

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM

January 20, 2021

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

THROUGH: Rick Groshong, Compliance and Enforcement Group Manager

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

THROUGH: David Schutz, P.E., New Source Permit Section

FROM: Junru Wang, E.I., Existing Source Permit Section

SUBJECT: Evaluation of Permit Application No. **2020-0007-TVR**
TPL Arkoma Holdings, LLC
Able Compressor Station (Facility ID No. 8323)
Section 29, Township 1N, Range 10E, Coal County, Oklahoma
Latitude: 34.52806°N, Longitude: 96.26730°W
Direction: From the intersection of Main Street and SH-31 in Coalgate, go 3 miles west on SH-31, then north onto N3790 Road, then immediately west into the facility.

SECTION I. INTRODUCTION

TPL Arkoma Holdings, LLC (Targa) has submitted an application for renewal of the Part 70 operating permit for the Able Compressor Station (SIC 1311/NACIS 211130). The facility is currently operating under Permit No. 2011-671-TV (M-4) issued on September 9, 2019. The applicant has requested the following changes in the memorandum.

- Correcting the serial numbers for compressor engines C-7 and C-9. C-7 was replaced on March 24, 2015, and C-9 was replaced on December 5, 2014. Both engines were properly notified to DEQ and will be updated in this permit.
- Update condensate tank EU numbers.

Previous EU #	Updated EU #
TK-806	TK-1
TK-807	TK-2
TK-808	TK-3

- One (1) 400-bbl produced water tank (TK-10) and one (1) 400-bbl contact water tank (TK-11) have been added to the facility. Both storage tanks have emissions less than 5 TPY of VOC and therefore qualify as “Insignificant Activities”.

- Maintenance, startup, and shutdown (MSS) emissions are to be represented in the permit memorandum. Emissions from the MSS activities are less than 5 TPY of VOC and therefore qualify as “Insignificant Activities”.

PERMIT HISTORY

2011-671-NOI (Application Received 6/20/2011 -- Issued 9/01/2011 – Cancelled 10/29/2012)

Cardinal Arkoma Midstream LLC proposed to construct a compressor station in Coal County, Oklahoma. Emission sources at the facility consisted of:

- Three (3) 1,775-hp Caterpillar G3606 GSI engines w/oxidation catalysts,
- Five (5) 1,478-hp Waukesha L7042GSI engines w/oxidation catalysts,
- Two (2) 3,550-hp Caterpillar G3612TALE engines w/oxidation catalysts,
- Three (3) glycol dehydration units,
- Three (3) reboilers,
- Two (2) 400-bbl condensate storage tanks,
- One (1) 400-bbl produced water storage tank,
- Condensate truck loading,
- Process piping (fugitive emissions).

2011-671-O (Issued 10/29/2012 – Cancelled 6/30/2015)

Cardinal Arkoma Midstream, LLC (Cardinal) applied for an authorization to operate under the General Permit for Oil and Natural Gas Facilities (GP-OGF) for their Able Compressor Station (SIC 1311). Emissions sources at the facility included:

- Three (3) 1,775-hp Caterpillar G3606 natural gas-fired compressor engines w/oxidation catalysts,
- Five (5) 1,478-hp Waukesha L7042GSI natural gas-fired compressor engines w/oxidation catalysts,
- Two (2) 3,550-hp Caterpillar G3612TALE engines w/oxidation catalysts,
- One 470-hp Cummins gas-fired DQHAB emergency generator,
- Three (3) 1.5 MMBtu/hr glycol reboilers,
- Three (3) 60-MMSCFD glycol dehydration units with BTEX Eliminators (98% efficiency),
- Two (2) 400-bbl condensate storage tanks,
- One (1) 400-bbl produced water tank,
- Condensate truck loading,
- Process piping (fugitive emissions), and
- Various support operations.

2011-671-C (M-1) (Issued 8/04/2014 – Expired)

APL Arkoma Holdings, LLC (Arkoma) submitted a Part 70 Major Source construction permit for their Able Compressor Station (SIC 1311). The facility proposed to install:

- Two (2) 1,340-hp Caterpillar G3516 LE compressor engines,
- Three (3) 1,775-hp Caterpillar G3606 compressor engines,

- One (1) 60-MMSCFD triethylene glycol (TEG) dehydration unit,
- One (1) 1.5-MMBtu/hr TEG reboiler, and
- To increase condensate throughput.

2011-671-C (M-2) (Issued 2/20/2015 – Expired)

APL Arkoma Holdings, LLC (Arkoma) submitted a minor modification to a Part 70 source construction permit for their Able Compressor Station (SIC 1311). Due to new production wells coming into the system, the station saw a substantial increase in condensate production. The facility proposed to install:

- One (1) 400-bbl condensate tank,
- Increase condensate throughput, and
- Adjust emissions for the use of a VRU which resulted in a decrease in VOC emissions.

2011-671-C (M-3) (Issued 3/31/2015 – Expired)

[This is an Administrative Amendment to change the company name from APL Arkoma Holdings, LLC to TPL Arkoma Holdings, LLC. No other changes to the facility were made.]

2011-671-TV (Issued 6/30/2015 – Active Permit)

TPL Arkoma Holdings, LLC (Arkoma) requested an initial Part 70 operating permit for their Able Compressor Station (SIC 1311).

2011-671-C (M-4) (Issued 11/14/2017 – Active Permit)

Targa requested a construction modification to replace an existing 1,775-hp Caterpillar G3606 engine (C-5) with a 1,480-hp Waukesha L7042GSI engine. One engine (C-3) was decommissioned as part of this application. In addition, Targa proposed a combined glycol circulation rate limit of 15 gpm for the TEG dehydration units (DEHY1-SV and DEHY2-SV). This change would increase operational flexibility without increasing maximum throughput or potential-to-emit (PTE) from the glycol dehydration process. Each dehydration unit is currently limited to a 7.5 gpm glycol circulation rate.

[On 7/26/2017 Targa submitted an email stating that C-4 was originally scheduled in the application for this permit to be decommissioned. However, the engine would not be removed until a later date during a future project, at which time Targa would submit an application.]

2011-671-TV (M-4) (Issued 9/09/2019 – Active Permit)

The permit modification incorporates new units whose construction was authorized by Permit No. 2011-671-C (M-4) and the following changes:

- Update equipment information for the new engine (EU C-5).
- Remove equipment never installed and no longer authorized by expired construction permits.
 - EU C-11, C-12, C-13, DEHY3-SV, and DEHY3 were not built.
 - EU C-4 was removed after issuance of Permit No. 2011-671-C (M-4).

2020-0007-TVR (Application Received 1/03/2020 – Under Review)

TPL Arkoma Holdings, LLC (Arkoma) requested a renewal of the Part 70 operating permit for their Able Compressor Station.

- Adding TK-10, TK-11, and MSS emissions to the permit memorandum. These are considered as insignificant activities.
- Correcting the serial numbers for C-7 and C-9.

SECTION II. FACILITY DESCRIPTION

The facility is a natural gas compressor station responsible for gathering of natural gas. The natural gas inlet stream enters the compressor station through an inlet scrubber. From the scrubber, gas pressure is boosted via compressors driven by natural gas-fired engines, which are equipped with catalyst control.

After the inlet gas is passed through the compressors, the gas enters the glycol dehydrators. The glycol dehydrators are used to remove water from the gas before it exits the station. In the dehydration process, gas passes through a contactor vessel where water is absorbed by the glycol. The rich glycol, containing absorbed water, goes to the glycol dehydrator reboiler where heat is used to boil off the water. The heat is supplied by the natural gas fired reboiler heater. The water vapor boiled off of the rich glycol stream exits the system via the glycol dehydrator still vent, which utilizes a BTEX eliminator (condenser) to capture small amount of BTEX compounds that are inadvertently boiled off with the water vapor. Non-condensable constituents from the condenser are further routed to the reboiler heater firebox for destruction. Dehydrated gas will leave the property by pipeline.

In addition, the station has atmospheric storage tanks that store condensate produced as the natural gas stream enters the inlet scrubber and each stage of compression. Condensate loading takes place at the compressor station.

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) in the following outline.

