DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **May 16, 2016**

TO: Phillip Fielder, P.E., Permits and Engineering Group Manager

THROUGH: Rick Groshong, Senior Environmental Programs Manager, Enforcement and Compliance Section

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

THROUGH: Peer Review

FROM: Joseph K. Wills, E.I., Existing Source Permits Section

SUBJECT: Evaluation of Construction Permit Application No. **2014-2494-TV**
ONEOK Field Services Company, L.L.C.
Cottonwood Compressor Station
Facility ID No. 14362
Latitude: 34.50589°N, Longitude: 97.77223°W
Section 6, Township 1S, Range 5W, Stephens County, Oklahoma
Directions: From the intersection of Cherokee Rd. and Main St. in Velma, OK, head west and continue for approximately 4.80 miles. Turn north onto Old OK-7 and continue for approximately 1.90 miles. Turn north onto N2930 Rd. and continue for approximately 1.40 miles.

SECTION I. INTRODUCTION

ONEOK Field Services Company, L.L.C. (OFS or applicant) submitted an application for a Title V major source operating permit to authorize continued operation of the Cottonwood Compressor Station in Stephens County, Oklahoma, near Velma. The facility was constructed under an individual minor source permit (Permit No. 2014-2494-C), issued on May 7, 2014. The Cottonwood Compressor Station became operational on September 9, 2015.

The facility is located adjacent to OFS's Stephens Inlet Compressor Station (Facility ID No. 1530), currently operating under Permit No. 2007-027-O. OFS planned to shut down the Stephens Inlet Compressor Station prior to startup of the Cottonwood Compressor Station for the co-located facilities to remain a minor source. Due to changing market conditions, OFS is now requesting to operate both facilities simultaneously. Since the two facilities are co-located, they will be combined and emissions aggregated under a single Title V operating permit. Combined emissions exceed major sources threshold. OFS has stated that the two facilities have not been and will not be operated simultaneously until the Title V operating permit has been issued.

Emission sources from the Cottonwood Compressor Station consist of five (5) 2,370-horsepower (hp) Caterpillar G3608LE compressor engines, one (1) 1.55-MMBTUH combustor, four (4) 400-

barrel (bbl) condensate tanks controlled by the combustor, two (2) 400-bbl produced water tanks, and one (1) 400-bbl methanol tank. Emission sources from the Stephens Inlet Compressor Station consist of two (2) 1,085-hp Caterpillar G3516LE compressor engines, two (2) 300-bbl and one (1) 210-bbl condensate tanks, one (1) high-pressure separator controlled by a high-pressure vapor recovery unit (VRU), one (1) low-pressure separator controlled by a low-pressure VRU, and one (1) 90-bbl methanol tank. Associated emission sources include condensate truck loading, fugitive emission, and compressor blowdowns.

The compressor engines at the Cottonwood Compressor Station were all manufactured after July 1, 2007; therefore, the engines are subject to 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart JJJJ and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ. The compressors associated with these compressor engines were constructed after August 23, 2011, and therefore subject to NSPS Subpart OOOO. The compressor engines at the Stephens Inlet Compressor Station were manufactured before January 1, 2008, and are not subject to NSPS Subpart JJJJ; however, the engines are subject to the requirements of NESHAP Subpart ZZZZ that became effective on October 19, 2013.

The condensate and produced water storage tanks at the Cottonwood Compressor Station were constructed after August 23, 2011, and are potentially subject to NSPS Subpart OOOO. The storage tanks are controlled such that emissions are less than 6 TPY and OFS has federally enforceable emission limitations from the 2014-2494-C construction permit, which are incorporated into the operating permit. Therefore, these tanks will not be subject to this subpart. The condensate storage tanks at the Stephens Inlet Compressor Station were constructed before August 23, 2011, and are not subject to NSPS Subpart OOOO.

All pneumatic controllers installed at the Cottonwood Compressor Station have a continuous bleed rate of less than 6-SCFM; therefore, they are not be subject to NSPS Subpart OOOO.

OFS is requesting to operate both sites simultaneously 24 hours per day, 365 days per year, 8,760 hour per year. Aggregated emissions from the two sites exceed the major source thresholds for NO_X, CO and VOC. Emissions of Hazardous Air Pollutants (HAP) will not exceed major source thresholds. Tier II requirements are applicable to the operating permit. ONEOK requested and was granted concurrent public and EPA review periods.

SECTION II. FACILITY DESCRIPTION

The two stations operate in a similar manner. The natural gas inlet stream from surrounding area wells enters the facilities through an inlet separator. The gas from the inlet separator is compressed by the compressor engines. Each engine at the Cottonwood Compressor Station is controlled by an oxidation catalyst. The engines at the existing Stephens Inlet Compressor Station are currently uncontrolled, but an oxidation catalyst will be added to engine S-C-1.2 before the facilities begin operating simultaneously. After the gas passes through the compressors, it exits the facilities via pipeline.

At the Cottonwood Compressor Station, liquids from the inlet separator are stored in the condensate and produced water storage tanks. Condensate tank emissions are controlled by a combustor, which provides 98% VOC control efficiency. At the existing Stephens Inlet Compressor Station, liquids from the inlet separator are sent to a high-pressure separator, then to a low-separator separator, and finally to the condensate tanks. Vapors generated at the low-pressure separator, as well as working, breathing, and flashing emissions produced at the condensate tanks are captured by the low-pressure and high-pressure VRUs and recycled to suction. At both sites, condensate is loaded into trucks to be transported for sale. At the Cottonwood Compressor Station, condensate loading emissions are captured by a vapor return line with 70% capture efficiency and are routed to the tank combustor for 98% destruction efficiency. Condensate loading emissions at the Stephens Inlet Compressor Station are uncontrolled. Emissions from fugitive components and compressor blowdowns also occur at each facility.

SECTION III. EQUIPMENT

Emission units have been arranged into Emission Unit Groups (EUGs) as outlined below. Sources associated with the Cottonwood Compressor Station (EUG 1 through EUG 8) are designated with a "C" prefix prior to the emission unit numbers and the existing sources previously listed under the Stephens Inlet Compressor Station (EUG 9 through EUG 14) are designated with a "S" prefix.

EUG 1: Cottonwood Compressor Engines

EU ID	Make/Model	HP	Serial Number	Control	Manufacture Date	Installation Date
C-C-1	Caterpillar G3608 LE	2,370	BEN00973	OC	04/13/2014	2015
C-C-2	Caterpillar G3608 LE	2,370	BEN00974	OC	04/13/2014	2015
C-C-3	Caterpillar G3608 LE	2,370	BEN00912	OC	11/30/2013	2015
C-C-4	Caterpillar G3608 LE	2,370	BEN00911	OC	11/27/2013	2015
C-C-5	Caterpillar G3608 LE	2,370	BEN00897	OC	10/29/2013	2015

OC = Oxidation Catalyst.

EUG 2: Cottonwood Condensate Tanks

EU ID	Capacity	Contents	Control	Construction Date
C-TK-1	400-bbl	Condensate	Combustor	2015
C-TK-2	400-bbl	Condensate	Combustor	2015
C-TK-3	400-bbl	Condensate	Combustor	2015
C-TK-4	400-bbl	Condensate	Combustor	2015

EUG 3: Cottonwood Produced Water Tanks

EU ID	Capacity	Contents	Control	Construction Date
C-WTK-1	400-bbl	Produced Water	None	2015
C-WTK-2	400-bbl	Produced Water	None	2015

EUG 4: Cottonwood Condensate Truck Loading

EU ID	Emission Unit Description	Construction Date
C-TL-1	Condensate Truck Loading	N/A

N/A = Not Applicable.

