

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

DRAFT

MEMORANDUM

August 10, 2016

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

THROUGH: Rick Groshong, Environmental Manager, Compliance and Enforcement

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

THROUGH: Peer Review

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

SUBJECT: Evaluation of Permit Application No. **2016-0341-TVR3**
Public Service Company of Oklahoma (PSO)
Southwestern Power Station
Washita, Caddo County
Sec. 10 – T7N – R11W
Directions: From Anadarko, 7 Miles West on SH-9, North 2 Miles, East 0.5
Mile, North 2 Miles
Latitude: 34.998233°N, Longitude -98.46163°W
FAC ID 214

SECTION I. INTRODUCTION

Public Service Company of Oklahoma (PSO) has requested renewal of the Part 70 operating permit for their Southwestern Power Station. The facility is an electric generating station (SIC Code 4911). The facility is currently operating as authorized by Permit No. No. 2011-228-TVR (M-2), issued July 8, 2014.

The application has requested the following changes from the current operating permit:

- Clarification that diesel fuel sulfur content documentation of Specific Condition No. 2 is the same recordkeeping requirement in Specific Condition No. 6.a.
- Including a CO limit for Boiler 3 of a 3-hour average. The current 30-day average can be demonstrated only by CEM but the 3-hour average can be demonstrated by stack testing. The shorter time frame makes for a somewhat more stringent limitation.
- Two tanks are being removed from the permit: T-3, an 84-000gallon diesel tank, and T-8, a 4,200-gallon condensate tank.

Since the facility emits more than 100 TPY of a regulated pollutant, it is subject to Title V permitting requirements. Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) in the following outline. Pipeline-grade natural gas is the primary fuel with the generators being operated continuously.

SECTION II. FACILITY DESCRIPTION

The facility produces power using four Babcock and Wilcox pressure-fired steam generators. The total combined steam output from the steam generators is sufficient to generate 500 MW-Gross. The steam is produced by these boilers to drive turbine-generators. The boilers are run on natural gas. Pipeline quality natural gas has been the primary fuel for the boilers since 1995. All four boilers are capable of operating on a continuous basis, but only the #3 boiler is actually operated continuously due to business demand. The other generators, #1N, #1S, and #2 are peaking units, which operate only when it is economically feasible, such as during peak demand. However, the estimated potential emissions listed in the emissions table are based on continuous operation of all four boilers. Also on site are one 2,847-hp diesel-fired emergency generator and three 3,000-gallon lube oil tanks.

PSO has also constructed two natural gas-fired combustion turbine electric generating peaking units. The power block consists of two GE7EA simple cycle combustion turbine generators (CTGs). Each of the turbines has a peak heat input of approximately 1,078 MMBTUH and an average heat input of approximately 930 MMBTUH. The combustion turbines fire pipeline-quality natural gas only and are equipped with General Electric’s 9/42 Dry low-NO_x (DLN) combustor technology. The new units have a combined nominal electrical generating capacity of 162 MW.

The permittee is authorized to evaporate non-hazardous boiler chemical cleaning waste (BCCW). The BCCW may be either generated on-site or from other PSO facilities. These operations may be conducted on an as-needed basis.

SECTION III. EQUIPMENT

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

EUG 1 Steam Generators

EU ID#	Point ID#	EU Name, Model	MMBTUH	MW Gross	Serial No.	Const. Date
1N	1N	Babcock/Wilcox, S-1853	482**	42	17210	Jan. 1952*
1S	1S	Babcock/Wilcox, S-9747	482**	42	17209	Jan. 1952*
2	2	Babcock/Wilcox, S-9742	940**	84	17438	Feb. 1954*
3	3	Babcock/Wilcox, RB-426	3,290**	332	BW21718	May 1967*

*Date is actual start-up date, not construction start date due to the lack of records available.

**Actual full load used by system operations.

EUG 2 VOL Storage Tanks

EU ID#	Point ID#	Contents	Capacity		Construction Date
			Barrels	Gallons	
TANK4	T-4	Condensate	300	12,600	1980*
TANK5	T-5	Lube Oil	71.5	3,000	1954
TANK6	T-6	Lube Oil	71.5	3,000	1966
TANK7	T-7	Lube Oil	71.5	3,000	1966
TANK9	T-9	Condensate	2	84	2010

*This tank is owned and operated by the natural gas supplier, Enogex, Inc.

EUG 3 Emergency Generator

EU ID#	Point ID#	EU Name/Model	hp	Serial No.	Mfg. Date*
EG1	EG1	Caterpillar 3500	2,847	4XF00410	1995

*This unit was moved to Southwestern Power Station in 2009.

EUG 4 Fugitive Emissions

Fugitive emissions from this facility are expected to be negligible.

EUG 5 New Combustion Turbines

EU ID#	Point ID#	EU Name, Model	MMBTUH	MW Gross	Serial No.	Installed Date
4	4	GE7EA Combustion Turbine	1,078	81	297223	2007
5	5	GE7EA Combustion Turbine	1,078	81	297224	2007

Both turbines were manufactured in 2002.

EUG 6: High Pressure Gas Yard Heater

EU ID#	Point ID#	Description	MMBTUH	Const. Date
6	6	Gas-fired heater	5.6	2009

SECTION IV. EMISSIONS

Air emissions from the facility have been calculated using the following methods and factors:

- Emissions were determined using the following emissions factors and 8,760 hours per year operations. The facility has relinquished authority to burn oil fuel in Unit No. 3.

Table 1 Emissions Factors for Boiler 3

Pollutant	Emission Factor, lb/MMBTU	Factor Reference
NO _x	0.450	Vendor guarantee (BART limit)
CO	0.465	PSD permit limit
SO ₂	0.0006	AP-42 (7/98) Section 1.4, adjusted to 1,040 BTU/SCF
PM ₁₀	0.0075	AP-42 (7/98) Section 1.4, adjusted to 1,040 BTU/SCF
PM _{2.5}	0.0075	AP-42 (7/98) Section 1.4, adjusted to 1,040 BTU/SCF
VOC	0.0054	AP-42 (7/98) Section 1.4, adjusted to 1,040 BTU/SCF
GHG	116.7	40 CFR Part 98

- The estimated potential criteria pollutants emissions from boilers and heater are based on the emission factors in AP-42 (7/98), Tables 1.4-1 and 1.4-2, Section 1.4, “Natural Gas Combustion” when gas is burned.

