

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

MEMORANDUM

January 9, 2012

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

THROUGH: Kendal Stegmann, Senior Environmental Manager
Compliance and Enforcement

THROUGH: Phil Martin, P.E., Engineering Manager

THROUGH: Peer Review

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

SUBJECT: Evaluation of Permit Application No. **2006-303-C (M-3) PSD**
Atlas Pipeline Mid-Continent WestOK, LLC (WESTOK)
Waynoka Natural Gas Processing Plant (SIC 1321)
NE/4 of Section 13, T25N, R15W, Woods County
Latitude: 36.6526°N; Longitude: -98.7635°W
Directions: From Alva, OK, travel south 10 miles on US Hwy 281, turn
west on to paved road. Follow this road 5.3 miles to the facility located on
the south side of the road.

SECTION I. INTRODUCTION

WESTOK has submitted an application for a construction permit to expand the Waynoka Natural Gas Processing Plant by adding a second processing train, to be called Plant 2. Plant 2 equipment will include additional slug tubes (that will increase slug catching capacity by 3,000-barrels), one inlet separator, one inlet gas heat exchanger, two 30,000-gallon inlet surge tanks, one 200 MMSCFD turbo expander cryogenic plant, one new contactor for natural gas liquids (NGL) amine treating, three new NGL product pipeline pumps, two 30,000-gallon stabilized condensate/natural gasoline storage tanks, one mole sieve dehydration unit with 7.50 MMBTUH (duty) regeneration heater, and three 3,550-hp Caterpillar G3612BLE ultra lean-burn compressor engines.

Modifications to existing equipment outside of Plant 2 will include moving the stabilized condensate/natural gas loadout further away from the control room building and adding two 60 GPM amine circulation pumps to the existing amine treater. Other equipment that may experience increased operation due to these changes includes the existing condensate stabilizer system, the existing electrical generators, the existing hot oil heater, all existing equipment at the adjacent compressor station, the existing amine regeneration process, the existing thermal oxidizer control device on the amine still vent and the relocated plant stabilized condensate/natural gasoline truck loadout. These changes will allow the combined facility to

process 420 MMSCFD of natural gas. In addition, a request to revise certain emission and operating limits is being made.

The new engines will be subject to NSPS, Subpart JJJJ and any new, modified, or reconstructed equipment at the plant will be subject to the recently proposed NSPS, Subpart OOOO. The facility is currently operating as authorized by Permit No. 2006-303-TV which was issued on March 16, 2007. The facility also has an active construction permit that authorized specific modifications that would increase the efficiency of the existing plant (Permit No. 2006-3030-C (M-2), issued June 27, 2011). Since this project will result in a significant emission increase and a significant net emissions increase for CO_{2e} emissions, it is subject to PSD for CO_{2e} including BACT for those new and modified emission units.

SECTION II. PROCESS DESCRIPTION

The non-fractionating gas plant currently has the capacity to process 220 MMSCFD of compressed field gas and as a result of processing produces NGL and residue gas for sale. The additional gas plant will increase the processing capacity to 420 MMSCFD. The gas processing plant receives compressed field gas from multiple compressor stations in the area, including the compressor station that is located adjacent to the plant. This compressor station has historically been considered part of the gas plant for permitting purposes and primarily consists of three natural gas compressors (a fourth compressor was permanently removed in 2010), a glycol dehydration unit, and four 210-barrel condensate tanks. The maximum natural gas throughput of the onsite compressor station is 15 MMSCFD. Low pressure field gas is gathered from the immediate surrounding area via gathering lines and enters the onsite compressor station through an inlet scrubber, where free water is removed. After scrubbing, the field gas is compressed utilizing three natural gas compressors. After being compressed, the inlet gas is routed to a triethylene glycol (TEG) contactor where water is removed from the gas and absorbed into the TEG. The rich (water saturated) TEG is then routed to the dehydrator regenerator where water is removed utilizing the reboiler. The water vapor boiled off of the rich TEG stream exits the dehydrator still column and is routed to an atmospheric condenser where the water vapor is condensed including small amounts of VOC and BTEX compounds which are boiled off with the water vapor. Non-condensable constituents from the atmospheric condenser are routed back to the reboiler heater firebox for destruction. Additionally, the on-site compressor station has four 210-barrel atmospheric storage tanks. These storage tanks are used to temporarily store condensate liquid that is produced as part of the gathering and compression process. The condensate liquid is removed from the compressor station utilizing tanker trucks.

The plant inlet starts at the condensate slug catching vessels that are designed to separate condensate liquids from the combined high pressure inlet gas streams before entering the plant. There are two sets of slug catching vessels, one set for Plant 1 and another set for Plant 2. The condensate slug catching vessels for each plant consist of a series of slug catcher tubes and a plant inlet separator. The condensate liquids captured from the slug catcher tubes and inlet separators are routed to three existing 30,000-gallon surge tanks and two proposed 30,000-gallon surge tanks, all operating at approximately 160 psi. Vapors from the condensate surge tanks are routed to the low pressure inlet of the on-site compressor station or compressed utilizing the

Stabilizer Overhead compressors both of which route the gas back to the inlet of the plant. The condensate liquid from the surge tanks is stabilized utilizing a condensate stabilization process. The condensate stabilization process begins with filtering to remove solids then progresses to a heat transfer process that exchanges heat from hot stabilized condensate to unstabilized condensate and finishes by entering the stabilizer still column which utilizes heated off-gas from the stabilizer reboiler to drive off the lighter hydrocarbons. Vapors exiting the top of the still column are routed through an overhead condenser and into the stabilizer reflux drum where condensed liquids are pumped back to the stabilizer column for refluxing purposes and the vapors from the stabilizer reflux drum are routed back to the low pressure inlet of the on-site compressor station or compressed by the electric driven Stabilizer Overhead compressors which route the gas back to plant inlet. The partially stabilized condensate liquids continue down the stabilizer still column and finally to the stabilizer reboiler to drive off remaining light hydrocarbon vapors. The stabilizer reboiler utilizes a hot oil system that is heated with a 9 MMBTUH (duty) natural gas-fired heater creating vapors in the reboiler that are reintroduced to the stabilization column. The stabilized condensate (RVP 10) is stored in one of three existing 30,000-gallon storage tanks or one of the two proposed 30,000-gallon storage tanks. These storage tanks operate at approximately 8 psig. Any vapors that are released from the storage tanks will be sent to the plant flare. The stabilized condensate will primarily be sold via tanker trucks but the plant does have the ability to pump the liquids to the on-site NGL pipeline.

The natural gas stream, coming from the inlet separators and slug catchers is routed to the mole sieve dehydration units. There is one unit for Plant 1 and another unit for Plant 2. The medium used in the mole sieves removes water molecules from the gas stream to prevent freezing in the cryogenic process. Upon saturation, the dehydration beds are regenerated using residue gas that is heated using natural gas fired heaters. There are two heaters, one dedicated to Plant 1 (8 MMBTUH duty) and another dedicated to Plant 2 (7.50 MMBTUH duty). After exiting the mole sieve beds, the gas stream is sent through the cryogenic process where the inlet gas is routed through a series of exchangers, a propane chiller, and a JT/Turbo Expander process that cools and expands the gas, producing NGL. There are two turbo expander processes, one dedicated to Plant 1 (220 MMSCFD) and another dedicated to Plant 2 (200 MMSCFD). The existing propane refrigeration system is utilized, as needed, to maximize cooling of the inlet gas for Plant 1 only. The system consists of a chiller and two compressor units. It is important to note that the refrigeration system is operated periodically as the inlet gas conditions and ambient temperatures dictate. After the inlet gas is expanded through the JT Valve/Turbo Expander, the cold natural gas stream is routed back through the plant inlet exchangers where the gas is warmed back up prior to being recompressed and discharged from the plant. The residue gas is then compressed using the three existing residue compressors and three new residue compressors.

