery. Based on 4-ppmv H_2S inlet gas concentration, the facility's amine unit waste gas stream exceeds 0.3-lb/hr H_2S, two-hour average emission. Reduction by oxidation yields less than 100-lb/hr SO_2 emissions, so sulfur removal/recovery is not required. The facility demonstrates compliance by oxidizing H_2S to SO_2 by thermal oxidizer (TO-01) prior to being emitted into the atmosphere. The owner or operator shall install, maintain, and operate an alarm system that will signal a malfunction for all thermal devices used to control H_2S emissions.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]
This subchapter limits NO_X emissions from new gas-fired fuel-burning equipment with a rated heat input of greater than or equal to 50 MMBTUH to 0.2-lb NO_X per MMBTU (calculated as NO_2), three-hour average. The gas-fired 58.32-MMBTUH hot oil heater (H-1) is subject to this limitation. For external combustion units burning natural gas, AP-42 Table 1.4-1 (7/98) lists NO_X emission to be 100 $lb/MMft^3$, which is approximately 0.10 lb/MMBTU based on 1,000-BTU/SCF natural gas heating value, which is in compliance. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 33.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
This facility has none of the affected sources: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit or petroleum catalytic cracking unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 affects VOC storage tanks constructed after December 28, 1974. Storage tanks having a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The

four 25,000-gal condensate storage vessels (TK-BL) are subject to these equipment and control standards. The 30,000-gal truck receiving tank (TK-7) is subject to this part and satisfies the requirements of this subchapter in OAC 252:100-37-15 (a)(2).

Part 3 also affects VOC loading facilities, and §37-16(a) establishes requirements for VOC loading facilities with a throughput greater than 40,000 gallons per day. The facility loading capacity exceeds 40-kgal/day loading throughput, and is subject to the requirements of this section. The loading facility will be equipped with a vapor capture system. The vapor capture system is 70% efficient. Captured VOC is routed to a combustor which will satisfy the requirements of §37-16(a)(1)(B). The combustor has 98% destruction efficiency, thus satisfies the requirements of §37-16(a)(1). The permit includes a specific condition to ensure emissions of VOC are minimized during VOC loading.

Part 5 limits the VOC content of coatings used in coating lines or operations. Any painting operations that involve maintenance coating of buildings and equipment and emit less than 100 pounds per day of VOCs are not affected.

Part 7 requires fuel-burning and refuse-burning equipment to be cleaned, operated, and maintained, to minimize emissions of VOC. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded and temperature and available air must be sufficient to provide essentially complete combustion. The process heaters (H-1, H-2) are subject to this requirement, and they are designed to combust essentially all VOCs.

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 toxic air contaminants (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 Area of Concern (AOC) has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [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 VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Total emissions are less than the major source threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Subparts Dc, Kb, OOOO, and OOOOa Applicable]
Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. This subpart affects industrial-commercial-institutional steam generating units with a design capacity between 10 and 100 MMBTUH heat input and which commenced construction or modification after June 9, 1989. *Steam generating unit* means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium but does not include process heaters as defined in this subpart. *Heat transfer medium* means any material that is used to transfer heat from one point to another point. *Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst. The 38.78 MMBTUH regeneration heater is considered a process heater and is not affected by this subpart. The 58.32 MMBTUH hot oil heater meets the definition of steam generating unit and is affected by this subpart. The hot oil heater is only fueled by natural gas. Therefore, the facility is only subject to recordkeeping and reporting requirements of §60.48c(g) and (i).
Subparts Kb, VOL Storage Vessels. Subpart Kb regulates hydrocarbon storage tanks that are larger than 75 cubic meters (19,813 gallons) capacity and built after July 23, 1984. Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere are not affected by this subpart. The condensate pressure vessels (TK-BL) have 25,000-gallon individual capacity and were modified under Permit No. 2012-987-C (M-1) such that they no longer meet the exemption criteria. Requirements of Subpart Kb for tanks of these sizes (vapor pressure monitoring and recording) have been incorporated into the permit. The condensate receiving tank TK-7 is a pressure tank, therefore, not subject to Subpart Kb.
Subpart GG, Stationary Gas Turbines. There are none at this facility.
Subparts VV, VVa, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. The facility is not a SOCMI plant.
Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants constructed, reconstructed, or modified after January 20, 1984, and on or before August 23, 2011. 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. The facility is a natural gas plant and was constructed after August 23, 2011, so it is not subject to this subpart.
Subpart LLL, SO_2 Emissions from Onshore Natural Gas Processing. This subpart affects sweetening units and sweetening units followed by sulfur recovery units and sets standards for each affected facility which commenced construction, reconstruction, or modification after January 20, 1984, and on or before August 23, 2011. The facility is a natural gas processing plant that was constructed after August 23, 2011, and thus is not subject to this subpart.
Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI ICE). There are no SI ICE located at this facility.

Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution. This subpart affects the following sources that commence construction, reconstruction, or modification after August 23, 2011, but prior to September 18, 2015.

1. Each single gas well;
2. Single centrifugal compressors using wet seals that are located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
3. Reciprocating compressors which are single reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
4. Each single continuous bleed natural gas-driven pneumatic controller with a natural gas bleed rate greater than 6 SCFH that is located between the wellhead and the point of custody transfer to an oil pipeline or custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant;
5. Each single continuous bleed natural gas-driven pneumatic controller which is located at a natural gas processing plant;
6. Each single storage vessel located in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment; two or more storage vessels connected in parallel are considered equivalent to a single storage vessel with throughput equal to the total throughput of the storage vessels connected in parallel;
7. All equipment, except compressors, within a process unit at an onshore natural gas processing plant;
8. Sweetening units located at onshore natural gas processing plants.

The facility is a natural gas processing plant constructed after the effective date. Affected facilities include, but are not limited to, compressors, equipment leaks, pneumatic controllers, sweetening units, storage vessels, and all equipment within the process unit (gas plant). All fugitive components subject to NSPS Subpart OOOO are being included in Subpart OOOOa.

For each reciprocating compressor subject to this subpart, the facility demonstrates compliance by §60.5385(a)(1) replacement of the rod packing either before 26,000 hours of compressor operation and the number of operating hours continuously monitored, or §60.5385(a)(2) prior to 36 months from the date of most recent rod packing replacement. All fugitive components subject to NSPS Subpart OOOO are being included in Subpart OOOOa.

All continuous bleed pneumatic controllers at this facility are air actuated and are not subject.

The four (4) 25,000-gallon condensate pressure vessels are limited to 5.98 TPY VOC, which is below the 6.0 TPY threshold of applicability for Subpart OOOO. Therefore, the condensate pressure vessels are not considered "storage vessels" and are not subject to Subpart OOOO.

The two (2) 400-bbl produced water storage tanks commenced construction after August 23, 2011. The applicant has requested a federally enforceable limit of less than 6 TPY VOC emission as Group 1 tanks to avoid being subject to this subpart.

A sweetening unit means a process device that removes hydrogen sulfide and/or carbon dioxide from the sour natural gas stream. Acid gas means a gas stream of hydrogen sulfide (H_2S) and carbon dioxide (CO_2) that has been separated from sour natural gas by a sweetening unit. The amine unit at this facility removes CO_2 from a sweet natural gas stream (less than 4 ppm H_2S), so the amine unit does not meet the definition of a sweetening unit under this subpart.

Subpart OOOOa, Crude Oil and Natural Gas Production Facilities. This subpart affects the following sources that commence construction, reconstruction, or modification on or after September 18, 2015, including, but not limited to, the following.

1. Hydraulically fractured wildcat wells, delineation wells, or low pressure wells;
2. Other hydraulically fractured wells;
3. Centrifugal compressors with wet seals (not on well sites, up to the local distribution company);
4. Pneumatic controllers at natural gas processing plants;
5. Continuous bleed pneumatic controllers between the wellhead and the LDC (not at gas processing plants);
6. Pneumatic pumps at well sites;
7. Storage vessels;
8. Equipment leaks at gas processing plants;
9. Equipment leaks at well sites and compressor stations; and
10. Sweetening units at gas processing plants.

