

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

MEMORANDUM

September 3, 2013

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

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

THROUGH: Peer Review

FROM: Eric L. Milligan, P.E., Engineering Section

SUBJECT: Evaluation of Permit Application No. **2007-115-C (M-3) PSD**
Associated Electric Cooperative, Inc.
Chouteau Power Plant
Mid America Industrial Park, Mayes County
SW/4, SW/4 of Section 10, T20N, R19E
Latitude: 36.2225N; Longitude: 95.2778W
Directions: From the Mid America Industrial Park east off of State
Highway 412B and North on Robertson Street

SECTION I. INTRODUCTION

Associated Electric Cooperative, Inc. (AECI) has submitted an application for modification of the CO startup and shutdown BACT emission limits established in construction Permit No. 2007-115-C (M-1) PSD, issued on January 23, 2009. Per OAC 252:100-8-30, no modification of a PSD source to which a BACT analysis, air quality impact evaluation, or additional Impact analyses including Class I visibility analysis applies shall begin actual construction without a construction permit that states that the source or modification will meet those requirements. This modification requires reevaluation of the CO BACT analysis for startup and shutdown and an air quality impact evaluation for the increase in CO emissions. Therefore, this modification requires a construction permit.

Permit No. 2007-115-C (M-1) PSD authorized the construction of a natural gas-fired combined cycle (two-on-one) electricity generating facility located next to the existing Chouteau Power Plant in Mayes County, Oklahoma. The major components that were added to the facility included the following:

- 1) Two Combustion Turbines, each mated to a nominal 178 MW generator,
- 2) Two Heat Recovery Steam Generating Units (HRSGs) with Duct Burners that supply steam to a single 182 MW generator,
- 3) Two Selective Catalytic Reduction units to control NO_x emissions from each combustion turbine and the duct burners,

- 4) One Cooling Tower with nine (9) individual cells equipped with drift eliminators,
- 5) One Auxiliary Boiler to maintain the system in hot/ready standby,
- 6) One Emergency Diesel Generator limited to 500 hours.

The facility is currently operating as authorized by Permit No. 2007-115-TVR (M-2), issued on August 27, 2012. The modification will propose new startup and shutdown CO emission limits for EU 1-03 and 1-04. The original startup and shutdown CO emission limits have proven to be unachievable on a consistent basis. A voluntary disclosure was submitted on June 8, 2012. The compliance and enforcement section was updated periodically with the status of the CO startup and shutdown emissions. EU 1-03 and 1-04 were adjusted to reduce CO emissions. Emissions were monitored through the end of 2012 to get a reasonable average performance of the units so that an informed decision could be made concerning what CO emission limits would ensure consistent compliance.

The initial estimate for CO startup and shutdown emissions for EU 1-03 and 1-04 were based on EU 1-01 and 1-02. However, the new turbines have a different burner configuration (burner lite) than the traditional diffusion/premix configuration installed on the existing turbines. Very little data was available for the Siemens “burner lite” configuration. The units were optimized for efficient startup and shutdown emissions while maintaining safe and reliable operation. The absence of the diffusion mode with the “burner lite” configuration significantly reduces startup and shutdown NO_x emissions. Another advantage is that it enables the combustion turbines to be turned down to lower loads in the band of normal operation and maintain compliance with the normal operation limits. This flexibility improves the ability of system operations to follow load demand and off-set more intermittent generation sources while enabling compliance with the NERC (North American Electric Reliability Council) requirements to continuously maintain a reserve of spinning power, typically called spinning reserve. There are also times when improvement in lower load operation may allow a unit to remain online during periods of low demand as opposed to shutting down and starting back up a few hours later. This can effectively reduce net emissions of NO_x and CO over the short term.

The facility is also proposing to further subdivide startup into two separate categories, hot and cold, as compared to the current emission limit for all startup modes. Hot startup would be defined as a startup that occurs within 12-hours of the previous shutdown. Cold startup would be defined as a startup that occurs greater than 12-hours from the previous shutdown. The facility will utilize the currently installed continuous emission monitoring systems (CEMS) to show compliance with the new CO startup and shutdown emission limits.

SECTION II. FACILITY DESCRIPTION

The facility contains four combined cycle gas turbines (CCGT) firing exclusively natural gas. Hot exhaust gases from the gas turbines are passed through separate drum-type heat recovery steam generators (HRSG) where the heat is converted to steam. Steam from paired CCGT (EU 1-01 & 1-02, and EU 1-03 & 1-04) drive two separate conventional steam turbines. Waste heat is rejected through a condenser and mechanical draft-cooling tower.

EU 1-01 and 1-02 are Siemens KWU, Model V84.3A, advanced gas turbine design with a rated output of 176 MW (1,783 MMBTUH) at ISO conditions. This model utilizes Siemens hybrid burner ring combustor designed for pre-mix firing above 60 percent output. This machine has a 15-stage compressor and 4-stage turbine. Advanced design features, in addition to the low-NO_x hybrid burner ring combustor, include single crystal blade castings and extensive use of film cooling. Film cooling ensures high cooling efficiency in the first two turbine stages. The design allows slightly higher firing temperatures, higher exhaust temperatures, and improved heat rates, in both simple and combined cycle modes.

The HRSG, for EU 1-01 and 1-02, are three-pressure level boilers (low, intermediate, and high) with superheat and reheat sections. The gas turbines exhaust gases at about 1,050 °F that contact the boiler surfaces and transfer heat to the feed water and steam. This arrangement enables higher efficiencies of the combined cycle power plant by using the exhaust gas energy. Each HRSG produces about 375,000 pounds of steam per hour at 1,566 psia and 1,016 °F. The HRSGs house a selective catalytic reduction (SCR) system for each unit to reduce NO_x emissions.

EU 1-03 and 1-04 incorporate lean pre-mix dry low-NO_x combustors as well as the add-on Selective Catalytic Reduction (SCR) to minimize NO_x formation. In addition, these units utilize a new Siemens technology that allows the combustion turbines to operate in the pre-mix mode throughout the load range. In the pre-mix mode, fuel combustion is more efficient and results in lower NO_x emissions. In contrast, the existing units must reach approximately 60% of the rated turbine load before pre-mix operation is permissible.

Each HRSG, for EU 1-03 and 1-04, is a three-pressure, superheat and reheat, duct fired, natural circulation unit with a horizontal gas turbine exhaust flow receiver containing vertical heat tube transfer sections. Both HRSG may utilize duct firing at 100 percent load. Duct firing generates additional heat (99 MMBTUH each) to the exhaust gases of the combustion turbines by burning natural gas. This heat energy is then converted to steam and electricity.

The primary consumers of the steam are a reheat, condensing steam turbine. It consists of a high pressure section, which receives high-pressure superheated steam from the HRSGs and exhausts to the reheat section of the HRSG. The steam from the reheat section is then supplied to the intermediate-pressure section of the turbine, which expands to the low-pressure section. The low-pressure section of the steam turbine also receives excess low-pressure superheated steam from the HRSGs and exhausts to the condenser unit.

The combustion gas turbine generators are shut down as necessary for scheduled maintenance, or as dictated by economic or electrical demand.

The cooling towers, for the two pairs of turbines, are two nine cell mechanical draft towers with up to seven cycles of concentration. Drift (water loss) from the towers is about 15,000-18,000 gallons (i.e., 0.0005% of total water flow) each per day at full load. Water treatment chemicals are non-chromium chemicals including sodium hypochlorite (14 lbs/day) and sulfuric acid (5,000 gallons/year). The facility may also use NALCO 1333T, a scale inhibitor/corrosion inhibitor (300-310 lbs/day) and/or NALCO 7330 a non-oxidizing biocide (1,200 lbs/year). In addition, a liquid dispersant, NALCO 8301 D is used at an approximate rate of 6.8 lbs/day.

