

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

MEMORANDUM

June 15, 2018

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

THROUGH: Rich Groshong, Compliance and Enforcement Manager

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

THROUGH: Amalia Talty, P.E., Existing Source Permits Section

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

SUBJECT: Evaluation of Permit Application No. **2018-0555-TVR3**
Oklahoma Gas & Electric Company (OG&E)
Mustang Energy Center (Facility ID: 1205)
Section 36, T11N, R5W, Canadian County, Oklahoma
Latitude: 35.47439°, Longitude: -97.67325°
701 Mustang Plant Road, Oklahoma City

SECTION I. INTRODUCTION

OG&E has submitted an application to renew their Title V operating permit for the Mustang Energy Center (SIC 4911, NAICS 221112). This facility is currently operating under Permit No. 2011-1008-TVR2 issued on October 29, 2013, Permit No. 2011-1008-C (M-1) issued on December 11, 2015, and Permit No. 2011-1008-C (M-2) issued on October 26, 2017. OG&E has also applied an operating permit (Permit No. 2011-1008-TVR2 (M-2)) for the project authorized by the construction permits with some changes, which will be incorporated into this permit. The facility is an electric generating station (SIC Code 4911) located in an attainment area. The electric generating units in the facility are also acid rain program affected units and Acid Rain Permit No. 2014-0873-ARR3 will remain a valid permit for the facility.

SECTION II. DESCRIPTION OF CHANGES

Permit No. 2011-1008-C (M-1) authorized OG&E to modernize the plant by retiring the four existing electric generating boilers and constructing seven (7) new gas-fired simple-cycle combustion turbines as replacement generating capacity. Each turbine is a Siemens Trent turbine with a higher heat value (HHV) rating of 552 MMBTUH capable of producing 58 megawatts (MW) at base load firing pipeline-quality natural gas. Each combustion turbine utilizes a wet low emitting (WLE) NO_x burner and an oxidative catalyst for the control of carbon monoxide (CO). The construction project also includes adding a 1,000-KW emergency diesel generator and a 350-hp emergency diesel fire pump in place of the previous 1,440-hp pump with associated 100-gallon diesel tank. Additionally, the project involves removing the house heat auxiliary boiler, emergency diesel fire water pump with associated 100-gallon diesel tank, and a 2,142-gallon diesel tank. The emergency propane generator remains on site.

Permit No. 2011-1008-C (M-2) authorized the following changes to 2011-1008-C (M-1):

1. Add one (1) 175-hp John Deere Model JU4H fire pump engine instead of the 350-hp fire pump engine previously proposed.
2. Include one (1) 300-gal diesel tank instead of the 100-gal diesel tank previously proposed.
3. Add three (3) 13-MMBTUH natural gas fueled gas heaters. A natural gas heater is an indirect-fired water batch heater used to heat the inlet natural gas fuel above the dew point. The fuel gas heaters are necessary to the operation of the simple-cycle combustion turbines.
4. Add one (1) insignificant source, a 15-bbl used oil storage tank.
5. Add language to allow for the replacement and/or temporary replacement of the turbines, which will result in no emission increases.

The modified facility commenced initial operation on October 28, 2017. OG&E submitted an operating permit application (2011-1008-TRV2 (M-2)) on April 12, 2018. Some of the items and information contained in this operating permit application differ from those in the two construction permits as outlined below:

1. One 4,000 gallon oil/water separator was installed instead of the 15-bbl used oil tank proposed in Permit No. 2011-1008-C (M-2). The separator is used to filter oil from wastewater and is an insignificant activity with emissions less than 5 TPY.
2. One 1,500-kw emergency generator was installed instead of the 1,000-kw emergency generator proposed in Permit No. 2011-1009-C (M-1).
3. OG&E requested to specify NOx emission standard under New Source Performance Standards (NSPS), Subpart KKKK in Specific Conditions.
4. OG&E also requested facility name change from “Mustang Generating Station” to “Mustang Energy Center”, along with physical address change and geographic coordinates change due to a change in the facility entrance.

The changes listed above are considered minor in nature. These do not change the review requirements of the original construction permit. No new limits are needed to avoid an applicable requirement.

This Title V renewal operating permits incorporates all the changes summarized above.

SECTION III. FACILITY DESCRIPTION

The facility currently consists of seven (7) natural gas-fired simple-cycle combustion turbines, one (1) 175-hp John Deere JU4H emergency diesel fire pump, one (1) 1,500-kw Caterpillar 3512C emergency diesel generator, one (1) 300-gal diesel tank, three (3) 13.0 MMBTUH natural gas-fired fuel gas heaters, one (1) 4,000-gal oil/water separator, and one (1) propane fueled emergency generator.

The primary purpose of the facility is the production of electricity through the combustion of natural gas. Each combustion turbine is fueled only with natural gas and has a nameplate

capacity of 66 megawatts (MW), with a typical operating capability of 58 MW. The facility has the equipment necessary to support the production of electricity, including auxiliary functions such as equipment maintenance, water production, and wastewater treatment.

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

SECTION IV. EQUIPMENT

EUG 1A. Turbines

EU	Name/Make	MMBTUH	Serial #	Const Date
6-T	Siemens Trent Turbine	552	ESN 139	2017
7-T	Siemens Trent Turbine	552	ESN 140	2017
8-T	Siemens Trent Turbine	552	ESN 141	2017
9-T	Siemens Trent Turbine	552	ESN 145	2017
10-T	Siemens Trent Turbine	552	ESN 146	2017
11-T	Siemens Trent Turbine	552	ESN 147	2017
12-T	Siemens Trent Turbine	552	ESN 153	2017

EUG 2. Auxiliary Heaters

EU ID#	Make/Model	MMBTUH	Serial #	Construction Date
3-B-02	Fuel Gas Heater	13.0	8C107051	2017
3-B-03	Fuel Gas Heater	13.0	8C107052	2017
3-B-04	Fuel Gas Heater	13.0	8C107053	2017

EUG 3. Storage Tank

EU ID#	Capacity (gallon)	Material Stored	Installed Date
4-B-04	300	Diesel Fuel	2017

EUG 4. Emergency Generators

EU ID#	Make/Model	Rating	Serial #	Construction Date
6	Generac QT025A (Propane Engine)	40 hp	6215203	2011
8	Diesel Engine (Emergency Fire Pump)	175 hp	PE4045L28 5841	2017
9	Caterpillar 3512C Emergency Diesel Generator	1,500 KW	CT200482	2017

SECTION V. EMISSIONS

Criteria Pollutants

EUG 1A - Emissions from the Turbines

Estimated emissions from turbines are based on emission factors from AP-42 (7/98), Table 3.1-2, 40 CFR 98 Subpart C, and manufacturer’s guarantees. Short term startup emissions are based on a maximum start-up time of 30 minutes per start for each turbine. Annual emissions for normal load and startup are based on 12-month rolling total natural gas usage limits. During start-up each unit will have a maximum heat input of 338 MMBTUH.