Table 2 Emission Factors for Boilers (lb/MMBTU)

Fuel	NO _x	CO	SO ₂	VOC	PM
Natural Gas	1.126 hourly 0.2800 annual	0.0840	0.0006	0.0055	0.0076

NOTE: stack testing showed CO emissions from Unit 3 to be non-detectable.

- The criteria pollutants emissions from the emergency generator are based on the emission factors in AP-42 (10/96), Tables 3.4-2 and 3.4-5, Section 3.4, “Large Stationary Diesel And All Stationary Dual-fuel Engines.”

Table 3 Emission Factors for Emergency Generator (lb/MMBTU)

Fuel	NO _x	CO	SO ₂	VOC	PM
No. 2 Fuel Oil	3.100	0.081	0.707	0.100	0.0573

Table 4 Emissions from Emergency Generator

EU	NO _x		CO		SO ₂		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Replacement Unit EG1	22.42	5.60	0.59	0.15	5.11	1.28	0.73	0.18	0.41	0.11

The estimated potential emissions for the facility are based on the 8,760 hours/year continuous operation for the boilers, and 500 hours/year for the emergency generator. The selection of 500 hours/year is based on the EPA memo (September 6, 1995), entitled “Calculating Potential to Emit for Emergency Generators” which states that 500 hours is an appropriate default for estimating emissions from these sources.

Table 5 presents the facility-wide estimated potential emissions from natural gas combustion and Table 6 presents the emissions from No. 2 fuel oil combustion.

Table 5 Facility-Wide Existing Potential Emissions from Natural Gas Combustion

EU	NO _x		CO		SO ₂		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Unit 1N	134.96	591.12	40.49	177.34	0.29	1.27	2.65	11.61	3.66	16.04
Unit 1S	134.96	591.12	40.49	177.34	0.29	1.27	2.65	11.61	3.66	16.04
Unit 2	263.20	1152.82	78.96	345.84	0.56	2.47	5.17	22.64	7.14	31.29
Unit 3	1480.58	2930.31	1529.8	1984.32	1.97	8.65	18.10	79.26	25.00	109.52
TOTALS	2013.7	5265.37	1689.7	2684.84	3.11	13.66	28.57	125.12	39.46	172.89

Table 6 Emissions from No. 2 Fuel Oil Combustion

EU	NO _x		CO		SO ₂		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Unit EG1	22.42	5.60	0.56	0.14	4.85	1.21	0.69	0.17	0.39	0.10

Criteria pollutant emissions from the combustion turbines are estimated based on GE vendor-supplied emissions data and BACT limits for NO_x, CO and PM₁₀. Estimated emissions summarized in the table below are based upon this peaking operation profile at a nominal 2,000 hours per year per unit.

In order to allow for flexibility in operations, the permit limits the annual fuel usage in the two combustion turbines combined to 4,228 Mscf/yr rather than set fuel usage or hours of operation limits on each turbine individually. This allows PSO to operate each combustion turbine based on demand for power since one unit or several units may not operate at full capacity. In addition, this allows PSO to operate one combustion turbine at the facility if the other turbine is unavailable due to malfunction or maintenance issues.

Table 7 Emission Factors for Turbines

Pollutant	Units	Emission Factor
NO _x	ppmvd @ 15% O ₂	9
CO	ppmvd @ 15% O ₂	25
VOC	ppmvd @ 15% O ₂	1.4
PM ₁₀	lb/hr	10
SO ₂	lb/MMBTU	0.012
H ₂ SO ₄	% of SO ₂	10%

Table 8 Potential Emissions from Combustion Turbines

EU	NO _x		CO		SO ₂		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Unit 4	35.00	42.29	59.00	71.30	15.00	0.75	2.00	2.00	10.00	10.00
Unit 5	35.00	42.29	59.00	71.30	15.00	0.75	2.00	2.00	10.00	10.00
TOTALS	70.00	84.59	118.00	142.59	30.00	1.51	4.00	4.00	20.00	20.00

The applicant expects a large amount of additional emissions resulting from start-ups and shutdowns. Due to their operation as peaking units, these turbines can be expected to experience a regular cycle of startup and shutdown events during which NO_x and CO emission rates are higher than at normal baseload levels. These elevated levels of emissions are accounted for in the pollutant estimates described below. Weekly emission calculations are based on an average of one cold start day per week and three warm start days per week.

PSO requested an emissions limit for both turbines combined as opposed to individual emissions limits. By incorporating elevated emission rates during startup and shutdown, higher than during normal operations, the emissions listed above represent the most conservative estimate for the annual emission totals.

Table 9 Estimated Daily Peaking Operation

Cold Start Day	Hours of Operation	NO _x ¹		CO ²	
		lb/hr	lb/event	lb/hr	lb/event
Normal Operation	9.82	35.00	343.70	59.00	579.38
Cold Start	2	186.06	372.12	313.64	627.28
Shutdown	1	20.29	20.29	34.20	34.20
Downtime	11.18	-	-	-	-
Total (per day)	24	-	736.11	-	1,240.86

Warm Start Day	Hours of Operation	NO _x ¹		CO ²	
		lb/hr	lb/event	lb/hr	lb/event
Normal Operation	9.82	35.00	343.70	59.00	579.38
Warm Start	2	56.81	113.62	95.77	191.54
Shutdown	1	20.29	20.29	34.20	34.20
Downtime	11.18	-	-	-	-
Total (per day)	24	-	477.61	-	805.12

- 1) Normal operation NO_x emission factor based on 9 ppm. Emissions during startup/shutdown based upon CEMS data from operation of a similar-sized GE turbine.
- 2) Normal operation CO emission factor based on 25 ppm. Emissions during startup/shutdown based upon CEMS data from operation of a similar-sized GE turbine.