The facility also includes two auxiliary boilers and a fuel gas heater that fire natural gas only and are equipped with low-NO_x burner control. The auxiliary boilers are utilized to maintain the turbine systems in hot-ready standby. This helps minimize the duration of the startup period for each turbine, which lowers the overall emissions. The fuel gas heater is used predominantly during winter months to heat a glycol/water solution that will circulate in a small heat exchanger preheating the supply of gas to prevent icing. There are also four pressurized 10,000-gallon anhydrous ammonia tanks, two emergency generator engines (diesel-fired), and a fire pump engine (diesel-fired). The emergency generators' engines and fire pump engine are limited to 500 hours.

The plant is designed for base load operation, but has the ability to cycle. Other than specified maintenance periods, the plant is designed to have an availability of over 90 percent. However, emissions estimates for this permit were based on continuous operation and 100% load. Other than startup, shutdown, and malfunctions, both combustion turbines are operated at approximately 60 percent rated turbine load and above to assure operations in the "pre-mix" mode. Pre-mix is the operating mode for the burner that optimizes combustion efficiency and produces the lowest NO_x emissions. However, elevated levels of NO_x and CO can result during cold startups and/or in the diffusion mode for periods up to four hours. Although the permit does limit the diffusion mode of operation to four hours, the auxiliary boiler may shorten this time to three hours, under normal operating conditions. (i.e outside startup, shutdown, and malfunctions).

SECTION III. EQUIPMENT

EUG 1. Electric Generating Units

EU	Name & Make	Heat Capacity (MMBTUH)	Serial #	Installed Date
1-01	Siemens V84.3A	1,783	800390	1999
1-02	Siemens V84.3A	1,783	800394	1999
1-03	Siemens V84.3A w/Duct Burner	1,882	800451	2009
1-04	Siemens V84.3A w/Duct Burner	1,882	800461	2009

EUG 2. Auxiliary Boilers

EU	Make/Model	Heat Capacity (MMBTUH)	Serial #	Installed Date
2-01	Donlee	33.5	9920891	1999
2-02	Superior 4-X-4502-5150-PFCF-G	37.7	100935707	2009

EUG 3. Fuel Gas Water Bath Heater

EU	Make/Model	Heat Capacity (MMBTUH)	Serial #	Installed Date
3-01	ThermoFlux/CryoFlux	18.8	9105	1999

EUG 4. Emergency Diesel Generators

EU	Make/Model	hp	Serial #	Installed Date
4-01	Detroit Diesel/T1237K36	2,200	5262000436	2000
4-02	Caterpillar 3516C	2,937	CCSBJ00955	2009

EUG 5. Emergency Fire Pump (Diesel)

EU	Make/Model	hp	Serial #	Installed Date
5-01	Caterpillar/3306- A552598	267	64Z29015	1999

EUG 6. Cooling Towers

EU	Make/Model	No. of Towers	Installed Date
6-01	Psychometrics, Inc. Forced Draft	9	1999
6-02	Psychometrics, Inc. Forced Draft	9	2009

SECTION III. EMISSIONS

Emissions are generated from combustion in the turbines, duct burners, auxiliary boiler, fuel gas water bath heater, and to a much smaller extent the backup diesel generators and fire water pump engine. A small amount of VOC emissions are expected from the diesel storage tanks and a small amount of PM emissions from the cooling towers. Ammonia is supplied to the SCR process in amounts slightly above the stoichiometric requirement, so there will be some emissions of ammonia, called “ammonia slip,” in the exhaust.

Estimated CO Emissions (Per Unit) Combustion Turbines 1-01 & 1-02

	Event	Number	Total			
Operating Mode	Duration (hr)	of Events	Hours	lb/event	lb/hr	TPY
Cold Startup	4	20	120	1,596.00	399.00	15.96
Warm Startup	3	120	360	1,197.00	399.00	71.82
Hot Startup	2.5	100	250	997.50	399.00	49.88
Shutdown	1	240	240	399.00	399.00	47.88
Normal	----	----	7,790	N/A	51.32	199.89
Total						385.43

During startups and shutdowns, alternate short term emission limits apply to the combustion turbines. The short term emission limits for each combustion turbine during startup and shutdown are shown below:

Startup & Shutdown Emission Limits for EU 1-01 & 1-02

Event	Maximum Duration (hr)	NO_x Emissions (lbs/event)	CO Emissions (lbs/event)
Startup	4	568	1,596
Shutdown	1	142	399

Emissions from EU 1-03 and 1-04 are based on continuous operation, use of SCR, and the manufacturer’s data listed below:

Manufacturer’s Data for EU 1-03 & 1-04

Pollutant	Units	Concentration
NO_x	ppmvd @ 15% O ₂	2.0
CO	ppmvd @ 15% O ₂	8.0
VOC	ppmvd @ 15% O ₂	0.3
Ammonia	ppmvd @ 15% O ₂	10.0

Although the plant is expected to operate at a 70 to 75% capacity factor, short and long term emissions for the turbines were based on 100% load since this resulted in the highest emissions. VOC emissions, from the turbines with duct burners firing, are estimated at 0.0028 lb/MMBTU for the turbines with duct burners. SO₂ emissions, from the turbines with duct burners firing, are estimated at 0.00056 lb/MMBTU based on usage of natural gas with a sulfur content of 0.25 grains/100 SCF. PM₁₀ emissions, from the turbines with duct burners firing, are estimated at 0.0035 lb/MMBTUH based on stack testing of a similar unit. Since market forces and other factors may force the facility to experience many startups and shutdowns during the course of a year an analysis of annual emissions for NO_x and CO based on the historical number of startups and shutdowns was used to determine annual emissions. Startup and shutdown are not expected to affect emissions of VOC, SO₂, and PM₁₀.

**Proposed Estimated CO Emissions (Per Unit)
Combustion Turbines W/Duct Burner EU 1-03 & 1-04**

	Event	Number	Total			
Operating Mode	Duration (hr)	of Events	Hours	lb/event	lb/hr	TPY
Cold Startup	2	60	120	4,500	2,250.00	135.00
Hot Startup	2	180	360	1,750	875.00	157.50
Shutdown	1	240	240	750	750.00	90.00
Normal	----	----	8,040	N/A	51.32	206.31
Total						588.81

CO emissions will increase by 407 TPY from the original construction permit.

During startups and shutdowns, alternate short term emission limits apply to the combustion turbines. The short term emission limits for each combustion turbine during startup and shutdown are shown below:

Startup & Shutdown Emission Limits for EU 1-03 & 1-04

Event	Maximum Duration (hr)	NO_x Emissions (lbs/event)	CO Emissions (lbs/event)
Startup-Hot	2	568	1,750
Startup-Cold	2	568	4,500
Shutdown	1	142	750

Emissions from the auxiliary boilers and fuel gas water bath heater are based on manufacturer's data and 8,760 hours/year of operation.