The NGL product generated in the cryogenic processes is accumulated in the product surge tanks where centrifugal pumps are used to move the NGL product to the amine treating facilities and then to NGL sales pipeline. Each plant has dedicated surge tanks and pumps. Vapors from the product surge tanks are returned to the cryogenic process. The amine treating facilities consist of a series of static mixers for Plant 1 and a contact tower for Plant 2 that integrate a 30% diethanolamine (DEA) water solution with the NGL product to remove the CO₂ and H₂S components. In Plant 1, the amine and NGL product mixture enters an amine settling drum

where the amine is removed and the NGL product is routed to a NGL product coaleser where any small amount of amine carry over from the amine settling drum is removed. In Plant 2, the NGL is contacted with the amine in the contactor tower via a series of trays where the amine removes the CO₂/H₂S in the NGL stream. The NGL product is routed to a coaleser filtered and then routed to the on-site NGL product sales pipeline. The CO₂/H₂S saturated amine or rich amine leaving the amine settling drum and contactor is routed to the amine flash tank where hydrocarbon vapors released from the amine are routed to the flare or the amine reboiler heater fuel system and the rich amine liquids are routed through a series of sock and charcoal filters to remove solid particles and any remaining hydrocarbons. After filtering, the rich amine is routed to the stripping still for regeneration using heated water vapor generated from the amine reboiler to drive off the absorbed CO₂ and H₂S components from the amine. Amine that exits the bottom of the stripping still is routed to the amine reboiler which supplies heat from a 7.5 MMBTUH (duty) natural gas fired heater to remove any remaining CO₂/H₂S components. The amine is now considered regenerated and referred to as lean amine and is ready to be reintroduced at the static mixer and contactor tower to begin the cycle again. Plant 1 and Plant 2 both utilize the existing amine regeneration process. As stated above, CO₂/H₂S vapors that are driven from the amine in the amine reboiler and amine still column, i.e. the acid gas, exits the top of the still and are routed to the amine reflux condenser and accumulator where condensed water vapor is routed back to the still overhead for heat control and the remaining CO₂/H₂S vapors are routed to the existing thermal oxidizer (TO). The TO utilizes a thermocouple and automated fuel valve to regulate temperature. As acid gas flow from Plant 1 and Plant 2 increases the amount of added fuel will increase to achieve the required temperature necessary to destroy H₂S.

The existing refrigeration plant and the existing residue compressors will not serve the proposed cryogenic plant. The existing cryogenic plant (Plant 1) was originally designed and constructed in Louisiana. Plant 1 was purchased and moved to Oklahoma by a previous ownership interest before WESTOK acquired the facility in 2007. Because Plant 1 was designed for the lower GPM gas found at its original Louisiana location, a refrigeration plant was added to the design when it was relocated to Oklahoma. The refrigeration plant reduces the GPM of the process gas stream to a level that is within the design tolerance of Plant 1 by removing some of the excess liquids prior to processing. The newly proposed cryogenic plant (Plant 2) is being designed specifically for the higher GPM gas found in Oklahoma. Therefore, Plant 2 will be more efficient than Plant 1 and does not require added refrigeration. The fundamental design differences between Plant 1 and Plant 2 result in the need to segregate the two plants in terms of operating conditions and plant control. Each plant achieves maximum efficiency at different pressures, temperatures, and operating conditions and to try and operate both plants at the same conditions would reduce efficiency. Because of the differing pressures between the two plants, the residue gas streams are segregated as well. Dropping the residue compressor suction pressure from one of the two plants to comingle the stream with that of the lower pressure plant would be inefficient because it would require more horsepower to recompress the residue stream back up to sales pipeline pressure. Therefore, WESTOK designed the residue system to keep the streams segregated. One of the residue compressors (C-143) will have the capability to serve either Plant 1 or Plant 2. The compressor will be configured with on/off valves between each of the plants such that it will be able to serve only one of the plants at a time. When the valves to Plant 1 are open, the valves to Plant 2 will be closed. When the valves to Plant 2 are open, the

valves to Plant 1 will be closed. By never serving both of the plants at the same time, the gas will never be comingled.

Emission units (EU) are arranged into Emission Unit Groups (EUG) in the “Equipment” section. Pipeline-grade natural gas is the primary fuel for all fuel burning equipment.

SECTION III. EQUIPMENT

EUG 1 Internal Combustion Engines

EU	Point	Make/Model	hp	Serial #	Const. Date
2	C-2	Caterpillar G3516LE w/oc	1,340	4EK03858	2004
3	C-3	Waukesha L7042GSI w/cc	1,232	369743	2005
4	C-4	Caterpillar 3516LE w/oc	1,340	4EK03949	2003
5	C-140	Caterpillar G3612TALE w/oc	3,335	1YG00133	2006
6	C-141	Caterpillar G3612TALE w/oc	3,335	1YG00136	2006
7	C-142	Caterpillar G3612TALE w/oc	3,335	1YG00134	2006
8	Refrig-1	Caterpillar G3512LE w/oc	860	7NJ01188	2006
9	Refrig-2	Caterpillar G3512LE w/oc	860	7NJ01184	2006
10	G-1	Caterpillar 3516LE w/oc	1,818	ZBC00152	2006
11	G-2	Caterpillar 3516LE w/oc	1,818	ZBC00151	2006
12	G-3	Caterpillar 3516LE w/oc	1,818	ZBC00156	2006
20	C-143	Caterpillar G3612TALE w/oc	3,550	BKE00536	2011
21	C-144	Caterpillar G3612BLE w/oc	3,550	TBD	TBD
22	C-145	Caterpillar G3612BLE w/oc	3,550	TBD	TBD
23	C-146	Caterpillar G3612BLE w/oc	3,550	TBD	TBD
26	EG-1	Detroit Diesel	635	06R0872277	2006
27	EG-2	TBD	635	TBD	TBD

w/cc - with catalytic converter; w/oc - with oxidation catalyst; TBD - To be determined.

EUG 2 Heaters/Reboilers

EU	Point	Make/Model	MMBTUH ¹	Const. Date
13	H-401	Glycol Dehydration Unit Reboiler	0.35	1996
14	H-1	Amine Reboiler	7.50	1981
15	H-501	Hot Oil Heater	9.00	2006
16	H-114	Mole Sieve Regeneration Heater	8.00	2006
24	H-741	Mole Sieve Regeneration Heater	7.50	TBD

¹ - Based on duty rating. Heat input determined using efficiency of heaters 0.8, 0.7, 0.88, 0.91, and 0.78, respectively. TBD - To be determined.

EUG 3 Plant Flares

EU	Point	Name	MMBTUH	Const. Date
17	F-1	Plant #1 Flare	2.0	2006
25	F-2	Plant #2 Flare	2.0	TBD

TBD - To be determined.

EUG 4 Still Vents

EU	Point	Name	Const. Date
18	H-401 Still Vent	Dehydration Unit Still Vent	01/1996
19	H-1 Still Vent	Amine Unit Still Vent	2006

EUG 5 Tanks

EU	Point	Contents	Barrels	Gallons	Const. Date
Tanks	VS-801	Condensate	210	8,820	1996
	VS-802	Condensate	210	8,820	1996
	VS-803	Condensate	210	8,820	1996
	VS-804	Condensate	210	8,820	1996
	TK-801	Slop Water	210	8,820	2006
	TK-802	Lube Oil	24	1,000	2006
	TK-803	Triethylene Glycol	36	1,500	2006
	TK-804	Methanol	36	1,500	2006
	TK-805	Lube Oil	24	1,000	2006
	TK-806	Lube Oil	24	1,000	2006
	TK-807	Antifreeze	12	500	2006
	TK-808	Antifreeze	12	500	2006
	TK-270A	Slop Water	400	16,800	2006
	TK-270B	Slop Water	400	16,800	2006
	TK-270C	Slop Water	400	16,800	2006
	V-270A	Antifreeze	24	1,000	2006
	V-270B	Methanol	119	5,000	2006
	V-270F	Lube Oil	119	5,000	2006

The facility will have other miscellaneous tanks including pressurized tanks that will qualify as insignificant/trivial activities.

EUG 6 Fugitives

EU	Number Items	Type of Equipment
Fugitives	1,580	Valves
	4,160	Connectors
	2,160	Flanges
	231	Open-ended Lines
	42	Pump Seals
	123	Other
Truck Loading	N/A	Tank Truck Loading

Engine Parameters

Point	Source (make/model)	Height (feet)	Diameter (inches)	Flow (ACFM)	Temp. (°F)	Fuel ¹ (SCFH)
C-2	Caterpillar G3516LE w/oc	26.0	14.0	7,685	855	10,112
C-3	Waukesha L7042GSI w/cc	19.1	12.0	5,377	1,055	9,340
C-4	Caterpillar 3516LE w/oc	26.0	14.0	7,685	855	10,112
C-140 ²	Caterpillar G3612TALE w/oc	38.0	18.0	22,125	846	25,261
C-141 ²	Caterpillar G3612TALE w/oc	38.0	18.0	22,125	846	25,261
C-142 ²	Caterpillar G3612TALE w/oc	38.0	18.0	22,125	846	25,261
Refrig-1	Caterpillar G3512LE w/oc	23.0	13.5	5,154	854	6,625
Refrig-2	Caterpillar G3512LE w/oc	23.0	13.5	5,154	854	6,625
G-1	Caterpillar 3516LE w/oc	24.0	13.5	11,469	986	12,844
G-2	Caterpillar 3516LE w/oc	24.0	13.5	11,469	986	12,844
G-3	Caterpillar 3516LE w/oc	24.0	13.5	11,469	986	12,844
C-143 ²	Caterpillar G3612TALE w/oc	60.0	18.0	23,797	858	26,889
C-144 ²	Caterpillar G3612BLE w/oc	60.0	18.0	24,080	838	25,261
C-145 ²	Caterpillar G3612BLE w/oc	60.0	18.0	24,080	838	25,261
C-146 ²	Caterpillar G3612BLE w/oc	60.0	18.0	24,080	838	25,261
EG-1	Detroit Diesel	10.0	6.0	3,490	975	30.3 ³
EG-2	TBD	10.0	6.0	3,490	975	30.3 ³

¹ - based on a fuel heat content of 1,000 BTU/SCF; w/cc - with catalytic converter; w/oc - with oxidation catalyst.