The processing trains are subject to the compressor and leak detection requirements of Subpart OOOOa. No other affected equipment has been modified or reconstructed after September 18, 2015.

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 benzene. Subpart J, Equipment Leaks of Benzene, only affects process streams, which contain more than 10% benzene by weight. All process streams at this facility are below this threshold.

NESHAP, 40 CFR Part 63 [Not Applicable]
Subpart HH, Oil and Natural Gas Production Facilities. This subpart is applicable to facilities that process, upgrade, or store hydrocarbon liquids or natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category which is after the gas plant if present or is after the point of custody transfer when no gas plant is present. For major sources of HAP, this subpart affects each dehydration unit, each storage vessel with potential for flashing loss, ancillary equipment and compressors in VHAP service. For area sources of HAP, this subpart affects each triethylene glycol (TEG) dehydration unit. This facility is a natural gas plant, and it is an area source of HAP emissions, but it has no TEG units. Therefore, the facility is not affected by this subpart.
Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). The facility has no internal combustion engines.

Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers. This subpart affects new and existing boilers located at area sources of HAP, except for gas-fired boilers. Gas fired boilers are defined as any boiler that burns gaseous fuel not combined with any solid fuels, liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. The equipment at this facility meets the definition of "gas-fired" and is not subject to this subpart.

Compliance Assurance Monitoring, 40 CFR Part 64 [Applicable]
Compliance Assurance Monitoring, as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit. 40 CFR 64.5(b) requires the owner or operator to submit a CAM plan (if applicable) as part of the application for the renewal for a Part 70 permit. CAM for the amine unit thermal oxidizer and plant flares will be required for permit renewal.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Applicable]
This facility handles naturally occurring hydrocarbon mixtures at a natural gas processing plant and the Accidental Release Prevention Provisions are applicable to this facility. The facility is required to submit the appropriate accidental release emergency response program plan and will mention it in the operating application. More information on this federal program is available on the web page: *www.epa.gov/rmp*.

SECTION IX. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be a Tier II based on the request for a construction permit for a significant modification to a Part 70 source permit.

The permittee 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 property.

The applicant published a "Notice of Filing a Tier II Application" on July 14, 2021, in *The El Reno Tribune*, a daily newspaper published in Canadian County, Oklahoma County for a 30-day public review. The notice stated that the application could be reviewed at the El Reno Carnegie Library or at the Air Quality Division's main office. The applicant will also publish a "Notice of Draft Tier II Permit" in *The El Reno Tribune* for a 30 day public review. A copy of the draft permit will be available on the Air Quality section of the DEQ web page at *www.deq.ok.gov*.

This site is not located within 50 miles of the Oklahoma border with another state. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web Page: *www.deq.ok.gov*.

The applicant requested public and EPA concurrent review; therefore, the draft permit will be forwarded to EPA for a 45-day concurrent review.

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of OAC 252:100-8-8(j) may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2., unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under OAC 252:100-8-8(j), the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection under OAC 252:100-8-8(j), the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

Fee Paid

Major source construction modification permit fee is $5,000.

SECTION X. SUMMARY

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

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

ONEOK Field Services Company, LLC **Permit Number 2017-0595-C (M-1)**
Canadian Valley Gas Plant

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on July 6, 2021. The Evaluation Memorandum dated September 7, 2021, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction or continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

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

A. EUG-1: Hot Oil Heater

EU	Unit Description	MMBTUH
H-1	Hot Oil Heater	58.32

EU ID	NO_X		CO		VOC		SO_2		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-1	5.72	25.04	4.80	21.04	0.31	1.38	0.03	0.15	0.43	1.90

i. The permittee shall comply with NSPS Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, for each affected facility located on-site including, but not limited to: [§60.48c(g)(2)]

a. The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each calendar month.