Emissions from the Auxiliary Boiler

EU	NO_x		CO		VOC		SO₂		PM₁₀/PM_{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
2-01	2.36	10.34	5.02	21.99	0.54	2.37	0.03	0.14	0.34	1.49
2-02	2.66	11.63	5.65	24.74	0.61	2.66	0.03	0.15	0.38	1.68

Emissions from the Fuel Gas Water Bath Heater

EU	NO_x		CO		VOC		SO₂		PM₁₀/PM_{2.5}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
3-01	2.70	11.83	0.39	1.71	0.10	0.44	0.01	0.04	0.10	0.44

NO_x, CO, VOC, and PM emissions from EU 4-01, the backup diesel generator engine, are based on AP-42 (10/96), Section 3.4 and 500 hours/year of planned operation. NO_x, CO, VOC, and PM emissions from EU 4-02, the backup diesel generator engine, are based on NSPS, Subpart III emission limits (NET testing limit for lb/hr) and 500 hours/year of planned operation. NO_x, CO, VOC, and PM emissions from the diesel fire water pump engine are based on AP-42 (10/96), Section 3.3 and 500 hours/year of planned operation. SO₂ emissions for the emergency generator engines and fire pump engine are based on AP-42 (10/96), Section 3.4 and a fuel sulfur content of 0.05 % sulfur by weight.

Emissions from the Emergency Diesel Generators

EU	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
4-01	52.80	13.20	12.10	3.03	1.41	0.35	0.89	0.22	1.54	0.39
4-02 ¹	38.63	7.77	21.24	4.21	2.07	0.52	1.19	0.30	1.21	0.24

¹ – Based on § 89.112 Tier II Standards (lb/hr estimates are based on the NTE testing limits); NO_x is inclusive of NMHC. VOC emissions are estimated based on the AP-42 (10/96), Section 3.4 TOC factor.

Emissions from the Emergency Fire Pump (Diesel)

EU	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
5-01	8.28	2.07	1.78	0.45	0.66	0.17	0.11	0.03	0.59	0.15

Emissions from each of the cooling towers were based on a conservative estimate of 10,920-ppmw of Total Dissolved Solids (TDS) in the cooling tower drift and a total circulating water flow of 130,000 gallons per minute. The expected drift is approximately 0.0005% of the circulating water flow.

Emissions from the Cooling Tower

EU	NO _x		CO		VOC		SO ₂		PM ₁₀	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
6-01	--	--	--	--	--	--	--	--	3.55	15.56
6-02	--	--	--	--	--	--	--	--	3.55	15.56

Facility Wide Criteria Pollutant Emissions from the Facility

EUs	NO _x		CO		VOC		SO ₂		PM ₁₀	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1-01 & 02	173.40	759.50	118.00	516.84	9.98	43.74	2.00	8.76	12.48	54.66
1-03 & 04	30.50	250.90	102.64	1,177.62	10.54	46.16	2.12	9.24	13.18	57.72
2-01	2.36	10.34	5.02	21.99	0.54	2.37	0.03	0.14	0.34	1.49
2-02	2.66	11.63	5.65	24.74	0.61	2.66	0.03	0.15	0.38	1.68
3-01	2.70	11.83	0.39	1.71	0.10	0.44	0.01	0.04	0.10	0.44
4-01	52.80	13.20	12.10	3.03	1.41	0.35	0.89	0.22	1.54	0.39
4-02	38.63	7.77	21.24	4.21	2.07	0.52	1.19	0.30	1.21	0.24
5-01	8.28	2.07	1.78	0.45	0.66	0.17	0.11	0.03	0.59	0.15
6-01	--	--	--	--	--	--	--	--	3.55	15.56
6-02	--	--	--	--	--	--	--	--	3.55	15.56
Total	311.33	1,067.2	266.82	1,750.6	25.91	96.41	6.38	18.88	36.92	147.89

B. Hazardous Air Pollutants (HAPs)

HAP emissions from the turbines are based on AP-42, Section 3.1 (4/2000). HAP emissions from the auxiliary boiler and heater are based on AP-42, Section 1.4 (7/98). HAP emissions from the emergency generator and fire water pump are based on AP-42, Sections 3.4 and 3.3 (10/96), respectively. Only emissions greater than 1.0E-3 (lb/hr and TPY) are listed.

HAP	CAS #	HAP Emissions	
		lb/hr	TPY
1,3-Butadiene	106990	0.004	0.015
Acetaldehyde	75070	0.295	1.285
Acrolein	107028	0.049	0.205
Arsenic	7440382	0.000	0.002
Barium	7440393	0.110	0.382
Benzene	71432	0.278	1.220
Ethylbenzene	100414	0.235	1.028
Formaldehyde	50000	5.177	22.661
Hexane	110543	0.162	0.708
Naphthalene	91203	0.012	0.043
POM	N/A	0.022	0.070
Propylene Oxide	75569	0.116	0.499
Toluene	108883	0.958	4.176
Xylene	1330207	0.472	2.055

C. Greenhouse Gas (GHG) Emissions

Potential GHG emissions are estimated at approximately 3.8 billion tons per year based on the total heat input for facility, 40 CFR Part 98, Subpart C default factors for natural gas and diesel, and the global warming potentials for each pollutant.

SECTION IV. PSD REVIEW

Since the facility is relaxing the CO startup and shutdown emission limits, the CO startup and shutdown BACT has to be revised.

A. Best Available Control Technology (BACT)**Methodology**

A BACT analysis is required for each new or physically modified emissions unit for each pollutant which exceeds an applicable PSD Significant Emission Rate (SER). The pollutant subject to review is CO.

BACT must be at least as stringent as any NSPS applicable to the emissions source. After determining whether any NSPS is applicable, the first step in this approach is to determine for the emission unit in question the most stringent control available for a similar or identical source or source category. If it can be shown that this level of control is technically infeasible for the unit in question, the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical or environmental concerns. The remaining technologies are evaluated on the basis of operational and economic effectiveness. The EPA-required top-down BACT approach must look not only at the most stringent emission control technology previously approved, but it also must evaluate all demonstrated and potentially applicable technologies, including innovative controls, lower polluting processes, etc.

Presented below are the five basic steps of a top-down BACT review procedure as identified by the U.S. EPA in the March 15, 1990, Draft BACT Guidelines:

- Step 1. Identification of all control technologies
- Step 2. Determination of technical feasibility of control options
- Step 3. Ranking of remaining control technologies by control effectiveness
- Step 4. Evaluation of most effective controls and document results
- Step 5. Selection of BACT

Control technologies and related emissions data were identified through a review of EPA's RACT/BACT/LAER Clearinghouse (RBLC), as well as EPA's NSR and CTC websites, recent DEQ BACT determinations for similar facilities, and vendor-supplied information.

BACT Evaluation, Turbines (Startup/Shutdown), in Permit No. 2007-115-C (M-1) PSD

A review of the EPA’s RBLC database in April 2008 did not identify any control technologies for gas turbines specifically during the startup and shutdown periods. Therefore, BACT was selected as a limit on the quantity of emissions during startup and shutdown while minimizing the startup and shutdown periods.

Event	Maximum Duration (hr)	CO Emissions (lbs/event)
Startup	4	1,596
Shutdown	1	399

Revised BACT Evaluation, Turbines (Startup/Shutdown)

A review of the EPA’s RBLC database in January 2013 did not identify any control technologies for gas turbines specifically during the startup and shutdown periods. Therefore, BACT was selected as a limit on the quantity of emissions during startup and shutdown while minimizing the startup and shutdown periods.

Event	Maximum Duration (hr)	CO Emissions (lbs/event)
Startup-Hot	2	1,750
Startup-Cold	2	4,500
Shutdown	1	750

B. Air Quality Impacts

Prevention of Significant Deterioration (PSD) is a construction permitting program designed to ensure air quality does not degrade beyond the National Ambient Air Quality Standards (NAAQS) or beyond specified incremental amounts above a prescribed baseline level. The PSD rules set forth a review procedure to determine whether a source will cause or contribute to a violation of the NAAQS or maximum increment consumption levels. If a source has the potential to emit a pollutant above the PSD significance levels, then it triggers this review process.