EUG 5: Cottonwood Combustors

EU ID	Emission Unit Description	MMBTUH	Construction Date
C-COMB	Tank Combustor	1.55	2015

EUG 6: Cottonwood Methanol Tank

EU ID	Capacity	Contents	Control	Construction Date
C-MTK-1	400-bbl	Methanol	None	2015

EUG 7: Cottonwood Fugitive Emissions

EU ID	Component Type	No. of Gas Components	No. of Light Oil Components
C-FUG	Valves	269	66
	Pump Seals	24	6
	Other	26	30
	Connectors	308	132
	Flanges	202	12
	Open-Ended Lines	34	12

EUG 8: Cottonwood Blowdowns

EU ID	Emission Unit Description	Construction Date
C-BD	Compressor Blowdowns	N/A

N/A = Not Applicable.

EUG 9: Stephens Compressor Engines

EU ID	Make/Model	HP	Serial Number	Control	Manufacture Date	Installation Date
S-C-1.2	Caterpillar G3516 LE	1,085	3RC00722	None	01/13/1993	2015
S-C-2.2	Caterpillar G3516 LE	1,085	3RC00309	OC	01/22/1991	2015

OC = Oxidation Catalyst.

EUG 10: Stephens Condensate Tanks

EU ID	Capacity	Contents	Control	Construction Date
S-TK-1	300-bbl	Condensate	VRU	1995
S-TK-2	300-bbl	Condensate	VRU	1995
S-TK-3	210-bbl	Condensate	VRU	2004
S-HP-SEP	N/A	N/A	None	N/A
S-LP-SEP	N/A	N/A	VRU	N/A

N/A = Not Applicable.

EUG 11: Stephens Truck Loading

EU ID	Emission Unit Description	Construction Date
S-TL-1	Condensate Truck Loading	N/A

N/A = Not Applicable.

EUG 12: Stephens Methanol Tank

EU ID	Capacity	Contents	Control	Construction Date
S-MTK-1	90-bbl	Methanol	None	1995

EUG 13: Stephens Fugitive Emissions

EU ID	Component Type	No. of Gas Components	No. of Light Oil Components
S-FUG	Valves	200	25
	Flanges	250	50
	Connectors	400	50
	Relief Valves	7	---
	Open-Ended Lines	4	2
	Compressor Seals	4	---
	Pump Seals	---	2
	Other	---	5

EUG 14: Stephens Blowdowns

EU ID	Emission Unit Description	Construction Date
S-BD	Compressor Blowdowns	N/A

N/A = Not Applicable.

SECTION IV. AIR EMISSIONS

All emissions are based on continuous operation (8,760 hours per year) unless stated otherwise.

Criteria Pollutants

EUG 1: Estimated emissions from the 2,370-hp Caterpillar G3608 LE compressor engines are based on several sources. The emission factor for NO_X was based on the manufacturer's data and an applied safety factor. The emission factor for CO was based on the manufacturer's emission factor of 2.75 g/hp-hr and applying a control efficiency of 80% from the oxidation catalyst. The emission factor for VOC was based on the manufacturer's emission factor of 0.63 g/hp-hr and a control efficiency of 20% from the oxidation catalyst. The emission factor for SO_2 was obtained from AP-42 (7/00), Table 3.2-2 for 4S-LB engines. The emission factors for filterable and condensable $PM_{10/2.5}$ were obtained from AP-42 (7/00), Table 3.2-2 for 4S-LB engines. Engine parameters and emission factors are presented in the following tables.

Compressor Engine Parameters

Parameter	C-C-1 through C-C-5
Manufacturer	Caterpillar
Model	G3608 LE
Control	Oxidation Catalyst
Horsepower (max.)	2,370
Fuel Consumption (Btu/hp-hr)	6,629
Fuel Usage (SCFH)	15,313
Stack Diameter (inches)	20
Height Above Grade (feet)	29
Exhaust Flow (ACFM)	16,144
Exhaust Temperature (°F)	857

Compressor Engine Emission Factors

Description	NO_X	CO	VOC	SO_2	$PM_{10/2.5}$
	g/hp-hr	g/hp-hr	g/hp-hr	lb/MMBTU	lb/MMBTU
2,370-hp Caterpillar G3608 LE(1)	0.80	0.55	0.50	5.88×10^{-4}	9.99×10^{-3}

1 – Equipped with oxidation catalysts.

EUG 2: Working and breathing emissions from the four condensate storage tanks were estimated using the EPA TANKS 4.0.9d software, incorporating an individual tank throughput of 1,000,000 gallons per year (gpy), and modeling the tank contents as Gasoline RVP 13. Flashing emissions from the four condensate storage tanks was estimated using the ProMax process simulation software, which resulted in an emission factor of 4.6 lb VOC/bbl. Emissions from the condensate tanks are routed to a combustion device (C-COMB) with a destruction efficiency of 98%. Emissions from the condensate storage tanks that are not combusted are reported under the emissions of C-COMB. Emissions for the condensate storage tanks are presented in the following table.

Condensate Tank Emissions Controlled by C-COMB

EU ID	Working	Breathing	Flashing	Uncontrolled Emissions	Controlled Emissions[1]
	TPY	TPY	TPY	TPY	TPY
C-TK-1	4.74	2.93	54.77	62.44	1.25
C-TK-2	4.74	2.93	54.77	62.44	1.25
C-TK-3	4.74	2.93	54.77	62.44	1.25
C-TK-4	4.74	2.93	54.77	62.44	1.25
TOTALS	**18.96**	**11.72**	**219.08**	**249.76**	**5.00**

[1] – Controlled emissions estimated based on 100% capture efficiency and 98% destruction efficiency.

EUG 3: Working and breathing emissions from the two produced water storage tanks were estimated using the EPA TANKS 4.0.9d software, incorporating a total tank throughput of 3,066,000-gpy, and modeling the tank contents as Gasoline RVP 13, assuming only 1% of the contents to be condensate/oil. Since it is assumed that only 1% of the contents are condensate/oil, flashing losses were estimated assuming 1% of the same flashing emission factor used for condensate. Emissions from the produced water storage tanks are vented directly to the atmosphere. Emissions from the produced water storage tanks are presented in the following table.

Produced Water Tank Emissions

EU ID	Working	Breathing	Flashing	Emissions
	TPY	TPY	TPY	TPY
C-WTK-1	0.05	0.01	0.84	0.90
C-WTK-2	0.05	0.01	0.84	0.90
TOTALS	**0.10**	**0.02**	**1.68**	**1.80**

EUG 4: Emissions from condensate truck loading are estimated based on an annual throughput of 4,000,000-gpy and an emission factor of 8.82 lb/1,000 gallons of liquid loaded, which was estimated using AP-42 (1/95) Section 5.2-4 Equation 1, and factors obtained from Table 5.2-4. A capture efficiency of 70% from the vapor return line was also applied. The vapor return line routes captured emissions to a combustion device for destruction. Emissions were estimated as follows:

$$L_L = 12.46 \frac{SPM}{T}\left(1 - \frac{eff}{100}\right)$$

Where:

LL = loading loss, pounds per 1,000 gallons ($lb/10^3$ gal) of liquid loaded
S = a saturation factor from AP-42, Table 5.2-1
= 0.6 for submerged loading: dedicated normal
P = true pressure of liquid loaded, pounds per square inch absolute (psia)
= 11.3308 psia for annual loading losses

M = molecular weight of vapors, pounds per pound mol (lb/lb-mol)
= 54.119 lb/lb-mol;
T = temperature of bulk liquid loaded, °R (°F +460)
= 519.96°R
eff = control efficiency,
= 70% from AP-42, Section 5.2.2

EUG 5: Emissions of NO_X and CO from the tank combustor (C-COMB) were estimated based on emission factors obtained from AP-42 (4/15), Table 13.5-1. Emissions of VOC from the tank combustor stream were based on mass balance, incorporating 100% of the uncontrolled working, breathing, and flashing losses form the condensate tanks, 70% of the captured emissions from condensate truck loading operations, and a total destruction efficiency of 98%. Emissions of NO_X, CO, and VOC from the combustor pilot gas were estimated based on emission factors obtained from AP-42 (7/98), Table 1.4-1 and 1.4-2.