For flexibility, the permit will contain an annual limit for startup and an annual limit that combines both startup and base load. This will allow any gas that is not used in startup mode to be utilized under based load operations. Since startup emissions are higher, any compliance based on fuel consumption will be demonstrated.

Pollutant	Startup		Base Load	
	Factor (lb/MMscf)	Reference	Factor (lb/MMscf)	Reference
SO ₂	3.26	1	3.26	1
NO _x	93.36	2	92.07	2
VOC	8.76	2	6.29	2
CO	153.85	3	65.26	3
PM _{2.5}	12.69	3	7.77	3
PM ₁₀	12.69	3	7.77	3

1. AP-42 Chapter 3.1
2. Manufacturer data with WLE
3. Manufacturer data with Catalyst

Fuel Usage*

	Start Up	Base Load
Turbines 6-T/12-T	0.33 MMscf/hr	0.542 MMscf/hr

* maximum hourly usage based on 1,020 btu/scf

Fuel Usage – 12 Month Rolling Totals*

	Startup	Base Load
Turbines 6-T/12-T	1,116.26 MMSCF	8,955.06 MMSCF

* The permit will combine these usages to provide flexibility since any gas burned in base load conditions will result in lower emissions

EUG 1A - Turbine Base Load Emission Limitations

EU ID#	NO _x		CO		VOC		SO ₂		PM ₁₀ /PM _{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
6-T/12-T*	49.90	--	35.37	--	3.41	--	1.77	--	4.21	--
6-T/12-T**	--	412.25	--	292.20	--	28.16	--	14.60	--	34.79

* per turbine

** all turbines combined

EUG 1A - Turbine Startup Emissions

EU ID#	NO _x		CO		VOC		SO ₂		PM ₁₀ /PM _{2.5}	
	lb/start	TPY	lb/start	TPY	lb/start	TPY	lb/start	TPY	lb/start	TPY
6-T/12-T*	15.40	--	25.39	--	1.45	--	0.54	--	2.09	--
6-T/12-T**	--	52.11	--	85.87	--	4.89	--	1.82	--	7.08

* per turbine ** all turbines combined

EUG 2 - Emissions from the Auxiliary Heaters

Emissions from the natural gas fired heaters are based on AP-42 (7/98), Tables 1.4-1 and 1.4-2, and an average natural gas higher heating value of 1,020 Btu/scf.

EU ID#	NO _x		CO		VOC		SO ₂		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
3-B-02	0.64	2.79	1.07	4.69	0.07	0.31	0.01	0.03	0.10	0.42
3-B-03	0.64	2.79	1.07	4.69	0.07	0.31	0.01	0.03	0.10	0.42
3-B-04	0.64	2.79	1.07	4.69	0.07	0.31	0.01	0.03	0.10	0.42
Subtotal	1.92	8.37	3.21	14.07	0.21	0.93	0.03	0.09	0.3	1.26

EUG 3 – Storage Tank

Tank emissions are negligible.

EUG 4 - Emissions from the Emergency Generators

Emissions from EU-6 are based on manufacturer’s emission factors (NO_x: 7.7 g/hp-hr, CO: 42 g/hp-hr, and VOC: 0.9 g/hp-hr) and 100 hours of operation per year. Emissions from EU-8 are based on manufacturer’s emissions factors (NO_x: 3.79 g/kW-hr, CO: 1.2 g/kW-hr, VOC: 0.12 g/kW-hr, PM: 0.12 g/kW-hr), AP-42 (10/96), Table 3.3-1, emission factor for SO₂: 0.00205 lb/hp-hr, and operating 500 hours per year. Emissions from EU-9 are based on manufacturer’s emission factors (NO_x: 5.48 g/hp-hr, CO: 0.48 g/hp-hr, VOC: 0.12 g/hp-hr, PM: 0.03g/hp-hr), AP-42, Table 3.4-1 emission factor for SO₂: 1.21E-05 lb/hp-hr, and 500 hours of operation per year.

EU ID#	NO _x		CO		VOC		SO ₂		PM/PM ₁₀ /PM _{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
6	0.68	0.03	3.71	0.19	0.08	0.004	-	-	-	-
8	1.09	0.27	0.35	0.09	0.035	0.01	0.36	0.09	0.035	0.01
9	26.63	6.66	2.33	0.58	0.58	0.15	0.03	0.008	0.15	0.04
Subtotal	28.4	6.96	6.39	0.86	0.70	0.164	0.39	0.098	0.185	0.05

Total Potential Emissions from the Facility

Sources	NO _x		CO		VOC		SO ₂		PM/PM ₁₀ /PM _{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Turbines Base Load*	49.90	-	35.37	-	3.41	-	1.77	-	4.21	-
Turbines Base Load**	-	412.25	-	292.20	-	28.16	-	14.60	-	34.79
Turbines Startup	-	52.11	-	85.87	-	4.89	-	1.82	-	7.08
Auxiliary Heaters	1.92	8.37	3.21	14.07	0.21	0.93	0.03	0.09	0.3	1.26
Emergency Generators	28.4	6.96	6.39	0.86	0.78	0.184	0.38	0.098	0.185	0.05
Total	-	479.69	-	393	-	34.16	-	16.61	-	43.18

* per turbine

** all turbines combined

Emissions of Hazardous Air Pollutants (HAPs)

HAP emissions are based on AP-42 Section 3.1 for the turbines with negligible emissions from the emergency equipment.