² - This engine has two identical exhaust stacks; the total flow is split between the two stacks.

³ - The fuel rate is gallons per hour.

SECTION IV. PSD REVIEW

A. Project Emission Increases

A project is not a major modification if it does not cause a significant emissions increase or a significant net emission increase. A significant emissions increase of a regulated NSR pollutant will occur if the sum of emissions increases for each EU equals or exceeds the amount that is significant for that pollutant. For each EU, the emission increases are based on the difference between the “potential emissions” (PTE) and the “baseline actual emissions” (BAE). Facilities that use the PTE for existing units are not subject to the recordkeeping requirements in OAC 252:100-8-36.2(c). New emissions units must use their PTE and BAE are equal to zero.

Baseline Actual Emissions (BAE) are the 2007 to 2008 average emissions. Project emission increases include emissions from newly constructed emission units, existing emission units proposed for modification, existing emission units that are debottlenecked, and other associated emission increases. Fugitive emissions are included because the plant is subject to a New Source Performance Standard (NSPS) promulgated after August 7, 1980 (NSPS, Subparts KKK and OOOO).

If the project results in a significant emission increase, the project has to be reviewed for a significant net emission increase. Net emissions increases include the increase in emissions from a particular change and any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs within 3 years prior to the date that the increase from a particular change occurs. An increase or decrease in actual emissions is creditable only if the AQD has not relied on it in issuing a PSD permit for the source which is in effect when the increase in actual emissions from the particular change occurs.

Baseline Actual Emissions¹

	NO_x	CO	VOC	SO₂	PM₁₀/PM_{2.5}	CO_{2e}²
Source	TPY	TPY	TPY	TPY	TPY	TPY
C-2	25.47	4.20	3.82	0.03	0.44	6,048
C-3	23.11	23.11	5.78	0.03	0.79	4,684
C-4	25.33	4.18	3.80	0.03	0.44	6,015
C-143	0.00	0.00	0.00	0.00	0.00	0
C-144	0.00	0.00	0.00	0.00	0.00	0
C-145	0.00	0.00	0.00	0.00	0.00	0
C-146	0.00	0.00	0.00	0.00	0.00	0
G-1	15.03	2.51	4.51	0.02	0.13	4,492
G-2	18.21	3.04	5.46	0.03	0.13	5,441
G-3	20.42	3.40	6.13	0.03	0.13	6,103
EG-2	0.00	0.00	0.00	0.00	0.00	0
H-401	0.17	0.14	0.01	0.00	0.01	207
H-401 Incinerator	0.01	0.06	0.54	0.00	0.00	21
H-1	4.11	3.45	0.23	0.02	0.31	4,959
H-1 Still Vent/TO	0.00	0.00	7.24	0.00	0.00	7,811
H-501	3.92	3.29	0.22	0.02	0.30	4,734
H-741	0.00	0.00	0.00	0.00	0.00	0
F-1	0.90	4.35	1.50	0.00	0.09	1,482
F-2	0.00	0.00	0.00	0.00	0.00	0
Condensate Tanks	---	---	28.84	---	---	123
Truck Loading	---	---	22.14	---	---	---
Fugitives	---	---	12.35	---	---	834
Totals	136.68	51.73	102.57	0.21	2.77	52,954

¹ - Based on 2007 and 2008 average emissions.

² - Mainly CO₂ except for fugitives which are mostly CH₄.

Potential to Emit

	NO_x	CO	VOC	SO₂	PM₁₀/PM_{2.5}	CO_{2e}²
Sources	TPY	TPY	TPY	TPY	TPY	TPY
C-2	22.65	4.27	3.88	0.03	0.45	6,147
C-3	16.66	23.80	5.95	0.03	0.82	4,824
C-4	22.65	4.27	3.88	0.03	0.45	6,147
C-143	29.48	8.57	9.20	0.09	1.13	16,476
C-144	18.43	9.43	9.65	0.09	1.13	14,394
C-145	18.43	9.43	9.65	0.09	1.13	14,394
C-146	18.43	9.43	9.65	0.09	1.13	14,394
G-1, G-2, G-3 ¹	65.85	10.98	19.74	0.08	1.44	19,674
EG-2	1.04	0.91	0.10	0.00	0.05	184
H-401	0.19	0.16	0.01	0.00	0.01	227
H-401 Incinerator	0.02	0.11	0.25	0.00	0.00	36
H-1	4.60	3.86	0.25	0.03	0.32	5,555
H-1 TO	2.45	3.14	0.23	14.70	1.40	15,621
H-501	4.39	3.69	0.24	0.03	0.33	5,302
H-741	4.13	3.47	0.23	0.03	0.31	4,985
F-1	0.99	4.87	1.68	0.01	0.10	1,643
F-2	0.99	4.87	1.68	0.01	0.10	1,643
Condensate Tanks	---	---	34.98	---	---	153
Truck Loading	---	---	8.62	---	---	---
Fugitives	---	---	22.40	---	---	1,417
Totals	231.38	105.26	142.27	15.34	10.30	133,216

¹ - The annual emissions based on all three engines operating a total of 21,900 hours per year.

² - Mainly CO₂ except for fugitives which are mostly CH₄.

Project Emission Increases

	NO_x	CO	VOC	SO₂	PM₁₀/PM_{2.5}	CO_{2e}
Sources	TPY	TPY	TPY	TPY	TPY	TPY
BAE	136.68	51.73	102.57	0.21	2.77	52,954
PTE	231.38	105.26	142.27	15.34	10.30	133,216
Increases	94.7	53.5	39.7	15.1	7.5	80,262
SER	40.0	100.0	40.0	40.0	15/10	75,000
< SER	No	Yes	Yes	Yes	Yes	No

Since the project results in a significant emission increase for NO_x and CO_{2e} a review of the net emission increases is required for those pollutants. All emission units at the facility have been included in the review for determination of whether or not a significant net emission increase has occurred for each affected pollutant.

B. Project Net Emission Increases

Baseline Actual Emissions¹

	NO_x	CO_{2e}²
Source	TPY	TPY
C-1	21.90	4,179
C-2	25.47	6,048
C-3	23.11	4,684
C-4	25.33	6,015
C-140	47.75	15,296
C-141	47.50	15,216
C-142	47.64	15,263
C-143	0.00	0
C-144	0.00	0
C-145	0.00	0
C-146	0.00	0
Refrig-1	0.59	182
Refrig-2	0.77	238
G-1	15.03	4,492
G-2	18.21	5,441
G-3	20.42	6,103
EG-1	0.20	37
EG-2	0.00	0
H-401	0.17	207
H-401 Incinerator	0.01	21
H-1	4.11	4,959
H-1 Still Vent/TO	0.00	7,811
H-501	3.92	4,734
H-114	2.20	2,659
H-741	0.00	0
F-1	0.90	1,482
F-2	0.00	0
Condensate Tanks	---	123
Truck Loading	---	---
Fugitives	---	834
Totals	305.23	106,024

¹ - Based on 2007 and 2008 average emissions.

² - Mainly CO₂ except for fugitives which are mostly CH₄.

Potential to Emit

	NO _x	CO _{2e} ⁵
Sources	TPY	TPY
C-1 ^{1,4}	0.00	0
C-2	22.65	6,147
C-3	16.66	4,824
C-4	22.65	6,147
C-140 ^{3,4}	27.70	15,478
C-141 ^{3,4}	27.70	15,478
C-142 ^{3,4}	27.70	15,478
C-143 ³	29.48	16,476
C-144 ³	18.43	11,995
C-145 ³	18.43	11,995
C-146 ³	18.43	11,995
Refrig-1 ⁴	12.46	3,857
Refrig-2 ⁴	12.46	3,857
G-1, G-2, G-3 ²	65.85	19,674
EG-1	1.68	184
EG-2	1.04	184
H-401	0.19	227
H-401 Incinerator	0.02	36
H-1	4.60	5,555
H-1 TO	2.45	15,621
H-501	4.39	5,302
H-114 ⁴	3.78	4,558
H-741	4.13	4,985
F-1	0.99	1,643
F-2	0.99	1,643
Condensate Tanks	---	153
Truck Loading	---	---
Fugitives	---	1,417
Totals	344.86	184,909

¹ - This engine was removed in 2010.

