

DRAFT

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

June 16, 2016

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

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

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

THROUGH: Peer Review

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

SUBJECT: Evaluation of Permit Application No. **2016-0490-TVR3**
Panhandle Eastern Pipe Line Company
Alva Hopeton Compressor Station
Facility ID No. 1372
Latitude 36.72512°N, Longitude 98.69148°W
Section 15, Township 26N, Range 14W, Woods County, Oklahoma
Directions: From Alva, go 5 miles south on Highway 281, then west 1.25
miles. Facility is on the north side of the road.

SECTION I. INTRODUCTION

Panhandle Eastern Pipe Line Company (applicant) has requested a renewal of their Part 70 operating permit for their Alva Hopeton Compressor Station. The facility is currently operating under Permit No. 2010-205-TVR2 (M-3), issued on November 3, 2015. Operations of the facility have not changed since issuance of Permit No. 2010-205-TVR2 (M-3).

Since the facility emits more than 100 TPY of a regulated pollutant, it is subject to Title V permitting requirements.

SECTION II. FACILITY DESCRIPTION

Panhandle Eastern Pipe Line Company operates this facility as a natural gas compression, transmission and storage facility with a TEG dehydration unit (SIC Codes: 4922 and 1311). The facility has seven continuous use compressor engines (four are grandfathered). The engines include 5 Ingersoll Rand engines which drive Ingersoll Rand compressors with direct couplers and two Cooper Bessemer engines which drive Cooper Bessemer compressors with direct couplers. There is also one limited use (<100 hrs/yr) White Superior compressor engine, two limited use 480-hp Caterpillar diesel engines which are used to power emergency electric generators (limited to 100 hours per year of operation for maintenance and testing, with no limit on use in emergency situations), and one 30-hp communication tower emergency generator. The

TEG dehydration unit utilizes a Sivalls Inc. R-BTEX control system for the dehydrator emissions. The control system uses water cooling and forced-air, which is more efficient and provides much greater reductions in emissions than air-cooled systems typically used for dehydrator emission controls.

SECTION III. EQUIPMENT

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

EUG 1 "Grandfathered" Engines

EU	Point	Make/Model	HP	Serial No.	Installed
U-201	E-1	Ingersoll Rand 410KVT	2,500	148	1966
U-202	E-2	Ingersoll Rand 410KVT	2,500	147	1966
U-203	E-3	Cooper Bessemer 12-14V250	4,000 - 5,000 ¹	47258	1968
U-204	E-4	Cooper Bessemer 14V250	4,800 - 6,000 ²	47840	1971

¹ Unit U-203 is rated at 4,000-hp at 130°F air manifold temperature and 100°F air intake temperature and is rated at 5,000-hp at 70°F air manifold temperature and 40°F air intake temperature.

² Unit U-204 is rated at 4,800-hp at 130°F air manifold temperature and 100°F air intake temperature and is rated at 6,000-hp at 70°F air manifold temperature and 40°F air intake temperature.

EUG 2a Permitted Compressor Engines With Unlimited Hours of Operation

EU	Point	Make/Model	HP	Serial #	Installed
U-205	E-5	Ingersoll Rand 512KVR	4,500	163AP	1981
U-206	E-6	Ingersoll Rand 512KVR	4,500	164AP	1981
U-207	E-7	Ingersoll Rand 512KVR	4,500	165AP	1981

EUG 2b Limited Use Compressor Engine

EU	Point	Make/Model	HP	Serial #	Installed
U-365	E-8	White Superior 6G825	631	276119	1981

EUG 3 Tanks

EU	Point	Contents	Gallons	Installed
Tanks	1	Oily Wastewater	6,300	1965
	2	Methanol	1,500	1978
	3	Glycol	1,500	1976
	4-1	Condensate	12,655	1978
	5-1	Salt Water	12,600	1965
	5-2	Salt Water	12,600	1965
	7	Condensate	8,400	1965
	8	Glycol	1,976	1966
	9	Lube Oil	6,230	UNK
	10	Used Oil	1,976	UNK
	11	Lube Oil	7,287	UNK
	12	Used Oil	3,100	UNK
	13	Glycol	3,700	1981
	14	Condensate	8,800	UNK
	16	Salt Water	2,068	UNK
	17	Used Oil	2,068	UNK
	18	Used Oil	5,076	UNK
	21	Used Oil	1,768	UNK
	23	Diesel	1,200	2010
	24	Diesel	1,200	2014

UNK - Unknown

EUG 4 Dehydrator

EU	Point	Description	MMbtu/hr	Installed
D-91REB	R-1	Reboiler	1.0	1976
D-91TPS-1	D-1	Condenser Vent with Sivalls Inc. R-BTEX Control System	N/A	1976/2002

EUG 5 Heaters

EU	Point	MMbtu/hr	Serial #	Installed
FGH-1	FGH-1	0.5	812300512	1966
FGH-2	FGH-2	1.0	2806	1977

EUG 6 Fugitives

EU	Point	Number of Items	Type of Equipment
Fugitives	F-1	551	Valves
		719	Flanges
		207	Threaded Fittings
		18	Blowdown Valves
		37	Relief Valves
		35	Compressor Seals

EUG 7 Gas Starts/Blowdowns

EU	Point	Engine Starts/Blowdowns per Year
BD-1	BD-1	50 each engine

EUG 8 Emergency Generators

EU	Point	Fuel	Make/Model	HP	KW	Const/Mod
U-214	E-9	Diesel	Caterpillar/C9 ATAAC	480	300	2008
COMM-1	E-10	Natural Gas	Generac/QT02224ANAX	30	22	2012
U-215	E-11	Diesel	Caterpillar/C9 ATAAC	480	300	2014