Turbine HAP Emissions*

Pollutant	lb/hr (per unit)	TPY (total)
Formaldehyde	0.392	3.65
Toluene	0.072	0.67
Xylenes	0.035	0.33
Acetaldehyde	0.022	0.21
Ethylbenzene	0.018	0.16
Propylene Oxide	0.016	0.15
Benzene	0.007	0.06
Acrolein	0.004	<0.01
PAH	0.001	<0.01
1,3-Butadiene	<0.001	<0.01
Naphthalene	<0.001	<0.01
Total	--	5.27

* while the units will utilize an oxidative system, emissions are estimated uncontrolled for base load operating scenario

SECTION VI. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Appropriate record keeping of activities indicated below with a “*” is specified in the Specific Condition No. 9:

1. Space heaters, boilers and emergency flares less than or equal to 5 MMBTU/hr heat input (commercial natural gas). None identified but may occur in the future.
2. * 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. There is one 300-gal diesel tank for fire pump engine on-site.
3. Cold degreasing operations utilizing solvents that are denser than air. Cold degreasing occurs in the maintenance shop.
4. Welding and soldering are conducted as part of plant maintenance, which is a listed “trivial activity,” therefore, no recordkeeping will be required.
5. Hazardous waste and hazardous materials drum staging areas. The facility maintains a drum storage area.
6. Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. There is a chemical laboratory at the site.
7. 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. The facility performs small amounts of hand wiping and spraying of solvents.
8. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant.

SECTION VII. OKLAHOMA AIR POLLUTION CONTROL RULES

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

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

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

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

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]

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

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

Emissions limitations have been incorporated from the previously issued permits and updated to reflect current operations.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter From Fuel-burning Equipment) [Applicable]

This Subchapter specifies maximum allowable emissions of particulate matter (PM). Manufacturer’s data list total PM emissions at 0.012 lb/MMBTU. The turbines are rated between 10 and 10,000 MMBTU/hr. According to 252:100-19-4, the most stringent limit for fuel-burning equipment in this range is 0.1 lb/MMBTU. Therefore, the natural gas fired turbines comply with the requirement. The diesel generator is rated below 10 MMBTU/hr and has PM emissions of 0.015 lb/MMBTU well below the limit of 0.60 lb/MMBTU.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. Since this facility only burns natural gas, compliance with the standards is assured and no specific monitoring is required.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 5 limits sulfur dioxide emissions from new equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input. For liquid fuels the limit is 0.8 lb/MMBTU. For natural gas combustion, AP-42 (7/98), Chapter 1.4, Table 1.4-2 gives an emission factor of 0.6 pound of SO₂ per million cubic feet which equates to approximately 0.0006 lb/MMBTU which is in compliance with this subchapter. The permit will require the use of natural gas for the turbines. For the diesel generator, AP-42, Chapter 3.4, Table 3.4-1 gives an emission factor of 0.03 lb/MMBTU which is in compliance with this subchapter. The permit will require the use of diesel fuel for the emergency generator.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]
This subchapter establishes the standards to control the emission of nitrogen oxides from new fuel-burning equipment with a rated heat input of 50 million BTUs per hour or more. For gas fired units the limit is 0.20 lb/MMBTU, 3-hr average. The turbines emissions are estimated to have worst-case emissions at 0.093 lb/MMBTU during start-up and are, therefore, in compliance with this subchapter.

OAC 252:100-37 (Volatile Organic Compounds) [Part 7 Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The diesel storage tank has a capacity below the applicability threshold.
Part 5 limits the VOC content of coatings used in coating lines or operations. Any painting operation will involve maintenance coatings of buildings and equipment and emit less than 100 pounds per day of VOCs and so is exempt.
Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The equipment at this location is subject to this requirement.

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.

Each emissions unit was evaluated for periodic testing in accordance with the Periodic Testing Standardization guidance issued December 1, 2011, on a pollutant by pollutant basis. The frequency of the periodic testing requirement is based on the quantity of the pollutant emitted. Periodic testing requirements are not required for an emission unit that is subject to an applicable requirement that already requires periodic testing, continuous emission monitoring (CEM), or predictive emission monitoring (PEMS). For this facility, NO_x and CO are the only pollutants which are potentially subject to the periodic testing requirements. All other pollutants emitted from this facility are less than 40 TPY per unit.

Periodic Testing Review

EU	Pollutant	TPY	Current Monitoring	Periodic Testing
Each Turbine	NO _x	218.56*	Part 60 CEMS	NO
	CO	154.92*	None	Yes, if any single turbine emissions over 100 TPY

*All seven (7) turbines are limited to combined annual limits. These emissions are potential emissions a single unit could produce if it operates 8,760 hours per year for each turbine.

The following Oklahoma Air Quality 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	Feed & Grain Facilities	not in source category
OAC 252:100-35	Carbon Monoxide	not type of emission unit
OAC 252:100-39	Nonattainment Areas	not in a subject area

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52

[Not Applicable]

Total potential emissions for NO_xd and CO are greater than the PSD threshold level of 250 TPY. Any future emission increases must be evaluated for PSD if they exceed a significance level (40 TPY NO_x, 100 TPY CO, 40 TPY VOC, 10 TPY PM_{2.5}, 15 TPY PM₁₀, and 40 TPY SO₂).

NSPS, 40 CFR Part 60

[Dc, IIII, JJJJ, KKKK Applicable]

Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. It regulates steam generating unit with more than 250 MMBTU/hr heat input rate. The turbines are simple cycle with no steam production and therefore are exempt from the requirements of subpart D.

Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced after September 18, 1978. It regulates electric generating unit capable of combusting more than more 250 MMBTU/hr heat input of fossil fuel. The turbines are simple cycle with no steam production and therefore are exempt from the requirements of subpart Da.

Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. It regulates steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBTU/hr. The turbines are simple cycle with no steam production and therefore are exempt from the requirements of subpart Db.

Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units regulates steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MMBTU per hour or less, but greater than or equal to 10 MMBTU per hour. The three (3) 13 MMBTUH natural gas fuel gas heaters are subject to this subpart. The turbines are simple cycle with no steam production and therefore are exempt from the requirements of subpart Dc.

Subparts K, Ka, Kb, VOL Storage Vessels. All tanks on-site are exempt from these subparts since they were installed before the effective date of these regulations. The diesel tank has a capacity less than the applicability threshold of these subparts.

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. Turbines subject to Subpart KKKK are exempt from GG. The turbines are subject to Subpart KKKK.