B. EUG-2: Regeneration Heaters

EU	Unit Description	MMBTUH
H-2	Regeneration heater	38.78
H-3	Regeneration heater	19.00

EU ID	NO_X		CO		VOC		SO_2		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-2	3.80	16.52	3.18	13.88	0.21	0.91	0.02	0.10	0.29	1.26
H-3	1.86	8.10	1.56	6.80	0.10	0.45	0.01	0.05	0.14	0.62

C. EUG-3: Produced Water Storage Tanks

EU ID	Unit Description	VOC Emissions TPY
TK-5	400-bbl Produced Water Storage Tank	5.99
TK-6	400-bbl Produced Water Storage Tank	5.99

i. Throughput of produced water shall not exceed 3,750,000 gallons in any 12-month period. [OAC 252:100-8-6 (a)(3)]

D. EUG-4: Condensate Storage Tanks

EU ID	Unit Description	VOC Emissions TPY
TK-1	25,000-gal Stable Condensate Storage Tank	5.99
TK-2	25,000-gal Stable Condensate Storage Tank	
TK-3	25,000-gal Stable Condensate Storage Tank	
TK-4	25,000-gal Stable Condensate Storage Tank	
TK-7	30,000-gal Condensate Receiving Tank	--

i. The permittee shall comply with NSPS Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, for all affected facilities located at this site including, but not limited to the following. The 100,000-gal condensate storage vessel and its associated control device – combustor (COMB-1) or equivalent control device – are subject. The combustor (COMB-1) or equivalent control device shall satisfy §60.112b by compliance with the requirements §60.18.

a. §60.110b Applicability and designation of affected facility.
b. §60.111b Definitions.
c. §60.112b Standard for volatile organic compounds (VOC).
d. §60.113b Testing and procedures.
e. §60.114b Alternative means of emission limitation.
f. §60.115b Reporting and recordkeeping requirements.
g. §60.116b Monitoring of operations.

ii. The facility shall monitor flow times to the flare(s) from tanks TK-1 – TK-4. Compliance with emissions limits may be determined from gas flows and compositions as determined by ProMax simulation.

E. EUG-5: Truck Loading

EU	Unit Description	VOC Emissions TPY
TL-1	Condensate Truck Loading (270-GPM rated pump capacity)	29.02
TL-2	Produced Water Truck Loading	0.10

i. Truck loading of condensate shall be operated as follows to minimize VOC air emissions. [OAC 252:100-37]

b. All loading and vapor lines for the VOC loading system shall be equipped with fittings that make vapor-tight connections and which close when disconnected.
c. A means shall be provided to minimize VOC drainage from the loading hose when it is removed from the tank truck.
d. Vapors displaced from tank trucks from condensate loading shall be vented to a vapor recovery unit or combustion device with a control efficiency of at least 90%.
e. The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.
f. The vapor disposal system shall route all vapors to a flare with a minimum destruction efficiency of 98%.
g. When loading crude oil or condensate, 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.
h. Records of pilot flame(s) outages during loading operations shall be maintained along with the time and duration of all periods during which the pilot flame is/was absent.

ii. Throughput of the truck loading operation shall not exceed 30,000,000 gallons per year condensate or 3,750,000 gallons per year produced water, 12-month rolling totals. Monthly records of volumes loaded shall be kept. [OAC 252:100-43]

F. EUG-6: Control Device – VOC Shielded Flare

EU	Unit Description
COMB-1	Enclosed Combustor (19.2-MMBTUH)

i. The flare shall comply with the provisions of 40 CFR §60.18 for the flares, including heating value of gases, visible emissions, and monitoring for presence of a pilot flame.

G. EUG-7: Process Flares

EU	Unit Description
FL-1	Plant Flare (250 MMSCFY with 1,066 BTU/SCF)
FL-2	Plant Flare (250 MMSCFY with 1,066 BTU/SCF)

i. The volume of gases routed to each plant flare shall not exceed 250 MMSCF/yr per flare in any 12-month period from any process, maintenance blowdown, emergency purpose, or other emission controlled by either flare. The facility shall maintain sufficient instrumentation and monitoring to measure the flows to the flare. [OAC 252:100-43]

ii. The flares shall comply with the provisions of 40 CFR §60.18 for the flares, including heating value of gases, visible emissions, and monitoring for presence of a pilot flame.