SECTION III. EQUIPMENT**EUG 1: Engines**

EU #	Source	Rating	Serial #	Manufactured	Permit
C-1	Caterpillar G3516 LE w/OC	1,340-hp	WPW00101	03/08/2006	2011-671-C (M-1)
C-2	Caterpillar G3516 LE w/OC	1,340-hp	WPW00104	04/19/2006	2011-671-C (M-1)
C-5	Waukesha L7042GSI w/CC	1,478-hp	C-17205/1	11/13/2006	2011-671-C (M-4)
C-6	Waukesha L7042GSI w/CC	1,478-hp	C-17211/1	November 2006	2011-671-NOI
C-7	Waukesha L7042GSI w/CC	1,478-hp	C-17746/1	November 2007	2011-671-NOI
C-8	Waukesha L7042GSI w/CC	1,478-hp	C-17206/1	November 2006	2011-671-NOI
C-9	Waukesha L7042GSI w/CC	1,478-hp	C-16473/1	November 2006	2011-671-NOI
C-10	Waukesha L7042GSI w/CC	1,478-hp	C-17210/1	November 2006	2011-671-NOI
EMGEN	Cummins DQHAB	470-hp	G070084834	2007	2011-671-NOI

EUG 2A: Dehydration Units

EU #	Source	Rating	Install Date	Permit
DEHY1-SV	TEG Dehydration Unit	60-MMSCFD	2011	2011-671-NOI
DEHY2-SV	TEG Dehydration Unit	60-MMSCFD	2011	2011-671-NOI

EUG 2B: TEG Reboilers

EU #	Source	Rating	Install Date	Permit
DEHY1	TEG Reboiler	1.5-MMBtu/hr	2011	2011-671-NOI
DEHY2	TEG Reboiler	1.5-MMBtu/hr	2011	2011-671-NOI

EUG 3: Tanks

EU #	Source	Rating	Install Date	Permit
TK-1	Condensate Tank	400-bbl	2011	2011-671-NOI
TK-2	Condensate Tank	400-bbl	2011	2011-671-NOI
TK-3	Condensate Tank	400-bbl	2014	2011-671-C (M-2) & (M-3)
TK-10	Produced Water Tank	400-bbl	12/02/2014	2020-0007-TVR
TK-11	Contact Water Tank	400-bbl	12/02/2014	2020-0007-TVR

EUG 4: Loading

EU #	Source	Install Date	Permit
TLDNG	Truck Loading	2011	2011-671-NOI

EUG 5: Fugitives

EU #	Source	Install Date	Permit
FUG	Fugitive Emissions	2011	2011-671-NOI

SECTION IV. EMISSIONS

ENGINES

Engine emissions are calculated using manufacturer’s data. Fuel consumption for each 1,340-hp Caterpillar G3516 LE compressor engine was stated at 9,671 SCFH. Air emissions from each engine are discharged through a 1 ft. diameter stack, 15 ft. above grade, at a rate of 7,663 ACFM at 873°F.

1,340-hp Caterpillar G3516 LE Engines w/OC (C-1 & C-2)

Pollutant	Factor g/hp-hr	Reduction Factor	Emissions (each engine)	
			lb/hr	TPY
NO _x	2.00	-0-	5.91	25.88
CO	1.86	80%	1.10	4.81
VOC	0.30	-0-	0.88 ⁽¹⁾	3.87 ⁽¹⁾
Formaldehyde	0.26	85%	0.12	0.50

⁽¹⁾ Includes formaldehyde.

Fuel consumption for each 1,478-hp Waukesha L7042GSI engine was stated at 12,253 SCFH. Air emissions from each engine are discharged through a 2 ft. diameter stack, 23 ft. above grade, at a rate of 6,967 ACFM at 1,125°F.

1,478-hp Waukesha L7042GSI Engines w/CC (C-5, C-6, C-7, C-8, C-9, & C-10)

Pollutant	Factor g/hp-hr	Reduction Factor	Emissions (each engine)	
			lb/hr	TPY
NO _x	13.0	90%	4.24	18.55
CO	9.00	90%	2.93	12.84
VOC	0.30	50%	0.51 ⁽¹⁾	2.21 ⁽¹⁾
Formaldehyde	0.05	90%	0.02	0.07

⁽¹⁾ Includes formaldehyde.

Emissions from the 470-hp Cummins DQHAB diesel-fired emergency generator engine were calculated using emissions factors from AP-42 (8/00), Section 3.3, a fuel use rating of 9.65 MMBtu/hr and operating 220 hours annually. VOC emissions were assumed to be 10% of TOC.

Emergency Generator Engine

Pollutant	Factor lb/MMBtu	Emissions	
		lb/hr	TPY
NO _x	4.41	42.57	4.68
CO	0.95	9.17	1.01
VOC	0.035	0.34 ⁽¹⁾	0.04 ⁽¹⁾
Formaldehyde	0.00118	0.01	<0.01

⁽¹⁾ Includes formaldehyde.

GLYCOL DEHYDRATION UNITS

The two glycol dehydrator vent emissions are based on the GRI-GLYCalc program, and assume a maximum throughput of 60-MMSCFD per unit, a combined glycol circulation rate of 15 gpm for units DEHY1-SV and DEHY2-SV. The off-gases from the dehydration unit still vents are routed through the BTEX Eliminators (condensers). The off-gases from the condensers are routed to the reboiler firebox when it is firing. When the pilot is out, they are automatically routed back to the low-pressure header to the VRU or to an equally effective emission control system with an overall combustion efficiency of 95%. Flash tank off-gases are recycled/recompressed for 100% control efficiency. A 20% safety factor was added to GRI-GLYCalc results to account for potential fluctuations in gas composition.

Glycol Dehydrator Emissions

Parameter	DEHY1-SV	DEHY2-SV
Type of Glycol	Tri-ethylene	Tri-ethylene
Gas Flow Rate, MMSCFD	60	60
Lean Glycol Circulation Rate Input, gpm	15.0 ⁽¹⁾	
Regenerator Vent		
Condenser Outlet Temperature, °F	120	120
Control Type or Recycle	Condenser/Combustion Device	Condenser/Combustion Device
Overall Combustion Efficiency, %	95	95
VOC Emissions, TPY	3.58 ⁽²⁾	3.58 ⁽²⁾
Flash Tank		
Flash Tank Temperature, °F	70	70
Flash Tank Pressure, psig	115	115

Parameter	DEHY1-SV	DEHY2-SV
Control Type or Recycle	Recycled/Recompressed	Recycled/Recompressed
Overall Control Efficiency, %	100	100
VOC Emissions, TPY	-	-
Total Emissions, TPY⁽¹⁾		
VOC	3.58	3.58
Benzene	0.19	0.19
Toluene	0.17	0.17
Ethyl-Benzene	0.02	0.02
Xylene	0.10	0.10
n-Hexane	0.14	0.14
Total HAPs	0.62	0.62

⁽¹⁾ Combined rate.

⁽²⁾ Includes a 20% safety factor (1+20%).

REBOILERS

Emissions from the two 1.5-MMBtu/hr glycol dehydrator reboiler heaters are based on AP-42 (7/98), Section 1.4 and continuous operation.

Reboiler Emission Factors

EU #	NO _x (lb/MMSCF)	CO (lb/MMSCF)	VOC (lb/MMSCF)
DEHY1 – 1.50-MMBTUH	100.0	84.0	5.5
DEHY2 – 1.50-MMBTUH	100.0	84.0	5.5

Reboiler Emissions

EU #	NO _x		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
DEHY1	0.15	0.64	0.12	0.54	0.01	0.04
DEHY2	0.15	0.64	0.12	0.54	0.01	0.04

TANKS

Working and breathing emissions from the condensate tanks are based on EPA’s TANKS 4.0 program and a maximum condensate throughput of 1,000,000 gallons per year per tank. Flashing emissions are based on an Aspen HYSYS process simulation. Vapors from each tank are routed to a vapor recovery unit (VRU) and are returned to the inlet of the station.

TK-1 through TK-3 Emissions, per tank

Parameter	Data
Throughput, gal/yr	1,000,000
Flash Calculation Method/Tool	HYSYS
Working/Breathing Method/Tool	EPA TANKS 4.0.9d
Control Type	VRU
Downtime	5.6%
Overall Control Efficiency ⁽¹⁾	94.4%
VOC Emissions, TPY	5.91

⁽¹⁾ Accounts for downtime and collection efficiency.

Working and breathing emissions from the produced water tank and slop water tank are based on EPA’s TANKS 4.0 program. Flashing emissions are calculated from ProMax 4.0 with TSWEET & PROSIM. Vapors from each tank are uncontrolled.

TK-10 and TK-11 Emissions

Parameter	TK-10	TK-11
Throughput, gal/yr	1,000,000	28
Flash Calculation Method/Tool	ProMax	ProMax
Working/Breathing Method/Tool	EPA TANKS 4.0.9d	EPA TANKS 4.0.9d
Control Type	None	None
VOC Emissions, TPY	1.06	0.07

LOADING

Emissions from loading condensate into tank trucks were estimated using AP-42 (1/95), Section 5.2, Equation 1, and the parameters listed in the table below.