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. This subpart affects stationary compression ignition (CI) internal combustion engines (ICE) based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. The diesel fire pump EU-8 and diesel generator EU-9 were constructed after the April 1, 2006 date (for units procured after July 11, 2005). Therefore, these units are subject to this subpart and shall comply with all applicable requirements.

Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI-ICE). It promulgates emission standards for new SI engines ordered after June 12, 2006 and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and manufacture date. Engine manufacturers are required to certify certain engines to meet the emission standards and may voluntarily certify other engines. An initial notification is only required for owners and operators of engines greater than 500 HP that are non-certified. The propane-fired emergency generator (EU 6) is certified to meet the standards of Subpart JJJJ.

Subpart KKKK, Stationary Combustion Turbines. This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBTU) per hour, based on the higher heating value of the fuel, that commenced construction, modification, or reconstruction after February 18, 2005. Stationary combustion turbines regulated under this subpart are exempt from the requirements of Subpart GG. New natural gas fired turbines with a heat input at peak load of > 50 MMBTUH and ≤ 850 MMBTUH must meet a NO_x emission limit of ≤ 25 ppm_{dv} @ 15% O₂. Turbines are also subject to either the SO₂ emission limitation of § 60.4330(a)(1) (0.90 lb SO₂/MWhr) or the fuel sulfur content limitation of § 60.4330(a)(2) (0.060 lb SO₂/MMBTU). Owners or operators must operate and maintain each turbine in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. Owners or operators must demonstrate compliance with the applicable NO_x emission limit by performing annual testing or through use of either continuous emission monitoring or continuous parameter monitoring. If the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specify that the total sulfur content for natural gas is ≤ 20 gr/100 SCF the owner or operator is exempt from monitoring the total sulfur content of the fuel. The new stationary combustion turbines were constructed after the applicability date of this subpart and are subject to this subpart. The facility will use continuous emission monitoring to demonstrate compliance with the NO_x standard. The facility will comply with the SO₂ standard by demonstrating that the fuel sulfur content does not exceed 20 gr/100 SCF. The permit will incorporate all applicable requirements.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J affects process streams which 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. The facility is a minor source of HAPs.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. This facility is not a major source of HAPs. The 350-hp fire pump engine and 1,500-kW emergency generator

are subject to this subpart but comply by meeting the requirements of 40 CFR Part 60, Subpart IIII. The 40 hp propane engine is subject to this subpart but complies by meeting the requirements of 40 CFR Part 60, Subpart JJJJ.

Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters at major sources of HAPs. Subpart DDDDD was published in the Federal Register on January 31, 2012. This facility is a minor source of HAPs.

CAM, 40 CFR Part 64 [May be 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, which is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant.
- It uses a control device to achieve compliance with the applicable emission limit or standard.
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY.

The turbines are designed to have wet low emitting (WLE) NO_x burners, which are not add on controls. CO emissions are controlled by oxidation catalysts, therefore, CAM does apply to CO. CAM requirements for the turbines are detailed in the Specific Conditions.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]

This facility will not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: www.epa.gov/rmp.

Acid Rain Program, 40 CFR Part 72 (Permit Requirements) [Applicable]

Acid Rain Permit No. 2014-0873-ARR3 was issued on February 19, 2015, and remains effective.

Acid Rain Program, 40 CFR Part 73 (SO₂ Requirements) [Applicable]

SO₂ initial allowances as published in 40 CFR 73.10 are listed in Acid Rain Permit No. 2014-0873-ARR3. However, all allowances can be traded, bought, and sold. Therefore, the actual allowances held by an affected unit may change which will not necessitate a revision to the permit.

Acid Rain program, 40 CFR Part 75 (Monitoring Requirements) [Applicable]

The facility shall comply with the emission monitoring and reporting requirements of this Part.

Acid Rain Program, 40 CFR Part 76 (NO_x Emission Reduction Program) [Not Applicable]

40 CFR Part 76 establishes NO_x emission limitations for coal-fired electric utility units. There are no coal-fired units at this facility.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subparts A and F Applicable]

These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential

products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

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

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

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

Federal NO_x and SO₂ Trading Programs, 40 CFR Part 97 [Subpart EEEEE is Applicable]
Subpart EEEEE, Cross-State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program. This subpart establishes various provisions for the CSAPR NO_x Ozone Season Group 2 Trading Program, under Section 110 of the Clean Air Act and under the Federal Implementation Plan (FIP) codified under 40 CFR § 52.38. Under this subpart, the permittee is required to designate an official representative, monitor emissions, keep records, and make reports in accordance with §§ 97.830 through 97.835. The monitoring program must comply with 40 CFR Part 75 or an alternative monitoring program must be requested and approved. CSAPR NO_x Ozone Season Group 2 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 § 97.824(a) in an amount not less than the tons of total NO_x emissions for the control period from all CSAPR NO_x Ozone Season Group 2 units at the facility. The control period starts on May 1 of a calendar year, except as provided in § 97.806(c)(3), and ends on September 30 of the same year. For the CSAPR NO_x Ozone Season Group 2 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 § 97.806 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 § 97.820. The recording of allowance allocations is described in § 97.821. Submission and recording of allowance transfers is described in §§ 97.822 and 97.823. Compliance with ozone season emissions limitations and assurance provisions are described in §§ 97.824 and 97.825. Extra allowances may be banked (see § 97.826) 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 seven (7) turbines at this facility are CSAPR NO_x Ozone Season Group 2 units subject to the requirements of this subpart. The permit includes the requirement to comply with all applicable requirements of this subpart.

SECTION IX. COMPLIANCE

Tier Classification and Public Review

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

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

The applicant published “Notice of Filing a Tier II Application” in *The Oklahoman*, a daily newspaper of general circulation in the state of Oklahoma, on May 1, 2018. The notice stated that the application may be reviewed at the Mustang Public Library located at 1201 N. Mustang Rd., Mustang, OK 73064, or at the Air Quality Division’s main office. The applicant will also publish a “Notice of Tier II Draft Permit” in the same newspaper for a 30 day public review. The draft permit is also available on the DEQ web at <http://www.deq.state.ok.us>.

Information on all permit actions is available for review by the public on the DEQ web page at: <http://www.deq.state.ok.us>.