EPA has provided significance impact levels (SIL) for the PSD review process to determine whether a source will cause or contribute to a violation of the NAAQS or consume increment. A revised air quality impact analysis was conducted for CO to determine if ambient impacts would be above the SIL and monitoring significance levels (MSL). If impacts are above the SIL, a radius of impact (ROI) is defined for the facility for each pollutant out to the farthest receptor at or above the SIL. If a ROI is established for a pollutant, then a full impact analysis is required for that pollutant. If the air quality analysis does not indicate a ROI, no further air quality analysis is required for the Class II area.

The ROI is used to determine the distance out to which nearby sources need to be reviewed for inclusion in the NAAQS and increment modeling. The nearby source inventories for each pollutant that exceeded the SIL were obtained from the AQD using the determined ROI. Inventory sources included in the full impact analysis are generally sources that are within the ROI plus 50 km.

AERMOD (12345) was used for the modeling analyses. AERMOD is a refined, steady-state, multiple source, Gaussian dispersion model and is the preferred model for these analyses. The modeling analysis was performed using the regulatory default models settings, which include stack heights adjusted for stack-tip downwash and missing data processing.

Source and building elevations were obtained from engineering elevation drawings. Receptor terrain elevations entered into the model were the highest elevations extracted from USGS 7.5 minute digital elevation model (DEM) data of the area surrounding the proposed site. For each receptor elevation, the maximum terrain elevation associated with the four DEM points surrounding the receptor will be selected.

In order to account for building wake effects, direction-specific building dimensions used as input to the model were calculated using the algorithms of the Building Profile Input Program (BPIP). BPIP is designed to incorporate the concepts and procedures expressed in the GEP Technical Support document, and the Building Downwash Guidance document while incorporating the enhancements to improve prediction of ambient impacts in building cavities and wake regions.

As described in the *Air Dispersion Modeling Guidelines for Oklahoma Air Quality Permits*, meteorological data was derived from Oklahoma Mesonet surface data, National Climactic Data Center (NCDC) Integrated Surface Hourly (ISH) data, and FSL/NCDC Radiosonde upper air data. Oklahoma Mesonet data was provided to the AQD courtesy of the Oklahoma Mesonet, a cooperative venture between Oklahoma State University and The University of Oklahoma and supported by the taxpayers of Oklahoma. The model runs were performed using 2006-2010 meteorological data using NWS surface observations from Tulsa, upper air measurements from Springfield, Missouri, and adjusting the surface data using the Oklahoma Mesonet data from Pryor, OK. The 2006-10 data set used in this analysis was provided by the AQD.

Three Cartesian grids for the modeling analyses were defined as follows:

1. A fence line grid containing receptors spaced at 50-meter (m) intervals along the facility fence line.
2. A 100-m grid containing receptors spaced at 100-m intervals extending 1.0 km from the fence line, exclusive of the fence line grid.
3. A 250-m grid containing receptors spaced at 250-m intervals extending 2.5 km from the fence line, exclusive of the 100-m grid.
4. A 500-m grid containing receptors spaced at 500-m intervals extending 5.0 km from the fence line, exclusive of the 250-m grid.

5. A 750-m grid containing receptors spaced at 750-m intervals extending 7.5 km from the fence line, exclusive of the 500-m grid.
6. A 1-km grid containing receptors spaced at 1-km intervals extending 20.0 km from the fence line, exclusive of the 750-m grid.

Significance Analyses

In addition to emissions from normal operations, the modeling analysis included emissions from startup and shutdown periods of operation. The combustion turbines operate under several different types of startup conditions, as described below. During these startup and shutdown periods, the combustion turbine typically exhibits CO emission levels greater than what is listed in the manufacturer's emission guarantee, which corresponds to normal operations. The facility has made very conservative estimates regarding the duration of each of these startup events and their expected emission rates based on a combination of manufacturer-provided data and the operating performance of the existing turbines. Modeled CO emissions are based on the specific event durations.

The modeled emissions were based on the short term (lb/hr) emission rate.

Modeled Source Emissions

EU #	EU Description	CO	
		(g/s)	(lb/hr)
1-03	Turbine No.3	598.49	4,750
1-04	Turbine No.4	598.49	4,750
2-02	Auxiliary Boiler No.2	0.63	5.0
3-02	Fuel Gas Heater No.2	0.05	0.4

A summary of results from the significance analysis is shown below.

Class II Area Significance Analysis Results

Pollutant	Averaging	SIL	Max Impact	Full Impact
	Period	µg/m ³	µg/m ³	Analysis Required?
CO	1-hr	2,000	3,628	Yes
	8-hr	500	2,100	Yes

As seen above, CO impacts exceeded the respective SIL and require a full impact analysis. Since there are no increments for CO a Class I or Class II Increment analysis was not required. The modeling results were then compared to the MSL.

Monitoring Significance Level Comparison

Pollutant	Averaging	MSL	Max Impact
	Period	µg/m ³	µg/m ³
CO	8-hr	575	2,100

The CO impacts exceed the MSL. However, an existing monitoring site was used to determine the background concentration. Since impacts from the project are less than 25% of the NAAQS and current monitoring data is less than 20% of the NAAQS, the project does not threaten the NAAQS. No additional monitoring will be required of the facility.

NAAQS Analysis

Significance results indicated that the furthest significance receptor for CO was located approximately 20 km from the plant, resulting in an ROI of 70 kilometers. The inventory source data provided by the AQD included review of all major sources located 70 km from the plant and all minor sources within 10 km. To complete the NAAQS Analysis, the proposed emissions from the facility were modeled simultaneously with the emissions from the NAAQS sources identified in the inventory provided by the AQD. A full list of the sources used in the modeling was provided in the application. Permit allowable emission rates were modeled for all short-term averaging periods. The background concentrations were added to the modeled concentration for comparison with the NAAQS.

Monitoring data from the state's network of ambient monitors was utilized to develop background concentrations for use in NAAQS analysis. The north Tulsa monitor was used as the most representative monitoring data and is located north of an industrial area similar to the Pryor Mid-America Industrial Park.

NAAQS Background Concentrations

Pollutant	Averaging	Concentrations		Monitor	Year
	Period ¹	ppm	µg/m ³	Site ID	
CO	1-hr	1.85	2,118	401431127	2012
CO	8-hr	1.20	1,374	401431127	2012

¹ – The second highest concentration of the most recent data.

The results of the NAAQS analysis and including background concentrations are summarized below.

NAAQS Analyses Results

Pollutant	Averaging Period	Impact µg/m ³	Background µg/m ³	Total µg/m ³	NAAQS µg/m ³
CO	1-hr	2,958	2,118	5,076	40,000
CO	8-hr	1,866	1,374	3,240	10,000

C. Evaluation of Source-Related Impacts on Growth, Soils, Vegetation, Visibility

The change in permitted CO emissions does not affect impacts on growth, soils, vegetation, and visibility so these issues were not addressed.

SECTION V. INSIGNIFICANT ACTIVITIES

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

1. * Stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or distillate fuel oil which are used exclusively for emergency power generation not to exceed 500 hours/year. The backup diesel generator is used for emergency power generation and is not expected to operate more than 500 hours/year. Engine subject to NESHAP or NSPS are not insignificant activities.
2. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTU/hr heat input (commercial natural gas). None identified but may be used in the future.
3. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. None identified but may be used in the future.
4. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. None identified but may be used in the future.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

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

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

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

OAC 252:100-5 (Registration, Emission Inventory, And Annual Fees) [Applicable]
The owner or operator of any facility that is a source of air emissions shall submit a complete emission inventory annually on forms obtained from the Air Quality Division. This facility has recently submitted the required emission inventories and has paid the applicable or fees.