Table 10 Estimated Weekly Peaking Emissions

Cold Start	Hours/ Day	Days/ Week	Hours/ Week	NO _x			CO		
				lb/hr	lbs/ week	tons/ week	lb/hr	lbs/ week	tons/ week
Normal Operation	9.82	1	9.82	35.00	343.70	0.17	59.00	579.38	0.29
Cold Start	2	1	2	186.06	372.12	0.19	313.64	627.28	0.31
Shutdown	1	1	1	20.29	20.29	0.01	34.20	34.20	0.02
Downtime	11.18	1	11.18	-	-	-	-	-	-
Subtotal	24			-	-	0.37	-	-	0.62
Warm Start				lb/hr	lbs/ week	tons/ week	lb/hr	lbs/ week	tons/ week
Normal Operation	9.82	3	29.46	35.00	1031.1	0.52	59.00	1738.14	0.87
Warm Start	2	3	6	56.81	340.86	0.17	95.77	574.62	0.29
Shutdown	1	3	3	20.29	60.87	0.03	34.20	102.6	0.05
Downtime	11.18	3	33.54	-	-	-	-	-	-
Subtotal	24			-	-	0.72	-	-	1.21
Total				-	-	1.08	-	-	1.83

Table 11 Estimated Annual Peaking Emissions

	Hours/ Week	Weeks/ Year	Hours/ Year	NO _x		CO	
				lb/hr	TPY	lb/hr	TPY
Normal Operation	39.28	39	1,532	35.00	26.81	59.00	45.19
Cold Start	2	39	78	186.06	7.26	313.64	12.23
Warm Start	6	39	234	56.81	6.65	95.77	11.20
Shutdown	4	39	156	20.29	1.58	34.20	2.67
Downtime	44.72	39	-	-	-	-	-
Total			2,000		42.29		71.30

Hazardous Air Pollutants (HAPs)

HAP emissions from the turbines are based on AP-42, Section 3.1 (4/2000). HAP emissions from the existing boilers are based on AP-42, Section 1.4 (9/98) for gas fuel. HAP emissions from the emergency generator are based on AP-42, Section 3.4 (10/96) but are considered negligible compared to the larger units.

Table 12 Existing Facility HAPs When Burning Gas Fuel

Unit Capacity MMBTUH	Fuel Heating Value BTU/SCF	Fuel Usage MMSCFH	Fuel Usage MMSCFY	HAP	Emission Factor lb/MMSCF	Emissions	
						lb/hr	TPY
5,194	1,020	5.09	44,607	7,12-Dimethylbenz(a)anthracene	0.000016	0.001	0.000
				Anthracene	0.0000024	0.001	0.001
				Benz-a-anthracene	0.0000018	0.001	0.001
				Benzene	0.0021	0.011	0.047
				Dibenzo(a,h)anthracene	0.0000012	0.001	0.001
				Dichlorobenzene	0.0012	0.006	0.027
				Formaldehyde	0.075	0.382	1.673
				Hexane*	0.00043	0.002	0.010
				Naphthalene	0.00061	0.003	0.014
				Phenanthrene	0.000017	0.001	0.001
				Toluene	0.0034	0.017	0.076
				Arsenic	0.0002	0.001	0.004
				Beryllium	0.000012	0.001	0.001
				Cadmium	0.0011	0.006	0.025
				Chromium	0.0014	0.007	0.031
				Cobalt	0.000084	0.001	0.002
				Manganese	0.00038	0.002	0.008
				Mercury	0.00026	0.001	0.006
Nickel	0.0021	0.011	0.047				
Selenium	0.000024	0.001	0.001				
Vanadium	0.0023	0.012	0.051				

*Hexane emission factor from EPRI “Hexane and other Alkane Emission Estimates for Natural Gas Fired Boilers” (May 5, 2000).

Table 13 New Turbines HAPs When Burning Gas Fuel

Unit Capacity MMBTUH	Fuel Heating Value BTU/SCF	Fuel Usage MMSCFH per Turbine	Total Annual Fuel Usage MMSCFY	HAP	Emission Factor lb/MMBTU	Combined Emissions	
						lb/hr	TPY
1,078	1,020	2,114	4,228	1,3-Butadiene	0.00000043	0.001	0.001
				Acetaldehyde	0.000040	0.085	0.085
				Acrolein	0.0000064	0.014	0.014
				Benzene	0.000012	0.025	0.025
				Ethylbenzene	0.000032	0.068	0.068
				Formaldehyde	0.00071	1.501	1.501
				Naphthalene	0.0000013	0.003	0.003
				PAH	0.0000022	0.005	0.005
				Propylene oxide	0.000029	0.061	0.061
				Toluene	0.00013	0.275	0.275
				Xylene	0.000064	0.135	0.135

Greenhouse Gas Emissions

Total potential greenhouse gas emissions have been stated at 3,768,439 TPY CO₂e using the methods of 40 CFR Part 98 and total potential fuel usage of 7,356 MMBTUH.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Records are available to confirm the insignificance of the activities. Appropriate recordkeeping of activities indicated below with "*" is specified in the Specific Conditions.

1. * Stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or distillate fuel oil which are used exclusively for emergency power generation not to exceed 500 hours/year. The backup diesel has become subject to standards under 40 CFR Part 63, Subpart ZZZZ, and has been removed from this category.
2. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTU/hr heat input (commercial natural gas). None identified but may be used in the future.
3. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period.
4. * 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.
5. * Bulk gasoline or other fuel distribution with a daily average throughput less than 2,175 gallons per day, including dispensing, averaged over a 30-day period.
6. Gasoline and aircraft fuel handling activities, equipment, and storage tanks except those subject to New Source Performance Standards and standards in OAC 252:100-37-15, 252:100-39-30, 252:100-39-41, and 252:100-39-48.
7. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. None identified but may be used in the future.
8. Additions or upgrades of instrumentation or control systems that result in emissions increases less than the pollutant quantities specified in OAC 252:100-8-3(e)(1).
9. Cold degreasing operations utilizing solvents that are denser than air.
10. * Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes.

11. Torch cutting and welding of under 200,000 tons of steel fabricated per year.
12. Emissions from landfills and landfarms unless otherwise regulated by an applicable state or federal regulation.
13. Surface coating operations which do not exceed a combined total of more than 60 gallons per month of coatings, thinners, and clean-up solvents at any one emission unit.
14. Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas.
15. Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas.
16. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. The 5.6 MMBTUH heater is in this category.