This facility is not located within 50 miles of the border of Oklahoma and any other state.

EPA Review

The proposed permit will be sent to EPA for a concurrent 45-day review.

Fees Paid

Title V renewal operating permit fee of \$7,500.

Performance Test

OG&E has conducted stack test on the seven (7) new turbines. Testing results as shown in the following table are in compliance with permit limits.

EU ID#	NO _x		CO		VOC		SO ₂		PM ₁₀ /PM _{2.5}	
	Base Load	Startup	Base Load	Startup	Base Load	Startup	Base Load	Startup	Base Load	Startup
	lb/hr	lb/event	lb/hr	lb/event	lb/hr	lb/event	lb/hr	lb/event	lb/hr	lb/event
Permit Limits for Each Turbine	49.90	15.40	35.37	25.39	3.41	1.45	1.77	0.54	4.21	-
6-T	45.36	6.96	5.38	0.84	1.28	0.38	0.14	0.31	1.13	-
7-T	43.15	7.03	6.14	1.83	0.50	0.81	0.13	0.47	1.09	-
8-T	45.95	8.43	5.60	1.86	0.72	0.37	0.82	0.19	0.72	-
9-T	44.45	12.44	10.66	3.83	0.96	0.10	0.15	0.04	0.48	-
10-T	40.66	15.32	8.81	4.51	0.71	0.20	0.15	0.21	1.24	-
11-T	44.07	9.30	7.72	1.93	0.94	0.28	0.14	0.02	0.87	-
12-T	46.85	9.25	10.11	2.38	0.38	0.37	0.14	0.03	1.83	-

SECTION X. SUMMARY

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

DRAFT/PROPOSED

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

**Oklahoma Gas & Electric Company
Mustang Energy Center**

Permit Number 2018-0555-TVR3

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on April 25, 2018. The Evaluation Memorandum dated June 15, 2018, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

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

EUG 1A. Turbines

EU	Name/Make	MMBTU/hr	Serial #	Const Date
6-T	Siemens Trent Turbine	552	ESN 139	2017
7-T	Siemens Trent Turbine	552	ESN 140	2017
8-T	Siemens Trent Turbine	552	ESN 141	2017
9-T	Siemens Trent Turbine	552	ESN 145	2017
10-T	Siemens Trent Turbine	552	ESN 146	2017
11-T	Siemens Trent Turbine	552	ESN 147	2017
12-T	Siemens Trent Turbine	552	ESN 153	2017

- a. Base Load Emission Limits: [OAC 252:100-8-6(a)]

EU ID#	NO_x	CO	VOC	SO₂	PM₁₀/PM_{2.5}
	lb/hr²	lb/hr²	lb/hr²	lb/hr²	lb/hr²
6-T/12-T ¹	49.90	35.37	3.41	1.77	4.21

¹ per turbine

² 3-hour rolling average, calculated with normal operating hourly data excluding startup and shutdown (per definitions)

- b. Startup Emission Limits: [OAC 252:100-8-6(a)]

- i. Startup Definition: Startup begins when fuel is supplied to the gas turbine. For CO emissions, startup ends when the oxidative catalyst is in service, 30 minutes after startup begins. For all other emissions, startup ends 10 minutes after startup begins.
- ii. Startup shall be limited to 1,116.26 MMSCF/yr of natural gas from the 7 turbines combined, 12-month rolling total.

EU ID#	NO_x	CO	VOC	SO₂	PM₁₀/PM_{2.5}
	lb/start	lb/start	lb/start	lb/start	lb/start
6-T/12-T ¹	15.40	25.39	1.45	0.54	2.09

¹ per turbine per startup event

c. Total Emission Limits

EU ID#	NO _x	CO	VOC	SO ₂	PM ₁₀ /PM _{2.5}
	TPY ²	TPY ²	TPY ²	TPY ²	TPY ²
6-T/12-T ¹	464.36	378.07	33.05	16.42	41.87

¹ all turbines combined, base load and startup

² 12-month rolling total, combined limit for the 7 turbines

d. Fuel combustion limitations, 12-month rolling totals: [OAC 252:100-8-6(a)]

EU ID#	Total Fuel Usage, MMSCF ¹
Turbines 6-T/12-T	10,071.32

¹ combined limit, includes both base load and startup

e. The turbines shall only be fired with natural gas as defined in New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart KKKK. The total sulfur content of natural gas is defined as having 20.0 grains or less of total sulfur per 100 standard cubic feet. Sulfur content of natural gas can be demonstrated by using either the gas quality characteristics in a current valid purchase contract, tariff sheet or transportation contract, or using representative fuel sampling data as per 40 CFR Part 75 Appendix D. Compliance shall be demonstrated at least once per calendar year. [OAC 252:100-31 & 8-34]

f. Emissions of NO_x and CO from each turbine shall be controlled by properly operated and maintained wet low emitting (WLE) NO_x burners, and oxidative catalyst system.[OAC 252:100-8-34]

g. Each startup event shall be limited to no more than 30 minutes. Records of each startup event shall be kept demonstrating compliance with the 30 minute limit. [OAC 252:100-8-34]

h. Shutdown definition: Shutdown ends with the termination of fuel flow.

i. Compliance Assurance Monitoring Requirements and Specifications. [40 CFR Part 64]

Parameter	Indicator No. 1	Indicator No. 2
Indicator	Catalyst Temperature	Pressure Differential Across Catalyst
Measurement Approach	A thermocouple on the backside of the oxidative catalyst measures the catalyst temperature continuously.	The pressure differential across the oxidative catalyst is measured by two (2) pressure transmitters, one (1) on the inlet and one (1) on the outlet to the oxidative catalyst.
Indicator Range	The indicator range is 350°F to 950°F, not including the time in startup before the oxidative catalyst is fully operational. Excursions are defined as any temperature reading, on a 3-hour	The indicator range is 0.6 in. H ₂ O to 1.4 in. H ₂ O, not including the time in startup before the oxidative catalyst is fully operational. Excursions are defined as any