EUG 6: Working and breathing emissions from the methanol storage tank were estimated using the EPA TANKS 4.0.9d software, incorporating an individual tank throughput of 873,600-gpy, and modeling the tank contents to be as Methyl Alcohol. Emissions from the methanol storage tank are vented to the atmosphere.

Methanol Tank Emissions

EU ID	Working	Breathing	Emissions
	TPY	TPY	TPY
C-MTK-1	0.37	0.08	0.45

EUG 7: Fugitive emissions at the Cottonwood Compressor Station 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 for process piping fugitive emissions, and component counts from a similar facility.

EUG 8: Compressor blowdown emissions at the Cottonwood Compressor Station were estimated based on an estimated 1,200,000-SCF per year for the five compressors located at the Cottonwood Compressor Station, and 18.68% by volume maximum VOC.

EUG 9: Estimated emissions from the 1,085-hp Caterpillar G3516 LE compressor engines are based on manufacturer's data. The emission factor for SO_2 was obtained from AP-42 (7/00), Table 3.2-2 for 4S-LB engines. The emission factors for filterable and condensable $PM_{10/2.5}$ were obtained from AP-42 (7/00), Table 3.2-2 for 4S-LB engines. Engine parameters and emission factors are presented in the following tables.

Compressor Engine Parameters

Parameter	S-C-1.2 and S-C-2.2
Manufacturer	Caterpillar
Model	G3516 LE
Control	Oxidation Catalyst

Horsepower (max.)	1,085
Fuel Consumption (Btu/hp-hr)	7,454
Fuel Usage (SCFH)	7,883
Stack Diameter (inches)	12
Height Above Grade (feet)	22
Exhaust Flow (ACFM)	5,977
Exhaust Temperature (°F)	842

Compressor Engine Emission Factors

Description	NO_X	CO	VOC	SO_2	$PM_{10/2.5}$
	g/hp-hr	g/hp-hr	g/hp-hr	lb/MMBTU	lb/MMBTU
1,085-hp Caterpillar G3516 LE	4.50	4.50	1.00	5.88×10^{-4}	9.99×10^{-3}
1,085-hp Caterpillar G3516 LE(1)	4.50	1.35	0.75	5.88×10^{-4}	9.99×10^{-3}

[1] – Equipped with oxidation catalysts.

EUG 10: Working and breathing emissions from the condensate storage tanks were estimated using the EPA TANKS 4.0.9d software, incorporating an individual tank throughput of 560,000 gallons per year (gpy). Flashing emissions from the condensate storage tanks, high-pressure separator, and low-pressure separator were estimated using the ProMax process simulation software, which resulted in an emission factor of 19.70 lb VOC/bbl. Emissions from the condensate tanks and low-pressure separator are routed to one of two vapor recovery units (VRU) for an overall system capture and control efficiency of 98%. The high-pressure separator will also pull vapors from the low-pressure separator. Emissions for the condensate storage tanks, high-pressure separator, and low-pressure separator are presented in the following table.

Condensate Tank Emissions Controlled by VRU

EU ID	Working	Breathing	Flashing	Uncontrolled Emissions	Controlled Emissions[1]
	TPY	TPY	TPY	TPY	TPY
S-TK-1	3.28	2.80	131.34	137.42	2.75
S-TK-2	3.28	2.80	131.34	137.42	2.75
S-TK-3	2.48	1.94	131.34	135.76	2.72
S-HP-SEP[2]	---	---	2.56	---	2.56
S-LP-SEP	---	---	84.65	84.85	1.70
TOTALS					

[1] – Controlled emissions based on 98% capture/control efficiency.

[2] – S-HP-SEP is not routed to the VRU, but only vents to the atmosphere when the pressure reaches 300 psi, which is assumed to occur only 5% of the operating time.

EUG 11: Emissions from condensate truck loading are estimated based on an annual throughput of 1,680,000-gpy and an emission factor of 8.82 lb/1,000 gallons of liquid loaded, which was estimated using AP-42 (1/95) Section 5.2-4 Equation 1, and factors obtained from Table 5.2-4. Emissions were estimated as follows:

$$L_L = 12.46 \frac{SPM}{T}\left(1 - \frac{eff}{100}\right)$$

Where:

LL = loading loss, pounds per 1,000 gallons (lb/10^3 gal) of liquid loaded
S = a saturation factor from AP-42, Table 5.2-1
= 0.6 for submerged loading: dedicated normal
P = true pressure of liquid loaded, pounds per square inch absolute (psia)
= 11.3308 psia for annual loading losses
M = molecular weight of vapors, pounds per pound mol (lb/lb-mol)
= 54.119 lb/lb-mol;
T = temperature of bulk liquid loaded, °R (°F +460)
= 519.96°R
eff = control efficiency,
= 70% from AP-42, Section 5.2.2

EUG 12: Working and breathing emissions from the methanol storage tank were estimated using the EPA TANKS 4.0.9d software, incorporating an individual tank throughput of 196,560-gpy, and modeling the tank contents to be as Methyl Alcohol. Emissions from the methanol storage tank are vented to the atmosphere.

Methanol Tank Emissions

EU ID	Working	Breathing	Emissions
	TPY	TPY	TPY
S-MTK-1	0.08	0.02	0.10

EUG 13: Fugitive emissions at the Stephens Compressor Station 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 for process piping fugitive emissions, and component counts from a similar facility.

EUG 14: Compressor blowdown emissions at the Stephens Inlet Compressor Station were estimated based on an estimated 1,000,000-SCF per year for the two compressors located at the Stephens Inlet Compressor Station, and 4.74% by volume maximum VOC.

Cottonwood Compressor Station Facility-Wide Emissions

EU ID	NO_X		CO		VOC		$PM_{10/2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-C-1	4.18	18.31	2.87	12.59	2.61	11.44	0.16	0.69	0.01	0.04
C-C-2	4.18	18.31	2.87	12.59	2.61	11.44	0.16	0.69	0.01	0.04
C-C-3	4.18	18.31	2.87	12.59	2.61	11.44	0.16	0.69	0.01	0.04
C-C-4	4.18	18.31	2.87	12.59	2.61	11.44	0.16	0.69	0.01	0.04
C-C-5	4.18	18.31	2.87	12.59	2.61	11.44	0.16	0.69	0.01	0.04
C-TK-1	---	---	---	---	*	*	---	---	---	---
C-TK-2	---	---	---	---	*	*	---	---	---	---
C-TK-3	---	---	---	---	*	*	---	---	---	---
C-TK-4	---	---	---	---	*	*	---	---	---	---
C-WTK-1	---	---	---	---	0.21	0.90	---	---	---	---
C-WTK-2	---	---	---	---	0.21	0.90	---	---	---	---
C-TL-1	---	---	---	---	1.21	5.29	---	---	---	---
C-COMB	0.11	0.46	0.57	2.49	1.20	5.24	<0.01	<0.01	<0.01	<0.01
C-MTK-1	---	---	---	---	0.10	0.45	---	---	---	---
C-FUG	---	---	---	---	2.60	11.40	---	---	---	---
C-BD	---	---	---	---	---	15.36	---	---	---	---
TOTAL	**21.01**	**92.01**	**14.92**	**65.44**	**18.58**	**96.74**	**0.80**	**3.45**	**0.05**	**0.20**

* Uncombusted tank emissions are reported at the tank combustor.