H. EUG-8: Amine Unit

EU	Description
A-1	250 MMSCFD Amine Unit Still Vent w/ 8.5 MMBTUH Thermal Oxidizer (TO-01)

EU ID	NO_X		CO		VOC		SO_2		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
A-1	0.83	3.62	0.70	3.04	0.55	1.29	7.02	30.75	0.06	0.28

i. Except as provided in Specific Condition No. 1.H.iii.b, the facility shall process inlet gas with an H_2S concentration not to exceed 4 ppmv. Compliance with H_2S and SO_2 emission limit shall be based on a monthly average. Compliance shall be demonstrated by calculating emissions based on the amount of gas processed in the amine unit (A-1) and the inlet gas H_2S concentration. Inlet process gas H_2S concentration shall be measured by electronic analyzer accurate to within 1% or equivalent method.

ii. Except as allowed following, all discharges from the amine unit still vent and flash tank shall be processed by a thermal oxidizer.

iii. The permittee shall maintain and operate the amine unit and appurtenances according to applicable state and federal rules, including but not limited to the following requirements.

   a. Emissions shall be controlled in accordance with OAC 252:100-31-26.
   b. Uncontrolled emissions from the amine unit shall not exceed 0.3 lb/hr H_2S, two-hour average, in accordance with OAC 252:100-31-26(1)(A), and compliance shall be:
      i. Demonstrated by inlet process gas not exceeding 0.32 ppmv H_2S concentration, or,
      ii. Determined by calculation from contemporaneous (i.e., real time) measurements of the inlet process gas flow and H_2S concentration.
      iii. The permittee shall keep a record of each hour that the gases from the amine unit still vent are not combusted by the thermal oxidizer and the calculated H_2S emissions for each hour.

c. An alarm system shall be installed, maintained, and operated in accordance with OAC 252:100-31-26(1)(B).

I. EUG-9: Fugitive Emissions Exempt from NSPS Fugitive VOC emissions are estimated based on existing equipment items but do not have a specific limitation.

[OAC 252:100-8-6 (a)(3)]

Equipment	Type of Service	Number of Items	VOC %wt
Valves	Gas/Vapor	780	0.028
Flanges	Gas/Vapor	1272	0.028
Compressor Seals	Gas/Vapor	20	0.028
Other	Gas/Vapor	796	0.028

J. EUG-11: Fugitive Emissions Subject to NSPS Subpart OOOOa Fugitive VOC emissions are estimated based on existing equipment items but do not have a specific limitation. [OAC 252:100-8-6 (a)(3)]

Equipment	Type of Service	Number of Items
Valves	Gas/Vapor	2,672
Flanges	Gas/Vapor	1,728
Compressor Seals	Gas/Vapor	8
Other	Gas/Vapor	7,284
Valves	Light Liquid	2,290
Flanges	Light Liquid	1,770
Open-Ended Lines	Light Liquid	0
Other	Light Liquid	4,528
Pump Seals	Light Liquid	26

i. The permittee shall comply with all applicable requirements in 40 CFR Part 60, Subpart OOOOa, Crude Oil and Natural Gas Production Facilities, for all affected equipment including the equipment listed above (regardless of the date of actual construction), including, but not limited to, the following.

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?

gg. §§60.5433a-60.5499a [Reserved]

ii. The permittee shall comply with NSPS Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transportation, and Distribution, 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?