Loading Parameters and Emissions

Parameter	TLDNG
Liquids Loaded	Condensate
Throughput, gal/yr	3,000,000
Saturation Factor	0.6
Temp., °F	59.96
TVP, psia	6.60
MW, lb/lbmol	64.00
VOC, wt. %	100%
Emission Factor, lb/10 ³ gal	6.07
VOC Emissions, TPY	9.10

FUGITIVES

Emissions from fugitive equipment leaks are based on EPA’s “Protocol for Equipment Leak Emission Estimates” (11/95, EPA-453/R-95-017), an estimated number of components, and the VOC (C₃₊) content of the materials handled.

Fugitive Emissions

EU #	VOC, TPY
FUG	8.96

MAINTENANCE, STARTUP, AND SHUTDOWN

Maintenance, Startup, and Shutdown Emissions

EU #	Point	VOC, TPY
MSS	Compressor Blowdowns	0.46
	Scrubber Blowdowns	1.52
	Filter Blowdowns	<0.01
	Discharge Meter Blowdowns	<0.01
	Piping From Skid to Compressors Blowdowns	0.08

EU #	Point	VOC, TPY
	Process and Vessel Blowdowns	1.06
	Pipeline Maintenance	<0.01
	Pigging and Purging	0.02
	Pump Blowdowns	<0.01
	Non-Forced Tank Degassing	0.91
	Reboiler Maintenance	<0.01
	Low Emitting MSS Activities	0.25
	Surface Coating	0.04
	Total Emissions	4.35

Facility-Wide Criteria Pollutant Emissions

EU #	Source	NO _x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-1	1,340-hp Caterpillar G3516 LE w/OC	5.91	25.88	1.10	4.81	0.88	3.87
C-2	1,340-hp Caterpillar G3516 LE w/OC	5.91	25.88	1.10	4.81	0.88	3.87
C-5	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-6	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-7	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-8	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-9	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-10	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
EMGEN	470-hp Cummins DQHAB	42.57	4.68	9.17	1.01	0.34	0.04
DEHY1-SV	60-MMSCFD TEG Dehydration Unit	-	-	-	-	0.82	3.58
DEHY2-SV	60-MMSCFD TEG Dehydration Unit	-	-	-	-	0.82	3.58
DEHY1	1.5-MMBtu/hr TEG Reboiler	0.15	0.64	0.12	0.54	0.01	0.04
DEHY2	1.5-MMBtu/hr TEG Reboiler	0.15	0.64	0.12	0.54	0.01	0.04
TK-1	400-bbl Condensate Tank	-	-	-	-	1.35	5.91
TK-2	400-bbl Condensate Tank	-	-	-	-	1.35	5.91
TK-3	400-bbl Condensate Tank	-	-	-	-	1.35	5.91
TK-10	400-bbl Produced Water Tank	-	-	-	-	-	1.06
TK-11	400-bbl Contact Water Tank	-	-	-	-	-	0.07
TLDNG	Truck Loading	-	-	-	-	2.08	9.10
FUG	Fugitive Emissions	-	-	-	-	2.05	8.96
MSS	Maintenance, Startup, and Shutdown	-	-	-	-	-	4.35
Total Emissions		80.13	169.02	29.19	88.75	15.00	69.55
Emissions from 2011-671-TV (M-4)		80.13	169.02	29.19	88.75	15.00	64.07
Emission Change		-	-	-	-	-	5.48

HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS

Dehydration units using glycol desiccants emit benzene, toluene, ethyl benzene, and xylene (BTEX) and n-hexane from the glycol still vent. The applicant has analyzed the incoming wet gas for concentrations of n-hexane and BTEX and estimated the HAP emissions using GRI-GLYCalc with a 20% safety factor. Refer to the description above for in depth review of control description.

HAP Emissions

Pollutant	Each		Totals	
	lb/hr	TPY	lb/hr	TPY
Benzene	0.04	0.19	0.08	0.38
Toluene	0.04	0.17	0.08	0.34
Ethylbenzene	0.00	0.02	0.00	0.04
Xylene	0.02	0.10	0.04	0.20
n-Hexane	0.03	0.14	0.06	0.28
Totals			0.22	1.24

The compressor engines have emissions of HAP, the most significant being formaldehyde. The table below lists estimated potential controlled formaldehyde emissions for the compressor engines based on continuous operation.

Formaldehyde Emissions

EU #	Source	Formaldehyde	
		lb/hr	TPY
C-1	1,340-hp Caterpillar G3516 LE w/OC	0.12	0.50
C-2	1,340-hp Caterpillar G3516 LE w/OC	0.12	0.50
C-5	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
C-6	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
C-7	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
C-8	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
C-9	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
C-10	1,478-hp Waukesha L7042GSI w/CC	0.02	0.07
Totals		0.36	1.42

Emissions of each HAP are less than 10 TPY, and total HAP emissions are less than 25 TPY. The facility is, therefore, an area source of HAP.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application and listed in OAC 252:100-8, Appendix I, are listed below. Appropriate recordkeeping is required for those activities indicated below with an asterisk. Activities to which a state or federal requirement applies is not insignificant even if included below.

1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBtu/hr heat input (commercial natural gas). The facility contains two (2) 1.5-MMBtu/hr reboilers.
2. * Emissions from crude oil and condensate marine and truck loading equipment operations at crude oil and natural gas production sites where the loading rate does not exceed 10,000 gallons per day averaged over a 30-day period. Annual average throughput of condensate loading in the facility will be 500,000 gallons, which is less than the de minimis level.
3. Emissions from condensate tanks with a design capacity of 400 gallons or less in ozone attainment areas.

4. Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Emissions from the methanol tank, produced water tank, slop water tank, and MSS are below this threshold.

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 of Air Contaminant Sources) [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 as required.

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
- 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 single HAP that the EPA may establish by rule

Emission limitations for all the sources are taken from the permit application and previous permit.

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

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

OAC 252:100-19 (Particulate Matter) [Applicable]
This subchapter specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from fuel burning equipment with a rated heat input of 10 MMBTUH or less. The heaters, Caterpillar G3516 LE engines, and emergency generator are all rated at less than 10 MMBTUH and have a PM limit of 0.6 lb/MMBTU. AP-42 (7/1998), Section 1.4 lists the total PM emissions for natural gas to be 0.0076 lb/MMBTU. The Waukesha L7042GSI engines are rated at 12.57 MMBTUH and have a PM limit of approximately 0.57 lb/MMBTU. AP-42 (7/2000), Section 3.2 lists the maximum PM emissions for SI RICE burning natural gas, as approximately 0.02 lb/MMBTU. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences, 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. When burning natural gas, there is very 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 (H₂S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 µg/m³. Based on modeling conducted for the general permit for oil and gas facilities, the ambient impacts of H₂S from oil and gas facilities combusting natural gas with a maximum H₂S content of 343 ppmv and storing condensate or sweet crude oil will be in compliance with the H₂S ambient air concentration limit.

Part 5 limits sulfur dioxide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. Gas produced from oil and gas wells having 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 NO_x emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH. There will be no emission units that exceed the 50

MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]

This subchapter affects gray iron cupolas, blast furnaces, basic oxygen furnaces, petroleum catalytic cracking units, and petroleum catalytic reforming units. There will be no affected sources.

OAC 252:100-37 (Volatile Organic Materials) [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 to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The tanks greater than 400-gallons storing organic material with vapor pressure greater than 1.5 psia are equipped with a permanent submerged fill pipe or with an organic vapor recovery system.

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

Part 5 limits the VOC content of coatings from any coating line or other coating operation. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is not an affected operation.

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 effluent water separators, which receive water containing more than 200 gallons per day of any VOC to be equipped vapor control devices. There is no water effluent separator at this location.

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

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no 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 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	Feed & Grain Facility	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

Prevention of Significant Deterioration (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 listed stationary sources with an emission threshold of 100 TPY.

New Source Performance Standards (NSPS), 40 CFR Part 60 [Subparts IIII and JJJJ Applicable]
Subpart K, Ka, Kb, VOL Storage Vessels. There are no VOL storage tanks subject to these subparts since the capacities are less than the thresholds.

Subpart GG, Stationary Gas Turbines. There will be no turbines in the facility.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011. This facility is not a gas plant.

Subpart LLL, SO₂ Emissions from Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011. There is no natural gas sweetening operation at this site.