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, Emission Inventory, And Annual Fees) [Applicable]
The owner or operator of any facility that is a source of air emissions shall submit a complete emission inventory annually on forms obtained from the Air Quality Division. This facility has submitted the required emission inventories and has paid the applicable fees.

OAC 252:100-8 (Major Source/Part 70 Permits) [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

Emissions limitations have been established for each emission unit based on information from the current and previous permit application.

OAC 252:100-9 (Excess Emission Reporting Requirements) [Applicable]
 Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for 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. 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 Million BTU per hour (MMBTUH) or less. Fuel-burning equipment is defined in OAC 252:100-1 as “combustion devices used to convert fuel or wastes to usable heat or power.” Thus, the following equipment is subject to the requirements of this subchapter. Emission factors shown above indicate that all units are in compliance.

Equipment	Maximum Design Heat Input, (MMBTUH)	Appendix C Emission Limit, (lbs/MMBTU)	Potential Emission Rate, (lbs/MMBTU)
1N	482	0.24	0.0076
1S	482	0.24	0.0076
2	940	0.20	0.0076
3	3,290	0.15	0.0076
Unit 4	1,078	0.18	0.0093
Unit 5	1,078	0.18	0.0093
EG1	22.8	0.58	0.02

This subchapter also limits emissions of PM from industrial processes. Per AP-42 factors, there are no significant PM emissions from any other industrial activities at this facility.

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. All of the emission units are subject to this subchapter. The turbines will assure compliance with this rule by ensuring “complete combustion” and utilizing pipeline-quality natural gas as the primary fuel.

OAC 252:100-29 (Fugitive Dust) [Applicable]
 No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. No activities are expected that would produce fugitive dust beyond the facility property line.

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 278 µg/m³. Fuel-burning equipment fired with natural gas with a sulfur content of less than 4 ppmv will not have the potential to exceed the ambient standard.
Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the turbines to be fired with pipeline-grade natural gas with SO₂ emissions limits equivalent to 0.012 lb/MMBTU. The “grandfathered” units pre-date these requirements.
Part 5 also requires an opacity monitor and sulfur dioxide monitor for equipment rated above 250 MMBTU. Equipment burning gaseous fuel is exempt from the opacity monitor requirement, and equipment burning gaseous fuel containing less than 0.1 percent sulfur is exempt from the sulfur dioxide monitoring requirement, so the turbines do not require such monitoring.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]
 This subchapter limits emissions of NO_x from new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to a three-hour average of 0.2 lb/MMBTU. Listed below is the 3-hr average emission limit (lb/hr) of NO_x for each combustion turbine and the equivalent emission rates (lb/MMBTU) based on the maximum heat input, which are below the standard of 0.2 lb/MMBTU. The boilers pre-dated this rule and the Backup Diesel Generator is below 50 MMBTUH heat input and are, therefore, not subject to this rule.

Units	MMBTUH	lb/hr	lb/MMBTU
Turbines	1,078	35.00	0.047

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 at maximum storage temperature to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. Tank 4 is subject to this standard.

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. No coating operation is located at this facility.

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

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

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

This subchapter regulates 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 at this Time]

The facility is a listed source as a fossil fuel-fired electric plant of more than 250 MMBTU heat input with emissions greater than 100 TPY. PSD review has been completed for issuance of Permit No. 2011-228-C (M-2)(PSD).

NSPS, 40 CFR Part 60

[Subparts A and GG are Applicable]

Subpart A, General Provisions. This subpart requires the submittal of several notifications for NSPS-affected facilities. Within 30 days after starting construction of any affected facility, the facility must notify DEQ that construction has commenced. A notification of the actual date of initial start-up of any affected facility will be submitted within 15 days after such date. Initial performance tests are to be conducted within 60 days of achieving the maximum production rate, but not later than 180 days after initial start-up of the facility. The facility must notify DEQ at least 30 days prior to any initial performance test and must submit the results of the initial performance tests to DEQ.

Subpart Da, Electric Utility Steam Generating Units. This subpart affects electric steam generating units with a design capacity greater than 250 MMBTUH, and combined cycle gas turbines that are capable of combusting more than 250 MMBTUH level in the heat recovery steam generator, that were constructed after September 18, 1978; and combined cycle gas turbines capable of combusting more than 250 MMBTUH heat input of fossil fuel (either alone or in combination with any other fuel), designed and intended to burn fuels containing 50 percent (by heat input) or more solid-derived fuel not meeting the definition of natural gas on a 12-month rolling average basis that were constructed after February 28, 2005. Subpart Da affects emissions of NO_x, SO₂, and PM. Since none of these pollutants are being increased, the facility is not being “modified” as defined by NSPS.

Subpart GG, Stationary Gas Turbines. This subpart affects combustion turbines which commenced construction, reconstruction, or modification after October 3, 1977, and which have a heat input rating of 10 MMBTUH or more. Each of the turbines has a rated heat input of greater than 10 MMBTUH and is subject to this subpart.

EPA guideline document EMTIC, GD-009 advises to use zero for the value of F with gas turbines. So, the lowest NO_x limit is 0.0075% or 75 ppm_{dv} when Y = 14.4. The NO_x emission limitation for each turbine is 9 ppm_{dv} at 15% O₂ and is therefore more stringent than the Subpart GG standards. Performance testing by Reference Method 20 is required. Monitoring fuel for nitrogen content is not required if the owner or operator does not claim an allowance for fuel bound nitrogen per 60.334(h)(2).

Sulfur dioxide standards specify that no fuel shall be used which exceeds 0.8% by weight sulfur or the exhaust gases shall not contain SO₂ in excess of 150 ppm. The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted if the gaseous fuel is demonstrated to meet the definition of “natural gas” using either the gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract, or using representative fuel sampling data. The maximum total sulfur content of “natural gas” is 20 grains/100 SCF (680 ppmw or 338 ppmv) or less.

Subpart KKKK, Combustion Turbines. This subpart affects stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. Although these turbines have been relocated to the Southwestern facility, they were originally manufactured pre-2003. As a result, Subpart KKKK does not apply.

NESHAP, 40 CFR Part 61

[Not Applicable]

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

NESHAP, 40 CFR Part 63

[Subpart ZZZZ Applicable]

Subpart YYYY, Stationary Combustion Turbines. This subpart was promulgated on March 5, 2004 and affects stationary combustion turbines that are located at major source of HAP. This facility is a minor source of HAPs.