2. The fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 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. [OAC 252:100-31]

3. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6 (a)]

4. The permittee shall maintain records of operations as listed below. These records shall be maintained 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. [OAC 252:100-43]

   A. For the fuel(s) burned, the appropriate document(s) as described in Specific Condition #2.
   B. Condensate and produced water throughput (monthly and 12-month rolling totals).
   C. Flare gas volume (monthly and 12-month rolling totals for each flare individually).
   D. Volume of gas processed at the amine unit (monthly and 12-month rolling totals).
   E. H_2S concentrations of gas processed at the amine unit (monthly average) and calculated SO_2 emissions (monthly average and 12-month rolling totals).
   F. Concurrent volume of inlet gas processed at the amine unit and H_2S concentration measured or H_2S lb/hr emission calculations during hours of uncontrolled amine still vent emissions.
   G. Records as required by 40 CFR Part 60, Subpart A.
   H. Records as required by 40 CFR Part 60, Subpart Dc and Subpart Kb.
   I. Records as required by 40 CFR Part 60, Subpart OOOO and Subpart OOOOa.
   J. Records of time of venting H_2S from the Amine Unit without the thermal oxidizer in operation, concentrations of H_2S in gas processed by the Amine Unit during these intervals, flows to the Amine Unit, and resultant H_2S emissions.

5. The permittee shall submit a request for modification of the current Title V operating permit within 180 days of commencement of operations of the proposed project.
[OAC 252:100-8-6]

PERMIT

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

Permit No. 2017-0595-C (M-1)

ONEOK Field Services Company, LLC

having complied with the requirements of the law, is hereby granted permission to modify the Canadian Valley Gas Plant located in NE/4 Section 22, Township 13N, Range 9W, Canadian County, Oklahoma, subject to standard conditions dated June 21, 2016, and specific conditions, both of which are attached.

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

Division Director
Air Quality Division

Date

SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

ONEOK Field Services Company, LLC
Attn.: Jenny Ellette
P. O. Box 871
Tulsa, OK 74102-0871

Re: Permit No. **2017-0595-C (M-1)**
Canadian Valley Gas Plant (FAC ID #9481)
NE/4 Section 22, Township 13N, Range 9W, Canadian County

Dear Ms. Ellette:

Enclosed is the permit authorizing modification of the referenced facility. Please note that this permit is issued subject to certain standards 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 through DEQ's electronic reporting system by April 1st of every year. Any questions concerning the 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 the permit writer at (405) 702-4100 or e-mail to David.Schutz@deq.ok.gov.

Sincerely,

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

Enclosures

MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(June 21, 2016)

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. 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 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.

[OAC 252:100-8-6(a)(3)(C)(iv)

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:
(1) the date, place and time of sampling or measurement;
(2) the date or dates analyses were performed;
(3) the company or entity which performed the analyses;
(4) the analytical techniques or methods used;
(5) the results of such analyses; and
(6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report. [OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions. [OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act. [OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM_{10}). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification. [OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit. [OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.
[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) 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 252:100-8-1.4(a)]

D. 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 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.
[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

(1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
(2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
(3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
(4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):

(1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that: [OAC 252:100-8-6 (e)(2)]

(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
(2) the permitted facility was at the time being properly operated;
(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.
[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

(1) 5 tons per year of any one criteria pollutant.
(2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

(1) result in no net emissions increases,
(2) are not modifications under any provision of Title I of the federal Clean Air Act, and
(3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

(1) 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]

(2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

(3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]

(a) 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;
(b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
(c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
(d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.

(4) 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]

(5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]

(6) 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 a vapor-recovery system. [OAC 252:100-37-15(b)]

(7) 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]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

(1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
(2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
(3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
(2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
(3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
(5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

(1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
(2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
(3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).