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. This subpart affects stationary compression ignition (CI) internal combustion engines (ICE) based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. The emergency generator (EMGEN) is a diesel generator that is subject to this subpart.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE), promulgates emission standards for all new SI engines constructed after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. Engines C-1 and C-2 were constructed prior to June 12, 2006, and are not subject to this subpart. Engines C-5, C-6, and C-8 through C-10 were manufactured November 2006 (prior to July 1, 2007). Therefore, these engines are subject to this subpart; however, there are currently no requirements under this subpart for

“gap” engines. Engine C-7 was manufactured after July 1, 2007, and is therefore subject to this subpart.

Subpart KKKK, Stationary Combustion Turbines. There are no combustion turbines at this facility.

Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution for which construction, modification, or reconstruction commenced after August 23, 2011, and on or before September 18, 2015. There are no wells, centrifugal compressors, or sweetening units located at this facility and this facility is not a gas plant. The reciprocating compressors, pneumatic controllers, and storage vessels (TK-1 and TK-2) at this facility commenced construction prior to the NSPS, Subpart OOOO applicability dates of August 23, 2011, to September 18, 2015, and they were not been modified or reconstructed between the applicable dates. Therefore, this facility is not subject to this subpart. The new condensate tank (TK-3) has emissions of less than 6 TPY VOC and is not subject to this subpart.

Subpart OOOOa, Crude Oil and Natural Gas Facilities for which construction, modification, or reconstruction commenced after September 18, 2015. This subpart applies to hydraulically fractured wells, centrifugal compressors, reciprocating compressors, pneumatic controllers and pumps, natural gas processing plants, storage vessels, equipment leaks, and natural gas sweetening units that commence construction, modification, or reconstruction after September 18, 2015. All of the potentially affected equipment at this facility was constructed prior to September 18, 2015, and have not been modified or reconstructed. Therefore, this facility is not subject to this subpart. Since the facility-wide horsepower of the compressor engines decreased as the result of the changes in Permit No. 2011-671-C (M-4), this did not trigger a modification under NSPS Subpart OOOOa. Therefore, the facility will not be subject to the fugitive emissions leak monitoring requirements of this rule. The new water tanks (TK-10 and TK-11) have emissions of less than 6 TPY VOC and are not subject to this subpart.

National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, only applies to process streams, which contain more than 10% benzene by weight. Benzene is present only in trace amounts in any product stream at this site.

NESHAP, 40 CFR Part 63

[Subparts HH and ZZZZ Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities that are major and area sources of HAP and either process, upgrade, or store hydrocarbons prior to the point of custody transfer or prior to which the natural gas enters the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, if present. This facility is an “area” source of HAP. For area sources of HAP, TEG dehydration units with an actual annual average flowrate of less than 3-MMSCFD or less than 1 TPY of benzene emissions are exempt from control standards, but are subject to recordkeeping. Since the maximum benzene emissions are below 1 TPY for each of the units (DEHY1-SV and DEHY2-SV), only the recordkeeping requirement is applicable.

Subpart HHH, Natural Gas Transmission and Storage Facilities. This subpart applies to each glycol dehydration unit located at facilities which are major sources of HAP. This facility will not be a major source of HAP emissions. Therefore, this subpart does not apply.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects RICE at major and area sources of HAP emissions. The engines will be affected facilities per 40 CFR 63.6590. Engines C-1 and C-2 were manufactured prior to June 12, 2006, and are considered existing engines at an area source of HAP and are subject to the area source, remote engine requirement. Engines C-5 through C-10, and EMGEN are new sources and satisfy the requirements of Subpart ZZZZ through compliance with NSPS Subpart JJJJ and Subpart IIII. C-5, C-6, and C-8 through C-10 are considered ‘gap engines’ and have no requirements under Subpart JJJJ.

Compliance Assurance Monitoring (CAM), 40 CFR Part 64 [Applicable]
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 of 100 TPY, or 10/25 TPY of HAPs.
- (1) C-1, C-2, and C-7 are subject to emission limits, but do not have potential emissions above 100 TPY of criteria pollutants or 10 TPY of a HAP.
 - (2) C-5, C-6, and C-8 through C-10 are not subject to an emission limit in NSPS Subpart JJJJ and NESHAP Subpart ZZZZ deals with HAPs (formaldehyde). However, C-5, C-6, and C-8 through C-10 are subject to an emission limit to avoid state BACT for NO_x and CO.
 - (3) C-5, C-6, and C-8 through C-10 use control devices (catalytic converters with 90% reduction of NO_x and 90% reduction of CO) to achieve compliance with the NO_x and CO emission limit.
 - (4) C-5, C-6, and C-8 through C-10 have the potential to exceed 100 TPY of NO_x and 100 TPY CO without the control device.
 - (5) The glycol dehydration units DEHY1-SV and DEHY2-SV utilize condensers and combustion devices to achieve compliance and have the potential to emit over 100 TPY of VOC without control.
 - (6) Therefore, C-5, C-6, C-8 through C-10, DEHY1-SV, and DEHY2-SV are subject to CAM.

Specifications for CAM-affected units are incorporated in the permit.

MONITORING APPROACH JUSTIFICATION

BACKGROUND (ENGINES)

The monitoring approach outlined here applies to the CC on compressor engines C-5, C-6, and C-8 through C-10 at this facility. The CC lowers NO_x, as well as CO, H₂CO and hydrocarbon emissions,

RATIONAL FOR PERFORMANCE INDICATORS AND INDICATOR RANGES (ENGINES)

Oxygen Content: Oxygen concentration into the catalyst is measured continuously using an in-line oxygen sensor. The oxygen content of the engine exhaust gas was selected as a performance indicator because oxygen can interfere with proper reactions, and oxygen content indicates if the engine is running with the proper air-to-fuel (AFR) ratio. Oxygen content is typically measured using an oxygen sensor that creates an output voltage inversely proportionally to the oxygen content.

The output voltage must be > 0.45 volts to ensure proper operation. This set-point voltage results in the best emission performance and is based on manufacturer's specifications and catalyst operation at similar facilities.

Pressure Drop: The pressure drop across the catalyst is measured monthly using a differential pressure gauge or water manometer. A significant increase in pressure drop across the catalyst from the benchmark can indicate that the catalyst is becoming fouled, which slows flow through the unit and lowers the effectiveness of the unit.

Catalyst pressure drop should deviate less than 2 inches of H₂O from the benchmark to ensure proper operation. This range was selected based on the manufacturer's specifications and catalyst operation at similar facilities.

Temperature: Exhaust gas temperature is measured at least once daily when operating using an in-line thermocouple. The temperature of the exhaust stream from the engine is measured because temperature excursions can indicate problems with engine operation and can prevent the chemical reduction from taking place in the catalyst bed. An exhaust gas temperature that is too low reduces the activity of the intended chemical/catalyst reaction. A temperature that is too high can indicate engine problems and can damage the catalyst unit.

Engine exhaust temperature should be > 750 °F and < 1,250 °F to ensure proper operation. This range was selected based on the manufacturer's specifications and catalyst operation at similar facilities.

Inspection and Preventive Maintenance (IPM): An IPM program provides assurance that the engine and catalyst are in good repair and are being operated as anticipated. Proper operation of the engine also facilitates catalyst reactions.

Inspections are performed monthly on the engine, AFRC, and the catalyst. Excursions trigger corrective action, logging, and reporting in the semiannual report.