² - The annual emissions based on all three engines operating a total of 21,900 hours per year.

³ - The annual emissions based on all seven engines operating a total of 56,940 hours per year with emissions maximized for each pollutant by utilizing continuous operation for the largest emitting sources.

⁴ - Contemporaneous

⁵ - Mainly CO₂ except for fugitives which are mostly CH₄.

Project Net Emission Increases

	NO_x	CO_{2e}
Sources	TPY	TPY
BAE	305.23	106,024
PTE	344.86	184,909
Increases	39.6	78,885
SER	40.0	75,000
< SER	Yes	No

C. BACT

Since the project results in a significant net emission increase for CO_{2e} the project is subject to PSD for CO_{2e} which includes BACT, modeling, and monitoring, if applicable. There are currently no applicable modeling or monitoring requirements for CO_{2e}. A source shall apply BACT for each regulated NSR pollutant for which a significant net emissions increase occurs. BACT shall apply to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit. The affected EU subject to BACT are listed below.

Modified EU Subject to BACT

		CO_{2e}
Source	Description	TPY
C-144	3,550-hp Caterpillar G3612BLE W/OC	11,995
C-145	3,550-hp Caterpillar G3612BLE W/OC	11,995
C-146	3,550-hp Caterpillar G3612BLE W/OC	11,995
EG-2	635-hp Emergency Generator	184
H-741	Mole Sieve Regeneration Heater	4,985
H-1 TO	Amine Unit Flare	15,621
F-2	Plant #2 Flare	1,643
Fugitives	Fugitive Equipment Leaks	1,417

For the purpose of this analysis, GHG is assumed to be composed primarily of CO₂, with much smaller quantities of CH₄ and N₂O. Under EPA’s new guidelines for GHG BACT, the typical top-down analysis approach is to be followed. Since CO₂ is not typically feasible to control, the available control options focus on potential improved process efficiency, leading to improved fuel efficiency, rather than end-of-stack types of control systems.

One end-of-stack control option to be considered is geologic sequestration of GHG. However, sequestration is not yet commercially available and appropriate geologic formations have not been proven for long-term underground storage in the vicinity of Waynoka, OK. In addition, collateral environmental impacts that could result from sequestration have not been evaluated and require further study. Therefore, geologic sequestration is not considered to be a technically feasible control option at this time and is therefore eliminated from further consideration in this analysis. In addition, since sequestration is not yet commercially available, it is not possible to accurately estimate control costs. Use of alternative fuels, or fuel switching, is a control option

that would typically be considered in the top-down BACT approach. Combustion of natural gas produces less GHG emissions per unit of energy produced than other fossil fuels. The combustion emission units at the Waynoka Plant already burn natural gas, and therefore produce relatively less GHG emissions already. Thus, fuel switching is not further considered in this analysis.

Internal Combustion Engines (C-144, C-145, & C-146)

Because geologic sequestration has been eliminated as a control option due to technical infeasibility and because these emission units already burn natural gas the only remaining control option to consider is efficiency. The internal combustion engines proposed for this project are newest Caterpillar engines, incorporating the most up-to-date engine control logic available, in order to achieve efficiency improvements necessary to meet the emission standards under 40 CFR Part 60, Subpart JJJJ. These engines are believed to be the most efficient units offered by Caterpillar in this horsepower range and service class. Accordingly, proper operation of these natural gas-fired engines, compliant with Subpart JJJJ emissions standards, is proposed as BACT.

Emergency Internal Combustion Engine (EG-2)

Because geologic sequestration has been eliminated as a control option due to technical infeasibility and natural gas fuel may not be available during an emergency, the emergency diesel-fired emergency generator engine is proposed as BACT. The internal combustion engine proposed for this project is the newest diesel generator engine, incorporating the most up-to-date engine control logic available, in order to achieve efficiency improvements necessary to meet the emission standards under 40 CFR Part 60, Subpart IIII and Tier III limits. The engine is believed to be the most efficient unit offered by in this horsepower range and service class. Accordingly, proper operation of this diesel-fired engine, compliant with Subpart IIII, Tier III emissions standards, is proposed as BACT.

Heater (H-741)

Because geologic sequestration has been eliminated as a control option due to technical infeasibility, and because this emission unit already burns natural gas, the only remaining control option to consider is efficiency. The mole sieve regeneration heater proposed for this project is designed for 78% efficiency. EPA's GHG Control Measure White Paper for Large Industrial/Commercial/Institutional Boilers discusses various options for improving efficiency. Some of the options are only applicable for a steam boiler or are not economical for smaller units but the options identified below are potentially applicable for the regeneration gas heater. The options are ranked in descending order of efficiency.

- 1) Increased heat recovery (economizer) to preheat combustion air or to lower the temperature differential between the exhaust temperature and the operating temperature is estimated to improve efficiency by 3%.
- 2) Oxygen trim may be used to provide better control of air/fuel ratio, thus reducing wasteful excess air by burning closer to stoichiometric, and compensating for changes in air temperature, humidity, atmospheric pressure, and fuel characteristics. EPA's GHG Control Measure White Paper for Large Industrial/Commercial/Institutional Boilers indicates a 1% improvement in thermal efficiency.

- 3) Increased insulation to reduce heat loss is estimated to improve efficiency by 0.5%.

Under the top-down approach, the highest ranking option (economizer) is considered first and is evaluated on the basis of cost and collateral environmental impact. Capital cost to purchase equipment for increased heat recovery is estimated at \$100,000. The annualized cost is estimated from standard EPA Control Cost Manual factors. The cost effectiveness is estimated at \$209,000 per thousand tons of CO_{2e} removed. This control option is not cost effective and it is therefore removed from consideration. The second highest ranking option is oxygen trim. Capital cost to purchase equipment for oxygen trim is estimated at \$12,000. The annualized cost to operate and maintain oxygen trim is estimated from standard EPA Control Cost Manual factors. The cost effectiveness is estimated at \$21,490 per thousand tons of CO_{2e} removed. This control option is not cost effective and it is therefore removed from consideration. The third highest ranking option is adding insulation to the exterior of the heater. Capital cost to purchase additional insulation is estimated at \$10,000. The cost effectiveness is estimated at \$52,000 per thousand tons of CO_{2e} removed. This control option is not cost effective and it is therefore removed from consideration. Thus, the natural gas-fired heater, with implementation of good combustion practices as indicated by manufacturer operating and maintenance procedures, is proposed as BACT.

Amine Vent (H1-TO)

As background information, the amine vent is the emission point to the atmosphere for the amine treating process. The primary purpose of the amine treating process is to remove CO₂ and H₂S from the natural gas liquids produced at the plant. As such, emissions of CO₂ from this vent are unavoidable. A thermal oxidizer is included as an end-of-stack control to destroy H₂S, which is acutely toxic, and which is necessary to meet Oklahoma DEQ H₂S emission requirements, but does nothing to reduce CO₂ emissions because it is non-combustible. The thermal oxidizer burns natural gas in order to destroy the H₂S, which produces a relatively small amount of CO₂ compared to the quantity necessarily emitted from the vent due to the treating process. Because geologic sequestration has been eliminated as a control option due to technical infeasibility, and because this emission unit already burns natural gas (in the thermal oxidizer), the only remaining control option to consider is efficiency.

The vast majority of the CO₂ that is emitted from the vent is necessary due to the fundamental purpose of the treater, a reduction in natural gas combustion will have a small impact on GHG emissions. Accordingly, no further emission reductions are considered feasible. Features will be installed on the thermal oxidizer to make it energy efficient. It includes a “cold-wall” design to mitigate thermal radiation from the sidewalls and stack and a precipitation shield to maintain temperature during rain storms. Accordingly, combustion of natural gas in the thermal oxidizer, and following manufacturer operating and maintenance procedures, is proposed as BACT.

Plant Flare (F-2)

This emission unit is used to control releases of CH₄ which is 21 times the CO₂ equivalent (CO_{2e}) greenhouse gas emissions of CO₂. Operation of the flare will actually reduce the CO_{2e} emissions from venting of CH₄ from the facility by almost 20 times. Also, the same controls apply to the Plant Flare as the Amine Vent Flare. Accordingly, following manufacturer operating and maintenance procedures, is proposed as BACT.