(4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R.§ 70.8(a) and (c).
(5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
(6) The DEQ complies with 40 C.F.R. § 70.8(d).
(7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
(8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
(9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
(10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, 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. [OAC 252:100-43-6]

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
4-15-21

ACFM	Actual Cubic Feet per Minute
AD	Applicability Determination
AFRC	Air-to-Fuel Ratio Controller
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
BHP	Brake Horsepower (bhp)
BTU	British thermal unit (Btu)
C&E	Compliance and Enforcement
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CAAA	Clean Air Act Amendments
CC	Catalytic Converter
CCR	Continuous Catalyst Regeneration
CD	Consent Decree
CEM	Continuous Emission Monitor
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CI	Compression Ignition
CNG	Compressed Natural Gas
CO	Carbon Monoxide or Consent Order
COA	Capable of Accommodating
COM	Continuous Opacity Monitor
D	Day
DEF	Diesel Exhaust Fluid
DG	Demand Growth
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)
EGU	Electric Generating Unit
EI	Emissions Inventory
EPA	Environmental Protection Agency
ESP	Electrostatic Precipitator
EUG	Emissions Unit Group
EUSGU	Electric Utility Steam Generating Unit
FCE	Full Compliance Evaluation
FCCU	Fluid Catalytic Cracking Unit
FIP	Federal Implementation Plan
FR	Federal Register
GACT	Generally Achievable Control Technology
GAL	Gallon (gal)
GDF	Gasoline Dispensing Facility
GEP	Good Engineering Practice
GHG	Greenhouse Gases
GR	Grain(s) (gr)
H_2CO	Formaldehyde
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutants
HC	Hydrocarbon
HCFC	Hydrochlorofluorocarbon
HFR	Horizontal Fixed Roof
HON	Hazardous Organic NESHAP
HP	Horsepower (hp)
HR	Hour (hr)
I&M	Inspection and Maintenance
IBR	Incorporation by Reference
ICE	Internal Combustion Engine
LAER	Lowest Achievable Emission Rate
LB	Pound(s) [Mass] (lb, lbs, lbm)
LB/HR	Pound(s) per Hour (lb/hr)
LDAR	Leak Detection and Repair
LNG	Liquefied Natural Gas
LT	Long Ton(s) (metric)
M	Thousand (Roman Numeral)
MAAC	Maximum Acceptable Ambient Concentration
MACT	Maximum Achievable Control Technology
MM	Prefix used for Million (Thousand-Thousand)
MMBTU	Million British Thermal Units (MMBtu)
MMBTUH	Million British Thermal Units per Hour (MMBTUH)
MMSCF	Million Standard Cubic Feet (MMscf)
MMSCFD	Million Standard Cubic Feet per Day
MSDS	Material Safety Data Sheet
MWC	Municipal Waste Combustor
MWe	Megawatt Electrical
NA	Nonattainment
NAAQS	National Ambient Air Quality Standards

NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	Ammonia
NMHC	Non-methane Hydrocarbon
NGL	Natural Gas Liquids
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOI	Notice of Intent
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
NSR	New Source Review
O_3	Ozone
O&G	Oil and Gas
O&M	Operation and Maintenance
O&NG	Oil and Natural Gas
OAC	Oklahoma Administrative Code
OC	Oxidation Catalyst
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
PM_{10}	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
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
SER	Significant Emission Rate
SI	Spark Ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
SOx	Sulfur Oxides
SOP	Standard Operating Procedure
SRU	Sulfur Recovery Unit
T	Tons
TAC	Toxic Air Contaminant
THC	Total Hydrocarbons
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulates
TV	Title V of the Federal Clean Air Act
$\mu g/m^3$	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

SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

ONEOK Field Services Company, L.L.C.
Attn: Ms. Jenny Ellette
P. O. Box 871
Tulsa, OK 74102

Re: ONEOK Field Services Company, LLC
Canadian Valley Gas Plant (FAC ID 9481)
NE/4 Section 22, Township 13N, Range 9W, Canadian County

Dear Ms. Ellette:

Air Quality has received the permit application for the referenced facility and completed initial review. This application has been determined to be a Tier II application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c), the enclosed draft permit is now ready for public review. The requirements for public review of the draft permit include the following steps, which **you** must accomplish:

1. Publish at least one legal notice (one day) in at least one newspaper of general circulation within the county where the facility is located (Instructions enclosed);
2. Submit sample notice and provide date of publication to **AQD 5 days prior to notice publishing;**
3. Provide for public review, for a period of 30 days following the date of the newspaper announcement, a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility;
4. Send AQD a signed affidavit of publication for the notice(s) from Item #1 above within 20 days of publication of the draft permit. Any additional comments or requested changes you have for the draft permit or the application should be submitted within 30 days of publication.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or the permit writer at (405) 702-4100.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

NOTICE OF DRAFT PERMIT
TIER II or TIER III AIR QUALITY PERMIT APPLICATION

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a Tier II or Tier III draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. Note that if either the applicant or the public requests a public meeting, this must be arranged by the DEQ.