Compressor Engine Specifications

Parameter	U-201 & U-202	U-203	U-204	U-205, U-206, & U-207	U-365
Fuel Consumption (SCFH)	16,130	27,600	27,600	30,600	5,660
Stack Height (feet)	25	33	33	42	17
Stack Diameter (feet)	2.3	3.5	3.7	3.5	0.7
Flow Rate (ACFM)	13,822	9,640	11,419	26,900	1,550
Temperature (°F)	500	649	680	800	1,031
Moisture Content (%)	17	9	9	11	17

Other Stack Parameters

EU	Height (feet)	Diameter (feet)	Flow (acfm)	Temperature (°F)
FGH-1	17	0.7	142	900
D-91REG	32	0.7	209	900
D-91TPS-1	15	0.3	N/A	N/A

SECTION IV. EMISSIONS

- EUGs 1 and 2: Estimated emissions for the compressor engines are based on AP-42, Table 3.2-3, 7/00, and the following factors:

Engines	NO _x		CO		VOC	
	lb/MMBtu	g/hp-hr	lb/MMBtu	g/hp-hr	lb/MMBtu	g/hp-hr
Ingersoll Rand 410KVT	0.847	---	0.317	---	0.118	---
Cooper Bessemer 12-14V250	3.170	---	0.386	---	0.120	---
Cooper Bessemer 14V250	3.170	---	0.386	---	0.120	---
Ingersoll Rand 512KVR	---	6.00	---	4.80	---	0.440
White Superior 6G825	---	11.5	---	5.50	---	0.440

- EUG 3: Emission estimates for the tanks are based on AP-42 (1/95), Chapter 7.1 and were calculated using TANKS 4.09. Flash emissions from the tanks are estimated using the Vasquez-Beggs equation. Estimated emissions from the truck loading are based on AP-42 (1/95), Chapter 5.2, an emission factor of 4.93 lbs/1,000 gallons, and an estimated total throughput of 98,730 gallons per year.
- EUG 4: Emission estimates for the reboiler are based on AP-42 (7/98), Table 1.4-1. The facility utilizes a Sivalls Inc. R-BTEX control system for the dehydrator emissions. The control system uses water cooling and forced-air. It is more efficient and provides much greater reductions in emissions than the air-cooled systems typically used for dehydrator emission controls. The *Glycol Dehydration Handbook* provides information about the R-BTEX control system, such as the system that has been installed at the Alva-Hopeton location, as follows:

The key feature of the R-BTEX process that distinguishes it from other condensation process is that cooling water is generated within the process by recovering steam from the glycol dehydrator. The water is cooled to below the ambient dry bulb temperature by evaporating water across the cooling tower packing. The cooling water temperature will typically approach within a few degrees of the wet bulb temperature and the wet bulb temperature is below ambient temperature, except at 100% relative humidity. The use of cooling water allows maximum recovery of hydrocarbons since the final condenser temperature is typically below ambient. This results in higher levels of control than can be achieved with processes that operate at or above ambient temperatures.

The applicant has provided documentation from Sivalls, Inc. showing that on average the condenser temperature was approximately 10° F below ambient temperature during a test conducted in the summer. However, for the purpose of estimating emissions presented in this section, the applicant utilized monthly average ambient temperatures, rather than temperatures of 10°F below these temperatures, as estimates of the monthly condenser outlet temperatures.

Emissions of VOC and HAPs from the dehydration unit condenser vent were estimated for each month using the GRI-GLYCalc 4.0 computer software, the maximum design capacity of 75 MMscf/day, a maximum glycol recirculation rate of 5.2 gpm, and average ambient temperature (as an estimate of the average monthly condenser outlet temperature) for each month. There is no flash tank associated with the dehydration unit at this facility.

- EUG 5: Emission estimates for the fuel-gas and process heaters are based on AP-42 (7/98), Table 1.4-1.
- EUG 6: Fugitive VOC emissions are based on EPA’s *1995 Protocol for Equipment Leak Emission Estimates* (EPA-453/R-95-017), an estimated number of components, and a recent gas analysis.
- EUG 7: Emission estimates of gas losses from starts/blowdowns are based on a recent gas analysis.
- EUG 8: Emission estimates for the 480-hp diesel emergency generator unit U-214 are based on 500 hours per year and manufacturer’s data (4.979 g/hp-hr NO_x, 0.464 g/hp-hr CO, 0.122 g/hp-hr VOC).

Emission estimates for the 30-hp natural gas fired emergency generator unit COMM-1 is based on 500 hours per year and 40 CFR 60, Subpart JJJJ. The engine has been certified for <10 g/hp-hr NO_x and <387 g/hp-hr CO.

Emission estimates for the 480-hp diesel emergency generator unit U-215 is based on 100 hours per year and manufacturer’s data (4.27 g/hp-hr NO_x, 0.45 g/hp-hr CO, and 0.11 g/hp-hr VOC).

Brake specific fuel consumption for the Generac/QT02224ANAX engine (COMM-1) has been listed at 316 SCFH. Air emissions from the engine will be discharged through at a rate of 180 acfm at 800 °F.

EUGs 1 and 2: Engine Emissions

EU	NO _x		CO		VOC		Regulatory Status
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	
U-201	13.66	59.84	5.11	22.40	1.90	8.34	Grandfathered
U-202	13.66	59.84	5.11	22.40	1.90	8.34	Grandfathered
U-203	87.49	383.21	10.65	46.66	3.31	14.51	Grandfathered
U-204	104.99	459.86	12.78	55.99	3.97	17.41	Grandfathered
U-205	59.52	260.72	47.62	208.58	4.36	19.12	Permitted
U-206	59.52	260.72	47.62	208.58	4.36	19.12	Permitted
U-207	59.52	260.72	47.62	208.58	4.36	19.12	Permitted
U-365*	16.00	0.79	7.60	0.38	0.61	0.03	Permitted

*Engine U-365 is used for backup compression service and is permitted for a maximum operation of 99 hours per year.