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

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

No further requirements apply for engines subject to NSPS under this part. Based on emission calculations, this facility is a minor source of HAP. Stationary RICE located at an area source of HAP emissions are new if construction commenced on or after June 12, 2006.

The 2,847 Caterpillar emergency generator engine (EG1) was constructed prior to June 12, 2006 and is considered an existing stationary emergency source. A summary of the requirements for existing CI RICE located at this facility is shown below.

Engine Category	Normal Operation¹ @ 15% O₂
Existing Emergency, CI RICE & Black Start CI RICE	Change oil and filter every 500 hours of operation or annually, whichever one comes first; Inspect air cleaner every 1,000 hours of operation or annually, whichever one comes first; and Inspect all hoses and belts every 500 hours of operation or annually, whichever one comes first and replace as necessary.

¹ During Startup - Minimize the engine’s time spent at idle and minimize the engine’s startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

Sources have the option to utilize an oil analysis program in order to extend the specified oil change requirements of this subpart. Initial compliance demonstrations must be conducted within 180 days after the compliance date. Owners and operators of a non-operational engine can conduct the initial compliance demonstration when the engine is started up again.

Other applicable requirements include:

- 1) The owner/operator must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer’s emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Additionally, there are limitations on the hours that an emergency engine may operate. Total operating hours are limited to 100 hours/year for maintenance and readiness checks unless Federal, State, or local standards require maintenance and testing beyond 100 hours per year. The 100 hours/year includes up to 50 hours of non-emergency operations. The 50 hours cannot include peak shaving or other income generating power production. The 50 hours includes up to 15 hours of power generation as part of a demand response program in the event of a potential electrical blackout situation. All applicable requirements have been incorporated into the permit.

Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters at major sources of HAPs. Because these boilers are Electric Generating Units, boilers that are EGUs fall outside the definition of an industrial, commercial or institutional boiler as stated in 63.7575. Section 63.7485 does not list boilers that are EGUs as an applicable source therefore Subpart DDDDD does not affect Units 1N, 1S, 2 or 3.

Subpart UUUUU, Coal- and Oil-Fired Electric Utility Steam Generating Units. Subpart UUUUU does not affect gas-fired units.

Subpart JJJJJ, Commercial and Institutional Boilers. This subpart affects new and existing boilers located at area sources of HAP, except for gas-fired boilers. Gas fired boilers are defined as any boiler that burns gaseous fuel not combined with any solid fuels, liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing under this definition shall not exceed a combined total of 48 hours during any calendar year. The boilers at this facility meet the definition of gas fired boilers and are not subject to this subpart.

CAM, 40 CFR Part 64 [Not Applicable]
Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, that is required to obtain a Title V permit, if it meets all of the following criteria:

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

The turbines are not subject to CAM monitoring since the low-NO_x combustors are not considered add-on control devices.

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

Acid Rain, 40 CFR Part 72 (Permit Requirements) [Applicable]
This facility is an affected source, and is not subject to any of the exemptions under 40 CFR 72.7, 72.8 or 72.14. Paragraph 72.30(b)(2)(ii) requires a new source to submit an application for an Acid Rain permit at least 24 months prior to the start of operations. However, Mr. Dwight Alpern, U.S. EPA, has confirmed that this requirement was for the benefit of the regulating agency (Oklahoma DEQ), which can waive this requirement and has done so. The applicant has submitted their acid rain permit application.

Acid Rain, 40 CFR Part 73 (SO₂ Requirements) [Applicable]
This part provides for allocation, tracking, holding, and transferring of SO₂ allowances.

Acid Rain, 40 CFR Part 75 (Monitoring Requirements) [Applicable]
The facility shall comply with the emission monitoring and reporting requirements of this Part.

Acid Rain, 40 CFR Part 76 (NO_x Requirements) [Not Applicable]
This part provides for NO_x limitations and reductions for coal-fired utility units only.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subparts A and F are Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

Conditions are included in the standard conditions of the permit to address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and §82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

Federal NO_x and SO₂ Trading Programs, 40 CFR Part 97 [Subpart BBBBBB is Applicable]
Subpart BBBBBB, Transport Rule (TR) Ozone Season NO_x Trading Program. This subpart establishes allowances and monitoring provisions for the TR NO_x Ozone Season Trading Program, under Section 110 of the Clean Air Act and under the Federal Implementation Plan (FIP) codified under 40 CFR § 52.38. The four large boilers 1N, 1S, 2, and 3 are TR NO_x Ozone Season units subject to the requirements of this subpart. Under this subpart, the permittee is required to designate an official representative, monitor emissions, keep records, and make reports in accordance with §§ 97.530 through 97.535 and the monitoring program must comply with §§ 75.53, 75.62 and 75.73 or an alternative monitoring program must be requested and approved. TR NO_x Ozone Season allowances are periodically allocated to the facility and at the completion of the allowance transfer deadline for the control period in a given year the permittee is required to hold, in the source's compliance account administered by the EPA Clean Air Markets Division (CAMD), sufficient allowances available for deduction for such control period under § 97.524(a) in an amount not less than the tons of total NO_x emissions for the control period from all TR NO_x Ozone Season units at the facility. The control period starts on May 1 of a calendar year, except as provided in § 97.506(c)(3), and ends on September 30 of the same year. For the TR Ozone Season NO_x Trading Program, the deadline for obtaining sufficient allowances is midnight of November 1 (if November 1 is a business day) or midnight of the first business day after November 1 (if November 1 is not a

business day). Fines and future allowance deductions will be levied as described in § 97.506 if the permittee holds insufficient allowances at the completion of the allowance transfer deadline. The process of establishing an allowance account and requirements for administrating an account are included in § 97.520. The recording of allowance allocations is described in § 97.521. Submission and recording of allowance transfers is described in §§ 97.522 and 97.523. Compliance with ozone season emissions limitations and assurance provisions are described in §§ 97.524 and 97.525. Extra allowances may be banked (see § 97.526) and these vintage allowances may be used in later years with certain restrictions. These allowances do not constitute a property right. No Title V permit revision is required for any allocation, holding, deduction, or transfer of allowances in accordance with this subpart. The permit includes the requirement to comply with all applicable requirements of this subpart.