	rolling average basis, outside of the indicator range. Excursions trigger and investigation, corrective action, and reporting requirement.	pressure differential reading, on a 3-hour rolling average basis, outside of the indicator range. Excursions trigger an investigation, corrective action, and reporting requirement.
Performance Criteria Data Representativeness	The thermocouple has a range of 0°C (32°F) to 1,200°C (2,192°F). The accuracy of the thermocouple is ±0.15°C.	The pressure transmitters have a range of -25 to 25 in. H ² O. The accuracy of the pressure transmitter is ±0.14% of the span.
QA/QC Practices and Criteria	The thermocouple will be installed and maintained in accordance with manufacturer instructions. They will be calibrated on an annual calendar year basis.	The pressure transmitters will be installed and maintained in accordance with manufacturer instructions. They will be calibrated on an annual calendar year basis.
Monitoring Frequency	The oxidative catalyst temperature is measured continuously.	The pressure differential across the oxidative catalyst is measured continuously.
Data Collection Procedures	The facility's Data Acquisition and Handling System (DAHS) collects and stores the oxidative catalyst temperature data on a continuous basis.	The facility's DAHS collects and stores the pressure differential data on a continuous basis.
Averaging Period	3-hour rolling average	3-hour rolling average

- j. The turbines are subject to the NSPS for Stationary Combustion Turbines 40 CFR Part 60, Subpart KKKK and shall comply with all applicable requirements including but not limited to: [40 CFR § 60.4300 to § 60.4420]

EU ID#	NO _x ppmvd @ 15% O ₂
6-T through 12-T	25.0, when turbine is operating above 75% of peak load
	96.0, when turbine is operating at less than 75% of peak load and above 30 MW
	150.0, when turbine is operating at less than 75% of peak load and below 30 MW

- i. §60.4300 What is the purpose of this subpart?
- ii. § 60.4305 Does this subpart apply to my stationary combustion turbine?
- iii. § 60.4310 What types of operations are exempt from these standards of performance?
- iv. § 60.4315 What pollutants are regulated by this subpart?
- v. § 60.4320 What emission limits must I meet for nitrogen oxides (NO_x)?

- vi. § 60.4325 What emission limits must I meet for NO_x if my turbine burns both natural gas and distillate oil (or some other combination of fuels)?
- vii. § 60.4330 What emission limits must I meet for sulfur dioxide (SO₂)?
- viii. §60.4333 What are my general requirements for complying with this subpart?
- ix. § 60.4335 How do I demonstrate compliance for NO_x if I use water or steam injection?
- x. § 60.4340 How do I demonstrate continuous compliance for NO_x if I do not use water or steam injection?
- xi. § 60.4345 What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?
- xii. § 60.4350 How do I use data from the continuous emission monitoring equipment to identify excess emissions?
- xiii. § 60.4355 How do I establish and document a proper parameter monitoring plan?
- xiv. § 60.4360 How do I determine the total sulfur content of the turbine's combustion fuel?
- xv. § 60.4365 How can I be exempted from monitoring the total sulfur content of the fuel?
- xvi. § 60.4370 How often must I determine the sulfur content of the fuel?
- xvii. § 60.4375 What reports must I submit?
- xviii. § 60.4380 How are excess emissions and monitor downtime defined for NO_x?
- xix. § 60.4385 How are excess emissions and monitoring downtime defined for SO₂?
- xx. § 60.4390 What are my reporting requirements if I operate an emergency combustion turbine or a research and development turbine?
- xxi. § 60.4395 When must I submit my reports?
- xxii. § 60.4400 How do I conduct the initial and subsequent performance tests, regarding NO_x?
- xxiii. § 60.4410 How do I establish a valid parameter range if I have chosen to continuously monitor parameters?
- xxiv. § 60.4415 How do I conduct the initial and subsequent performance tests for sulfur?
- xxv. § 60.4420 What definitions apply to this subpart?

EUG 2. Auxiliary Heaters

EU ID#	Make/Model*	MMBTUH	Serial #	Construction Date
3-B-02	Fuel Gas Heater	13.0	8C107051	2017
3-B-03	Fuel Gas Heater	13.0	8C107052	2017
3-B-04	Fuel Gas Heater	13.0	8C107053	2017

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

- a. These boilers (3-B-01 – 3-B-04) are subject to 40 CFR Part 60 Subpart Dc and shall comply with the following requirements:
 - i. The permittee shall maintain records of the amounts of fuel combusted (monthly and cumulative annual). [NSPS §60.48c(g) and 60.13(i)]
- b. The fuel gas heaters (3-B-02 – 3-B-04) shall only be fired with natural gas.

EUG 3. Storage Tank

Point and EU ID#	Capacity (gallon)	Material Stored	Installed Date
4-B-04	300	Diesel Fuel	2017

There are no emission limits applied to this tank under this permit but it is limited to the existing equipment as is.

EUG 4. Emergency Generators

EU ID#	Make/Model	hp	Serial #	Construction Date
6	Generac QT025A (Propane Engine)	40 hp	6215203	2011
8	Diesel Engine (Emergency Fire Pump)	175 hp	PE4045L28 5841	2017
9	Caterpillar 3512C Emergency Diesel Generator	1,500 KW	CT200482	2017

- a. These emergency engines are limited to 500 hours of operation per year, except for EU 6 which is limited to 100 hours of operation per year.
- b. The emergency engines EU 8 and EU 9 shall only be fired with diesel fuel.
- c. Emission Limits: [OAC 252:100-8-6(a)]

EU ID#	NO _x		CO		VOC		SO ₂		PM ₁₀ /PM _{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
8	1.09	0.27	0.35	0.09	0.035	0.01	0.35	0.09	0.035	0.01
9	26.63	6.66	2.33	0.58	0.58	0.15	0.03	0.008	0.15	0.04

- d. Engine EU 6 is subject to 40 CFR Part 60, Subpart JJJJ, and shall comply with all applicable standards for owners or operators of stationary spark ignition internal combustion engines:
 - A. § 60.4230: Am I subject to this subpart?
 - B. § 60.4231: What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines?
 - C. § 60.4232: How long must my engines meet the emissions standards if I am a manufacturer of stationary SI internal combustion engines?
 - D. § 60.4233: What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?
 - E. § 60.4234: How long must I meet the emissions standards if I am an owner or operator of a stationary SI internal combustion engine?
 - F. § 60.4235: What fuel requirements must I meet if I am an owner or operator of a stationary SI internal combustion engine?