EUG 3: Tank Emissions

Point	Capacity	Liquid Type	VOC (TPY)	Insignificant Activity
1	6,300	Oily Wastewater	--	Yes
2	1,500	Methanol	0.03	Yes
3	1,500	Glycol	--	Yes
4-1	12,655	Condensate	2.21	Yes
5-1	12,600	Salt Water	--	Yes
5-2	12,600	Salt Water	--	Yes
7	8,400	Condensate	0.27	Yes
8	1,976	Glycol	--	Yes
9	6,230	Lube Oil	--	Yes
10	1,976	Used Oil	--	Yes
11	7,287	Lube Oil	--	Yes
12	3,100	Used Oil	--	Yes
13	3,700	Glycol	--	Yes
14	8,800	Condensate	0.27	Yes
16	2,068	Salt Water	--	Yes
17	2,068	Oily Wastewater	--	Yes
18	5,076	Used Oil	--	Yes
21	1,768	Used Oil	--	Yes
23	1,200	Diesel	--	Yes
24	1,200	Diesel	--	Yes

EUG 4: Dehydrator Emissions

EU	NO _x (TPY)	CO (TPY)	VOC (TPY)
D-91REB	0.44	0.36	0.02

EU	Pollutant	Uncontrolled HAP Emissions		Controlled HAP Emissions	
		lbs/hr	TPY	lbs/hr	TPY
D-91TPS-1	VOC	29.23	128.03	4.69	15.14
	Benzene	1.38	6.05	0.36	0.97
	Ethylbenzene	2.07	9.05	0.07	0.16
	n-Hexane	3.14	13.75	1.35	3.94
	Toluene	6.48	28.37	0.66	1.60
	Xylene	14.03	61.46	0.40	0.89

EUG 5: Heater Emissions

EU	NO _x (TPY)	CO (TPY)	VOC (TPY)
FGH-1	0.22	0.18	0.01
FGH-2	0.44	0.36	0.02

EUG 6: Fugitive Emissions

EU	Equipment Type	Number of Sources	Emission Factor (lbs/hr/source)	VOC weight %	VOC TPY
F-1	Valves	551	0.00992	1.92	0.46
	Flanges	719	0.00086	1.92	0.05
	Threaded Fittings	207	0.00086	1.92	0.01
	Blowdown Valves	18	0.01940	1.92	0.03
	Relief Valves	37	0.01940	1.92	0.06
	Compressor Seals	35	0.01940	1.92	0.06
Total					0.67

EUG 7: Gas Starts and Blowdown Emissions

EU	Pollutant	Starts	Blowdowns	Combined Emissions
		(TPY)	(TPY)	(TPY)
BD-1	VOC (including n-Hexane)	1.73	1.51	3.24
	n-Hexane	0.94	0.82	1.76

EUG 8: Emergency Generator Emissions

EU	NO _x		CO		VOC	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
U-214	5.27	1.32	0.49	0.12	0.13	0.03
COMM-1	0.66	0.17	25.60	6.40	0.01	0.01
U-215	4.52	0.23	0.48	0.02	0.12	0.01

*Engines U-214 and COMM-1 are used for emergency power generation and are currently permitted for a maximum operation for readiness testing and maintenance of 100 hours per year. The emission estimates above are based on 500 hrs/yr of operation to allow for emergency use.

*Engine U-215 is used for emergency power generation and is limited by 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ for readiness testing and maintenance of 100 hours per year. The emission estimates above are based on 100 hrs/yr of operation to allow for maintenance and testing.

Facility-Wide Emissions

EU	NO _x		CO		VOC	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
U-201	13.66	59.84	5.11	22.40	1.90	8.34
U-202	13.66	59.84	5.11	22.40	1.90	8.34
U-203	87.49	383.21	10.65	46.66	3.31	14.51
U-204	104.99	459.86	12.78	55.99	3.97	17.41
U-205	59.52	260.72	47.62	208.58	4.36	19.12
U-206	59.52	260.72	47.62	208.58	4.36	19.12
U-207	59.52	260.72	47.62	208.58	4.36	19.12
U-365	16.00	0.79	7.60	0.38	0.61	0.03
U-214	5.27	1.32	0.49	0.12	0.13	0.03
COMM-1	0.66	0.17	25.60	6.40	0.01	--
U-215	4.52	0.23	0.48	0.02	0.12	0.01
Tanks	--	--	--	--	--	6.93
D-91REB	--	0.44	--	0.36	--	0.02
D-91TPS-1	--	--	--	--	4.69	15.14
FGH-1	--	0.22	--	0.18	--	0.01
FGH-1	--	0.44	--	0.36	--	0.02
F-1	--	--	--	--	0.14	0.67
BD-1	--	--	--	--	--	3.24
TOTAL	424.81	1,748.52	210.68	781.01	29.86	132.06

Emissions of HAPs from the engines were estimated based on factors in AP-42 (7/2000), Table 3.2-1 and the following emission factors:

Engine HAP Emission Factors

Source	MMBTUH	Acetaldehyde	Acrolein	Benzene	Butadiene (1,3)	Formaldehyde
		lb/MMBTU	lb/MMBTU	lb/MMBTU	lb/MMBTU	lb/MMBTU
Ingersoll Rand 410KVT	16.13	0.00836	0.00514	0.00044	0.000267	0.0528
Cooper Bessemer 12-14V250	27.60	0.00776	0.00778	0.00194	0.00082	0.0552
Cooper Bessemer 14V250	33.12	0.00776	0.00778	0.00194	0.00082	0.0552
Ingersoll Rand 512KVR	30.60	0.00836	0.00514	0.00044	0.000267	0.0528
White Superior	5.66	0.00279	0.00263	0.00158	0.000663	0.0205
Caterpillar / C9 ATAAC	1.05	0.00077	0.00009	0.00093	0.000039	0.0012
Generac/QT0 2224ANAX	0.32	0.00279	0.00263	0.00158	0.000663	0.0205