SECTION VIII. COMPLIANCE

Performance Testing

Stack testing was conducted on August 8, 2013. Results of the testing are shown following:

Load	NO _x		CO	
	Permit Limit, lb/MMBTU	Test Result, lb/MMBTU	Permit Limit, lb/MMBTU	Test Result, lb/MMBTU
190 MW (57%)	0.45	0.311	0.465	0.0001
263 MW (79%)	0.45	0.304	0.465	0.140
323 MW (97%)	0.45	0.362	0.465	0.345

Tier Classification And Public Review

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

The applicant published the “Notice of Filing a Tier II Application” on April 12, 2016, in the Anadarko Daily News, a daily newspaper in Caddo County. The notice stated that the application was available for review at the Anadarko Public Library. The applicant will also publish a “Notice of Tier II Draft Permit”. This facility is not located within 50 miles of the border of Oklahoma and another state.

The “proposed” permit will be submitted to EPA for a 45-day review period.

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

Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web page: <http://www.deq.state.ok.us/>.

Inspection

A Full Compliance Evaluation was conducted on May 22, 2014, by Holly Taber of the Compliance Section. Two violations were noted in the FCE, but there is not currently an active enforcement case.

Fees Paid

Part 70 permit renewal fee of \$7,500.

SECTION IX. SUMMARY

The facility was constructed as described in the permit application. There are no active Air Quality compliance and enforcement issues concerning this facility that would prohibit issuance of this modified operating permit. Issuance of the operating permit is recommended, contingent on public and EPA review.

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

DRAFT

**Public Service Company of Oklahoma (PSO)
Southwestern Power Station**

Permit No. 2016-0341-TVR3

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on April 11, 2016. The Evaluation Memorandum dated August 10, 2016, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating permit limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and emissions limitations and standards for each point:
[OAC 252:100-8-6(a)(1) and Permit No. 2011-228-C (M-2)(PSD)]

EUG 1: Steam Generators are pre-May 31, 1972 construction equipment. There are no hourly or annual emission limits applied to Units 1N, 1S, and 2 under Title V, but they are limited to the equipment as it presently exists.

EU ID#	Point ID#	EU Name, Model	MMBTUH	MW Gross	Serial No.	Const. Date
1N	1N	Babcock/Wilcox, S-1853	482**	42	17210	Jan. 1952*
1S	1S	Babcock/Wilcox, S-9747	482**	42	17209	Jan. 1952*
2	2	Babcock/Wilcox, S-9742	940**	84	17438	Feb. 1954*
3	3	Babcock/Wilcox, RB-426	3,290**	332	BW21718	May 1967*

*Date is actual start-up date, not construction start date due to the lack of records available.

**Actual Full Load used by System Operations

- a. The above units are authorized to operate 8,760 hours per year.
- b. NOx emissions from Unit 3 shall not exceed 0.45 lb/MMBTU, 30-day rolling average, and CO emissions shall not exceed 0.465 lb/MMBTU, 3-hour average or 30-day rolling average.

EUG 2: Tank VOC emissions are insignificant based on existing equipment and do not have a specific emissions limitation.

EU ID#	Point ID#	Contents	Capacity		Construction Date
			Barrels	Gallons	
TANK4	T-4	Condensate	300	12,600	1980*
TANK5	T-5	Lube Oil	71.5	3,000	1954
TANK6	T-6	Lube Oil	71.5	3,000	1966
TANK7	T-7	Lube Oil	71.5	3,000	1966
TANK9	T-9	Condensate	2	84	2010

*This tank is owned and operated by the natural gas supplier, Enogex, Inc.

EUG 3: Emergency Generator

EU ID#	Point ID#	EU Name/Model	hp	Serial No.	Const. Date
EG1	EG1	Caterpillar 3500	2,847	4XF00410	1995

EU	NO _x		CO		SO ₂		VOC		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Unit EG1	22.42	5.60	0.59	0.15	5.11	1.28	0.73	0.18	0.41	0.11

- a. As of the compliance date of Subpart ZZZZ, the owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility including but not limited to:

[40 CFR 63.6580 through 63.6675]

What This Subpart Covers

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

Emission and Operating Limitations

- v. § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

General Compliance Requirements

- vi. § 63.6605 What are my general requirements for complying with this subpart?

Testing and Initial Compliance Requirements

- vii. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- viii. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

Continuous Compliance Requirements

- ix. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

Notifications, Reports, and Records

- x. § 63.6650 What reports must I submit and when?
- xi. § 63.6655 What records must I keep?
- xii. § 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

- xiii. § 63.6665 What parts of the General Provisions apply to me?
- xiv. § 63.6670 Who implements and enforces this subpart?
- xv. § 63.6675 What definitions apply to this subpart?

EUG 4: Fugitive Emissions Fugitive emissions at this facility are negligible.

EUG 5. Combustion Turbines. Emission limits and standards for Emission Units (EUs) 4 and 5 include but are not limited to the following:

Each of the Two Combustion Turbines are limited to the following:			The Two Turbines Combined Are Limited to the Following Sums:
Pollutant	lb/hr ¹	ppmvd ²	TPY ³
NO _x	35.00	9	84.59
CO	59.00	25	142.59
VOC	2.00	--	4.00
SO ₂	15.00	--	30.00
PM ₁₀ ⁴	10.00	--	20.00
H ₂ SO ₄	0.12	--	0.24

¹ Three-hour rolling average, based on the arithmetic average of three contiguous one-hour operating periods.

² All concentrations are corrected to 15% O₂, per turbine.

³ Twelve-month rolling total.

⁴ PM₁₀ limits are for filterable plus condensable PM₁₀.