- G. § 60.4236: What is the deadline for importing or installing stationary SI ICE produced in the previous model year?
 - H. § 60.4237: What are the monitoring requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - I. § 60.4238: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines \leq 19 KW (25 HP).
 - J. § 60.4239: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines \geq 19 KW (25 HP) that use gasoline?
 - K. § 60.4240: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines \geq 19 KW (25 HP) that use LPG?
 - L. § 60.4241: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program?
 - M. § 60.4242: What other requirement must I meet if I am a manufacturer of stationary SI internal combustion engines?
 - N. § 60.4243: What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - O. § 60.4244: What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?
 - P. § 60.4245: What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?
 - Q. § 60.4246: What parts of the General Provisions apply to me?
 - R. § 60.4247: What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines?
 - S. § 60.4248: What definitions apply to this subpart?
- e. Engines EU 6, EU 8 and EU 9 are subject to NESHAP, 40 CFR Part 63, Subpart ZZZZ, and shall comply with all applicable requirements, including, but not limited to, the following. [40 CFR 63.6585 through 63.6675]
- A. § 63.6585 Am I subject to this subpart?
 - B. § 63.6590 What parts of my plant does this subpart cover?
 - C. § 63.6595 When do I have to comply with this subpart?
 - D. § 63.6605 What are my general requirements for complying with this subpart?
 - E. § 63.6645 What notifications must I submit and when?
 - F. § 63.6650 What reports must I submit and when?
 - G. § 63.6655 What records must I keep?
 - H. § 63.6660 In what form and how long must I keep my records?
 - I. § 63.6665 What parts of the General Provisions apply to me?
 - J. § 63.6675 What definitions apply to this subpart?
- f. The owner/operator shall comply with all applicable requirements of the NSPS: Stationary CI ICE, Subpart IIII, for EU 8 and EU 9, including but not limited to: [40 CFR Part 60, Subpart IIII]
- a. § 60.4200 Am I subject to this subpart?

- b. § 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
 - c. § 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
 - d. § 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?
 - e. § 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?
 - f. § 60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?
 - g. § 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - h. § 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - i. § 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
 - j. § 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - k. § 60.4218 What parts of the General Provisions apply to me?
 - l. § 60.4219 What definitions apply to this subpart?
2. The permittee shall be authorized to operate turbines (6-T through 12-T) (24 hours per day, every day of the year) subject to the limitations of S.C. #1. [OAC 252:100-8-6(a)]
3. All fuel-burning or refuse-burning equipment shall be operated to minimize emissions of VOC. Among other things, such operation shall assure that the equipment is not overloaded; that it is properly cleaned, operated, and maintained; and that temperature and available air are sufficient to provide essentially complete combustion. [OAC 252:100-37-36]
4. The facility is subject to the Acid Rain Program and shall comply with all applicable requirements including the following: [40 CFR Part 72, 73, and 75]
- a. SO₂ allowances
 - b. Monitoring as required by 40 CFR Part 75
 - c. Report quarterly emissions to EPA
 - d. Conduct RATA tests
 - e. QA/QC plan for maintenance of the CEMS
5. The following records shall be maintained on-site or at a local field office to verify insignificant activities. [OAC 252:100-43]
- a. For storage tanks containing volatile organic liquids with vapor pressures less than 1.0 psia and having capacities less than 10,000 gallons: Capacity of the tanks, and contents.

- b. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: Type of activity and the amount of emissions from that activity (cumulative annual).
6. The permittee shall maintain the following records of operations. 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 personal upon request. [OAC 252: 100-43]
- a. Emission data as required by the Acid Rain Program.
 - b. RATA test results from periodic CEMS certification tests.
 - c. Records required by 40 CFR Part 60 Subpart Dc (fuel combusted by calendar month).
 - d. Sulfur content 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 as per 40 CFR Part 75 Appendix D).
 - e. Records as required by 40 CFR Part 63, Subpart ZZZZ.
 - f. Records as required by 40 CFR Part 60, Subpart IIII, JJJJ, KKKK.
 - g. Emissions records for each turbine per S.C. #1, EUG 1A, Item c (monthly and 12-month rolling totals).
 - h. Fuel combustion records per S.C. #1 (monthly and 12-month rolling totals).
 - i. Records of startup events and duration.
7. The permittee shall have the discretion of determining which records will be maintained in digital format.
8. Consequences of relaxation of permit requirements. When a source or modification becomes major solely by virtue of a relaxation in any enforceable permit limitation established after August 7, 1980, on the capacity of the source or modification to emit a pollutant, such as a restriction on hours of operation, then the requirements of OAC 252:100-8, Parts 1, 3, 5, and 7 and 252:100-8-34 through 252:100-8-37 shall apply to that source or modification as though construction had not yet commenced on it. [OAC 252:100-8-36.2 (b)]
9. Replacement (including temporary periods of 6 months or less for maintenance purposes), of the internal combustion engines/turbines with emissions specified in this permit with engines/turbines of lesser or equal emissions of each pollutant (in lbs/hr and TPY) are authorized under the following conditions.
- a. The permittee shall notify AQD in writing not later than 7 days in advance of start-up of the replacement engine(s)/turbine(s). Said notice shall identify the old engine/turbine and shall include the new engine/turbine make and model, serial number, horsepower rating, fuel usage, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emission rates (g/hp-hr, lb/hr, and TPY) at maximum horsepower for the altitude/location.
 - b. A certified CEMS has been installed and certified for each unit per Appendix A of 40 CFR Part 75. The CEMS measures NO_x emissions. The replacement engine/turbine will demonstrated continued compliance with NO_x through monitoring by the CEMS.
 - c. An initial emission test for the replacement turbine(s) shall be conducted to confirm continued CO emissions limitations. A copy of the initial testing shall be provided to

AQD within 60 days of start-up of each replacement turbine. The test report shall include the engine/turbine fuel usage, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emission rates (lbs/hr, lb/MMBTU, and TPY) at maximum rated horsepower for the altitude/location.