Engine HAP Emissions

Source	Acetaldehyde		Acrolein		Benzene		Butadiene (1,3)		Formaldehyde	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
U-201	0.135	0.591	0.083	0.363	0.007	0.031	0.004	0.019	0.852	3.730
U-202	0.135	0.591	0.083	0.363	0.007	0.031	0.004	0.019	0.852	3.730
U-203	0.214	0.938	0.215	0.941	0.054	0.235	0.023	0.099	1.524	6.673
U-204	0.257	1.126	0.258	1.129	0.064	0.281	0.027	0.119	1.828	8.008
U-205	0.256	1.120	0.157	0.689	0.013	0.059	0.008	0.036	1.616	7.077
U-206	0.256	1.120	0.157	0.689	0.013	0.059	0.008	0.036	1.616	7.077
U-207	0.256	1.120	0.157	0.689	0.013	0.059	0.008	0.036	1.616	7.077
Total	1.508	6.606	1.110	4.862	0.172	0.755	0.083	0.363	9.902	43.371

HAP emissions from U-365, U-214, COMM-1, and U-215 are negligible. HAP emissions are above major source levels.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Appropriate recordkeeping of activities indicated below with “*” are specified in the Specific Conditions.

1. Space heaters, boilers, process heaters and emergency flares less than or equal to 5 MMbtu/hr heat input (commercial natural gas). The fuel gas heater is 0.5, the process heater is 1.0, and the dehydrator reboiler is 1.0 MMBTU/hr. The heaters and reboiler meet this criterion.

2. *Stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or diesel fuel which are either used exclusively for emergency power generation or for peaking power service not exceeding 500 hours/year, records of operating hours are required. U-214 and U-215 are used for generation of emergency power. The facility has requested that they be permitted for maintenance tests and readiness testing up to 100 hours per year which is less than 500 hours per year; however, they are subject to Subpart III. Therefore they cannot be considered insignificant activities. COMM-1 is used for generation of emergency power. The facility has requested that it be permitted for maintenance tests and readiness testing up to 100 hours per year which is less than 500 hours per year; however, it is subject to Subpart JJJJ. Therefore it cannot be considered an insignificant activity.
3. *Storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature, records of capacity of the tanks and contents are required.
4. *Fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia, records of capacity of the tanks and contents are required.
5. Cold degreasing operations utilizing solvents that are denser than air. Includes parts washers.
6. *Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Records of calculated emissions will be required. This includes the equipment fugitives, truck loading, reboiler and the methanol and condensate tanks.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

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

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

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

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

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and

which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant
- 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 and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the existing permit or from the current permit application, or are developed from the applicable requirement.

OAC 252:100-9 (Excess Emission and Malfunction 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 (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred, shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

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

OAC 252:100-19 (Particulate Matter) [Applicable]
Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment, with emission limits based on maximum design heat input rating. Fuel-burning equipment is defined in OAC 252:100-19 as any internal combustion engine or gas turbine, or other combustion device used to convert the combustion of fuel into usable energy. Thus, the engines are subject to the requirements of this subchapter. Appendix C specifies a PM emission limitation of 0.60 lbs/MMBTU for all equipment at this facility with a heat input rating of 10 MMBTUH or less. Appendix C specifies a PM emission limitation for all equipment at this facility with a heat input rating of greater than 10 MMBTUH but less than 1,000 MMBTUH based on the following calculation: $E = 1.0428080X^{-0.238561}$, where E is the allowable emission rate and X is the maximum heat input. For 2-cycle lean-burn, 4-cycle lean-burn, and 4-cycle rich-burn engines burning natural gas, AP-42 (7/00) Section 3.2 lists the total PM emissions as approximately 0.05, 0.01, and 0.02 lb/MMBTU, respectively. For engines burning diesel fuel, AP-42 (10/96) Section 3.3 lists the total PM emissions as approximately 0.31 lb/MMBTU. For external combustion units burning natural gas, AP-42, Table 1.4-2 (7/98), lists the total PM emissions for natural gas to be 7.6 lb/MMft³ or about 0.0075 lb/MMBTU. The permit requires the use of natural gas for

all fuel-burning equipment, with the exception of the Caterpillar/C9 ATAAC engines which shall use diesel fuel, to ensure compliance with Subchapter 19.

Equipment	Maximum Heat Input (MMBTUH)	Emissions (lb/MMBTU)	
		Appendix C	Potential
Ingersoll Rand 410KVT	16.13	0.54	0.01
Cooper Bessemer 12-14V250	27.60	0.47	0.05
Cooper Bessemer 14V250	33.12	0.45	0.05
Ingersoll Rand 512KVR	30.60	0.46	0.01
White Superior 6G825	5.66	0.60	0.02
Caterpillar/C9 ATAAC	1.05	0.60	0.31
Generac/QT02224ANAX	0.32	0.60	0.02
1.0 MMBTUH Reboiler	1.00	0.60	0.08
1.0 MMBTUH Heater	1.00	0.60	0.08
0.5 MMBTUH Heater	0.50	0.60	0.08

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

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
 No discharge of greater than 20% opacity is allowed except for short-term occurrences, 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. Since this facility only burns natural gas, compliance with the standards is assured and no specific monitoring is required.

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 facilities combusting natural gas with a maximum H₂S content of 343 ppmv, will be in compliance with the ambient air concentration limit. Engines combusting fuel with an H₂S content of less than 343 ppmv are unlikely to exceed the ambient air concentration limit. A fuel sulfur limit of 343 ppmv will ensure compliance with the ambient air concentration limit.