- a. The turbines shall only be fired with pipeline-quality natural gas. [OAC 252:100-31 & 8-34]
- b. The turbine units shall be equipped with dry low-NO_x burners. [OAC 252:100-8-34]
- c. The turbines shall burn no more than a total of 4,228 MMSCFY (combined total, based on an average heating value of 1,020 Btu/CF) of pipeline-grade natural gas per 12-month rolling period. [OAC 252:100-8-5]
- d. During start-up, the turbines shall not operate more than 2-hours outside the pre-mix mode. During normal operations, the turbines shall not operate below 60 percent of the rated turbine load. Excess emissions that result from upset conditions, malfunctions or maintenance are exempt from the limits established above if the owner or operator complies with the requirements of OAC 252:100-9-3.1 and OAC 252:100-9-3.3(c) and demonstrates that the conditions of OAC 252:100-9-3.3(a)(1)-(9) or OAC 252:100-9-3.3(b)(1)-(7) apply. For an excess emission to be deemed to result from “upset” conditions, it must result from unforeseeable circumstances or circumstances beyond the control of the operator (e.g., lightning strikes on equipment). [OAC 252:100-9]
- e. Each turbine is subject to the federal New Source Performance Standards (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subpart GG, and shall comply with all applicable requirements. [40 CFR §60.330 to §60.335]
 - i. 60.332: Standard for nitrogen oxides
 - ii. 60.333: Standard for sulfur dioxide
 - iii. 60.334: Monitoring of operations
 - iv. 60.335: Test methods and procedures

- v. Monitoring of the fuel sulfur content is not required if the permittee can demonstrate that the gaseous fuel meets the definition of “natural gas” with a maximum total sulfur content of less than 20 grains/100 SCF (680 ppmw or 338 ppmv) or less using either a current valid purchase contract, tariff sheet, or transportation contract or representative fuel sampling. Monitoring of fuel nitrogen content under NSPS Subpart GG shall not be required unless the permittee claims an allowance for fuel bound nitrogen.
- f. During startups and shutdowns alternate emission limits apply to the combustion turbines. Startup events shall not exceed two hours per turbine. Shutdown events shall not exceed one hour per turbine. Emission limits for NO_x and CO during startups and shutdowns shall be as listed in Specific Condition No. 1.f. The following definitions apply.

Startup: Startup for each gas turbine begins when fuel is supplied to the Gas Turbine and combustion is initiated. Startup ends when the gas turbine reaches DLN mode (as direct by the control system).

Shutdown: Shutdown begins when the turbine exits the DLN mode. Shutdown ends with either the termination of fuel flow to the turbine or when the turbine returns to DLN mode.

Cold Start: A startup beginning more than 24 hours after the same unit shutdown.

Warm Startup: A startup beginning less than 24 hours after the same unit shutdown. For startup and shutdown operations, the emission limitations for each combustion turbine are listed below:

Event	Maximum Duration (hr)	NO _x Emissions (lbs)	CO Emissions (lbs)
Startup (cold)	2	372	627
Startup (warm)	2	114	192
Shutdown	1	21	35

EUG 6: The High Pressure Gas Yard heater qualifies as an insignificant activity. Therefore, there are no emission limitations.

EU ID#	Point ID#	EU Name/Model	MMBTUH	Const. Date
6	6	High-pressure gas yard heater	5.6	2009

- 2. The boilers shall only be fueled with pipeline-quality natural gas. The emergency generator shall be fueled with diesel with a maximum sulfur content of 0.7% by weight. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. For diesel fuel, compliance may be shown using fuel vendor MSDSs or other documentation of fuel sulfur. Compliance shall be demonstrated at least once per calendar year. [OAC 252:100-31]

3. The facility is subject to the Acid Rain Program and shall comply with all applicable requirements including the following:
 - a. SO₂ actual emissions equal or less than allowances held.
 - b. Report quarterly emissions to EPA per 40 CFR 75.
 - c. Conduct RATA tests per 40 CFR 75.
 - d. Maintain a QA/QC plan for the monitoring system.
4. All VOC tanks constructed after July 1, 1972, with a capacity of 400 gallons or more and storing a liquid which has a vapor pressure of 1.5 psia or greater shall be equipped with a permanent submerged fill pipe or an organic vapor recovery system. [OAC 252:100-37-15]
5. The permittee shall keep operation and maintenance (O&M) records for those “grand-fathered” emission units identified in EUG 1, which have not been modified and for those replacement or additional engines/turbines which do not conduct quarterly testing. Such records shall at a minimum include the dates of operation, and maintenance, type of work performed, and the increase, if any, in emissions as a result. [OAC252:100-8-6(a)(3)(B)]
6. The boilers in EUG 1 (1N, 1S, 2, and 3) are subject to the Transport Rule (TR) Ozone Season NO_x Trading Program. The permittee shall comply with all applicable requirements including but not limited to: [40 CFR §97.501 to §97.535]
 - a. § 97.501 Purpose.
 - b. § 97.502 Definitions.
 - c. § 97.503 Measurements, abbreviations, and acronyms.
 - d. § 97.504 Applicability.
 - e. § 97.505 Retired unit exemption.
 - f. § 97.506 Standard requirements.
 - g. § 97.507 Computation of time.
 - h. § 97.508 Administrative appeal procedures.
 - i. § 97.510 State NO_x Ozone Season trading budgets, new unit set-asides, Indian country new unit set-aside, and variability limits.
 - j. § 97.511 Timing requirements for TR NO_x Ozone Season allowance allocations.
 - k. § 97.512 TR NO_x Ozone Season allowance allocations to new units.
 - l. § 97.513 Authorization of designated representative and alternate designated representative.
 - m. § 97.514 Responsibilities of designated representative and alternate designated representative.
 - n. § 97.515 Changing designated representative and alternate designated representative; changes in owners and operators; changes in units at the source.
 - o. § 97.516 Certificate of representation.
 - p. § 97.517 Objections concerning designated representative and alternate designated representative.
 - q. § 97.518 Delegation by designated representative and alternate designated representative.
 - r. § 97.520 Establishment of compliance accounts, assurance accounts, and general accounts.
 - s. § 97.521 Recordation of TR NO_x Ozone Season allowance allocations and auction results.
 - t. § 97.522 Submission of TR NO_x Ozone Season allowance transfers.
 - u. § 97.523 Recordation of TR NO_x Ozone Season allowance transfers.
 - v. § 97.524 Compliance with TR NO_x Ozone Season emissions limitation.