Stephens Inlet Compressor Station Facility-Wide Emissions

EU ID	NO_X		CO		VOC		$PM_{10/2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S-C-1.2	10.76	47.15	10.76	47.15	2.39	10.48	0.08	0.35	<0.01	0.02
S-C-2.2	10.76	47.15	3.23	14.14	1.79	7.86	0.08	0.35	<0.01	0.02
S-TK-1	---	---	---	---	0.63	2.75	---	---	---	---
S-TK-2	---	---	---	---	0.63	2.75	---	---	---	---
S-TK-3	---	---	---	---	0.62	2.72	---	---	---	---
S-HP-SEP	---	---	---	---	11.71	2.56	---	---	---	---
S-LP-SEP	---	---	---	---	0.39	1.69	---	---	---	---
S-TL-1	---	---	---	---	1.69	7.41	---	---	---	---
S-MTK-1	---	---	---	---	0.02	0.10	---	---	---	---
S-FUG	---	---	---	---	0.68	2.97	---	---	---	---
S-BD	---	---	---	---	---	3.37	---	---	---	---
TOTAL	**21.52**	**94.30**	**13.99**	**61.29**	**20.55**	**44.66**	**0.16**	**0.70**	**<0.01**	**0.04**

Aggregated Facility Emissions

EU ID	NO_X		CO		VOC		$PM_{10/2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Cottonwood	21.01	92.01	14.92	65.44	18.58	96.74	0.80	3.45	0.05	0.20
Stephens	21.52	94.30	13.99	61.29	20.55	44.66	0.16	0.70	<0.01	0.04
TOTALS	**42.53**	**186.31**	**28.91**	**126.73**	**39.13**	**141.40**	**0.96**	**4.15**	**0.05**	**0.24**

Since final emissions are less than the PSD threshold of 250 TPY, the permit is not subject to PSD Review. Increases in NO_X, CO, and VOC emissions are less than 100 TPY, therefore, a BACT determination is not required.

Hazardous Air Pollutants (HAP)

The compressor engines have emissions of HAPs, the most significant being formaldehyde. Emissions from the 2,370-hp Caterpillar G3608 LE engines are based on the manufacturer's emission factor of 0.26 g/hp-hr and a control efficiency of 80% for the oxidation catalysts. Emissions from the 1,085-hp Caterpillar G3516 LE engines are based on the manufacturer's emission factor of 0.27. One of the two engines is controlled with an oxidation catalyst with a control efficiency of 70%

EU ID	Description	Emission Factor	Formaldehyde Emissions	
		g/hp-hr	lb/hr	TPY
C-C-1	2,370-hp Caterpillar G3608 LE	0.052	0.27	1.19
C-C-2	2,370-hp Caterpillar G3608 LE	0.052	0.27	1.19
C-C-3	2,370-hp Caterpillar G3608 LE	0.052	0.27	1.19
C-C-4	2,370-hp Caterpillar G3608 LE	0.052	0.27	1.19
C-C-5	2,370-hp Caterpillar G3608 LE	0.052	0.27	1.19
S-C-1.2	1,085-hp Caterpillar G3516 LE	0.27	0.65	2.83
S-C-2.2	1,085-hp Caterpillar G3516 LE	0.08	0.19	0.84
TOTALS			**2.19**	**9.62**

Based on emission estimates, the facility has total potential controlled HAP emissions of 9.62 TPY. Emissions of any single HAP do not exceed 10 TPY and an aggregate of total facility HAPs does not exceed 25 TPY. Therefore, the facility is an area source of HAPs.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities and justified in the application are duplicated below. Appropriate recordkeeping activities indicated below with a "*" is specified in the Specific Conditions.

1. * 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.

2. * Activities having the potential to emit nor more than 5 TPY (actual) of any criteria pollutant.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

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

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

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

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

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 Emissions 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 affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter) [Applicable]
Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment, with emission limits based on maximum design heat input rating. Fuel-burning equipment is defined in OAC 252:100-19 as any internal combustion engine or gas turbine, or other combustion device used to convert the combustion of fuel into usable energy. Thus, the engines are subject to the requirements of this subchapter. Appendix C specifies a PM emission limitation of 0.60 lbs/MMBTU for all equipment at this facility with a heat input rating of 10 MMBUTH or less. Appendix C specifies a PM emission limitation for all equipment at this facility with a heat input rating of greater than 10 MMBTUH but less than 1,000 MMBTUH based on the following calculation: $E = 1.0428080X^{-0.238561}$, where E is the allowable emission rate and X is the maximum heat input. Table 3.2-2 of AP-42 (7/00) lists total PM emissions from 4-stroke lean-burn natural gas-fired engines to be 0.01 lbs/MMBTU.

Equipment	Maximum Heat Input (MMBTUH)	Emissions (lbs/MMBTU)	
		Appendix C	Potential
2,370-hp Caterpillar G3608 LE engines	15.71 each	0.54	0.01
1,085-hp Caterpillar G3516 LE engines	8.09 each	0.60	0.01

This subchapter also limits emissions of particulate matter from industrial processes and direct-fired fuel-burning equipment based on their process weight rates. Since there are no significant particulate emissions from the nonfuel-burning processes at the facility compliance with the standard is assured without any special monitoring provisions.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas, there is little possibility of exceeding the opacity standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions 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. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 2 limits the ambient air concentration of hydrogen sulfide (H_2S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 $\mu g/m^3$. Engines combusting fuel with an H_2S content of less than 343 ppmv are unlikely to exceed the ambient

air concentration limit. A fuel sulfur limit of 343 ppmv will ensure compliance with the ambient air concentration limit.
Part 5 limits sulfur dioxide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 Btu/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. Gas produced from oil and gas wells having 343 ppmv or less total sulfur will ensure compliance with Subchapter 31. The permit requires the use of pipeline-grade natural gas or field gas with a maximum sulfur content of 343 ppmv for all fuel-burning equipment to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits NOx emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NOx per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Parts 3 and 7 are Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia at maximum storage temperature to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The condensate, produced water, and methanol storage tanks are subject to this requirement.
Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. This facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.
Part 5 limits the VOC content of coatings from any coating line or other coating operation. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.
Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The equipment at this location is subject to this requirement.
Part 7 requires all effluent water separator openings which receive water containing more than 200 gallons per day of any VOC, to be sealed or the separator to be equipped with an external floating roof or a fixed roof with an internal floating roof or a vapor recovery system. No effluent water separators are located at this facility.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Not 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 AOC has been designated 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.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility:

OAC 252:100-11	Alternative Emissions Reduction	Not requested
OAC 252:100-15	Mobile Sources	Not in source category
OAC 252:100-17	Incinerators	Not type of emission unit
OAC 252:100-23	Cotton Gins	Not type of emission unit
OAC 252:100-24	Grain Elevators	Not in source category
OAC 252:100-39	Nonattainment Areas	Not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	Not in source category

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Final total emissions are less than the 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 JJJJ and OOOO are Applicable]
Subpart Kb, VOL Storage Vessels. This subpart regulates hydrocarbon storage tanks larger than 19,813-gallons capacity and built after July 23, 1984. All storage tank capacities at this facility are smaller than the threshold level.
Subpart GG, Stationary Gas Turbines. This subpart sets standards for stationary gas turbines, however, the compressors here are powered by reciprocating engines.
Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. The facility does not engage in natural gas processing.
Subpart LLL, Onshore Natural Gas Processing: SO_2 Emissions. This subpart affects sweetening units and sweetening units followed by sulfur recovery units. This facility does not have a sweetening unit operating on-site.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and numerous manufacture dates. Engines C-C-1 through C-C-5 are subject to this subpart and the permit requires compliance with all applicable requirements of this subpart. Engines S-C-1.2 and S-C-2.2 were constructed and manufactured prior to the applicability date and are therefore not subject to this subpart.

The owner/operator of a stationary SI-ICE with a maximum engine power greater than or equal to 500-hp must comply with the emission standards in Table 1 of Subpart JJJJ. The applicable standards of Table 1 of Subpart JJJJ are listed below.

Emission Standards from Table 1, Subpart JJJJ, g/hp-hr (ppmvd @ 15%O_2)

For Non-Emergency SI Lean-Burn Engines Burning Natural Gas

Rated Power (hp)	Mfg. Date	NO_X	CO	VOC
≥ 500 hp	7/1/2010	1.0 (80)	2.0 (270)	0.7 (60)

Engine C-C-1 through C-C-5 are not certified engines and are labeled by the manufacturer according to § 60.4242(e). Since engines C-C-1 through C-C-5 are non-certified engines the owner/operator must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the owner/operator must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. Performance tests must comply with the requirements specified in §60.4244. All applicable requirements have been incorporated into the permit.

Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution. This affects the following onshore affected facilities that commence construction, reconstruction, or modification after August 23, 2011:

(a) Each gas well affected facility, which is a single natural gas well.
(b) Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.
(c) Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.
(d) Each pneumatic controller affected facility, which is:
    (1) For the oil production segment (between the wellhead and the point of custody transfer to an oil pipeline): a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 SCFH.
    (2) For the natural gas production segment (between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not including

natural gas processing plants): a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 SCFH.

(3) For natural gas processing plants: a single continuous bleed natural gas-driven pneumatic controller.

(e) Each storage vessel affected facility, which is a single storage vessel located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment, that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water and has the potential for VOC emissions equal to or greater than 6 TPY.

(f) The group of all equipment, except compressors, within a process unit located at an onshore natural gas processing plant is an affected facility.

(g) Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.

For each reciprocating compressor the owner/operator must replace the rod packing before 26,000 hours of operation or prior to 36 months. If utilizing the number of hours, the hours of operation must be continuously monitored. Commenced construction is based on the date of installation of the compressor (excluding relocation) at the facility. The compressors associated with new 2,370-hp Caterpillar G3608 LE engines are subject to this subpart. The compressors associated with the 1,085-hp Caterpillar G3615 LE engines were constructed prior to the applicability date of this subpart and are therefore not subject to this subpart.

This facility is not a gas plant and there are no pneumatic controllers with a bleed rate of 6 SCFH at this facility.

Storage vessels constructed, modified or reconstructed after August 23, 2011**,** with VOC emissions equal to or greater than 6 TPY must reduce VOC emissions by 95.0 % or greater. Tanks C-TK-1 through C-TK-4 and C-WTK-1 through C-WTK-2 were constructed and installed after April 12, 2013 and are potentially affected sources as Group 2 storage vessels. The applicant has federally enforceable emission limits of less than 6.0 TPY from the construction permit for each of the tanks installed at the Cottonwood Compressor Station. Therefore, the tanks will not be subject to this subpart. Tanks S-TK-1 through S-TK-3 were constructed and installed prior to the applicability date of this subpart and are therefore not subject to this subpart.

The group of all equipment, except compressors, within a process unit at a natural gas processing plant must comply with the requirements of NSPS, Subpart VVa, except as provided in §60.5401. This facility is not a gas plant.

A sweetening unit means a process device that removes hydrogen sulfide and/or carbon dioxide from the sour natural gas stream. There are no sweetening units at this facility.

Only the compressors associated with the 2,370-hp Caterpillar G3608 LE engines at this facility will be subject to the requirements of this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]

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

NESHAP, 40 CFR Part 63 [Subpart ZZZZ is Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities that are major and area sources of HAP, and either process, upgrade, or store hydrocarbon liquids prior to custody transfer or that process, upgrade, or store natural gas prior to entering the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, if present. The only affected source at area sources are triethylene glycol (TEG) dehydration units. The combined HAP emissions from this facility are less than the major source thresholds. There are no TEG dehydration units at this facility.

Subpart HHH, Natural Gas Transmission and Storage. This subpart was published in the Federal Register on June 17, 1999, and affects Natural Gas Transmission and Storage Facilities. It applies to affected emission points that are located at facilities that are major sources of HAPs, as defined in this subpart, and that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user. This facility is a minor source of HAPs and is not a transmission or storage facility.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of the following new or reconstructed RICE must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines):

1) Stationary RICE located at an area source;
2) The following Stationary RICE located at a major source of HAP emissions:
   i) 2SLB and 4SRB stationary RICE with a site rating of ≤ 500 brake HP;
   ii) 4SLB stationary RICE with a site rating of < 250 brake HP;
   iii) Stationary RICE with a site rating of ≤ 500 brake HP which combust landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis;
   iv) Emergency or limited use stationary RICE with a site rating of ≤ 500 brake HP; and
   v) CI stationary RICE with a site rating of ≤ 500 brake HP.

No further requirements apply for engines subject to NSPS under this part. Based on emission calculations, this facility is a minor source of HAP. A stationary RICE located at an area source of HAP emissions is new if construction commenced on or after June 12, 2006. The 2,370-hp Caterpillar G3608 LE engines are subject to Subpart ZZZZ and are required to comply with the requirements of NSPS Subpart JJJJ. The 1,085-hp Caterpillar G3516LE engines are considered existing units, and must comply with the requirements that became effective on October 19, 2013. The following summary shows the requirements for the existing SI RICE located at this facility.

Engine Category	
Remote	**Requirements**[1]
Existing Non-Emergency, Non-Black Start 4SLB Remote Stationary RICE HP > 500-hp	Change oil and filter every 2,160 hours of operation or annually, whichever comes first[2]
	Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
	Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.

[1] – During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
[2] – Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.

Onshore remote stationary RICE means stationary RICE meeting any of the following criteria:

1. Stationary RICE located on a pipeline segment that meets both of the following criteria:
   i. A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.
   ii. The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.
2. Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Based on information submitted by the applicant, this facility and the engines within the facility are considered remote. All applicable requirements have been incorporated into the permit.

CAM, 40 CFR Part 64 [Not Applicable]

Compliance Assurance Monitoring (CAM) 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, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant.
- It uses a control device to achieve compliance with the applicable emission limit or standard.
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than major source threshold.

The 2,370-hp Caterpillar G3608 LE engines are equipped with oxidation catalysts. However, uncontrolled emissions are stated in Caterpillar data as 0.5 g/hp-hr NO_X (11.44 TPY), 2.75 g/hp-hr for CO (62.93 TPY), which are below the 100 TPY threshold of applicability. Only one of the 1,085-hp Caterpillar G3516 LE engines is equipped with an oxidation catalyst. Uncontrolled emissions are stated in Caterpillar data as 4.50 g/hp-hr NO_X (47.15 TPY), 4.50 g/hp-hr CO (47.15 TPY), which are below the 100 TPY threshold of applicability. Therefore CAM is not applicable.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Applicable]
The definition of a stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. Naturally occurring hydrocarbon mixtures, prior to entry into a natural gas processing plant or a petroleum refining process unit, including: condensate, crude oil, field gas, and produced water, are exempt for the purpose of determining whether more than a threshold quantity of a regulated substance is present at the stationary source. More information on this federal program is available on the web page: *www.epa.gov/ceppo*.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F are Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).
Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.
Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.
The standard conditions of the permit address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and

§82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION VIII. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be a **Tier II** based on the fact that it is a request for an operating permit for a major source for which a Title V operating permit is required.

The applicant published the DEQ "Notice of Tier II Permit Application Filing" in *The Duncan Banner*, a daily newspaper published in Duncan, Oklahoma, Stephens County, on January 16, 2016. The notice stated that the application was available for public review in the Duncan Public Library at 2211 N. Highway 81, Duncan, Oklahoma, or at the DEQ main office at 707 N. Robinson, Oklahoma City, Oklahoma. The draft permit will to be submitted for a 30-day public review.

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 (or applicant business) has a current lease to accomplish the permitted purpose. Information on all permits is available for review by the public in the Air Quality Section of the DEQ Web Page: http://www.deq.state.ok.us.

Initial Compliance Inspection

A partial compliance inspection was conducted on May 12, 2016 from 10:00 a.m. to 10:30 p.m. The inspection was conducted by Joseph Wills of the Oklahoma Department of Environmental Quality, Air Quality Division. Representing the facility was Torri Triplett and Roy Howard, of ONEOK, Inc. At the time of the inspection, none of the compressor engines were operating. Construction of the Cottonwood Compressor Station was complete. The oxidation catalyst for engine S-C-2.2 at the Stephens Inlet Compressor Station had not yet been installed; however, it was on-site in preparation to be installed in the very near future. Mr. Howard stated the engine would not be operated until the oxidation catalyst is installed. This inspection confirmed that this facility is being constructed and will operate as described in the permit application and supplemental materials.