Part 5 limits sulfur dioxide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 Btu/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. 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 are no emission units that exceed the 50 MMBTUH threshold.

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

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires 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 methanol and condensate tanks are subject to this requirement.

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

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

Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. Temperature and available air must be sufficient to provide essentially complete combustion.

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

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]

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

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

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

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
 PSD does not apply to this renewal of the Title V permit since there are no significant emission increases. However, the facility is an existing PSD site and therefore would be subject to PSD review if future increases exceed any of the significance levels: CO 100 TPY, NO_x 40 TPY, SO₂ 40 TPY, PM₁₀ 15 TPY, or VOC 40 TPY.

NSPS, 40 CFR Part 60 [Subpart III and JJJ Applicable]
Subparts K, Ka, Kb, VOL Storage Vessels. All of the tanks are below the de minimis of 19,813-gallons for Subpart Kb and 40,000-gallons for Subparts K and Ka.
Subpart GG, Stationary Gas Turbines. There are no turbines at this facility.
Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. This facility is not a SOCOMI plant.
Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. The facility does not engage in natural gas processing.
Subpart LLL, Onshore Natural Gas Processing: SO₂ Emissions. There is no natural gas sweetening operation at this site.
Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 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. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. The Caterpillar/C9 ATAAC (U-214 and U-215) engines are subject to this subpart. Specific conditions require compliance.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and numerous manufacture dates. The Generac/QT02224ANAX (COMM-1) engine is subject to this subpart. Specific conditions require compliance. The engine has been certified for <10 g/hp-hr NO_x +HC and <387 g/hp-hr CO as required by Subpart JJJJ. The other SI engines in this permit were manufactured prior to any compliance date and are not subject to this subpart.

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 affects process streams that contain more than 10% benzene by weight. All process streams at this facility are below this threshold.

NESHAP, 40 CFR Part 63

[Subparts HHH, ZZZZ, and DDDDD Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities which are major sources of HAPs and either process, upgrade, or store hydrocarbons prior to the point of custody transfer or prior to which the natural gas enters the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant. If no natural gas plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer. This facility is not in the applicable source Category since it is already after the point of custody transfer.

Subpart HHH, Natural Gas Transmission and Storage Facilities. This subpart applies to each glycol dehydration unit located at facilities that are major sources of HAPs. Formaldehyde emissions exceed 10 tons/year. This facility is a major source of HAPs and is subject to the provisions of this subpart. New requirements for dehydration units were promulgated on August 16, 2012, and became effective on October 15, 2012. A small glycol dehydration unit is defined as having an actual annual average natural gas flow rate less than 283.0 thousand standard cubic meters per day (10 MMSCFD), or actual annual average benzene emission of less than 0.90 megagrams per year (one TPY). Though the natural gas flow rate of the glycol dehydration unit exceeds the 283 MSCMD, benzene emissions are estimated to be less than 0.90 megagrams per year; therefore, the glycol dehydration unit falls under the definition of a small glycol dehydration unit under this subpart. The revised standard removed the exemption for dehydration units with emission of benzene below 1 TPY. Per §63.1274(c), the owner or operated of a glycol dehydration unit located at an existing or new major source of HAP emissions shall comply with the following requirements in this subpart by October 15, 2015.

- (1) The control requirements for glycol dehydration unit process vents specified in §63.1275;

- (2) The monitoring requirements specified in §63.1283; and
- (3) The recordkeeping requirements specified in §§63.1284 and 63.1285.

In order for the dehydration unit to be defined as a small glycol dehydration unit, an enforceable limit must be in place before the effective date of the rule for existing sources, or June 17, 2002. The January 9, 2002 permit for this location (96-547-C (M-1)) includes a limit on the EUG 4 Dehydrator for benzene of 0.30 tons/year upon installation of a condenser with an R-BTEX™ system and a three-phase separator. These limits were based on calculating the emissions using GRI-GLY-Calc version 3 and assuming 95% control efficiency. Permit limits are based on GRI-GLY-Calc (Version 4) to calculate the controlled emissions based on 8,760 hours of operation. The calculation for benzene is 0.97 tons/year, which is less than one ton/year. It should be noted that the dehydrator operates only during withdrawal season or less than half the year, so actual emissions would be much less than the maximum. Specific conditions for this facility will include a limit of 0.99 tons/year of benzene from the dehydration unit and records to confirm benzene usage complies with Subpart HHH.

Although emissions of VOC, ethyl benzene, toluene, xylene and n-hexane have been reduced as a result of the dehydrator condenser and R-BTEX system, the specific conditions for the dehydrator will not list limits of these since they are not specifically the subject of this control device.

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

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

No further requirements apply for engines subject to NSPS under this part. Based on emission calculations, this facility is a major source of HAP. Subpart ZZZZ has no standards for existing 2SLB and 4SLB engines with a site rating more than 500-hp located at a major source of HAP emissions. U-214, U-215, and COMM-1 were constructed after June 12, 2006 and are subject to this subpart. U-214 and U-215 will comply with Subpart IIII. COMM-1 will comply with Subpart JJJJ.

Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters at major sources of HAPs. This subpart affects new, reconstructed, and existing industrial, commercial and institutional boilers and process heaters at major sources of HAPs. Boilers and process heaters designed to burn gas 1 fuels with a heat capacity less than or equal to 5 MMBTUH are not subject to the emission limits of this subpart; however each unit is subject to requirements of

an initial energy audit and must complete a tune-up every five years as specified in Table 3, and §63.7540(a)(12), respectively.

Compliance Assurance Monitoring, 40 CFR Part 64 [Not Applicable]
Compliance Assurance Monitoring, as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, that is required to obtain a Title V permit, 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 of any criteria pollutant, 10 TPY of any HAP, or 25 TPY of HAPs.