OAC 252:100-8 (Major Source/Part 70 Permits) [Applicable]
Part 5 includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

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

Emissions limitations have been established for each emission unit based on information from the permit application and Permit No. 2007-115-TVR.

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

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

OAC 252:100-19 (Particulate Matter) [Applicable]
Subchapter 19 regulates emissions of particulate matter from fuel-burning equipment. Particulate emission limits are based on maximum design heat input rating. For units less than 1,000 MMBTUH but greater than 10 MMBTUH, the allowable PM emissions are calculated using the formula: $E = 1.042808 X^{(-0.238561)}$, where E is the limit in lb/MMBTU and X is the maximum heat input. For units greater than or equal to 1,000 MMBTUH, the allowable PM emissions are calculated using the following formula $E = 1.60 X^{(-0.30103)}$, where E is the limit in lb/MMBTU and X is the maximum heat input. The EU listed below are subject to the requirements of this subchapter and will be in compliance as shown.

Equipment	Max. Heat Input (MMBTUH) (HHV)	Allowable PM Emission Rate (lb/MMBTU) (HHV)	Potential PM Emissions (lb/MMBTU) (HHV)
Turbines (EU 1-01 & 1-02)	1,783	0.168	<0.01
Turbines (EU 1-03 & 1-04)	1,882	0.165	<0.01
Auxiliary Boiler (EU 2-01)	33.5	0.451	0.01
Auxiliary Boiler (EU 2-02)	37.7	0.438	0.01
Fuel Gas Water Bath Heater	18.8	0.518	0.01
Backup Generators (2)	<10	0.600	0.10
Diesel Fire Water Pump	<10	0.600	0.31

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
 No discharge of greater than 20% opacity is allowed except for short-term occurrences, which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. All of the emission units are subject to this subchapter. The turbines, Auxiliary Boiler, and Fuel Gas Water Bath Heater will assure compliance with this rule by ensuring “complete combustion” and utilizing pipeline-quality natural gas as fuel. The Backup Diesel Generator and the Diesel Fire Water Pump assure compliance with this rule by ensuring “complete combustion.”

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

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 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, three-hour average. The permit will require the new/existing turbines to be fired with pipeline-grade natural gas with SO₂ emissions of 2.2/2.0 lb/hr, which is equivalent to 0.001 lb/MMBTU. The auxiliary boiler and fuel gas heater emissions are approximately 0.0009 and 0.004 lb/MMBTU, respectively. The backup diesel generator and diesel fire water pump fire diesel fuel with a maximum sulfur content of 0.05 % by weight. This fuel will produce emissions of approximately 0.05 lb/MMBTU, which is well below the allowable emission limitation of 0.8 lb/MMBTU for liquid fuels.
Part 5 also requires an opacity monitor and sulfur dioxide monitor for equipment rated above 250 MMBTU. Equipment burning gaseous fuel is exempt from the opacity monitor requirement, and equipment burning gaseous fuel containing less than 0.1 percent sulfur is exempt from the sulfur dioxide monitoring requirement, so the turbines do not require such monitoring.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]

This subchapter limits emissions of NO_x from new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to a three-hour average of 0.2 lb/MMBTU. Listed below is the 3-hr average emission limit (lb/hr) of NO_x for each combustion turbine and the equivalent emission rates (lb/MMBTU) based on the maximum heat input, which are below the standard of 0.2 lb/MMBTU. However, for operational flexibility, the permit will establish a limit based on the Subchapter 33 allowable of 0.2 lb/MMBTU, three-hour average. The Auxiliary Boilers, Fuel Gas Water Bath Heater, Backup Diesel Generators, and the Diesel Fire Water Pump are below 50 MMBTUH heat input and are, therefore, not subject to this regulation.

	MMBTUH	lb/hr	lb/MMBTU
New Turbines	1,882	15.25	0.012
Existing Turbines	1,783	86.70	0.050

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

None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]

Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The anticipated diesel tanks will be below the 1.5 psia threshold.

Part 5 limits the VOC content of coatings used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.

Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize emissions of VOC. Temperature and available air must be sufficient to provide essentially complete combustion. The turbines are designed to provide essentially complete combustion of VOC.

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

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

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

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and

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

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

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

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Applicable]
 Total potential emissions for NO_x and VOC are greater than the level of significance of 250 TPY. Any future increases of emissions must be evaluated for PSD if they exceed a significance level.

NSPS, 40 CFR Part 60 [Subparts Dc, GG, and III are Applicable]
Subpart Da, Electric Steam Generating Units. This subpart affects electric steam generating units with a design capacity greater than 250 MMBTUH constructed after September 18, 1978. The duct burners in the new HRSG are rated at 90 MMBTUH (LHV), and therefore are not subject to Subpart Da. Furthermore, since the turbines are subject to NSPS, Subpart GG, they would be exempt from this subpart as per § 60.40a(b).

Subpart Db, Industrial-Commercial-Institutional Steam Generating Units. This subpart affects electric steam generating units with a design capacity greater than 100 MMBTUH constructed after June 19, 1984. The duct burners in the new HRSG are rated at 90 MMBTUH (LHV), and therefore are not subject to Subpart Db. Furthermore, since the turbines are subject to NSPS, Subpart GG, they would be exempt from this subpart as per § 60.40b(i).

Subpart Dc, Industrial-Commercial-Institutional Steam Generating Units. This subpart affects industrial-commercial-institutional steam generating units with a design capacity between 10 and 100 MMBTUH heat input and which commenced construction or modification after June 9, 1989. For gaseous-fueled units, the only applicable standard of Subpart Dc is a requirement to keep records of the fuels used. The duct burners in the new HRSG are rated at 90 MMBTUH (LHV). However, since the turbines are subject to NSPS, Subpart GG, the duct burners are exempt from this subpart as per § 60.40c(e). The 33 MMBTUH (LHV) and 37 MMBTUH gas-fired auxiliary boilers and 18.8 MMBTUH fuel gas water heaters are affected units as defined in the subpart since the heating capacity is above the de minimis level. Recordkeeping will be specified in the permit.

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 new turbines has a rated heat input of greater than 10 MMBTUH and is subject to this subpart.

EPA guideline document EMTIC, GD-009 advises to use zero for the value of F with natural gas-fired turbines. So, the lowest NO_x limit is 0.0075% or 75 ppm_{dv} when Y = 14.4. The NO_x emission limitation for turbines EU 1-01 and 1-02 is 12 ppm_{dv} at 15% O₂ and is therefore more stringent than the Subpart GG standards. Similarly, the NO_x emission limitation for turbines EU 1-03 and 1-04 is 2 ppm_{dv} at 15% O₂ and puts them at an even greater compliance margin compared to the Subpart GG standard. Monitoring fuel for nitrogen content is not required if the owner or operator does not claim an allowance for fuel bound nitrogen per § 60.334(h)(2).