Fugitives

Fugitive emissions contribute a relatively small portion of the facility's GHG emissions. The CO₂ fraction of fugitives is trivial, so emissions are based on the CO_{2e} potential of fugitive CH₄. EPA's GHG Control Measure White Paper for Refineries briefly discusses control options for fugitives. The white paper dismisses fugitive emissions as a minimal contributor to overall GHG emissions that cannot be easily controlled. Accordingly, compliance with leak detection and repair regulations, as specified in 40 CFR Part 60, Subpart KKK, for VOC control, is proposed as BACT.

SECTION V. EMISSIONS

Emissions estimates for the engines are based on manufacturer's emission data, AP-42 (8/2000), Section 3.2, and continuous operation, except for the generator engines (G-1, G-2, & G-3) and the residue gas compressor engines (C-140, C-141, C-142, C-143, C-144, C-145, & C-146) which will be limited to a total of 21,900 and 56,940 hours per year, based on a 12-month rolling total, respectively. Emission estimates for the existing emergency generator are based on manufacture's data, AP-42 (10/1996), Section 3.4, a fuel sulfur content of 500 ppmw, and 500 hours of operation per year. Emission estimates for the new emergency generator are based on the NSPS, Subpart JJJJ emission limits and 500 hours of operation per year. Emission estimates from the reboilers and heaters are based on continuous operation, the heat input of the reboilers and heaters, and AP-42 (7/1998), Section 1.4. Emission estimates from the glycol dehydration unit's still vent are based on GRI-GLYCalc Version 4.0, an inlet gas analysis, a glycol recirculation rate of 3.5 gallons per minute (gpm), a throughput of 15 MMSCFD, recycle/recompression of the flash tank off-gases, condensation of the still vent off-gases, and combustion of the condenser off-gases. Emissions from the amine unit's thermal oxidizer were estimated using ProMax Version 3.2.10286.0 (a process simulation program) a natural gas liquids flow rate of 820 gpm, a diethanolamine (DEA) solution (30%) flow rate of 120 gpm, and AP-42 (1/95), Section 13.5. Emissions from the flare are based on an annual throughput of waste gas of 25 MMSCF/year with a heat rating of 1,043 BTU/SCF and a throughput of flare pilot gas of 2.224 MMSCF/year with a heat rating of 894 BTU/SCF and AP-42 (1/95), Section 13.5. No flashing emissions were estimated from the gas plant pressurized tanks or from the condensate tanks since the condensate is processed by a stabilizer prior to storage and all gases from the stabilization unit are vented through a closed system to the gas plant or compressor station inlet. Flashing emissions from the existing compressor station are based on the Vasquez-Beggs equation and a throughput of 12,780 barrels per year. Emissions from the other tanks are based on TANKS4.0. Emissions from loading of condensate into tank trucks at the compressor station portion of the facility were estimated using a throughput of 12,780 barrels per year and a factor of 5.85 lb/1,000 gallons. Emissions from loading of slop oil into tank trucks were based on a throughput of 26,500 barrels per year and a factor of 3.44 lb/1,000 gallons. Emissions from loading of stabilized condensate into tank trucks at the gas plant portion of the facility using vapor balancing were estimated using a throughput of 365,357 barrels per year, an uncontrolled emission factor of 4.70 lb/1,000 gallons, a collection efficiency of 95% and a control efficiency of 95%. Fugitive VOC emissions are based on estimated equipment counts, specific C₃₊ gas analyses, and emission screening values from EPA's *1995 Protocol for Equipment Leak Emission Estimates* (EPA-453/R-95-017).

Engine Emission Factors

EU	Name/Model	NO _x (g/hp-hr)	CO (g/hp-hr)	VOC (g/hp-hr)
2 & 4	1,340-hp Caterpillar G3516LE w/oc	1.750	0.330	0.300
3	1,232-hp Waukesha L7042GSI w/cc	1.400	2.000	0.500
5, 6, & 7	3,335-hp Caterpillar G3612TALE w/oc	0.860	0.250	0.500
8 & 9	860-hp Caterpillar G3512LE w/oc	1.500	0.250	0.450
10, 11, & 12	1,818-hp Caterpillar G3516LE w/oc	1.500	0.250	0.450
20	3,550-hp Caterpillar G3612TALE w/oc	0.860	0.250	0.268
21, 22, & 23	3,550-hp Caterpillar G3612BLE w/oc	0.645	0.275	0.282

w/cc – with catalytic converter; w/oc – with oxidation catalyst

Facility-Wide Criteria Pollutant Emissions

Sources	NO _x		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-2	5.17	22.65	0.98	4.27	0.89	3.88
C-3	3.80	16.66	5.43	23.80	1.36	5.95
C-4	5.17	22.65	0.98	4.27	0.89	3.88
C-140 ¹	6.32	167.84	1.84	56.98	3.68	81.71
C-141 ¹	6.32		1.84		3.68	
C-142 ¹	6.32		1.84		3.68	
C-143 ¹	6.73		1.96		2.10	
C-144 ¹	5.24		2.15		2.20	
C-145 ¹	5.24		2.15		2.20	
C-146 ¹	5.24		2.15		2.20	
Refrig-1	2.84	12.46	0.47	2.08	0.85	3.74
Refrig-2	2.84	12.46	0.47	2.08	0.85	3.74
G-1 ²	6.01	65.85	1.00	10.98	1.80	19.74
G-2 ²	6.01		1.00		1.80	
G-3 ²	6.01		1.00		1.80	
EG-1	6.72	1.68	3.49	0.87	0.41	0.10
EG-2	4.18	1.04	3.65	0.91	0.20	0.05
H-401	0.04	0.19	0.04	0.16	<0.01	0.01
H-401 Incinerator	0.01	0.02	0.03	0.11	0.06	0.25
H-1	1.05	4.60	0.88	3.86	0.06	0.25
H-1 TO	0.56	2.45	0.72	3.14	0.05	0.23
H-501	1.00	4.39	0.84	3.69	0.06	0.24
H-114	0.86	3.78	0.72	3.17	0.05	0.21
H-741	0.94	4.13	0.79	3.47	0.05	0.23
F-1	---	0.99	---	4.87	---	1.68
F-2	---	0.99	---	4.87	---	1.68
Tanks ³	---	---	---	---	---	34.98
Tank Truck Loading	---	---	---	---	---	8.62
Fugitives	---	---	---	---	---	22.40
Total Emissions	94.62	344.83	36.42	133.58	30.93	193.57

¹ - The annual emissions based on all seven engines operating a total of 56,940 hours per year.

² - The annual emissions based on all three engines operating a total of 21,900 hours per year.

³ - Includes working, breathing, and flashing emissions.

Facility-Wide Criteria Pollutant Emissions

Sources	SO ₂		PM ₁₀ /PM _{2.5}		CO _{2e} ⁴	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
C-2	0.007	0.03	0.10	0.45	1,403	6,147
C-3	0.007	0.03	0.19	0.82	1,101	4,824
C-4	0.007	0.03	0.10	0.45	1,403	6,147
C-140 ¹	0.018	0.49	0.26	7.25	3,534	98,895
C-141 ¹	0.018		0.26		3,534	
C-142 ¹	0.018		0.26		3,534	
C-143 ¹	0.019		0.28		3,762	
C-144 ¹	0.016		0.24		3,286	
C-145 ¹	0.016		0.24		3,286	
C-146 ¹	0.016		0.24		3,286	
EG-1	0.257	0.06	0.44	0.11	1,473	184
EG-2	0.008	0.01	0.21	0.05	1,473	184
Refrig-1	0.000	0.02	0.06	0.28	881	3,857
Refrig-2	0.004	0.02	0.06	0.28	881	3,857
G-1 ²	0.004	0.10	0.13	1.44	1,797	19,674
G-2 ²	0.009		0.13		1,797	
G-3 ²	0.009		0.13		1,797	
H-401	0.001	0.01	0.01	0.01	52	227
H-401 Incinerator	---	---	---	---	8	36
H-1	0.007	0.03	0.08	0.35	1,268	5,555
H-1 TO	3.360	14.70	0.32	1.40	3,566	15,621
H-501	0.007	0.03	0.08	0.33	1,211	5,302
H-114	0.006	0.03	0.07	0.29	1,041	4,558
H-741	0.007	0.03	0.07	0.31	1,138	4,985
F-1	---	0.01	---	0.10	---	1,643
F-2	---	0.01	---	0.10	---	1,643
Tanks ³	---	---	---	---	---	153
Tank Truck Loading	---	---	---	---	---	---
Fugitives	---	---	---	---	---	1,417
Total Emissions	3.821	15.64	3.96	14.02	46,512	183,492

¹ - The annual emissions based on all seven engines operating a total of 56,940 hours per year.

² - The annual emissions based on all three engines operating a total of 21,900 hours per year.

³ - Includes working, breathing, and flashing emissions.

⁴ - Mainly CO₂ except for fugitives which are mostly CH₄.