CAM for Engines with Catalytic Converters (C5, C-6, C-8, C-9, and C-10)

	Indicator No. 1	Indicator No. 2	Indicator No. 3*	Indicator No 4*
I. Indicator	O ₂ from engines	Temperature of exhaust gas into catalyst.	Pressure drop across the catalyst.	Inspection & Preventative Maintenance (I/PM). See I/PM plan.
A. Measurement Approach	O ₂ concentration into the catalyst shall be measured continuously using an in-line O ₂ sensor.	Exhaust gas temperature shall be measured at least once daily when operating using an in-line thermocouple.	Pressure drop across the catalyst beds shall be measured monthly using a differential pressure gauge or a water manometer.	Monthly inspection according to I/PM plan; maintenance performed as needed.
II. Indicator Range	The indicator range is O ₂ % > 0.45V. Excursion is an alarm event below this voltage lasting 30 minutes or longer. Excursions trigger corrective action, logging and reporting in semiannual report.	The indicator range is above 750°F, but lower than 1,250°F. Excursions trigger corrective action, logging and reporting in semiannual report.	The indicator range is a pressure drop deviation of less than ± 2 inches w.c. from the benchmark. Excursions trigger corrective action, logging and reporting in semiannual report.	Excursions trigger corrective action, logging and reporting in semiannual report.
III. Performance Criteria				
A. Data Representativeness	O ₂ concentration shall be measured at the engine exhaust while the engine is operating.	Temperature shall be measured at the inlet to the catalyst by a thermocouple with a minimum accuracy of ±5°F.	Pressure drop across the catalyst shall be measured at catalyst inlet and exhaust. The minimum accuracy of the device is ±0.25 inches w.c.	Inspections are performed on the engine, AFR, and the catalyst.
B. QA/QC – Practices and Criteria	The O ₂ sensor shall be replaced quarterly.	The thermocouple shall be visually inspected quarterly and tested annually.	The pressure gauge shall be calibrated quarterly.	Qualified personnel perform inspections.
C. Monitoring Frequency	The O ₂ percent shall be monitored continuously.	The temperature shall be measured and recorded at least once daily when operated.	The pressure drop shall be measured monthly.	Monthly inspection in accordance with I/PM plan.
D. Data Collection Procedures	Records shall be maintained to document alarmed events and any required maintenance.	The operator or computer shall record the temperature in a log book or database.	Records shall be maintained to document monthly readings and any required maintenance.	Records shall be maintained to document monthly inspections and any required maintenance.
E. Averaging period	None, not to exceed maximum.	None, not to exceed minimums and maximum.	None, not to exceed minimums and maximums.	N/A

BACKGROUND (DEHYDRATION UNITS)

The monitoring approach outlined here applies to the condensers and combustion devices on the dehydration units DEHY1-SV and DEHY2-SV at this facility. The condenser and combustion device lowers VOC emissions.

RATIONAL FOR PERFORMANCE INDICATORS AND INDICATOR RANGES (DEHYDRATION UNITS)

Temperature: The temperature of the flame from the reboiler firebox is measured continuously because temperature excursions can indicate problems with combustion, including lack of a pilot flame or insufficient combustion. An exhaust gas temperature that is too low indicates that emissions from the unit are not being properly combusted.

The indicator range for the temperature is a discrete reading of “on”, which indicates the presence of a flame. An excursion is indicated by an “off” signal and triggers corrective action.

Inspection and Preventive Maintenance (IPM): An IPM program provides assurance that the dehy and condenser/firebox are in good repair and are being operated as anticipated.

Inspections are performed quarterly on the condenser and monthly on the firebox systems. Excursions trigger corrective action, logging, and reporting in the semiannual report.

Condenser: No indicators are being proposed for the condenser other than routine quarterly maintenance as part of the IPM program. For emissions estimation purposes, the condenser outlet temperature was conservatively assumed to be 120 °F. Based on GLYCalc results for an air-cooled condenser using Oklahoma City meteorological data, the outlet temperature should only exceed 120 °F for 0.18% of the year. Therefore, routine temperature monitoring for the condenser is not necessary to ensure compliance with current permit limits. However, because the limits rely on both the condenser and combustion, some type of monitoring is still required. Therefore, monitoring and confirmation of the condenser thermocouple readings will be conducted as part of the quarterly maintenance requirement.

Additionally, even if the condenser were removed, VOC emissions would only be 14.1 TPY, HAP emissions would be 5.5 TPY, and benzene emissions would be 0.3 TPY. When considering both unit-specific and site-wide emissions, this slight increase would not trigger any additional requirements.

CAM for Glycol Dehydration Units (DEHY1-SV and DEHY2-SV)

	Indicator No. 1 (Condenser/Reboiler Firebox)	Indicator No. 2 (Condenser/Reboiler Firebox)
I. Indicator	Flame presence	Inspection & Preventative Maintenance (I/PM). See I/PM plan.
A. Measurement Approach	Flame is monitored continuously using a fire eye, thermocouple or other similar device and an end device capable of translating the signal to a discrete on/off output.	Monthly inspection according to I/PM plan; Maintenance performed as needed. Quarterly inspections for the condenser.
II. Indicator Range	The indicator range is a discrete reading of “on,” which signals that a flame is present. An excursion is indicated by an “off” signal and triggers corrective action, logging and reporting in the semiannual report.	Excursions trigger corrective action, logging and reporting in semiannual report.

	Indicator No. 1 (Condenser/Reboiler Firebox)	Indicator No. 2 (Condenser/Reboiler Firebox)
III. Performance Criteria	Presence of flame is monitored at the pilot light location.	Inspections are performed on the condenser system.
A. Data Representativeness		
B. Verification of Operational Status	If any part of the device fails, an “off” signal is generated, an alarm is automatically initiated and the unit is automatically shut down. Any defects affecting quality would be corrected at the time.	Monthly I/PM inspections verify operating characteristics of the system. Quarterly inspections of the condenser verify proper operation and thermocouple readings.
C. QA/QC – Practices and Criteria	Thermocouple visually checked quarterly and tested annually.	Qualified personnel perform inspections.
D. Monitoring Frequency	Signal recorded on log sheets once daily. Compliance assumed daily if no excursions occur.	Monthly inspection in accordance with I/PM plan. Quarterly inspections for the condenser.
E. Data Collection Procedures	Signal recorded on log sheet once daily. Otherwise excursions trigger corrective action, logging and reporting in semiannual report.	Records are maintained to document the monthly inspections and any required maintenance. Record any excursions that required corrective action. If no excursions, compliance is assumed on a monthly basis.
F. Averaging period	None, not to exceed minimum.	N/A

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
 This facility will not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: www.epa.gov/rmp.

Stratospheric Ozone Protection, 40 CFR Part 82 [Not 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.

This facility does not utilize any Class I & II substances.

SECTION VIII. COMPLIANCE

TIER CLASSIFICATION AND PUBLIC REVIEW

This application has been determined to be **Tier II** based on the request for renewal of a Part 70 operating permit.

The applicant is required to publish a “Notice of Filing a Tier II Application” in a local newspaper in order to give public notice that a Tier II permit application has been filed with DEQ.

The applicant will be required to publish a “Notice of Tier II Draft Permit.” On publication of this notice, the 30-day public review period will start. The draft permit will be available for public review at a location within the county and also on the Air Quality section of the DEQ web page at <http://www.deq.ok.gov>. The proposed permit will be sent to EPA for a 45-day concurrent review by EPA Region 6. If public comments are received, the concurrent review process will be used and a complete “proposed” permit will be sent to EPA for a 45-day review period.

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

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of this subsection may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2., unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under this subsection, the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection

under this subsection, the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

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

TESTING

Engine test results were provided and are in compliance with the applicable permit limits. These results are listed in the following table.

Engine Test Results

Source	Permit Limits		Test Results		Test Date
	NOx (lb/hr)	CO (lb/hr)	NOx (lb/hr)	CO (lb/hr)	
C-1: 1340-hp Caterpillar G3516 LE w/OC	5.91	1.10	3.74	0.22	11/21/2019
C-2: 1340-hp Caterpillar G3516 LE w/OC	5.91	1.10	4.37	0.26	11/21/2019
C-5: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	<0.01	2.54	11/21/2019
C-6: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	0.72	0.87	11/21/2019
C-7: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	0.68	1.92	12/17/2019
C-8: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	0.32	1.86	11/21/2019
C-9: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	0.36	0.71	11/21/2019
C-10: 1,478-hp Waukesha L7042GSI w/CC	4.24	2.93	0.14	1.48	11/21/2019

FEE PAID

Part 70 operating permit renewal fee of \$7,500 has been received.

SECTION IX. SUMMARY

The facility was constructed as described in the permit application. Ambient air quality standards are not threatened at the site. There are no active Air Quality compliance or enforcement issues that would prevent issuance of the permit. Issuance of the operating permit is recommended, contingent on public and EPA reviews.