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

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 existing backup diesel generator (EU 4-01) was manufactured prior to the applicability date of this subpart and is not subject to this subpart. However, the new backup diesel generator (EU 4-02) was manufactured after the April 1, 2006 date (for units procured after July 11, 2005). Therefore, the new unit is subject to the requirements in Subpart IIII. The new unit has a displacement of less than 30 liters and a heat input rating of 1,640.5 kW. According to the NSPS, this unit is subject to the following emission limitations:

NSPS Emission Limits for Emergency Engines

NMHC + NO_x	CO	PM	Opacity		
g/kW-hr (lb/hr)	g/kW-hr (lb/hr)	g/kW-hr (lb/hr)	Acceleration	Lugging	Peak
6.4 (23.15)	3.5 (12.66)	0.2 (0.72)	20%	15%	50%

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. The stationary combustion turbines in this permit were constructed prior the applicability date of this subpart and therefore are not subject to this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]
 There are no emissions of any of the regulated pollutants: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides, or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, concerns only process streams that contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63 [Subparts ZZZZ and DDDDD are Applicable]
Subpart YYYY, Stationary Combustion Turbines. This subpart affects stationary combustion turbines that are located at major source of HAP. This facility is a major source of HAP. On August 18, 2004, the EPA stayed the effectiveness of two subcategories of this subpart: lean premix gas-fired stationary combustion turbines and diffusion flame gas-fired stationary combustion turbines pending the outcome of EPA’s proposal to delete these subcategories from the source category list. This facility is a major source but the turbines located at this facility are in the lean premix gas-fired stationary combustion turbine and diffusion flame gas-fired stationary combustion turbine categories and are expected to be deleted from the source category list. They were required to comply with the initial notification requirements set forth in § 63.6145 but do not need to comply with any other requirement of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register.

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

- 1) Stationary RICE located at an area source;
- 2) The following Stationary RICE located at a major source of HAP emissions:
 - i) 2SLB and 4SRB stationary RICE with a site rating of ≤ 500 brake HP;
 - ii) 4SLB stationary RICE with a site rating of < 250 brake HP;

- iii) Stationary RICE with a site rating of ≤ 500 brake HP which combust landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis;
- iv) Emergency or limited use stationary RICE with a site rating of ≤ 500 brake HP; and
- v) CI stationary RICE with a site rating of ≤ 500 brake HP.

No further requirements apply for engines subject to NSPS under this part. This facility is a major source of HAP. Existing emergency stationary RICE are exempt from this subpart. The existing emergency generator and fire pump engine at this facility is exempt from this subpart. The new emergency generator is subject to this subpart and must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines.

Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters at major sources of HAP. On January 31, 2013, the EPA took final action on its reconsideration of certain issues in the emission standards for the control of HAP from new and existing industrial, commercial, and institutional boilers and process heaters at major sources of HAP. The compliance dates for the rule are January 31, 2016, for existing sources and, January 31, 2013, or upon startup, whichever is later, for new sources. New sources are defined as sources that began operation on or after June 4, 2010. There are three affected units at this facility the two auxiliary boilers and the fuel gas bath water heater. All three of these units are existing sources in the unit designed to burn gas 1 subcategory and are rated greater than 10 MMBTUH. Units with a continuous oxygen trim system that maintains an optimum air to fuel ratio are required to conduct a tune-up of the boiler initially and then every 5 years thereafter as specified in § 63.7540. Units without a continuous oxygen trim system are required to conduct a tune-up of the boiler initially and then every 5 years thereafter as specified in § 63.7540. Units greater than 10 MMBTUH without a continuous oxygen trim system will conduct this tune-up as a work practice for all regulated emissions under this subpart. These affected units must conduct the required initial tune-up by January 31, 2016.

CAM, 40 CFR Part 64

[Not Applicable]

Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, 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 greater than major source levels.

The turbines use a control device to meet an applicable emission limit and have the potential to emit greater than major source levels. However, the turbines are subject to a continuous monitoring requirement and are exempt from this part per § 64.2(b)(vi).

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable At This Time]
There will be no regulated substances used, stored or processed at the facility above threshold levels as a result of this project except possibly ammonia. If ammonia will be stored above the applicable threshold, the facility will need to comply with the requirements of this part by the date on which the regulated substance (ammonia) is present above the threshold quantity. More information on this federal program is available on the web page: www.epa.gov/ceppo.

Acid Rain, 40 CFR Part 72 (Permit Requirements) [Applicable]
This facility is an affected source since it will commence operation after November 15, 1990, and is not subject to any of the exemptions under 40 CFR 72.7, 72.8 or 72.14. Paragraph 72.30(b)(2)(ii) requires a new source to submit an application for an Acid Rain permit at least 24 months prior to the start of operations. However, Mr. Dwight Alpern, U.S. EPA, has confirmed that this requirement was for the benefit of the regulating agency (Oklahoma DEQ) which can waive this requirement and has done so. The applicant submitted a Phase II Acid rain permit application on June 2, 2008.

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

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

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

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

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

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

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

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

SECTION VIII. COMPLIANCE

Tier Classification

This application has been determined to be Tier II based on the request for a construction permit for a significant modification of a Part 70 source.

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 has option to purchase the land.

Public Review

The applicant published the “Notice of Filing a Tier II Application” in *The Times* a local newspaper in Mayes County on August 4, 2013. The notice stated that the application was available for public review at the Pryor Public Library and the Air Quality Division’s main office at 707 North Robinson, Oklahoma City, Oklahoma. The applicant also published the “Notice of Tier II Draft Permit” in *The Times* a local newspaper in Mayes County on August 4, 2013. The notice stated that the draft permit was available for public review at the Pryor Public Library, the Air Quality Division’s main office at 707 North Robinson, Oklahoma City, Oklahoma, and on the Air Quality section of the DEQ Web Page: <http://www.deq.state.ok.us/>. No comments were received from the public.

State Review

This site is within 50 miles of the Oklahoma – Arkansas and Oklahoma – Missouri borders. The states of Arkansas and Missouri were notified of the draft permit. No comments were received from either state.

EPA Review

This permit was approved for concurrent public and EPA review. The draft permit was forwarded to EPA for a 45-day review period. Since no comments were received from the public, the draft permit was deemed the proposed permit. No comments were received from the EPA.

Fees Paid

Part 70 construction permit modification application fee of \$5,000.

SECTION IX. SUMMARY

The applicant has demonstrated the ability to comply with the requirements of the applicable Air Quality rules and regulations. Ambient air quality standards are not threatened at this site. Compliance and enforcement concur with issuance of this permit. Issuance of the permit is recommended.

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

**Associated Electric Cooperative, Inc.
Chouteau Power Plant**

Permit No. 2007-115-C (M-3) PSD

The permittee is authorized to construct/modify in conformity with the specifications submitted to Air Quality on July 1, 2008, August 19, 2011, October 13, 2011, March 5, 2013, and all supplemental materials. The Evaluation Memorandum dated September 3, 2013, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating permit limitations or permit requirements. Commencing construction and/or 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 1. Electric Generating Units.

Emission limits and standards for Emission Units (EUs) 1-01 and 1-02; The emission limits for each EU include but are not limited to the following:

Pollutant	lb/hr	TPY³	ppmvd¹	lb/MMBTU⁵
NO_x	86.70 ²	379.75	12 ³	0.20 ²
CO	59.00	258.42	10	
VOC	4.99	21.87		
SO₂	1.00	4.38		
PM₁₀	6.24	27.33		0.0035
Ammonia	18.14 ⁴	79.46		
H₂SO₄	0.15 ⁴	0.61		

¹ All concentrations are corrected to 15% O₂, per turbine.

² Three-hour rolling average, based on contiguous operating hours.

³ Twelve-month rolling total.

⁴ 24-hour average.

⁵ Based on HHV.

Emission limits and standards for EU 1-03 and 1-04 (Turbines with Duct Burners); The emissions limits for each EU include but are not limited to the following:

Pollutant	lb/hr	TPY ⁵	ppmvd ¹	lb/MMBTU ⁷
NO _x	15.25 ²	125.45	2.0 ²	0.20 ⁴
CO	51.32 ³	588.81	8.0 ^{3,8}	
VOC	5.27 ³	23.08		
SO ₂	1.06 ³	4.62		
PM ₁₀	6.59 ³	28.86		0.0035 ^{6,8}
Ammonia	18.14 ⁶	79.46		
H ₂ SO ₄	0.15 ⁶	0.61		

¹ All concentrations are corrected to 15% O₂, per turbine.