The internal combustion engines have emissions of HAP, the most significant being formaldehyde. Formaldehyde emission estimates are based on continuous operation and the emission factors below. The factors for the rich-burn engines with catalytic converters are based on manufacturer's data. The factors for the lean-burn engines were reduced by 88% to estimate reductions due to the use of oxidation catalyst.

Formaldehyde Emissions from the Engines

EU	Source	Hp	Factor	%	Est. Emissions	
			g/hp-hr	Reduction	lb/hr	TPY
2	Caterpillar G3516LE w/oc	1,340	0.28	88.0	0.099	0.434
3	Waukesha L7042GSI w/cc	1,232	0.05	50.0	0.068	0.298
4	Caterpillar 3516LE w/oc	1,340	0.28	88.0	0.099	0.434
5	Caterpillar G3612TALE w/oc ¹	3,335	0.26	88.0	0.229	6.604
6	Caterpillar G3612TALE w/oc ¹	3,335	0.26	88.0	0.229	
7	Caterpillar G3612TALE w/oc ¹	3,335	0.26	88.0	0.229	
20	Caterpillar G3612TALE w/oc ¹	3,550	0.26	88.0	0.244	
21	Caterpillar G3612TALE w/oc ¹	3,550	0.26	88.0	0.244	
22	Caterpillar G3612TALE w/oc ¹	3,550	0.26	88.0	0.244	
23	Caterpillar G3612TALE w/oc ¹	3,550	0.26	88.0	0.244	
8	Caterpillar G3512LE w/oc	860	0.29	88.0	0.066	0.289
9	Caterpillar G3512LE w/oc	860	0.29	88.0	0.066	0.289
10	Caterpillar 3516LE w/oc ²	1,818	0.26	88.0	0.125	1.369
11	Caterpillar 3516LE w/oc ²	1,818	0.26	88.0	0.125	
12	Caterpillar 3516LE w/oc ²	1,818	0.26	88.0	0.125	
Totals					2.436	9.717

¹ - The annual emissions based on all seven engines operating a total of 56,940 hours per year.

² - The annual emissions based on all three engines operating a total of 21,900 hours per year.
w/cc - with catalytic converter; w/oc - with oxidation catalyst

The dehydration unit using a glycol desiccant will emit benzene, toluene, ethyl benzene, xylene, (BTEX) and n-hexane from the still vent stack. These compounds are regulated as HAP. The applicant has analyzed the inlet gas for concentrations of BTEX and n-hexane and estimated the emissions using GRI-GLYCalc™ version 4.0 software model.

HAP Emissions from the Glycol Dehydration Unit

Pollutant	CAS #	Uncontrolled		Controlled	
		lb/hr	TPY	lb/hr	TPY
Benzene	71432	1.567	6.863	0.007	0.032
Toluene	108883	1.909	8.363	0.003	0.015
Ethyl benzene	100414	0.218	0.953	<0.001	0.001
Xylene	1330207	0.296	1.296	<0.001	<0.001
n-Hexane	110543	0.237	1.350	0.001	0.006
Totals		4.227	18.825	0.013	0.055

SECTION VI. 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 diesel fuel which are either used exclusively for emergency power generation or for peaking power service not exceeding 500 hours per year. This facility has a 635-hp Detroit Diesel 400DSE engine for emergency power generation at Plant 1. A similar engine will provide emergency power for Plant 2 but since it is subject to NSPS, Subpart IIII it is not considered an insignificant activity.
2. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). The glycol dehydration unit's reboiler is rated less than 5 MMBTUH. Other space heaters, boilers, process heaters, and emergency flares may be used in the future.
3. Emissions from stationary internal combustion engines rated less than 50-hp output. None identified but may be used in the future.
4. * Emissions from crude oil and condensate storage tanks with a capacity of less than or equal to 420,000 gallons that store crude oil and condensate prior to custody transfer as defined by Subpart Kb. The condensate tanks store condensate prior to custody transfer and have capacities less than 420,000 gallons.
5. * 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. The amine, glycol, lube oil, antifreeze, and waste water tanks have capacities less than 39,894 gallons and store products having a vapor pressure less than 1.5 psia.
6. Cold degreasing operations utilizing solvents that are denser than air. A parts washer is located onsite and it uses solvents that are denser than air and others may be used in the future.
7. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. No activities were identified at this time but may be in the future.

SECTION VII. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions)

[Applicable]

Subchapter 1 includes definitions but there are no regulatory requirements.

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

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

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

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

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

Emission limits have been established based on information in the application and the current permit.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for 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]

This subchapter specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from fuel-burning equipment with a rated heat input of 10 MMBTUH or less. For external combustion units burning natural gas, AP-42, Table 1.4-2 (7/98), lists the total PM emissions for natural gas to be 7.6 lb/MMft³ or about 0.0076 lb/MMBTU. For 4-cycle rich-burn and lean-burn engines burning natural gas, AP-42 (7/00), lists the total PM emissions as 0.0194 and 0.01 lb/MMBTU, respectively. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

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

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

No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas there is little possibility of exceeding the opacity standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]

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

OAC 252:100-31 (Sulfur Compounds) [Applicable]

Part 2 limits the ambient air impact of sulfur dioxide (SO₂) emissions from any one existing source or any one new petroleum and natural gas process source subject to OAC 252:100-31-26(a)(1). This part also limits the impact of hydrogen sulfide (H₂S) emissions from any new or existing source. A typical engine burning field gas with a sulfur content of 343 ppmv will produce a maximum ambient air concentration of less than 22 µg/m³, which is in compliance. There are no detectable concentrations of H₂S in the gas processed by this facility.

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the use of gaseous fuel with sulfur content less than 343 ppmv to ensure compliance with Subchapter 31.

For liquid fuels, the emission limit is 0.8 lb/million BTU heat input. This is equivalent to approximately 0.8 weight percent sulfur in the liquid fuel. Thus, a limitation of 0.05 percent sulfur in the distillate fuel oil supply will be in compliance. The permit will require the use of

distillate fuel oil with a maximum sulfur content of 500 ppmw for the emergency engines to ensure compliance with Subchapter.

Part 5 requires removal or oxidation of hydrogen sulfide (H₂S) from the exhaust gas of any new petroleum or natural gas process equipment. This part allows direct oxidation of H₂S to sulfur dioxide (SO₂), without sulfur recovery, when the exhaust gas will contain no more than 100 lbs/hr SO₂ (2-hour average). Compliance with the 100 lb/hr can be demonstrated by establishing that the acid gas stream contains 0.54 long tons per day (LTD) of sulfur (S) or less. Oxidation of the H₂S must be conducted in a system that assures at least a 95% reduction of the H₂S in the exhaust gases and that is equipped with an alarm system to signal non-combustion of the exhaust gases. These requirements do not apply if H₂S emissions do not exceed 0.3 lb/hr. Emissions of H₂S from the amine unit are projected to exceed 0.3 lb/hr so the facility will be installing a thermal oxidizer to control emissions of H₂S with an efficiency of 98%. All applicable requirements will be incorporated into the permit.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]

This subchapter limits NO_x emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH. None of the engines exceed the 50 MMBTUH threshold.

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

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

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

Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The condensate tanks are subject to this requirement.

Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. The estimated throughput of the loading rack at the facility is less than 40,000 gallons per day and the gas plant is equipped with a system for submerged filling of tank trucks or trailers.

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

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

Part 7 requires all effluent water separators openings or floating roofs to be sealed or equipped with an organic vapor recovery system. There are no effluent water separators located at this facility.

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

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required

by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

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

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

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

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

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Applicable]

Total potential emissions of NO_x are greater than the major source threshold of 250 TPY. This modification resulted in a significant emission increase for NO₂ and CO_{2e} and a significant net emission increase for CO_{2e}. The PSD review is in Section IV. Any future increases of emissions must be evaluated for PSD if they exceed a significance level (40 TPY NO_x, 100 TPY CO, 40 TPY VOC, 40 TPY SO₂, 25 TPY PM₁₀, and 75K TPY CO_{2e}).

NSPS, 40 CFR Part 60 [Subparts Dc, KKK, and JJJ are Applicable]

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. The hot oil heater is rated greater than 10 MMBTUH and is subject to the recordkeeping

requirements of this subpart. The other heaters are considered process heaters and are not subject to this subpart.

Subpart K, Ka, Kb, VOL Storage Vessels. The four 8,820 gallon condensate tanks at the compressor station area are not subject because they are below the threshold level of Subpart Kb of 19,813-gallons and they store condensate prior to custody transfer as defined by Subpart Kb. The condensate is produced prior to custody transfer.