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

**TPL Arkoma Holdings, LLC
Able Compressor Station**

Permit Number 2020-0007-TVR

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on January 1, 2020. The Evaluation Memorandum dated January 20, 2021, 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 emissions limitations and standards for each point.
[OAC 252:100-8-6(a)(1)]

EUG 1 Engines

EU #	Source	NO _x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-1	1,340-hp Caterpillar G3516 LE w/OC	5.91	25.88	1.10	4.81	0.88	3.87
C-2	1,340-hp Caterpillar G3516 LE w/OC	5.91	25.88	1.10	4.81	0.88	3.87
C-5	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-6	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-7	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-8	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-9	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
C-10	1,478-hp Waukesha L7042GSI w/CC	4.24	18.55	2.93	12.84	0.51	2.21
EMGEN	470-hp Cummins DQHAB	42.57	4.68	9.17	1.01	0.34	0.04

- a. C-1 and C-2 are subject to the requirements for existing SI RICE engines located at area sources. The owner/operator shall comply with applicable requirements of the NESHAP, 40 CFR Part 63, Subpart ZZZZ in accordance with the timeline provided in the federal regulations.
- b. C-5 through C-10 are subject to 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ. Per 40 CFR 63.6590(c), the permittee must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, if applicable. [40 CFR §63.6590(c)]
- c. EMGEN is subject to 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ. Per 40 CFR 63.6590(c), the permittee must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII, if applicable [40 CFR §63.6590(c)]
- d. Each engine at the facility shall have a permanent identification plate attached, which shows the make, model number, and serial number. [OAC 252:100-43]
- e. At least once per calendar quarter, the permittee shall conduct tests of NO_x and CO emissions from the engine(s) with established emission limits when operating under representative conditions for that period. Testing is required for any 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. Testing performed under a previous permit may be used to justify a reduced monitoring frequency, i.e., quarterly to semiannual or annual, and may be used in lieu of testing required by this permit for an applicable reporting period, i.e., quarter, six-month, or annual period coinciding with issuance of this permit. Reduced testing frequency does not apply to engines with catalytic converters. [OAC 252:100-8-6 (a)(3)(A)]
- f. The permittee is authorized to replace any internal combustion engine or turbine with emissions limitations specified in this permit with an engine or turbine that meets the following requirements: [OAC 252:100-8-6(f)(2)]
- i. The replacement engine or turbine shall comply with the same emissions limits as the engine or turbine that it replaced. This applies to lb/hr and TPY limits specified in this permit.
 - ii. The authorization of replacement of an engine or turbine includes temporary periods of 6 months or less for maintenance purposes.
 - iii. The permittee shall notify AQD in writing not later than 7 days prior to start-up of the replacement engine or turbine. 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 maximum horsepower for the altitude/location.
 - iv. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with NO_x 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 (g/hp-hr, lbs/hr, and TPY) at maximum rated horsepower for the altitude/location.
 - v. Replacement equipment and emissions are limited to equipment and emissions which are not a modification under NSPS or NESHAP.
 - vi. Replacement equipment and emissions are limited to equipment and emissions which are not a modification or a significant modification under PSD. For existing PSD facilities, the permittee shall calculate the PTE or the net emissions increase resulting from the replacement to document that it does not exceed significance levels and submit the results with the notice required by paragraph (c) of this Specific Condition. The permittee shall attach each such notice to their copy of the relevant 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 described in OAC 252:100-8-6(d) does not apply to any change made pursuant to this paragraph.

- vii. Engines whose installation and operation are authorized under this Specific Condition which are subject to 40 CFR Part 63, Subpart ZZZZ and/or 40 CFR Part 60, Subpart JJJJ shall comply with all applicable requirements.
- viii. Turbines whose installation and operation are authorized under this Specific Condition which are subject to 40 CFR Part 60, Subpart KKKK shall comply with all applicable requirements.

EUG 2 Dehydration Units

EU #	Source	NO _x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
DEHY1-SV	TEG Dehydration Unit	--	--	--	--	0.82	3.58
DEHY2-SV	TEG Dehydration Unit	--	--	--	--	0.82	3.58
DEHY1	1.5-MMBtu/hr TEG Reboiler	0.15	0.64	0.12	0.54	0.01	0.04
DEHY2	1.5-MMBtu/hr TEG Reboiler	0.15	0.64	0.12	0.54	0.01	0.04

- a. The glycol dehydration units shall be maintained and operated in accordance with applicable state and federal rules, including but not limited to the following requirements.
 - i. The glycol dehydration units shall each be equipped with a condenser. Off-gases from the still vents shall be routed to the condensers. The off-gases from the condenser shall be routed to the reboiler firebox when it is firing. When the pilot is out, the off-gases shall be automatically routed back to the low-pressure header to the VRU or to an equally effective emission control system with an overall control efficiency of at least 95% of the condenser emissions.
 - ii. The glycol dehydration units shall be equipped with a flash tank with the off-gases from the flash tank routed to the process (e.g., station inlet), or an equally effective emission control system (100% collection efficiency).
 - iii. The combined average natural gas throughput of the glycol dehydration units shall not exceed 120 MMSCFD, monthly average.
 - iv. The lean glycol circulation rate shall not exceed a combined glycol circulation rate of 15 gpm for units DEHY1-SV and DEHY2-SV. If the manufacturer’s rating is visible on the pump, or performance data for the model of pump that verifies the maximum pump rate is less than this level, monitoring of operating pump rate shall not be required.
 - v. Otherwise, the glycol circulation rate shall be monitored and recorded at least once every calendar month. The lean glycol circulation rate shall be recorded for each inspection as follows.

Circulation rate, as found (gal/min, strokes/min) _____
 Circulation rate, as left (gal/min, strokes/min) _____

Date of inspection _____
 Inspected by _____

- vi. Records of benzene emissions per 40 CFR Part 63, Subpart HH shall be kept.

EUG 3 Tanks

EU #	Source	VOC	
		lb/hr	TPY
TK-1	400-bbl Condensate Tank	-	5.91
TK-2	400-bbl Condensate Tank	-	5.91
TK-3	400-bbl Condensate Tank	-	5.91

- a. The condensate tanks shall be equipped with permanent submerged fill pipes or an organic vapor recovery system.
- b. The total condensate throughput shall be no more than 3,000,000 gallons in any 12-month period.
- c. Vapors from the condensate tanks shall be controlled by a vapor recovery unit (VRU) and returned to the inlet of the station, except as allowed by Specific Condition No. 1. EUG 3 (d).
- d. The condensate tanks may be operated 490 hours without the VRU in any 12-month period.

EUG 4 Loading

The activities in EUG-4 are “Insignificant Activities,” (emissions are less than 5 TPY). There are not emissions limits established in this permit, but the operation is limited to the equipment as it is.

EU #	Source
TLDNG	Truck Loading

- a. For crude oil and condensate marine and truck loading equipment operations at crude oil and natural gas production sites where the loading rate does not exceed 10,000 gallons per day averaged over a 30-day period: records of the amount of crude oil or condensate loaded (annual).
- b. The total condensate throughput shall be no more than 3,000,000 gallons in any 12-month period.

EUG 5 Fugitives

EU #	Source
FUG	Fugitive Emissions

- a. Fugitive VOC emissions from equipment leaks do not have a specific limitation.
2. The fuel-burning equipment shall be fueled only with field gas with sulfur content not greater than 343 ppm or with pipeline-grade natural gas. Engines which are subject to New Source Performance Standards (NSPS) Subpart IIII shall burn diesel fuel with 15 ppm or less sulfur.

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; for fuel oil, supplier's latest delivery ticket(s). Compliance shall be demonstrated at least once per calendar year. [OAC 252:100-31]

3. The permittee is authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
4. When monitoring shows concentrations or emissions in excess of the limits of Specific Condition No. 1, the owner or operator shall comply with the provisions of OAC 252:100-9 for excess emissions. [OAC 252:100-9]
5. The permittee shall comply with all applicable requirements of 40 CFR 60 (NSPS) Subpart III, Stationary Compression Ignition Internal Combustion Engines (CI ICE) for each affected engine including but not limited to the following. [40 CFR §60.4205– §60.4214]
 - a. §60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
 - b. §60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?
 - c. §60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?
 - d. §60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - e. §60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - f. §60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?
6. The permittee shall comply with all applicable requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines, Subpart JJJJ, for each affected engine including but not limited to the following. [40 CFR §60.4230 – §60.4246]
 - a. §60.4230 Am I subject to this subpart?
 - b. §60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?
 - c. §60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?
 - d. §60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?
 - e. §60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - f. §60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?
 - g. §60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

- h. §60.4246 What parts of the General Provisions apply to me?
7. The permittee shall comply with all applicable requirements of 40 CFR Part 63 (NESHAP): Oil and Natural Gas Production Facilities, Subpart HH, for each affected facility including but not limited to: [40 CFR §63.760 – §63.779]
- a. §63.760: Applicability and designation of affected source
 - b. §63.761: Definitions
 - c. §63.762: Startup, shutdowns, and malfunctions
 - d. §63.763: (reserved)
 - e. §63.764: General standards
 - f. §63.765: Glycol dehydration unit process vents standards
 - g. §63.766: Storage vessel standards
 - h. §63.767: (reserved)
 - i. §63.768: (reserved)
 - j. §63.769: Equipment leak standards
 - k. §63.770: (reserved)
 - l. §63.771: Control equipment requirements
 - m. §63.772: Test methods, compliance procedures, and compliance demonstrations
 - n. §63.773: Inspection and monitoring requirements
 - o. §63.774: Recordkeeping requirements
 - p. §63.775: Reporting requirements
 - q. §63.776: Delegation of authority
 - r. §63.777: Alternate means of emission limitation
 - s. §63.778: (reserved)
 - t. §63.779: (reserved)
8. The permittee shall comply with all applicable requirements of 40 CFR Part 63 (NESHAP) Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE), including but not limited to the following. [40 CFR §63.6580 –§63.6675]
- a. §63.6580 What is the purpose of subpart ZZZZ?
 - b. §63.6585 Am I subject to this subpart?
 - c. §63.6590 What parts of my plant does this subpart cover?
 - d. §63.6595 When do I have to comply with this subpart?
 - e. §63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
 - f. §63.6605 What are my general requirements for complying with this subpart?
 - g. §63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations 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?
 - h. §63.6615 When must I conduct subsequent performance tests?
 - i. §63.6620 What performance tests and other procedures must I use?