State Review

This facility is located within 50 miles of the Oklahoma – Texas border. Texas will be notified of this draft permit.

EPA Review

OFS requested and was granted concurrent public and EPA review periods. The draft permit will be sent to EPA for a 45 day review period. The EPA review period may be extended so that the EPA review period does not end before the public review period ends.

Fees Paid

A fee of $7,500 is required for a Part 70 operating permit. A payment of $7,500 was received on November 13, 2015.

SECTION IX. SUMMARY

The facility has demonstrated the ability to comply with the requirements of the several air pollution control rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of this construction permit is recommended, contingent upon public and EPA review.

DRAFT/PROPOSED

PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

ONEOK Field Services Company, L.L.C. **Permit No. 2014-2494-TV**
Cottonwood Compressor Station

The permittee is authorized to operate in conformity with the specifications submitted to the Air Quality Division on November 13, 2015, and supplemental information received on April 28, 2016. The Evaluation Memorandum dated May 16, 2016, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. 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: [OAC 252:100-8-6(a)]

EUG 1. Cottonwood Compressor Engines: Emission from the compressor engines shall be limited as follows. [OAC 252:100-8-34(b)]

EU ID	Point	Description	NO_X		CO		VOC	
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-C-1	C-C-1	2,370-hp Caterpillar G3608 LE[1]	4.18	18.31	2.87	12.59	2.61	11.44
C-C-2	C-C-2	2,370-hp Caterpillar G3608 LE[1]	4.18	18.31	2.87	12.59	2.61	11.44
C-C-3	C-C-3	2,370-hp Caterpillar G3608 LE[1]	4.18	18.31	2.87	12.59	2.61	11.44
C-C-4	C-C-4	2,370-hp Caterpillar G3608 LE[1]	4.18	18.31	2.87	12.59	2.61	11.44
C-C-5	C-C-5	2,370-hp Caterpillar G3608 LE[1]	4.18	18.31	2.87	12.59	2.61	11.44

[1] – Equipped with oxidation catalyst.

a. Each engine at the facility shall have a permanent identification plate attached that is accessible and legible, which shows the make, model number, and serial number. [OAC 252:100-43]

b. Engines C-1 through C-5 shall be equipped with oxidation catalysts to control emissions of CO and HAP. CO shall be controlled to less than or equal to 0.55 g/hp-hr for each of the 2,370-hp Caterpillar G3608 LE engines. [OAC 252:100-8-5(d)(1)(A)]

c. At least once per calendar quarter, the permittee shall conduct tests of NO_X and CO emissions in exhaust gases from each engine and from each replacement engine/turbine when operating under representative conditions for that period. Testing is required for each engine or any replacement engine/turbine that runs for more than 220 hours during that calendar quarter. A quarterly test may be conducted no sooner than 20 calendar days after the most recent test. Testing shall be conducted using a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD Portable Analyzer Guidance document, or an equivalent method approved by Air Quality. When four consecutive quarterly tests show the engine/turbine to be in compliance with the emissions limitations shown in the permit, then the testing frequency may be reduced to semi-annual testing. A semi-annual test may be conducted no sooner than 60 calendar days nor later than 180 calendar days after the most recent test. Likewise, when the

following two consecutive semi-annual tests show compliance, the testing frequency may be reduced to annual testing. An annual test may be conducted no sooner than 120 calendar days nor later than 365 calendar days after the most recent test. Upon any showing of non-compliance with emissions limitations or testing that indicates that emissions are within 10% of the emission limitations, the testing frequency shall revert to quarterly. Reduced testing frequency does not apply to engines with catalytic converters. Any reduction in the testing frequency shall be noted in the next required compliance certification. [OAC 252:100-8-6 (a)(3)(A)]

d. When periodic compliance testing shows exhaust emissions from the engines in excess of the lb/hr limits in Specific Condition No. 1, the permittee shall comply with the provisions of OAC 252:100-9. [OAC 252:100-9]

e. Engines C-1 through C-5 are subject to 40 CFR Part 63, Subpart ZZZZ. The permittee must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ, and no further requirements apply to the engines under this part. [40 CFR §63.6590(c)]

f. The permittee shall comply with all applicable requirements in 40 CFR Part 60, Subpart JJJJ for all stationary spark ignition (SI) internal combustion engines (ICE) Engines C-1 through C-8 including, but not limited to, the following. [40 CFR §§60.4230 to 60.4246]

   i. §60.4230 Am I subject to this subpart?
   ii. The emission standards of §60.4233 and §60.4234.
   iii. The deadlines for importing or installing SI ICE produced in the previous model year in accordance with §60.4236.
   iv. The monitoring requirements of §60.4237 for emergency engines.
   v. The compliance requirements of §60.4243.
   vi. The performance test methods and other procedures of §60.4244.
   vii. The notification, reporting, and recordkeeping requirements of §60.4245.
   viii. §60.4246 What parts of the General Provisions apply to me?
   ix. §60.4248 What definitions apply to this subpart?

EUG 2. Cottonwood Condensate Storage Tanks: Emissions from the condensate storage tanks are limited as follows.

EU ID	Point	Contents	Capacity (bbl)	Throughput (gal/yr)
C-TK-1	C-COMB	Condensate	400	1,000,000
C-TK-2	C-COMB	Condensate	400	1,000,000
C-TK-3	C-COMB	Condensate	400	1,000,000
C-TK-4	C-COMB	Condensate	400	1,000,000

a. Each condensate tank shall be limited to less than 6 TPY VOC. Emissions shall be calculated on a monthly basis. Monthly calculations shall be summed together to establish a 12-month rolling total. OAC 252:100-8-6(a)(1)]

b. The condensate throughput of the facility shall not exceed 4,000,000 gallons in any one rolling 12-month period. [OAC 252:100-8-6(a)]

c. The condensate tanks shall be routed to a vapor collection system. Using the vapor collection system, the off-gasses from the condensate tanks shall be routed to the inlet separators and/or to a properly operating combustion device (C-COMB), with a system capture/control efficiency of 98%. [OAC 252:100-8-5(d)(1)(A) & 37-15(b)]

EUG 3. Cottonwood Produced Water Storage Tanks: Emissions from the produced water storage tanks shall be limited as follows.

EU ID	Point	Contents	Capacity (bbl)	Throughput (gal/yr)
C-WTK-1	C-WTK-1	Produced Water	400	3,066,000
C-WTK-2	C-WTK-2	Produced Water	400	

a. EUG 3 (WTK-1 and WTK-2) shall be limited to less than 6 TPY VOC. Emissions shall be calculated on a monthly basis. Monthly calculations shall be summed together to establish a 12-month rolling total. [OAC 252:100-8-6(a)(1)]
b. The produced water throughput of the facility shall not exceed 10,547,040 gallons in any one 12-month rolling period. [OAC 252:100-8-6(a)(1)]
c. Each produced water tank shall be equipped with a permanent submerged fill pipe. [OAC 252:100-37-15(b)]

EUG 4. Cottonwood Condensate Truck Loading: Emissions from condensate truck loading shall be limited as follows.

EU ID	Point	Name	Throughput (gal/yr)
C-TL-1	C-COMB	Condensate Truck Loading	4,000,000

Source	VOC
	TPY
Condensate Truck Loading	5.29

a. Condensate throughput shall not exceed 4,000,000 gallons in any 12-month period. The permittee shall monitor and record the condensate throughput each month. [OAC 252:100-8-6(a)(1) & (3)]
b. The condensate loading system shall be equipped with a vapor recovery system that collects the gases from the tank trucks being loaded and routes the vapor to a combustion device. [OAC 252:100-8-5(d)(1)(A) & 37-16(a)]

EUG 5. Cottonwood Combustor: Emissions from the combustors shall be limited as follows.