None of the engines use a control device. Per 40 CFR 64.2 (b)(i) the dehydrator is exempt from the requirements of Compliance Assurance Monitoring since it is subject to an emission limitation or standard proposed after November 15, 1990 (Subpart HHH of 40 CFR Part 63).

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

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F 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.

This facility does not produce, consume, recycle, import, or export any controlled substances or controlled products as defined in this part, nor does this facility perform service on motor (fleet) vehicles that involves ozone-depleting substances. Therefore, as currently operated, this facility is not subject to these requirements. To the extent that the facility has air-conditioning units that apply, the permit requires compliance with Part 82.

SECTION VIII. COMPLIANCE

Tier Classification and Public Review

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

The applicant published the DEQ “Notice of Tier II Permit Application Filing” in *The Alva Review-Courier*, a semi-weekly newspaper published in the City of Alva, Woods County, Oklahoma, on May 13, 2015. The notice stated that the application is available for public review in the Alva Public Library or at the DEQ main office at 707 N. Robinson, Oklahoma City, Oklahoma. The draft permit will be submitted for a 30-day public review period.

The permittee has submitted an affidavit that they are not seeking permit for land used for any operation upon land owned by others without their knowledge. The affidavit certifies that the application involves only land owned by the applicant or applicant business. Information on all permits is available for review by the public in the Air Quality Section of the DEQ web site: <http://www.deq.state.ok.us>. This draft permit will also be available on the DEQ web site.

State Review

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

EPA Review

At the appropriate time, the “proposed” permit will be forwarded to EPA Region VI for a 45-day review period.

Inspection

A full compliance evaluation (FCE) of this facility was conducted on April 7, 2016 at 10:10 a.m. Rodney Pesch, Environmental Programs Specialist, conducted the FCE. Representing the facility were Mike Riedel, Senior Environmental Specialist, and Jeff Stewart, Operational Fieldman. Two excess emissions were reported and noted in the FCE, both of which are State Level 2 violations. These violations will not prohibit the issuance of the permit. Since there are no modifications requested for the Part 70 renewal, no additional inspection is required.

Testing

Engines U-205 and U-206 are currently being tested on an annual frequency. Engine U-207 is currently being tested on a quarterly frequency. The most recent engine performance testing

results are presented in the following table. The test results show compliance with the applicable permit conditions. Engine U-365 has not operated; therefore, no performance testing has been conducted.

EU	Source	Test Date	Permit Limitations		Test Results	
			NOx	CO	NOx	CO
			lbs/hr	lbs/hr	lbs/hr	lbs/hr
U-205	Ingersoll Rand 512KVR	10/30/2015	59.52	47.62	44.361	36.386
U-206	Ingersoll Rand 512KVR	7/15/2015	59.52	47.62	44.040	41.536
U-207	Ingersoll Rand 512KVR	2/24/2016	59.52	47.62	45.033	31.679

Fee Paid

A Part 70 operating permit renewal application fee of \$7,500 is required. A payment of \$7,500 was received on May 10, 2016.

SECTION IX. SUMMARY

The facility is operating as described in the permit application. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues. Issuance of the operating permit is recommended, contingent upon public, state, and EPA review.

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

**Panhandle Eastern Pipe Line Company
Alva Hopeton Compressor Station**

Permit Number 2016-0490-TVR3

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on May 10, 2016. The Evaluation Memorandum dated June 16, 2016, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operation under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and limitations for each point: [OAC 252:100-8-6(a)(1)]

EUG 1 "Grandfathered" Engines

There are no emission limits applied to these units under Title V, but they are limited to the existing equipment as it is.

EU	Make/Model	HP	Serial #
U-201	Ingersoll Rand 410KVT	2,500	148
U-202	Ingersoll Rand 410KVT	2,500	147
U-203	Cooper Bessemer 12-14V250	4,000 - 5,000 ¹	47258
U-204	Cooper Bessemer 14V250	4,800 - 6,000 ²	47840

¹ Unit U-203 is rated at 4,000-hp at 130°F air manifold temperature and 100°F air intake temperature and is rated at 5,000-hp at 70°F air manifold temperature and 40°F air intake temperature.

² Unit U-204 is rated at 4,800-hp at 130°F air manifold temperature and 100°F air intake temperature and is rated at 6,000-hp at 70°F air manifold temperature and 40°F air intake temperature.

EUG 2a Permitted Engines With Unlimited Hours of Operation

These engines are limited to the following emissions:

EU	Make/Model	NO _x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
U-205	Ingersoll Rand 512KVR	59.52	260.72	47.62	208.58	4.36	19.12
U-206	Ingersoll Rand 512KVR	59.52	260.72	47.62	208.58	4.36	19.12
U-207	Ingersoll Rand 512KVR	59.52	260.72	47.62	208.58	4.36	19.12

EUG 2b Limited Use Compressor Engine

- a. This engine has no specific emission limits, however records (including hours of operation) must be maintained to show limited use source status.
 - i. Engine U-365 is limited to 99 hours of operation per year (12-month rolling total).
 - ii. Engine U-365 shall be equipped with a non-resettable hour meter.
 - iii. Hours of operation shall be recorded monthly when operating.

EUG 3 Tanks

Storage tank VOC emissions are estimated based on existing equipment items but do not have a specific limitation.