- d. Replacement equipment and emissions are limited to equipment and emissions which are not a modification under NSPS or NESHAP, or a significant modification under PSD. For existing PSD facilities, the permittee shall calculate the PTE or the net emissions increase resulting from the replacement to document that it does not exceed significance levels and submit the results with the notice required by a. of this Specific Condition.
- e. Engines installed as allowed under the replacement allowances in this Specific Condition that are subject to 40 CFR Part 63, Subpart ZZZZ and/or 40 CFR Part 60, Subpart JJJJ shall comply with all applicable requirements.
- f. Replacement equipment and emissions are limited to equipment and emissions which are not a modification under NSPS, NESHAP, or PSD, except that turbines that are only subject to the requirements for recordkeeping and sulfur limits in the fuel found in NSPS Subpart KKKK can be replaced.

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

10. The turbines in EUG 1A (6-T through 12-T) are subject to the Cross-State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program. The permittee shall comply with all applicable requirements, including but not limited to:

[40 CFR § 97.801 to § 97.835]

- a. § 97.801 Purpose.
- b. § 97.802 Definitions.
- c. § 97.803 Measurements, abbreviations, and acronyms.
- d. § 97.804 Applicability.
- e. § 97.805 Retired unit exemption.
- f. § 97.806 Standard requirements.
- g. § 97.807 Computation of time.
- h. § 97.808 Administrative appeal procedures.
- i. § 97.810 State NO_x Ozone Season Group 2 trading budgets, new unit set-asides, Indian country new unit set-aside, and variability limits.
- j. § 97.811 Timing requirements for CSAPR NO_x Ozone Season Group 2 allowance allocations.
- k. § 97.812 CSAPR NO_x Ozone Season Group 2 allowance allocations to new units.
- l. § 97.813 Authorization of designated representative and alternate designated representative.
- m. § 97.814 Responsibilities of designated representative and alternate designated representative.
- n. § 97.815 Changing designated representative and alternate designated representative; changes in owners and operators; changes in units at the source.
- o. § 97.816 Certificate of representation.
- p. § 97.817 Objections concerning designated representative and alternate designated representative.
- q. § 97.818 Delegation by designated representative and alternate designated representative.

- r. § 97.820 Establishment of compliance accounts, assurance accounts, and general accounts.
- s. § 97.821 Recordation of CSAPR NO_x Ozone Season Group 2 allowance allocations and auction results.
- t. § 97.822 Submission of CSAPR NO_x Ozone Season Group 2 allowance transfers.
- u. § 97.823 Recordation of CSAPR NO_x Ozone Season Group 2 allowance transfers.
- v. § 97.824 Compliance with CSAPR NO_x Ozone Season Group 2 emissions limitation.
- w. § 97.825 Compliance with CSAPR NO_x Ozone Season Group 2 assurance provisions.
- x. § 97.826 Banking.
- y. § 97.827 Account error.
- z. § 97.828 Administrator's action on submissions.
- aa. § 97.830 General monitoring, recordkeeping, and reporting requirements.
- bb. § 97.831 Initial monitoring system certification and recertification procedures.
- cc. § 97.832 Monitoring system out-of-control periods.
- dd. § 97.833 Notifications concerning monitoring.
- ee. § 97.834 Recordkeeping and reporting.
- ff. § 97.835 Petitions for alternatives to monitoring, recordkeeping, or reporting requirements.

11. This facility is considered an existing Prevention of Significant Deterioration (PSD) facility. As such, the facility is subject to the provisions of OAC 252:100-8-36.2(c) for any project as defined therein. [OAC 252:100-8-36.2(c)]

12. If any turbine emits over 100 TPY of CO based on records per Specific Condition 6.h, during the term of the operating permit, then the permittee shall conduct performance testing and submit a written report of results on the turbine, at least once during the term of the operating permit.

- A. Performance testing by the permittee shall use the following test methods specified in 40 CFR 60.
 - 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: Determination of Moisture in Stack Gases.
 - Method 10: Determination of CO 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 each turbine is operating within 10% of the rated capacity.

13. This permit supersedes all previous Air Quality operating permits for this facility, except Acid Rain Permit No. 2014-0873-ARR3, which are now cancelled.

Mr. Michael Hixon
OG&E Electric Services
321 N. Harvey, MC610
Oklahoma City, OK 73101-0321

Subject: Permit Application No. 2018-0555-TVR3
Mustang Energy Center, Facility ID: 1205
Mustang, Canadian County

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

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

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me at (405) 702-4100 or the permit writer, Jian Yue, at (405) 702-4205.

Sincerely,

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

Mr. Michael Hixon
OG&E Electric Services
321 N. Harvey, MC610
Oklahoma City, OK 73101-0321

Subject: Permit Application No. 2018-0555-TVR3
Mustang Energy Center, Facility ID: 1205
Mustang, Canadian County

Dear Mr. Hixon:

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

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

Thank you for your cooperation in this matter. If we may be of further service, please contact our office at (405) 702-4100

Sincerely,

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

Enclosures



PART 70 PERMIT

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

Permit Number: 2018-0555-TVR3

Oklahoma Gas & Electric Company,
having complied with the requirements of the law, is hereby granted permission to operate
the Mustang Energy Center, Section 36, T12N, R5W, Canadian County, Oklahoma,
subject to standard conditions dated June 21, 2016, and specific conditions, both attached.

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

Division Director, Air Quality Division

Date

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

SECTION I. DUTY TO COMPLY

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

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

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

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

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

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

[OAC 252:100-43]

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

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

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

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

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

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

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

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

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

SECTION IV. COMPLIANCE CERTIFICATIONS

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

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

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

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

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

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

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

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

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

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

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

SECTION VI. PERMIT SHIELD

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

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

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

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

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

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

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

SECTION VIII. TERM OF PERMIT

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

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

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

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

SECTION IX. SEVERABILITY

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

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

SECTION X. PROPERTY RIGHTS

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

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

SECTION XI. DUTY TO PROVIDE INFORMATION

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

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

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

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

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

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

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

SECTION XII. REOPENING, MODIFICATION & REVOCATION

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

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

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

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

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

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

[OAC 100-8-7.3(d)]

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

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

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

SECTION XIII. INSPECTION & ENTRY

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

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

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

SECTION XIV. EMERGENCIES

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

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

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

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

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

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

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

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

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

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

SECTION XVII. TRIVIAL ACTIVITIES

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

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

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

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

SECTION XX. STRATOSPHERIC OZONE PROTECTION

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

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

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

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

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;

- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

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

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

SECTION XXII. CREDIBLE EVIDENCE

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

[OAC 252:100-43-6]