Subpart GG, Stationary Gas Turbines. There are none at this facility.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. The equipment is not in a SOCOMI plant but the facility is applicable to Subpart KKK which references some of the standards of Subpart VV.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. This subpart applies to natural gas processing plants that commence construction, reconstruction, or modification after January 20, 1984 and prior to August 23, 2011. The natural gas processing plant (including the compressor station area) is subject to this subpart. The permit will require all affected units to comply with all applicable requirements.

Subpart LLL, Onshore Natural Gas Processing: SO₂ Emissions. This subpart affects sweetening units and sweetening units followed by a sulfur recovery unit which commences construction or modification after January 20, 1984. This subpart requires facilities with a design capacity less than 2 LT/D of H₂S in the acid gas (expressed as sulfur) to keep, for the life of the facility, a record demonstrating that the facility's design capacity is less than 2 LT/D of H₂S. If the gas treated by the amine unit contains less than 0.25 grains H₂S per 100 SCF (4 ppmv H₂S) then the amine unit is not subject to this subpart since it does not treat sour natural gas. The amine unit treats sweet natural gas and is not subject to this subpart.

Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). This subpart affects CI ICE, that are not fire pump engines, which commenced construction after July 1, 2005, and were manufactured after April 1, 2006. The existing emergency diesel-fired engine was manufactured prior to April 1, 2006. The new emergency generator engine may be manufactured after April 2, 2006, and may be subject to this subpart. Per §§ 60.4205 and 4202, emergency generator engines are subject to the Tier II nonroad diesel engine standards of § 89.112 and the smoke standards of § 89.113. Owners/operators of stationary CI ICE must install and configure the engine according to the manufacturer's specifications and operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the owner/operator that are approved by the engine manufacturer, over the entire life of the engine. In addition, owners/operators may only change those settings that are permitted by the manufacturer and must meet the requirements of 40 CFR Part 89, as they apply. After October 1, 2010 owners/operators of stationary CI ICE subject to Subpart IIII must use diesel fuel that meets the requirements of 40 CFR § 80.510(a) (<15 ppmw S). Emergency engines must have a non-resettable hour meter prior to startup of the engine and engines equipped with a diesel particulate filter, which is used to comply with the emission standards, must also have a backpressure monitor that notifies the owner/operator when the high backpressure limit of the engine is approached.

Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit

on the use of emergency stationary ICE in emergency situations. For owners/operators of emergency engines meeting the emission standards under § 60.4205 but not § 60.4204, any operation other than emergency operation and maintenance and testing is prohibited. If the new emergency generator engine is subject, the permit will require compliance with all applicable requirements.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart was published in the Federal Register on January 18, 2008. It promulgates emission standards for all new SI engines ordered after June 12, 2006 and all SI engines modified or reconstructed after June 12, 2006, regardless of size. Manufacturer’s of SI-ICE, that participate in the voluntary manufacturer certification program, with a maximum engine power greater than or equal to 500-hp (except lean-burn engines with a maximum engine power greater than or equal to 500-hp and less than 1,350-hp) where the date of manufacture is on or after July 1, 2007, are subject to this subpart. Manufacturer’s may chose to certify their SI-ICE with a maximum engine power greater than or equal to 500-hp and manufactured prior to July 1, 2010, to the certification emission standards for new non-road SI engines in 40 CFR Part 1048, applicable to engines that are not severe duty engines. The standards of 40 CFR Part 1048 are listed below.

Emission Standards from § 1048.101(a)(2) g/KW-hr

Rated Power (kW)	Tier	Model Year	NMHC+NO _x	CO
kW>373	Tier 2	2007 & later	2.7	4.4

If the manufacturer does not elect to participate in the voluntary manufacturer certification program, the owners/operators of SI-ICE that commence construction after June 12, 2006, where the SI-ICE is manufactured on or after July 1, 2007, with a maximum engine power greater than or equal to 500-hp (except lean-burn engines with a maximum engine power greater than or equal to 500-hp and less than 1,350-hp) are subject to this subpart. The owner/operator of SI-ICE with a maximum engine power greater than or equal to 100-hp must comply with the emission standards in Table 1 of Subpart JJJJ.

Emission Standards from Table 1, Subpart JJJJ, g/hp-hr (ppmvd @ 15%O₂)

Engine Type & Fuel	Max Power (hp)	Mfg. Date	NO _x	CO	VOC
Non-Emergency SI Natural Gas ¹	hp ≥ 500	7/1/2007	2.0 (160)	4.0 (540)	1.0 (86)
		7/1/2010	1.0 (80)	2.0 (270)	0.7 (60)

¹ - except lean burn 500 ≤ HP < 1,350

Engine manufacturers are required to certify certain engines to meet the emission standards and may voluntarily certify other engines. An initial notification is required only for owners and operators of engines greater than 500 HP that are non-certified. If the engine is certified, the owner/operator may meet the CO certification (not field testing) standard for which the engine was certified. The new 3,550-hp Caterpillar G3612BLE engines were constructed after June 12, 2006, and are subject to this subpart. All applicable requirements have been incorporated into the permit.

Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution. This subpart was proposed on August 23, 2011, and will affect the following sources that commence construction, reconstruction, or modification after August 23, 2011:

1. Gas Wellhead;
2. Centrifugal compressors located between the wellhead and the city gate;
3. Reciprocating compressors located between the wellhead and the city gate;
4. Pneumatic controllers;
5. Storage vessels;
6. Compressors and equipment located at onshore natural gas processing plants; and
7. Sweetening units located onshore that process natural gas produced from either onshore or offshore wells.

Since it is undetermined what the final standard will look like, the permit will require the facility to comply with all applicable requirements as stated in the final regulation.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene only affects process streams that contain more than 10% benzene by weight. All process streams at this facility are below this threshold.

NESHAP, 40 CFR Part 63

[Subparts HH and ZZZZ are Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities that are major and area sources of HAP, and either process, upgrade, or store hydrocarbon liquids prior to custody transfer or that process, upgrade, or store natural gas prior to entering the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, if present.

Based on the emission calculations, this facility is considered a minor source of HAP. Since the TEG was constructed/reconstructed before July 8, 2005, and is **not** located within an Urban-1 County or in an Urban Area plus offset or Urban Cluster, it is considered an existing source. Even though the existing TEG dehydration unit at this facility is considered an affected area source it is exempt from the requirements of § 63.764(d)(2) since the actual average emissions of benzene from the glycol dehydration unit process vents to the atmosphere are less than 1 TPY, as determined by the procedures specified in § 63.772(b)(2). However, the facility must maintain records of the de minimis determination as required in § 63.774(d)(1). All applicable requirements have been incorporated into the permit.

On August 23, 2011, changes were proposed for this subpart that will affect all glycol dehydration units by establishing standards for closed vent systems and control devices. The proposal also establishes requirements for storage vessels and related covers, closed vent systems, and control devices. The proposal also establishes a new leak standard of 500 ppmv for gas plants subject to fugitive equipment leak monitoring.

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. The new engines are subject to this subpart and will comply with this subpart by complying with NSPS, Subpart JJJJ. If the new emergency generator engine is subject to NSPS, Subpart IIII, it will comply by complying with NSPS. Based on emission calculations, this facility is a minor source of HAP. A stationary RICE located at an area source of HAP emissions is new if construction commenced on or after June 12, 2006. The existing engines at this facility constructed prior to June 12, 2006, have not been reconstructed and are still considered existing engines. A summary of the emission limits for the existing non-emergency SI RICE located at this facility are shown below.

Engine Category	Normal Operation ¹ @ 15% O ₂
Existing Non-Emergency, Non-Black Start, 4SRB HP > 500-hp	2.7 ppmvd H ₂ CO or 76% H ₂ CO reduction.
Existing Non-Emergency, Non-Black Start, 4SLB HP > 500-hp	47 ppmvd CO or 93% CO reduction.

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

The existing 4SRB engine and the existing 4SLB engines are equipped with catalytic converters or oxidation catalyst and are expected to comply with the H₂CO and CO emission limits by the initial compliance date of October 19, 2013. All applicable requirements have been incorporated into the permit.

Existing emergency stationary CI RICE at area sources must comply with the following management practices no later than May 3, 2013:

- Change oil and filter every 500 hours of operation or annually, whichever comes first;
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and
- Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement. Additionally, there are limitations on the hours that an emergency engine may operate. Total operating hours are limited to 100 hours/year for maintenance and readiness checks unless Federal, State, or local standards require maintenance and testing beyond 100 hours per year. The 100 hours/year includes up to 50 hours of non-emergency operations. The 50 hours cannot include peak shaving or other income generating power production. The 50 hours includes up to 15 hours of power generation as part of a demand response program in the event of a potential electrical blackout situation. All applicable requirements have been incorporated into the permit.