EU	Point	Contents	Barrels	Gallons
Tanks	1	Oily Wastewater	150	6,300
	2	Methanol	36	1,500
	3	Glycol	36	1,500
	4-1	Condensate	300	12,655
	5-1	Salt Water	300	12,600
	5-2	Salt Water	300	12,600
	7	Condensate	200	8,400
	8	Glycol	47	1,976
	9	Lube Oil	148	6,230
	10	Used Oil	0	1,976
	11	Lube Oil	174	7,287
	12	Used Oil	74	3,100
	13	Glycol	88	3,700
	14	Condensate	210	8,800
	16	Salt Water	49	2,068
	17	Used Oil	49	2,068
	18	Used Oil	121	5,076
	21	Used Oil	42	1,768
	23	Diesel	29	1,200
	24	Diesel	29	1,200

EUG 4 Dehydrator

- a. The reboiler (1.0 MMbtu/hr) emissions are considered to be insignificant. The condenser vent emissions are limited as follows:

Still Vent Pollutant	Emission Rate TPY
Benzene	0.99

- b. The glycol dehydration unit shall be operated and maintained as follows:
 - i. The glycol dehydration unit shall be equipped with a condenser (a Sivalls R-BTEX control system).
 - ii. Calculations shall be performed on a monthly basis using the monthly average of the condenser outlet temperature, glycol recirculation rate, and gas throughput as an input to GRI-GLY Calc Version 3.0 or higher to determine that the dehydrator benzene emissions are less than 0.90 megagrams per year (0.99 ton/year). The outlet temperature from the condenser and glycol recirculation rate shall be monitored at least once per day while the dehydrator is in operation. Temperature and glycol recirculation rate monitoring data that is missing due to malfunctions or maintenance

is allowed for up to 5% of the days that the dehydrator is in operation. When missing data exceeds 5% of the days the dehydrator is in operation, the maximum recorded temperature and recirculation rate shall be used to calculate monthly emissions.

- iii. The natural gas throughput shall not exceed 75 MMSCFD based on a monthly average.
- iv. Records of the pump recirculation rate will be maintained on a daily basis.
- v. The permittee shall comply with all applicable requirements NESHAP, 40 CFR Part 63 Subpart HHH for each affected dehydration unit including but not limited to the following:
 - (a) The control requirements for glycol dehydration unit process vents specified in §63.1275;
 - (b) The monitoring requirements specified in §63.1283; and
 - (c) The recordkeeping requirements specified in §§63.1284 and 63.1285.

EUG 5 Heaters

Heater emissions are estimated based on existing equipment and are considered to be insignificant.

EU	Point	MMbtu/hr	Serial #
FGH-1	FGH-1	0.5	812300512
FGH-2	FGH-2	1.0	2806

- a. The process heaters at this facility shall comply with 40 CFR Part 63 (NESHAP), Subpart DDDDD no later than the compliance date of January 31, 2016.
 - i. A tune-up for the process heaters must be completed every 5 years as specified in §63.7540(a)(12). Each tune-up shall be conducted in accordance with §63.7540(a)(10)(i) through (vi). Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up, as specified in §63.7515(d); if the process heater is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup, in accordance with §63.7540(a)(13).
 - ii. A one-time energy assessment must be performed by a qualified energy assessor on each process heater, as specified in Table 3, Item 4.
 - iii. A signed statement in the Notification of Compliance Status report that indicates a tune-up and one-time energy assessment were conducted in accordance with Table 3, shall be submitted for each process heater as specified in §63.7530(d) and (e).
 - iv. Notifications as specified in §63.7545(a) and (b) shall be submitted, as applicable.
 - v. Reports as specified in Table 9, Item 1(a), including a 5-year compliance report as specified in 63.7550(a), (b), (c)(1), and (c)(5)(i) through (iv) and (xiv) shall be submitted for each process heater, as applicable.

EUG 6 Fugitives

Fugitive emissions are estimated based on existing equipment and are considered to be insignificant.

EU	Point	Number of Items	Type of Equipment
Fugitives	F-1	551	Valves
		719	Flanges
		207	Threaded Fittings
		18	Blowdown Valves
		37	Relief Valves
		35	Compressor Seals

EUG 7 Gas Starts/Blowdowns

There are no limits associated with gas starts and blowdowns. Emissions are estimated based on a recent gas analysis and are considered to be insignificant.

EUG 8 Emergency Generators

- a. These engines have no specific emission limits; however, records (including hours of operation) must be maintained to show limited use source status.
 - i. The operation of these emergency generators are limited to 100 hours per year for maintenance tests and readiness testing per §60.4211(f). There is no limit on the use in emergency situations under §60.4211(f).
 - ii. Engines U-214, COMM-1, and U-215 shall be equipped with a non-resettable hour meter.
 - iii. Hours of operation shall be recorded monthly when operating.
 - iv. U-214 and U-215 shall be operated using diesel fuel that meets the requirements of 40 CFR 80.510(b).

2. The fuel-burning equipment except for U-214 and U-215 shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, or other approved methods. Compliance shall be demonstrated at least once every calendar year.

[OAC 252:100-31]

3. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year).

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

4. All fuel-burning equipment shall have some form of permanent (non-removable) identification that shall list the maximum heat input of the unit. Engines shall have a permanent identification plate attached that shows the make, model, and serial number.

[OAC 252:100-43]

5. At least once per calendar quarter, the permittee shall conduct tests of NO_x and CO emissions in exhaust gases from engines U-205, U-206, U-207 and each replacement engine/turbine 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. Reduced testing frequency does not apply to engines with catalytic converters. [OAC 252:100-8-6 (a)(3)(A)]
6. When periodic compliance testing shows engine exhaust emissions in excess of the lb/hr limits in the Specific Condition Number 1, the permittee shall comply with the provisions of OAC 252:100-9. Requirements of OAC 252:100-9 include immediate notification and written notification of Air Quality and demonstrations that the excess emissions meet the criteria specified in OAC 252:100-9. [OAC 252:100-9]
7. Replacement (including temporary periods of 6 months or less for maintenance purposes), of internal combustion engines/turbines with emissions limitations specified in this permit with engines of lesser or equal emissions of each pollutant (in lbs/hr and TPY) are authorized under the following conditions. [OAC 252:100-8-6 (f)(2)]
 - a. The permittee shall notify AQD in writing not later than 7 days prior to start-up of the replacement engine(s)/turbine(s). Said notice shall identify the old engine/turbine and shall include the new engine/turbine make and model, serial number, horsepower rating, and pollutant emission rates (g/hp-hr, lb/hr, and TPY) at maximum horsepower for the altitude/location.
 - b. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with 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.
 - c. Replacement equipment and emissions are limited to equipment and emissions which are not a modification under NSPS or NESHAP, 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 a. of this Specific Condition.