² One-hour average.

³ Three-hour average.

⁴ Three-hour rolling average, based on contiguous operating hours.

⁵ 12-month rolling total.

⁶ 24-hour average.

⁷ Based on HHV.

⁸ At operating levels ≥ 75% load.

- a. The turbines shall only be fired with natural gas as defined in New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart GG having 20.0 grains or less of total sulfur per 100 standard cubic feet. Compliance can be shown by the following methods: for gaseous fuel, a current gas company bill, lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once annually. [OAC 252:100-31 & 8-34]
- b. The turbines shall be equipped with dry low-NO_x burners. [OAC 252:100-8-34]
- c. Emissions from each turbine and duct burner shall be controlled by a properly operated and maintained SCR. [OAC 252:100-8-34]
- d. During startups and shutdowns, alternate short term emission limits apply to the combustion turbines. The short term emission limits for each combustion turbine during startup and shutdown are shown below:
 - i. For EU 1-01 and 1-02

Event	Maximum Duration (hr)	NO _x Emissions (lbs/event)	CO Emissions (lbs/event)
Startup	4	568	1,596
Shutdown	1	142	399

- ii. For EU 1-03 and 1-04

Event	Maximum Duration (hr)	NO_x Emissions (lbs/event)	CO Emissions (lbs/event)
Cold Startup	2	568	4,500
Hot Startup	2	568	1,750
Shutdown	1	142	750

- e. Hot startup is defined as a startup that occurs within 12-hours of the previous shutdown. Cold startup is defined as a startup that occurs greater than 12-hours from the previous shutdown. Startup ends when the turbine reaches normal operating mode (pre-mix Low-NO_x) and the SCR is operational.
- f. The permittee shall keep hourly records of the operational status (startup, shutdown, and normal operation) of each unit.
- g. To demonstrate compliance with the NO_x startup and shutdown emission limits, the permittee shall calculate the total NO_x emissions during the event using CEM data and compare it to the limits above.
- h. Compliance with the CO emission limits for EU 1-01 and 1-02 shall be based on the duration of the event and compliance with the NO_x emission limit. To demonstrate compliance with the CO startup and shutdown emission limits, for EU 1-03 and 1-04, the permittee shall calculate the total CO emissions during the event using CEM data and compare it to the limits. [OAC 252:100-8-6(a)(1)]
- i. Turbines 1-01, 1-02, 1-03, and 1-04 are subject to the NSPS for Stationary Gas Turbines, 40 CFR Part 60, Subpart GG, and shall comply with all applicable requirements. [40 CFR § 60.330 to § 60.335]
 - i. § 60.332: Standard for nitrogen oxides
 - ii. § 60.333: Standard for sulfur dioxide
 - iii. § 60.334: Monitoring of operations
 - iv. § 60.335: Test methods and procedures
 - v. Monitoring of the fuel sulfur content is not required if the permittee can demonstrate that the gaseous fuel meets the definition of “natural gas” with a maximum total sulfur content of less than 20 grains/100 SCF (680 ppmw or 338 ppmv) or less using either a current valid purchase contract, tariff sheet, or transportation contract or representative fuel sampling. Monitoring of fuel nitrogen content under NSPS, 40 CFR Part 60, Subpart GG shall not be required unless the permittee claims an allowance for fuel bound nitrogen.

EUG 2. Auxiliary Boilers. Emission limits and standards for EU 2-01 and 2-02 include but are not limited to the following:

EU	NO _x		CO	
	lb/hr	TPY	lb/hr	TPY
2-01	2.36	10.34	5.02	21.99
2-02	2.66	11.63	5.65	24.74

- a. The Auxiliary Boilers shall be equipped with low-NO_x burners. [OAC 252:100-8-34]
- b. The Auxiliary Boilers shall only be fired with natural gas as defined in NSPS, 40 CFR Part 60, Subpart GG having 20.0 grains or less of total sulfur per 100 standard cubic feet. Compliance can be shown by the following methods: for gaseous fuel, a current gas company bill, lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once annually.
[OAC 252:100-31 & 8-34]
- c. The permittee shall maintain a record of the amount of natural gas burned in the Auxiliary Boilers for compliance with NSPS, 40 CFR Part 60, Subpart Dc.
[40 CFR § 60.48c(g) & § 60.13(i)]

EUG 3. Fuel Gas Water Bath Heater. Emission limits and standards for EU 3-01 include but are not limited to the following:

EU	NO _x		CO	
	lb/hr	TPY	lb/hr	TPY
3-01	2.70	11.83	0.39	1.71

- a. The Fuel Gas Water Bath Heater shall only be fired with natural gas as defined in NSPS, 40 CFR Part 60, Subpart GG having 20.0 grains or less of total sulfur per 100 standard cubic feet. Compliance can be shown by the following methods: for gaseous fuel, a current gas company bill, lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once annually.
[OAC 252:100-31 & 8-34]
- b. The permittee shall maintain a record of the amount of natural gas burned in the Fuel Gas Water Bath Heater for compliance with NSPS, 40 CFR Part 60, Subpart Dc.
[40 CFR § 60.48c(g) & § 60.13(i)]

EUG 4A. Backup Diesel Generator. Emission limits and standards for EU 4-01 include but are not limited to the following:

EU	NO _x		CO	
	lb/hr	TPY	lb/hr	TPY
4-01	52.80	13.20	12.10	3.03

- a. EU 4-01 the Backup Diesel Generator shall not operate more than 500 hours per in any 12-month period. [OAC 252:100-8-6(a)(1)]
- b. EU 4-01 the Backup Diesel Generators shall each be fitted with a non-resettable hour-meter. [OAC 252:100-8-6(a)(3)]
- c. EU 4-01 the Backup Diesel Generators shall only be fired with fuel oil with a maximum sulfur content of 0.05% S by weight. Compliance can be shown by the following methods: for fuel oil, supplier’s latest delivery ticket(s). Compliance shall be demonstrated at least once annually. [OAC 252:100-31 & 8-34]
- d. Replacement (including temporary periods of 6 months or less for maintenance purposes), of the internal combustion engine associated with the Backup Diesel Generator with an engine of lesser or equal emissions of each pollutant (in lbs/hr and TPY) are authorized under the following conditions:
 - i. The permittee shall notify AQD in writing not later than 7 days in advance of the start-up of the replacement engine. Said notice shall identify the equipment removed and shall include the new engine make, model, and horsepower; date of the change, fuel usage, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emission rates (g/hp-hr, lbs/hr, and TPY) at maximum rated horsepower for the altitude/location and any change in emissions.
 - ii. Replacement equipment and emissions are limited to equipment and emissions which do not subject the engine/turbine to an applicable requirement not already included in this permit.
 - iii. The permittee shall calculate 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 Specific Condition 1, EUG 4A, (d). [OAC 252:100-8-6 (f)]

EUG 4B. Backup Diesel Generator Subject to NSPS, Subpart III. Emission limits and standards for EU 4-02 include but are not limited to the following:

- a. EU 4-02 the Backup Diesel Generator is subject to the federal NSPS for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart III, and shall comply with all applicable requirements: [40 CFR § 60.4200 - § 60.4219]

What This Subpart Covers

- i. 60.4200 Am I subject to this subpart?
- Emission Standards for Owners and Operators**
- ii. 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?
- iii. 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?
- iv. 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Fuel Requirements for Owners and Operators

- v. 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?