1. Complete the public notice using the samples provided by AQD below. Please use the version applicable to the requested permit action;
   Version 1 – Traditional NSR process for a construction permit
   Version 2 – Enhanced NSR process for a construction permit
   Version 3 – initial Title V (Part 70 Source) operating permit, Title V operating permit renewal, Significant Modification to a Title V operating permit, and any Title V operating permit modification incorporating a construction permit that followed Traditional NSR process
2. Determine appropriate newspaper local to facility for publishing;
3. Submit sample notice and provide date of publication to AQD 5 days prior to notice publishing;
4. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD.

REQUIRED CONTENT (27A O.S. § 2-14-302 and OAC 252:4-7-13(c))

1. A statement that a Tier II or Tier III draft permit has been prepared by DEQ;
2. Name and address of the applicant;
3. Name, address, driving directions, legal description and county of the site or facility;
4. The type of permit or permit action being sought;
5. A description of activities to be regulated, including an estimate of emissions from the facility;
6. Location(s) where the application and draft permit may be reviewed (a location in the county where the site/facility is located must be included);
7. Name, address, and telephone number of the applicant and DEQ contacts;
8. Any additional information required by DEQ rules or deemed relevant by applicant;
9. A 30-day opportunity to request a formal public meeting on the draft permit.

DEQ NOTICE OF TIER *…II or III…* **DRAFT PERMIT**

A Tier *…II or III…* **application for an air quality construction permit for a modification at an existing major facility has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant,** *…name and address.*

The applicant requests approval to *…brief description of purpose of application…* **at the** *…site/facility name … …***[proposed to be] located at** *…physical address (if any), driving directions, and legal description including county….*

In response to the application, DEQ has prepared a draft construction permit (Permit Number: *…xxxx-xxxx-x…***), which may be reviewed at** *…locations (one must be in the county where the site/facility is located)…* **or at the Air Quality Division's main office (see address below). The draft permit is also available for review under Permits for Public Review on the DEQ Web Page: http://www.deq.ok.gov/**

This draft permit would authorize the facility to emit the following regulated pollutants: *(list each pollutant and amounts in tons per year (TPY))***, which represents** (*identify the emissions change (increase or decrease) involved in the modification)***. [**Or add: **The modification will not result in a change in emissions.**] [For PSD permits only, add**: The project will consume the following increment levels:** *(list the amount of increment consumption for each pollutant in ug/m^3).*]

The public comment period ends 30 days after the date of publication of this notice. Any person may submit written comments concerning the draft permit to the Air Quality Division contact listed below or as directed through the corresponding online notice. Only those issues relevant to the proposed modification(s) are open for comment. A public meeting on the draft permit may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ staff.

In addition to the public comment opportunity offered under this notice, this draft permit is subject to U.S. Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8. The requirements of the construction permit will be incorporated into the Title V operating permit through the administrative amendment process. Therefore, no additional opportunity to provide comments or EPA review, EPA objection, and petitions to EPA will be available to the public when requirements from the construction permit are incorporated into the Title V operating permit.

If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45-day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j).

Information on all permit actions including draft permits, proposed permits, final issued permits and applicable review timelines are available in the Air Quality section of the DEQ Web page:
http://www.deq.ok.gov/.

For additional information, contact *…names, addresses and telephone numbers of contact persons for the applicant,* **or contact DEQ at: Chief Engineer, Air Quality Division, 707 N. Robinson, Suite 4100, P.O. Box 1677, Oklahoma City, OK, 73101-1677. Phone No. (405) 702-4100.**