- j. §63.6625 What are my monitoring, installation, operation, and maintenance requirements?
 - k. §63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
 - l. §63.6635 How do I monitor and collect data to demonstrate continuous compliance?
 - m. §63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
 - n. §63.6645 What notifications must I submit and when?
 - o. §63.6650 What reports must I submit and when?
 - p. §63.6655 What records must I keep?
 - q. §63.6660 In what form and how long must I keep my records?
 - r. §63.6665 What parts of the General Provisions apply to me?
 - s. §63.6670 Who implements and enforces this subpart
 - t. §63.6675 What definitions apply to this subpart?
9. Engines C-5, C-6, and C-8 through C-10 are subject to Compliance Assurance Monitoring (CAM) and shall comply with all applicable requirements and shall perform monitoring as approved below.

	Indicator No. 1	Indicator No. 2	Indicator No. 3*	Indicator No 4*
I. Indicator	O ₂ from engines	Temperature of exhaust gas into catalyst.	Pressure drop across the catalyst.	Inspection & Preventative Maintenance (I/PM). See I/PM plan.
B. Measurement Approach	O ₂ concentration into the catalyst shall be measured continuously using an in-line O ₂ sensor.	Exhaust gas temperature shall be measured at least once daily when operating using an in-line thermocouple.	Pressure drop across the catalyst beds shall be measured monthly using a differential pressure gauge or a water manometer.	Monthly inspection according to I/PM plan; maintenance performed as needed.
II. Indicator Range	The indicator range is O ₂ % > 0.45V. Excursion is an alarm event below this voltage lasting 30 minutes or longer. Excursions trigger corrective action, logging and reporting in semiannual report.	The indicator range is above 750°F, but lower than 1,250°F. Excursions trigger corrective action, logging and reporting in semiannual report.	The indicator range is a pressure drop deviation of less than ± 2 inches w.c. from the benchmark. Excursions trigger corrective action, logging and reporting in semiannual report.	Excursions trigger corrective action, logging and reporting in semiannual report.
III. Performance Criteria				
A. Data Representativeness	O ₂ concentration shall be measured at the engine exhaust while the engine is operating.	Temperature shall be measured at the inlet to the catalyst by a thermocouple with a minimum accuracy of ±5°F.	Pressure drop across the catalyst shall be measured at catalyst inlet and exhaust. The minimum accuracy of the device is ±0.25 inches w.c.	Inspections are performed on the engine, AFR, and the catalyst.
B. QA/QC – Practices and Criteria	The O ₂ sensor shall be replaced quarterly.	The thermocouple shall be visually inspected quarterly and tested annually.	The pressure gauge shall be calibrated quarterly.	Qualified personnel perform inspections.

	Indicator No. 1	Indicator No. 2	Indicator No. 3*	Indicator No 4*
C. Monitoring Frequency	The O ₂ percent shall be monitored continuously.	The temperature shall be measured and recorded at least once daily when operated.	The pressure drop shall be measured monthly.	Monthly inspection in accordance with I/PM plan.
D. Data Collection Procedures	Records shall be maintained to document alarmed events and any required maintenance.	The operator or computer shall record the temperature in a log book or database.	Records shall be maintained to document monthly readings and any required maintenance.	Records shall be maintained to document monthly inspections and any required maintenance.
E. Averaging period	None, not to exceed maximum.	None, not to exceed minimums and maximum.	None, not to exceed minimums and maximums.	N/A

10. The glycol dehydration units (DEHY1-SV and DEHY2-SV) are subject to CAM and shall comply with all applicable requirements and shall perform monitoring as approved on the following page.

	Indicator No. 1 (Condenser/Reboiler Firebox)	Indicator No. 2 (Condenser/Reboiler Firebox)
I. Indicator	Flame presence	Inspection & Preventative Maintenance (I/PM). See I/PM plan.
B. Measurement Approach	Flame is monitored continuously using a fire eye, thermocouple or other similar device and an end device capable of translating the signal to a discrete on/off output.	Monthly inspection according to I/PM plan; Maintenance performed as needed. Quarterly inspections for the condenser
II. Indicator Range	The indicator range is a discrete reading of “on,” which signals that a flame is present. An excursion is indicated by an “off” signal and triggers corrective action, logging and reporting in the semiannual report.	Excursions trigger corrective action, logging and reporting in semiannual report.
III. Performance Criteria	Presence of flame is monitored at the pilot light location.	Inspections are performed on the condenser system.
A. Data Representativeness		
B. Verification of Operational Status	If any part of the device fails, an “off” signal is generated, an alarm is automatically initiated and the unit is automatically shut down. Any defects affecting quality would be corrected at the time.	Monthly I/PM inspections verify operating characteristics of the system. Quarterly inspections of the condenser verify proper operation and thermocouple readings.
C. QA/QC – Practices and Criteria	Thermocouple visually checked quarterly and tested annually.	Qualified personnel perform inspections.
D. Monitoring Frequency	Signal recorded on log sheets once daily. Compliance assumed daily if no excursions occur.	Monthly inspection in accordance with I/PM plan. Quarterly inspections for the condenser.
E. Data Collection Procedures	Signal recorded on log sheet once daily. Otherwise excursions trigger corrective action, logging and reporting in semiannual report.	Records are maintained to document the monthly inspections and any required maintenance. Record any excursions that required corrective action. If no excursions, compliance is assumed on a monthly basis.
F. Averaging period	None, not to exceed minimum.	N/A

11. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6(a)(3)(B)]
 - a. Records of fuel sulfur content, as required by Specific Condition No. 2.
 - b. Records of engine testing required by Specific Condition No. 1(EUG 1)(e).
 - c. Operating hours for each engine if less than 220 hours per quarter and not tested.
 - d. O&M records for any engine/turbine not tested in each quarter that operated less than 220 hours.
 - e. Each glycol dehydration unit's average natural gas throughput (MMSCFD, monthly).
 - f. Operating hours for the condensate tanks without the VRU, 12-month rolling total.
 - g. Records showing the glycol dehydration unit's recirculation pump rating per Specific Condition 1(EUG 2)(a)(v).
 - h. Condensate tank throughput, 12-month rolling totals (and loading).
 - i. Records required by Specific Condition No. 9 and 10 for Compliance Assurance Monitoring.
 - j. Records as required by NSPS Subparts IIII and JJJJ.
 - k. Records as required by NESHAP Subparts HH and ZZZZ.

12. 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 activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant; the type of activity and the amount of emissions from that activity (cumulative annual). Emissions from the methanol tank, produced water tank, slop water tank, and MSS are below this threshold.
 - b. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBtu/hr heat input. Boilers DEHY1 and DEHY2 each have heat inputs less than 5 MMBtu/hr.

13. No later than 30 days after each anniversary date of the issuance of the original Title V operating permit (June 30, 2015), the permittee shall submit to Air Quality Division of the 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)]

14. This permit supersedes all previous Air Quality operating permits for this facility, which are now cancelled.



SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

Targa Pipeline Mid-Continent LLC
Attn: Ms. Tammy Wallace
Sr. Environmental Specialist
811 Louisiana, Suite 2100
Houston, TX 77002

SUBJECT: Permit No. 2020-0007-TVR
Able Compressor Station
Facility ID: 8323
Location: Section 29, T1N, R10E, Coal County Oklahoma

Dear Ms. Wallace:

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

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

Thank you for your cooperation in this matter. If we may be of further service, please contact Junru Wang at Junru.Wang@deq.ok.gov or (405) 702-4197.

Sincerely,

A handwritten signature in black ink that reads 'Phillip Fielder'.