Other Requirements for Owners and Operators

- vi. 60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?
- vii. 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

Compliance Requirements

- viii. 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

Testing Requirements for Owners and Operators

- ix. 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?

Notification, Reports, and Records for Owners and Operators

- x. 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

General Provisions

- xi. 60.4218 What parts of the General Provisions apply to me?

Definitions

- xii. 60.4219 What definitions apply to this subpart?
- b. EU 4-02 the Backup Diesel Generator shall not operate more than 500 hours per in any 12-month period. [OAC 252:100-8-6(a)(1)]
- c. The Backup Diesel Generators shall each be fitted with a non-resettable hour-meter. [OAC 252:100-8-6(a)(3)]

EUG 5A. Emergency Fire Water Pump (Diesel). EU 5-01 is considered an insignificant activity and is limited to the following:

EU	Make/Model	Hp
5-01	Caterpillar/3306- A552598	267

- a. EU 5-01 the Emergency Fire Water Pump shall not operate more than 500 hours in any 12-month period. [OAC 252:100-8-6(a)(1)]
- b. EU 5-01 the Emergency Fire Water Pump shall be fitted with a non-resettable hour-meter. [OAC 252:100-8-6(a)(3)]
- c. The Emergency Fire Water Pump shall only be fired with a fuel oil with a maximum sulfur content of 0.05% S by weight. Compliance can be shown by the following methods: for fuel oil, supplier’s latest delivery ticket(s). Compliance shall be demonstrated at least once annually. [OAC 252:100-31 & 8-34]

EUG 6. Cooling Towers. EU 6-01 and 6-02 are considered insignificant activities and are limited to the following standards:

EU	Make/Model	No. of Towers
6-01	Psychometrics, Inc	9
6-02	To be determined	9

- a. The Cooling Towers shall be equipped with drift eliminators. [OAC 252:100-8-34]
- 2. The permittee shall be authorized to operate the turbines, auxiliary boiler, and fuel gas water bath heater continuously (24 hours per day, every day of the year). [OAC 252:100-8-6]
- 3. The turbines, Auxiliary Boiler, Fuel Gas Water Bath Heater, Backup Diesel Generator, and Emergency Fire Water Pump shall have a permanent (non-removable) identification plate attached which shows the make, model number, and serial number. [OAC 252:100-43]
- 4. The permittee shall comply with all applicable requirements of NESHAP: Industrial, Commercial, and Institutional Boilers and Process Heaters located at a Major Source (ICE), Subpart DDDDD, for each affected facility including but not limited to:

What This Subpart Covers

- a. § 63.7480 What is the purpose of this subpart?
- b. § 63.7485 Am I subject to this subpart?
- c. § 63.7490 What is the affected source of this subpart?
- d. § 63.7491 Are any boilers or process heaters not subject to this subpart?
- e. § 63.7495 When do I have to comply with this subpart?

Emission Limitations and Work Practice Standards

- f. § 63.7499 What are the subcategories of boilers and process heaters?
- g. § 63.7500 What emission limitations, work practice standards, and operating limits must I meet?
- h. § 63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.

General Compliance Requirements

- i. § 63.7505 What are my general requirements for complying with this subpart?
- j. Testing, Fuel Analyses, and Initial Compliance Requirements
- k. § 63.7510 What are my initial compliance requirements and by what date must I conduct them?
- l. § 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?
- m. § 63.7520 What stack tests and procedures must I use?
- n. § 63.7521 What fuel analyses, fuel specification, and procedures must I use?
- o. § 63.7522 Can I use emissions averaging to comply with this subpart?
- p. § 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

- q. § 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?
- r. § 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?
Continuous Compliance Requirements
- s. § 63.7535 Is there a minimum amount of monitoring data I must obtain?
- t. § 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?
- u. § 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?
Notification, Reports, and Records
- v. § 63.7545 What notifications must I submit and when?
- w. § 63.7550 What reports must I submit and when?
- x. § 63.7555 What records must I keep?
- y. § 63.7560 In what form and how long must I keep my records?
Other Requirements and Information
- z. § 63.7565 What parts of the General Provisions apply to me?
- aa. § 63.7570 Who implements and enforces this subpart?
- bb. § 63.7575 What definitions apply to this subpart?

5. The permittee shall comply with all acid rain control permitting requirements and SO₂ emissions allowances and SO₂, NO_x, and O₂ continuous emissions monitoring and reporting. SO₂ emissions shall be monitored in accord with Part 75, Appendix D.

6. When monitoring shows concentrations or emissions in excess of the limits of Specific Condition No. 1, the owner or operator shall comply with the provisions of OAC 252:100-9.
[OAC 252:100-9]

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

- a. For stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or distillate fuel oil which are used exclusively for emergency power generation: records of hours of operation, size of engines, and type of fuel.
- b. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
- c. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions from that activity (annual).

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

- a. Total fuel consumption for each turbine, the Auxiliary Boilers and the Fuel Gas Water Bath Heaters (monthly and 12-month rolling totals).
 - b. Operational status of each combustion turbine as required by Specific Condition No. 1, EUG 1, (f).
 - c. Startup and shutdown emission calculations required by Specific Condition No. 1, EUG 1, (g).
 - d. Operating hours for the Backup Diesel Generators and Emergency Fire Water Pumps (monthly and 12-month rolling totals).
 - e. For fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 1.
 - f. Diesel fuel consumption for the Backup Diesel Generators and Emergency Fire Water Pumps (12-month rolling totals).
 - g. CEMS data required by the Acid Rain program.
 - h. Records required by NSPS, Subparts Dc, GG, and IIII.
 - i. Records required by NESHAP, Subparts ZZZZ and DDDDD.
9. No later than 30 days after each anniversary date of the issuance of the original Title V operating permit (December 6, 2002), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]
10. The permittee shall apply for a modification of their current Title V operating permit within 180 days of issuance of this permit.

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

SECTION I. DUTY TO COMPLY

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

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

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

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

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

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

[OAC 252:100-43]

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

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

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

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

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

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

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

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (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(18) for confidential information submitted to or obtained by the DEQ under this section):

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

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

SECTION XIV. EMERGENCIES

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

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

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance.

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

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in

emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

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

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

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

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

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

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential

and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

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

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;

- (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

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

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

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

C. The permittee shall comply with the following standards for recycling and emissions

reduction except as provided for MVACs in Subpart B:

[40 CFR 82, Subpart F]

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).

- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

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

SECTION XXII. CREDIBLE EVIDENCE

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

[OAC 252:100-43-6]

Associated Electric Cooperative, Inc.
Attn: Mr. Tadd Henry
Environmental Analyst
2814 S. Golden, P.O. Box 754
Springfield, MO 65801-0754

Re: Permit Number 2007-115-C (M-3) PSD
Chouteau Power Plant
Location: Mid America Industrial Park, Mayes County

Dear Mr. Henry:

Enclosed is the permit authorizing construction/modification of the referenced facility. Please note that this permit is issued subject to the 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 me at eric.milligan@deq.ok.gov or (405) 702-4217.

Sincerely,

Eric L. Milligan, P.E.
Engineering Section
AIR QUALITY DIVISION

Enclosures



PART 70 PERMIT

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

Permit No. 2007-115-C (M-3) PSD

Associated Electric Cooperative, Inc.,

having complied with the requirements of the law, is hereby granted permission to modify/operate the Chouteau Power Plant located in Section 10, T20N, R19E, Mayes County, Oklahoma, subject to the Standard Conditions dated July 21, 2009, and Specific Conditions, both of which are attached.

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

Division Director
Air Quality Division

Date