EU ID	POINT	NO_X		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-COMB	C-COMB	0.11	0.46	0.57	2.49	1.20	5.24

a. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [OAC 252:100-8-6(a)(1) & (3)]
b. Records of pilot flame(s) outages shall be maintained along with the time and duration of all periods during which the pilot flame is/was absent. [OAC 252:100-8-6(a)(1) & (3)]

EUG 6. Cottonwood Methanol Tank: Emissions from the methanol storage tank are considered insignificant. The methanol tank shall be limited as follows.

EU ID	Point	Contents	Capacity (bbl)
C-MTK-1	C-MTK-1	Methanol	400

a. The methanol tank shall be equipped with a permanent submerged fill pipe. [OAC 252:100-37-15(b)]

EUG 7. Cottonwood Fugitive Sources: Emissions from the fugitive equipment leaks are based on equipment type, the number of components, and the average emission factors for oil and gas facilities. There are no emission limits or limits on number of components applied to these emission units.

EU ID	Point	Component Type	No. of Gas Components	No. of Light Oil Components
C-FUG	C-FUG	Valves	269	66
		Pump Seals	24	6
		Other	26	30
		Connectors	308	132
		Flanges	202	12
		Open-Ended Lines	34	12

EUG 8. Cottonwood Compressor Blowdowns: Emissions from the compressor blowdowns are based on an estimated throughput of 1,200,000 SCFY.

EU ID	Point	Description	Throughput
C-BD	C-BD	Compressor Blowdowns	1.2 MMSCFY

a. Blowdowns shall not exceed 1.2 MMSCFY in any 12-month period. The permittee shall monitor and record the amount of gases related to blowdowns each month. [OAC 252:100-8-5(d)(1)(A)]

EUG 9. Stephens Compressor Engines: Emission from the compressor engines shall be limited as follows. [OAC 252:100-8-34(b)]

EU ID	Point	Description	NO_X		CO		VOC	
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S-C-1.2	S-C-1.2	1,085-hp Caterpillar G3516 LE	10.76	47.15	10.76	47.15	2.39	10.48
S-C-2.2	S-C-2.2	1,085-hp Caterpillar G3516 LE(1)	10.76	47.15	3.23	14.14	1.79	7.86

[1] – Equipped with oxidation catalyst.

a. Each engine at the facility shall have a permanent identification plate attached that is accessible and legible, which shows the make, model number, and serial number. [OAC 252:100-43]

b. Engines S-C-2.2 shall be equipped with an oxidation catalyst to control emissions of CO and HAP. CO shall be controlled to less than or equal to 1.35 g/hp-hr for the 1,085-hp Caterpillar G3516 LE engine. [OAC 252:100-8-5(d)(1)(A)]

c. At least once per calendar quarter, the permittee shall conduct tests of NO_X and CO emissions in exhaust gases from each engine and from each replacement engine/turbine when operating under representative conditions for that period. Testing is required for each engine or any replacement engine/turbine that runs for more than 220 hours during that calendar quarter. A quarterly test may be conducted no sooner than 20 calendar days after the most recent test. Testing shall be conducted using a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD Portable Analyzer Guidance document, or an equivalent method approved by Air Quality. When four consecutive quarterly tests show the engine/turbine to be in compliance with the emissions limitations shown in the permit, then the testing frequency may be reduced to semi-annual testing. A semi-annual test may be conducted no sooner than 60 calendar days nor later than 180 calendar days after the most recent test. Likewise, when the following two consecutive semi-annual tests show compliance, the testing frequency may be reduced to annual testing. An annual test may be conducted no sooner than 120 calendar days nor later than 365 calendar days after the most recent test. Upon any showing of non-compliance with emissions limitations or testing that indicates that emissions are within 10% of the emission limitations, the testing frequency shall revert to quarterly. Reduced testing frequency does not apply to engines with catalytic converters. Any reduction in the testing frequency shall be noted in the next required compliance certification. [OAC 252:100-8-6 (a)(3)(A)]

d. When periodic compliance testing shows exhaust emissions from the engines in excess of the lb/hr limits in Specific Condition No. 1, the permittee shall comply with the provisions of OAC 252:100-9. [OAC 252:100-9]

e. The permittee shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility including but not limited to: [40 CFR §§63.6580 to 63.6675]

i. § 63.6580 What is the purpose of subpart ZZZZ?
ii. § 63.6585 Am I subject to this subpart?
iii. § 63.6590 What parts of my plant does this subpart cover?
iv. § 63.6595 When do I have to comply with this subpart?

v. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
vi. § 63.6605 What are my general requirements for complying with this subpart?
vii. § 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
viii. § 63.6615 When must I conduct subsequent performance tests?
ix. § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?
x. § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?
xi. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?
xii. § 63.6650 What reports must I submit and when?
xiii. § 63.6655 What records must I keep?
xiv. § 63.6660 In what form and how long must I keep my records?
xv. § 63.6665 What parts of the General Provisions apply to me?
xvi. § 63.6670 Who implements and enforces this subpart?
xvii. § 63.6675 What definitions apply to this subpart?

EUG 10. Stephens Condensate Tanks: Emissions from the condensate storage tanks are limited as follows.

EU ID	Point	Contents	Capacity (bbl)	Throughput (gal/yr)	VOC (TPY)
S-TK-1	S-TK-1	Condensate	300	560,000	2.75
S-TK-2	S-TK-2	Condensate	300	560,000	2.75
S-TK-3	S-TK-3	Condensate	210	560,000	2.72
S-HP-SEP	S-HP-SEP	Condensate	1,200	1,680,000	2.56
S-LP-SEP	S-LP-SEP	Condensate	300	1,680,000	1.69

a. Emissions shall be calculated on a monthly basis. Monthly calculations shall be summed together to establish a 12-month rolling total. OAC 252:100-8-6(a)(1)]
b. The condensate throughput of the facility shall not exceed 1,680,000 gallons in any one rolling 12-month period. [OAC 252:100-8-6(a)]
c. Emissions from the condensate tanks and S-LP-SEP shall be routed to a vapor collection system. Using the vapor collection system, the off-gasses from the condensate tanks and separators shall be routed to the inlet separators. Emissions from the condensate tanks and separators shall be calculated monthly and used for the 12-month rolling total VOC emissions. [OAC 252:100-8-5(d)(1)(A) & 37-15(b)]

EUG 11. Stephens Condensate Truck Loading: Emissions from condensate truck loading shall be limited as follows.

EU ID	Point	Name	Throughput (gal/yr)
S-TL-1	S-TL-1	Condensate Truck Loading	1,680,000

Source	VOC
	TPY
Condensate Truck Loading	7.41

a. Condensate throughput shall not exceed 1,680,000 gallons in any 12-month period. The permittee shall monitor and record the condensate throughput each month.
[OAC 252:100-8-6(a)(1) & (3)]

EUG 12. Stephens Methanol Tank: Emissions from the methanol storage tank are considered insignificant. The methanol tank shall be limited as follows.

EU ID	Point	Contents	Capacity (bbl)
S-MTK-1	S-MTK-1	Methanol	90

a. The methanol tank shall be equipped with a permanent submerged fill pipe.
[OAC 252:100-37-15(b)]

EUG 13. Stephens Fugitive Sources: Emissions from the fugitive equipment leaks are based on equipment type, the number of components, and the average emission factors for oil and gas facilities. There are no emission limits or limits on number of components applied to these emission units.

EU ID	Point	Component Type	No. of Gas Components	No. of Light Oil Components
S-FUG	S-FUG	Valves	200	25
		Flanges	250	50
		Connectors	400	50
		Relief Valves	7	---
		Open-Ended Lines	4	2
		Compressor Seals	4	---
		Pump Seals	---	2
		Other	---	5

EUG 14. Stephens Compressor Blowdowns: Emissions from the compressor blowdowns are based on an estimated throughput of 1,000,000 SCFY.