- d. Engines installed as allowed under the replacement allowances in this Specific Condition that are subject to 40 CFR Part 63, Subpart ZZZZ and/or 40 CFR Part 60, Subpart JJJJ shall comply with all applicable requirements.
8. 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. Periodic emission testing for engines U-205, U-206, U-207 and each replacement engine.
 - b. Operating hours for permitted engines if less than 220 hours per quarter and not tested.
 - c. Operating hours for engine U-365 (monthly and 12-month rolling total).
 - d. Hours of operation for maintenance and testing for the emergency generators U-214 and U-215.
 - e. Hours of operation for maintenance and testing for the emergency generator COMM-1.
 - f. O&M records for an engine if not tested in each 6-month period.
 - g. For fuel(s) burned, the appropriate document(s) described in Specific Condition No. 2.
 - h. The daily condenser outlet temperature.
 - i. Daily records of glycol recirculation rate.
 - j. Dehydration unit records confirming benzene emissions comply with NESHAP 40 CFR Part 63, Subpart HHH.
 - k. Records required by NSPS 40 CFR Part 60, Subpart IIII.
 - l. Records required by NSPS 40 CFR Part 60, Subpart JJJJ.
 - m. Records required by NESHAP 40 CFR Part 63, Subpart HHH.
 - n. Records required by NESHAP 40 CFR Part 63, Subpart ZZZZ.
 - o. Records required by NESHAP 40 CFR Part 63, Subpart DDDDD.
 9. 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 (annual).
 - b. For storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature, records of capacity of the tanks and contents are required.
 - c. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia, records of capacity of the tanks and contents are required. [OAC 252:100-8-6 (a)(3)(B)]
 10. No later than 30 days after each anniversary date of the issuance of the original Title V operating permit (July 2, 1999), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]
 11. Upon issuance, Permit 2016-0490-TVR3 replaces and supersedes Permit No. 2010-205-TVR2 (M-3), which is now canceled.

Panhandle Eastern Pipeline Company
Attn: Mr. Michael Riedel
8111 Westchester Drive
Dallas, TX 75225

SUBJECT: Title V Renewal Permit No. **2016-0490-TVR3**
Panhandle Eastern Pipeline Company
Alva Hopeton Compressor Station
Facility ID No. 1372
Section 15, Township 26N, Range 14W, Woods County, Oklahoma

Dear Mr. Riedel:

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

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

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

Sincerely,

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

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

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a Tier II or Tier III draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD. Note that if either the applicant or the public requests a public meeting, this must be arranged through the Customer Services Division of the DEQ.

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

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

SAMPLE NOTICE on page 2.

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

DEQ NOTICE OF TIER ...II or III... DRAFT PERMIT

A Tier ...II or III... application for an air quality ...type of permit or permit action being sought (e.g., Construction Permit for a Major Facility)... has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant, ...name and address.

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

In response to the application, DEQ has prepared a draft permit [modification] (Permit Number: ...xxxx-xxxx-x...), which may be reviewed at ...locations (one must be in the county where the site/facility is located)... or at the Air Quality Division's main office (see address below). The draft permit is also available for review in the Air Quality Section of DEQ's Web Page: <http://www.deq.state.ok.us/>

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

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

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

If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45 day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j). Information on all permit actions and applicable review time lines is available in the Air Quality section of the DEQ Web page: <http://www.deq.state.ok.us/>.

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

Kansas Department of Health & Environmental Bureau of Air
1000 SW Jackson, Ste. 310
Topeka, Kansas 66612-1366

SUBJECT: Title V Renewal Permit No. **2016-0490-TV R3**
Panhandle Eastern Pipeline Company
Alva Hopeton Compressor Station
Facility ID No. 1372
Section 15, Township 26N, Range 14W, Woods County, Oklahoma
Permit Writer: Joseph K. Wills, E.I.

Dear Sir / Madame:

The subject referenced facility has requested a renewal of their 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 – Kansas border, a copy of the proposed permit will be provided to you upon request. Information on all permits and a copy of this draft permit are available for review by the public in the Air Quality Section of the DEQ Web Page: <http://www.deq.state.ok.us>.

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

Sincerely,

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

DRAFT

Panhandle Eastern Pipeline Company
Attn: Mr. Michael Riedel
8111 Westchester Drive
Dallas, TX 75225

SUBJECT: Title V Renewal Permit No. **2016-0490-TVR3**
Panhandle Eastern Pipeline Company
Alva Hopeton Compressor Station
Facility ID No. 1372
Section 15, Township 26N, Range 14W, Woods County, Oklahoma

Dear Mr. Riedel:

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

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

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

Sincerely,

DRAFT

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

DRAFT



PART 70 PERMIT

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

Permit No. 2016-0490-TV3

Panhandle Eastern Pipe Line Company,

having complied with the requirements of the law, is hereby granted permission to operate Alva Hopeton Compressor Station at Section 15, Township 26N, Range 14W, Woods County, Oklahoma, subject to the Standard Conditions dated June 21, 2016, and the Specific Conditions both of which are attached.

The 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]