- w. § 97.525 Compliance with TR NO_x Ozone Season assurance provisions.
 - x. § 97.526 Banking.
 - y. § 97.527 Account error.
 - z. § 97.528 Administrator's action on submissions.
 - aa. § 97.530 General monitoring, recordkeeping, and reporting requirements.
 - bb. § 97.531 Initial monitoring system certification and recertification procedures.
 - cc. § 97.532 Monitoring system out-of-control periods.
 - dd. § 97.533 Notifications concerning monitoring.
 - ee. § 97.534 Recordkeeping and reporting.
 - ff. § 97.535 Petitions for alternatives to monitoring, recordkeeping, or reporting requirements.
7. The permittee shall maintain records of operations as listed below. These records shall be maintained on site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-43]
- a. Documentation of the sulfur content of diesel fuel used in the emergency generator as required by Specific Condition No. 2.
 - b. O&M records for each boiler.
 - c. Usage of natural gas in the turbines (monthly and 12-month rolling total).
 - d. Operating hours of each emergency generator (monthly and 12-month rolling total).
 - e. RATA test results.
 - f. Records as required by 40 CFR Part 63, Subpart ZZZZ.
 - g. Records as required by NSPS Subpart GG.
 - h. Records as required by 40 CFR Part 75.
8. The following records shall be maintained on site to verify insignificant activities. Insignificant activities which are also trivial activities do not require record keeping. [OAC 252:100-43]
- a. For storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature: records of capacity of the tanks, and contents.
 - b. Surface coating and degreasing operations which do not exceed a combined total usage of more than 60 gallons/month of coatings, thinners, clean-up solvents, and degreasing solvents at any one emissions unit: amount of solvent/coatings used (annual total).
 - c. For activities (except for trivial activities) that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions or a surrogate measure of the activity (annual total).

9. No later than 30 days after each anniversary date of March 1, 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)]
- a. March 1 of each year may be used as the anniversary date for Annual Compliance Certifications.
 - b. March 1 of each year may be used as the anniversary date for Semi-Annual Monitoring Reports.
10. The permittee is authorized to evaporate non-hazardous boiler chemical cleaning waste (BCCW), and to combust on-spec used oil. The BCCW and on-spec used oil may be either generated on-site or from other PSO facilities. These operations may be conducted on an as-needed basis. The total volume of BCCW and on-spec used oil and the associated emissions with evaporating/combusting them shall be reported with the annual emissions inventory. [OAC 252:100-31]
11. Unit 3 in EUG 1 is subject to the Best Available Retrofit Technology (BART) requirements of 40 CFR Part 51, Subpart P, and shall comply with all applicable requirements including but not limited to the following:
 [40 CFR §§ 51.300-309 & Part 51, Appendix Y) and Permit No. 2011-228-C (M-2)(PSD)]
- a. Affected facilities. The following sources are affected facilities and are subject to the requirements of this Specific Condition, the Protection of Visibility and Regional Haze Requirements of 40 CFR Part 51, and all applicable SIP requirements:

EU ID#	Point ID#	EU Name	Heat Capacity (MMBTUH)	Construction Date
3	3	Babcock/Wilcox, RB-426	3,290	May 1967

- a. The affected facilities shall be equipped with the following current combustion control technology, as determined in the submitted BART analysis, to reduce emissions of NOx to below the emission limits below:
 - i. Low-NOx Burners,
 - ii. Overfire Air, and
- b. The permittee shall maintain the combustion controls (Low-NOX burners, overfire air) and establish procedures to ensure the controls are properly operated and maintained.
- c. The affected facility shall comply with the emission limits established in the construction permit.

EU ID#	Point ID#	NOX Emission Limit	Averaging Period
3	03	0.45 lb/MMBTU	30-day rolling

- d. Boiler operating day shall have the same meaning as in 40 CFR Part 60, Subpart Da, for units modified after March 2005.
- e. After installation of the BART, the affected facilities shall only be fired with natural gas.

12. At least once per year following issuance of this permit, performance testing shall be conducted on Boiler No. 3 and a written report of results submitted to AQD. [OAC 252:100-43]
- a. The following USEPA methods shall be used for testing of emissions, unless otherwise approved by Air Quality:
 - Method 1: Sample and Velocity Traverses for Stationary Sources.
 - Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate.
 - Method 3: Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight.
 - Method 4: Moisture in Stack Gases.
 - Method 10: Carbon Monoxide Emissions from Stationary Sources
 - b. A copy of the test plan shall be provided to AQD at least 30 days prior to each test date.
 - c. Performance testing shall be conducted while the boiler is operating within 10% of the rates at which operating permit authorization will be sought.
 - d. At least 30 days prior to the testing, a notification of the test date and testing protocol shall be submitted to AQD. Deficiencies in the protocol shall be resolved prior to commencement of testing.
 - e. If a continuous emissions monitoring system is installed and operated measuring CO emissions from Boiler 3, this annual testing will not be required.
13. On issuance, Permit No. 2016-0341-TVR3 replaces and supersedes Permit No. 2011-228-TVR2 (M-2); Permit No. 2011-228-TVR2 (M-2) will be cancelled.



PART 70 PERMIT

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

Permit No. 2016-0341-TVR3

Public Service Company of Oklahoma (PSO),
having complied with the requirements of the law, is hereby granted permission to operate the
Southwestern Power Station located in Section 10, Township 7N, Range 11W, near Anadarko,
Caddo County, Oklahoma, subject to standard conditions dated June 21, 2016, and specific
conditions, both attached.

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

Division Director
Air Quality Division

Date

Public Service Company of Oklahoma (PSO)
Attn: Mr. William Hildeson
Senior Environmental Specialist
1201 Elm Street, Suite 800
Dallas, TX 75202

SUBJECT: Permit No. **2016-0341-TV3**
Southwestern Power Station (FAC ID 214)
Location: Washita, Caddo County

Dear Mr. Hildeson:

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

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed 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.

If you have any questions, please refer to the permit number above and contact me at David.Schutz@deq.state.ok.us or at (405) 702-4198.

Sincerely,

David S. Schutz, P.E.
New Source Permits Section
AIR QUALITY DIVISION

Enclosures

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

SECTION I. DUTY TO COMPLY

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

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

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed. [40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

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

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

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

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

[OAC 252:100-43]

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

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

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other

information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

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

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

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

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

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