EU ID	Point	Description	Throughput
S-BD	S-BD	Compressor Blowdowns	1.0 MMSCFY

a. Blowdowns shall not exceed 1.0 MMSCFY in any 12-month period. The permittee shall monitor and record the amount of gases related to blowdowns each month.
[OAC 252:100-8-5(d)(1)(A)]

2. 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)]

3. All combustion units 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 gaseous fuel, a current gas company bill, lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-8-6(a)]

4. Replacement (including temporary periods of 6 months or less for maintenance purposes) of internal combustion engines/turbines with emissions limitations specified in this permit with engines/turbines of lesser or equal emissions of each pollutant (in lb/hr and TPY) are authorized under the following conditions. [OAC 252:100-8-6 (a)(3)(A)]

   a. The permittee shall notify AQD in writing not later than 7 days after the start-up of the replacement engine(s)/turbine(s). Said notice shall identify the old engine/turbine and shall include the new engine turbine make and model, serial number, horsepower rating, and pollutant emission rates (g/hp-hr, lb/hr, and TPY) at a maximum horsepower for the altitude/location.
   b. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with NOx and CO emission limitations. A copy of the first quarter testing shall be provided to AQD within 60 days of start-up of each replacement engine/turbine. The test report shall include the engine/turbine fuel usage, stack flow (ACFM), stack temperature (°F), and pollutant emission rates (lb/hr and TPY) at a maximum rated horsepower for the altitude/location.
   c. Replacement equipment and emissions are limited to equipment and emissions with are not subject to NSPS, NESHAP, or PSD.
   d. Engines installed as allowed under the replacement allowances in this Specific Condition that are subject to 40 CFR Part 63, Subpart ZZZZ and/or 40 CFR Part 60, Subpart JJJJ shall comply with all applicable requirements.

5. 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?

6. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations that qualify as Trivial Activities.
[OAC 252:100-8-6(a)(3)(B)]

a. For Fluid storage tanks with a capacity less than 39,894 gallons and a vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
b. For activities having neither the potential to emit nor more than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions from the activity (annual).

7. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6(a)(3)(B)]

a. Periodic emission testing for NO_X and CO for each engine and each replacement engine/turbine.
b. Records of make, model, serial number, and emissions (lb/hr), for replacement engines.
c. Operating hours for the engines if less than 220 hours per quarter and not tested.
d. For fuel(s) burned, maintain the appropriate document(s) as specified in Specific Conditions No. 3 and updated each calendar year.
e. Records of the combustor pilot flame outages.
f. Records required by 40 CFR Part 60, Subparts JJJJ and OOOO.
g. Records required by 40 CFR Part 63, Subpart ZZZZ.
h. Emissions estimates as required by Specific Condition No. 1, EUG 2 (a) and EUG 3 (a).
i. Condensate throughput for each compressor station (monthly and 12-month rolling totals).
j. Produced water throughput for each compressor station (monthly and 12-month rolling totals).
k. Condensate throughput at the Stephens Inlet Compressor Station during VRU downtime (monthly and 12-month rolling totals).
l. Number of blowdowns and resulting VOC emissions for each compressor station (monthly and 12-month rolling total).

8. No later than 30 days after each anniversary date of the issuance of this Title V operating permit, the permittee shall submit to the Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit.
[OAC 252:100-8-6(c)(5)(A) & (D)]

9. Upon issuance, this Part 70 permit supersedes all previous Air Quality operating permits for this facility, which are now canceled.

ONEOK Field Services Company, L.L.C.
Attn: Mr. David Droegemueller
P.O. Box 871
Tulsa, Oklahoma 74102-0871

SUBJECT: Major Source Construction Permit No. **2014-2494-TV**
ONEOK Field Services Company, L.L.C.
Cottonwood Compressor Station
Facility ID No. 14362
Section 6, Township 1S, Range 5W, Stephens County, Oklahoma

Dear Mr. Droegemueller:

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

1. Publish at least one legal notice (one day) of "Notice of Tier II Draft Permit" in at least one newspaper of general circulation within the county where the facility is located. (Instructions enclosed)
2. Provide for public review (for a period of 30 days following the date of the newspaper announcement) a copy of this draft permit and a copy of the application at a convenient location (preferably a public location) **within the county** of the facility.
3. Send to AQD a copy of the proof of publication notice from Item #1 above together with any additional comments or requested changes which you may have on the draft permit within 20 days of publication.
4. At the end of the public review period, send AQD a written notice of any public comments that you may have received from the public.

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

Sincerely,

Phillip Fielder, P.E.,
Permits and Engineering Group Manager
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. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD. Note that if either the applicant or the public requests a public meeting, this must be arranged through the Customer Services Division of the DEQ.

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.

SAMPLE NOTICE on page 2.

SAMPLE NOTICE *(Italicized print is to be filled in by the applicant.)***:**

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

A Tier *…II or III…* **application for an air quality** *…type of permit or permit action being sought (e.g., Construction Permit for a 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 permit [modification] (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 in the Air Quality Section of DEQ's Web Page: http://www.deq.state.ok.us/**

This draft permit would authorize the facility to emit the following regulated pollutants: *(list each pollutant and amounts in tons per year (TPY))*

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. [Modifications only, add: **Only those issues relevant to the proposed modification(s) are open for comment.**] **A public meeting on the draft permit [modification] 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. [For Construction Permits, add: **The requirements of the construction permit will be incorporated into the Title V 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 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 and applicable review time lines is available in the Air Quality section of the DEQ Web page: http://www.deq.state.ok.us/.

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

DRAFT/PROPOSED

ONEOK Field Services Company, L.L.C.
Attn: Mr. David Droegemueller
P.O. Box 871
Tulsa, Oklahoma 74102-0871

SUBJECT: Major Source Construction Permit No. **2014-2494-TV**
ONEOK Field Services Company, L.L.C.
Cottonwood Compressor Station
Facility ID No. 14362
Section 6, Township 1S, Range 5W, Stephens County, Oklahoma

Dear Mr. Droegemueller:

Enclosed is the permit authorizing construction of the referenced facility above. Please not that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

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

Thank you for your cooperation in this matter. If we may be of further service, or if you have further questions about this permit, please contact me or Joseph K. Wills, the permit writer, at (405) 702-4100.

Sincerely,

DRAFT/PROPOSED

Phillip Fielder, P.E.
Permits and Engineering Group Manager
AIR QUALITY DIVISION

Texas Commission of Environmental Quality
Operating Permits Division (MC 163)
P.O. Box 13087
Austin, Texas 78711-3087

SUBJECT Title V Permit No. 2014-2494-TV
ONEOK Field Services Company, L.L.C.
Cottonwood Compressor Station
Facility ID No. 14362
Section 6, Township 1S, Range 5W, Stephens County, Oklahoma
Permit Writer: Joseph K. Wills, E.I.

Dear Sir / Madame:

The subject referenced facility has requested a Title V operating permit. Air Quality Division has completed the initial review of the application and prepared a draft permit for public review. Since this facility is within 50 miles of the Oklahoma – Texas border, a copy of the proposed permit will be provided to you upon request. Information on all permits and a copy of this draft permit are available for review by the public in the Air Quality Section of the DEQ Web Page: *http://www.deq.state.ok.us*.

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

DRAFT/PROPOSED

PART 70 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. 2014-2494-TV

ONEOK Field Services Company, L.L.C.,

having complied with the requirements of the law, is hereby granted permission to construct at the Cottonwood Compressor Station located in Section 6, Township 1S, Range 5W, Stephens County, Oklahoma subject to the Standard Conditions dated July 21, 2009, and Specific Conditions, both attached.

This permit shall expire five (5) years from the date below, except as authorized under Section VIII of the Standard Conditions

DRAFT/PROPOSED

Director **Date**

MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(July 21, 2009)

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(18) 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]