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



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

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a **Tier II** or **Tier III** draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. 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: ...xx-xxx-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.ok.gov/>

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

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/CSD 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.ok.gov/>.

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.



SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

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

SUBJECT: Permit No. **2020-0007-TVR**
Able Compressor Station (SIC 1311/NACIS 211130)
Facility ID: 8323
Location: Section 29, T1N, R10E, Coal County Oklahoma

Dear Sir / Madam:

The subject referenced facility has requested the renewal of 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.ok.gov>.

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,

A handwritten signature in black ink that reads 'Phillip Fielder'. The signature is written in a cursive style with a large initial 'P'.

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





SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

Targa Pipeline Mid-Continent LLC
Attn: Ms. Tammy Wallace
Sr. Environmental Specialist
811 Louisiana, Suite 2100
Houston, TX 77002

SUBJECT: Permit No. 2020-0007-TVR
Able Compressor Station
Facility ID: 8323
Location: Section 29, T1N, R10E, Coal County Oklahoma

Dear Ms. Wallace:

Enclosed is the Part 70 permit renewal authorizing operation of the referenced facility. Please note that this permit is issued subject to certain 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 through DEQ's electronic reporting system by April 1st of every year. Any questions concerning the submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact Junru Wang at Junru.Wang@deq.ok.gov or (405) 702-4197.

Sincerely,

DRAFT

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





PART 70 PERMIT

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

Permit Number: 2020-0007-TVR

TPL Arkoma Holdings, LLC

Having complied with the requirements of the law, is hereby granted permission to operate within the boundaries of the Able Compressor Station located at Section 29, T1N, R10E in Coal County, Oklahoma, subject to Standard Conditions dated June 21, 2016, and Specific Conditions both attached.

This permit shall expire five years from the date of issuance, except as authorized under Section VIII of the Standard Conditions.

Division Director
Air Quality Division

Date

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

SECTION I. DUTY TO COMPLY

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

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6(a)(3)(C)(iv)]

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

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

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

[OAC 252:100-43]

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

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

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

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

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

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer’s instructions and in accordance with a protocol meeting the requirements of the “AQD Portable Analyzer Guidance” document or an equivalent method approved by Air Quality. [OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM₁₀). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

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

SECTION IV. COMPLIANCE CERTIFICATIONS

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

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

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

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

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

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

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

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification.

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

SECTION VI. PERMIT SHIELD

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

[OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit.

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

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

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

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

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

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

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.

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

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

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing,

terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

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

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

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

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

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

SECTION XII. REOPENING, MODIFICATION & REVOCATION

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

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

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:

[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

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

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

[OAC 100-8-7.3(d)]

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

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

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

SECTION XIII. INSPECTION & ENTRY

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

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

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

SECTION XIV. EMERGENCIES

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

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

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

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

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

- (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;

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

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

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

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

SECTION XVII. TRIVIAL ACTIVITIES

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

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

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the

maintenance of air quality standards. [OAC 252:100-29]

- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

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

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

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

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

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be

- certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
 - (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit

requirements.

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

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [OAC 252:100-43-6]

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
7-1-20

ACFM	Actual Cubic Feet per Minute	HCFC	Hydrochlorofluorocarbon
AD	Applicability Determination	HON	Hazardous Organic NESHAP
AFRC	Air-to-Fuel Ratio Controller	HP	Horsepower (hp)
API	American Petroleum Institute	HR	Hour (hr)
ASTM	American Society for Testing and Materials	H₂S	Hydrogen Sulfide
BACT	Best Available Control Technology	I&M	Inspection and Maintenance
BHP	Brake Horsepower (bhp)	IBR	Incorporation by Reference
BTU	British thermal unit (Btu)	IC	Internal Combustion
C&E	Compliance and Enforcement	LAER	Lowest Achievable Emission Rate
CAA	Clean Air Act	LB	Pound(s) [Mass] (lb, lbs, lbm)
CAM	Compliance Assurance Monitoring	LB/HR	Pound(s) per Hour (lb/hr)
CAS	Chemical Abstract Service	LDAR	Leak Detection and Repair
CAAA	Clean Air Act Amendments	LNG	Liquefied Natural Gas
CC	Catalytic Converter	LT	Long Ton(s) (metric)
CD	Consent Decree	M	Thousand (Roman Numeral)
CEM	Continuous Emission Monitor	MAAC	Maximum Acceptable Ambient Concentration
CFC	Chlorofluorocarbon	MACT	Maximum Achievable Control Technology
CFR	Code of Federal Regulations	MM	Prefix used for Million (Thousand-Thousand)
CI	Compression Ignition	MMBTU	Million British Thermal Units (MMBtu)
CNG	Compressed Natural Gas	MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
CO	Carbon Monoxide or Consent Order	MMSCF	Million Standard Cubic Feet (MMscf)
COM	Continuous Opacity Monitor	MMSCFD	Million Standard Cubic Feet per Day
D	Day	MSDS	Material Safety Data Sheet
DEF	Diesel Exhaust Fluid	MWC	Municipal Waste Combustor
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)	MWe	Megawatt Electrical
EGU	Electric Generating Unit	NA	Nonattainment
EI	Emissions Inventory	NAAQS	National Ambient Air Quality Standards
EPA	Environmental Protection Agency	NAICS	North American Industry Classification System
ESP	Electrostatic Precipitator	NESHAP	National Emission Standards for Hazardous Air Pollutants
EUG	Emissions Unit Group	NH₃	Ammonia
EUSGU	Electric Utility Steam Generating Unit	NMHC	Non-methane Hydrocarbon
FCE	Full Compliance Evaluation	NO₂	Nitrogen Dioxide
FIP	Federal Implementation Plan	NOx	Nitrogen Oxides
FR	Federal Register	NOI	Notice of Intent
GACT	Generally Achievable Control Technology	NSCR	Non-Selective Catalytic Reduction
GAL	Gallon (gal)	NSPS	New Source Performance Standards
GDF	Gasoline Dispensing Facility	NSR	New Source Review
GEP	Good Engineering Practice	O₃	Ozone
GHG	Greenhouse Gases	O&G	Oil and Gas
GR	Grain(s) (gr)	O&M	Operation and Maintenance
HAP	Hazardous Air Pollutants	O&NG	Oil and Natural Gas
HC	Hydrocarbon		

OAC	Oklahoma Administrative Code	TSP	Total Suspended Particulates
OC	Oxidation Catalyst	TV	Title V of the Federal Clean Air Act
PAH	Polycyclic Aromatic Hydrocarbons	US EPA	U. S. Environmental Protection Agency
PAL	Plant-wide Applicability Limit	VMT	Vehicle Miles Traveled
Pb	Lead	VOC	Volatile Organic Compound
PBR	Permit by Rule	VRU	Vapor Recovery Unit
PCB	Polychlorinated Biphenyls	YR	Year
PCE	Partial Compliance Evaluation	µg/m³	Micrograms Per Cubic Meter
PEA	Portable Emissions Analyzer	2SLB	2-Stroke Lean Burn
PFAS	Per-and Polyfluoroalkyl Substance	4SLB	4-Stroke Lean Burn
PM	Particulate Matter	4SRB	4-Stroke Rich Burn
PM_{2.5}	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers		
PM₁₀	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers		
POM	Particulate Organic Matter Or Polycyclic Organic Matter		
ppb	Parts per Billion		
ppm	Parts per Million		
ppmv	Parts per Million Volume		
ppmvd	Parts per Million Dry Volume		
PSD	Prevention of Significant Deterioration		
psi	Pounds per Square Inch		
psia	Pounds per Square Inch Absolute		
psig	Pounds per Square Inch Gage		
RACT	Reasonably Available Control Technology		
RATA	Relative Accuracy Test Audit		
RICE	Reciprocating Internal Combustion Engine		
RO	Responsible Official		
ROAT	Regional Office at Tulsa		
RVP	Reid Vapor Pressure		
SCC	Source Classification Code		
SCF	Standard Cubic Foot		
SCFD	Standard Cubic Feet per Day		
SCFM	Standard Cubic Feet per Minute		
SCR	Selective Catalytic Reduction		
SER	Significant Emission Rate		
SI	Spark Ignition		
SIC	Standard Industrial Classification		
SIP	State Implementation Plan		
SNCR	Selective Non-Catalytic Reduction		
SO₂	Sulfur Dioxide		
SO_x	Sulfur Oxides		
SOP	Standard Operating Procedure		
T	Tons		
TAC	Toxic Air Contaminant		
THC	Total Hydrocarbons		
TPY	Tons Per Year		
TRS	Total Reduced Sulfur		