Compliance Assurance Monitoring, 40 CFR Part 64 [Applicable]
Compliance Assurance Monitoring, as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, that is required to obtain a Title V permit, if it meets all of the following criteria:

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

All of the compressor engines will be equipped with either a catalytic converter or an oxidation catalyst but only EU 3 and 17 use a control device to meet their applicable NO_x and CO emissions limits. However, only EU 3 has potential pre-control device emissions greater than major source levels. Therefore, EU 3 will be required to comply with the requirements of the CAM upon renewal of the facility's Part 70 permit. The dehydration unit (EU 18) also has potential pre-control device emissions greater than major source levels and will be required to comply with the requirements of the CAM upon renewal of the facility's Part 70 permit.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Applicable]
This facility handles naturally occurring hydrocarbon mixtures at a natural gas processing plant and the Accidental Release Prevention Provisions are applicable to this facility. The facility is required to submit the appropriate accidental release emergency response program plan prior to operation of the facility. This facility has submitted their plan to EPA. More information on this federal program is available on the web page: www.epa.gov/ceppo.

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.

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 IX. COMPLIANCE

Tier Classification

This application has been determined to be Tier II based on the request for a construction permit to make a physical change that will result in a significant modification of a Part 70 source operating permit. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land.

Public Review

The applicant published the “Notice of Filing a Tier II Application” in The Enid News and Eagle a daily newspaper with circulation in Woods County on December 4, 2011. The notice of filing stated that the application was available for public review at Alva Public Library for a period of thirty days and at the AQD main office. The applicant also published the “Notice of Draft Permit” in The Enid News and Eagle a daily newspaper with circulation in Woods County on December 4, 2011. The notice of draft permit stated that the draft permit was available for public review at Alva Public Library, the AQD main office, and on the Air Quality section of the DEQ web page at <http://www.deq.state.ok.us> for a period of thirty days. No comments were received from the public.

State Review

This facility is located within 50 miles of the Kansas-Oklahoma border. The state of Kansas has been notified of the construction permit. No comments were received from the state of Kansas.

EPA Review

This permit was approved for concurrent EPA and public review and 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. The EPA submitted comments requesting clarification concerning some issues. However, none of the comments required a modification of the permit, therefore they are not addressed here.

Fees Paid

Existing Part 70 source construction permit application fee, of \$1,500.

SECTION X. SUMMARY

This facility has demonstrated the ability to comply with all Air Quality rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the construction permit is recommended.

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

**Atlas Pipeline Mid-Continent WestOK, LLC Permit Number 2006-303-C (M-3) PSD
Waynoka Natural Gas Processing Plant (SIC 1321)**

The permittee is authorized to construct/modify the facility in conformity with the specifications submitted to Air Quality on August 1, 2011, and all supplemental materials. The Evaluation Memorandum dated January 9, 2012, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operation 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)(1)]

EUG 1 Internal Combustion Engines: Emission limitations for emission units (EU) 2 through 12 and EU 20 through 23:

EU	Point	Engine Make/Model	NO _x		CO		VOC	
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
2	C-2	1,340-hp Caterpillar G3516LE w/Oxidation Catalyst	5.17	22.64	0.98	4.27	0.89	3.88
3	C-3	1,232-hp Waukesha L7042 GSIU w/Catalytic Converter	3.80	16.66	5.43	23.80	1.36	5.95
4	C-4	1,340-hp Caterpillar G3516LE w/Oxidation Catalyst	5.17	22.64	0.98	4.27	0.89	3.88
8	Refrig-1	860-hp Caterpillar G3512LE w/Oxidation Catalyst	2.84	12.46	0.47	2.08	0.85	3.74
9	Refrig-2	860-hp Caterpillar G3512LE w/Oxidation Catalyst	2.84	12.46	0.47	2.08	0.85	3.74

EU	Point	Engine Make/Model	NO _x		CO		VOC	
			lb/hr	TPY ¹	lb/hr	TPY ¹	lb/hr	TPY ¹
10	G-1	1,818-hp Caterpillar G3516LE w/Oxidation Catalyst ³	6.01	65.83	1.00	10.97	1.80	19.75
11	G-2	1,818-hp Caterpillar G3516LE w/Oxidation Catalyst ³	6.01		1.00		1.80	
12	G-3	1,818-hp Caterpillar G3516LE w/Oxidation Catalyst ³	6.01		1.00		1.80	

¹ - The annual emissions based on all three engines operating a total of 21,900 hours per year.

EU	Point	Engine Make/Model	NO _x		CO		VOC	
			lb/hr	TPY ¹	lb/hr	TPY ¹	lb/hr	TPY ¹
5	C-140	3,335-hp Caterpillar G3612 TALE w/Oxidation Catalyst	6.32	169.98	1.84	56.98	3.68	81.71
6	C-141	3,335-hp Caterpillar G3612 TALE w/Oxidation Catalyst	6.32		1.84		3.68	
7	C-142	3,335-hp Caterpillar G3612 TALE w/Oxidation Catalyst	6.32		1.84		3.68	
20	C-143	3,550-hp Caterpillar G3612 TALE w/Oxidation Catalyst	6.73		1.96		2.10	
21	C-144	3,550-hp Caterpillar G3612 BLE w/Oxidation Catalyst	5.05		2.15		2.20	
22	C-145	3,550-hp Caterpillar G3612 BLE w/Oxidation Catalyst	5.05		2.15		2.20	
23	C-146	3,550-hp Caterpillar G3612 BLE w/Oxidation Catalyst	5.05		2.15		2.20	

¹ - The annual emissions based on all seven engines operating a total of 56,940 hours per year.

- a. Compliance with the TPY values for EU 10, 11, and 12 and EU 5, 6, 7, 20, 21, 22, and 23 shall be based on recordkeeping showing that the 12-month rolling total of the combined operating hours for all engines have not exceeded the established limit in any 12-month period.
- b. Each lean-burn engine shall be equipped with a properly functioning oxidation catalyst and each rich-burn engine shall be equipped with a properly functioning catalytic converter.
[OAC 252:100-8-6(a)(1)]
- c. Each engine at the facility shall have a permanent identification plate attached that shows the make, model number, and serial number.
[OAC 252:100-43]
- d. EU 5, 6, 7, 10, 11, 12, 20, 21, 22, and 23 shall be equipped with an hour meter which is either non-resettable or if resettable, equipped with a log book in which the date and hour meter reading shall be recorded each time the meter is reset. The permittee shall record in a log the number of hours each engine operated each month and the 12-month rolling total.
[OAC 252:100-8-6 (a)(3)]
- e. At least once per calendar quarter, the permittee shall conduct tests of NO_x and CO emissions from the engine(s) and from each replacement engine/turbine when operating under representative conditions for that period. Testing is required for any engine/turbine that runs for more than 220 hours during that calendar quarter. A quarterly test may be conducted no sooner than 20 calendar days after the most recent test. Testing shall be conducted using a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD Portable Analyzer Guidance document, or an equivalent method approved by Air Quality. When four consecutive quarterly tests show the engine/turbine to be in compliance with the emissions limitations shown in the permit, then the testing frequency may be reduced to semi-annual testing. A semi-annual test may be conducted no sooner than 60 calendar days nor later than 180 calendar days after the most recent test. Likewise, when the following two consecutive semi-annual tests show compliance, the testing frequency may be reduced to annual testing. An annual test may be

conducted no sooner than 120 calendar days nor later than 365 calendar days after the most recent test. Upon any showing of non-compliance with emissions limitations or testing that indicates that emissions are within 10% of the emission limitations, the testing frequency shall revert to quarterly. Reduced testing frequency does not apply to engines with catalytic converters or oxidation catalyst. [OAC 252:100-8-6 (a)(3)(A)]

- f. When periodic compliance testing shows engine exhaust emissions in excess of the lb/hr limits, the permittee shall comply with the provisions of OAC 252:100-9. Requirements of OAC 252:100-9 include immediate notification and written notification of Air Quality.

[OAC 252:100-9]

- g. The permittee shall keep operation and maintenance (O&M) records for those engines that do not conduct quarterly testing. Such records shall at a minimum include the dates of operation, and maintenance, type of work performed, and the increase, if any, in emissions as a result. [OAC 252:100-8-6 (a)(3)(B)]

- h. Replacement (including temporary periods of 6 months or less for maintenance purposes), of internal combustion engines/turbines with emissions limitations specified in this permit with engines of lesser or equal emissions of each pollutant (in lbs/hr and TPY) are authorized under the following conditions. [OAC 252:100-8-6(f)(2)]

i. The permittee shall notify AQD in writing not later than 7 days prior to start-up of the replacement engine(s)/turbine(s). Said notice shall identify the old engine/turbine and shall include the new engine/turbine make and model, serial number, horsepower rating, and pollutant emission rates (g/hp-hr, lb/hr, and TPY) at maximum horsepower for the altitude/location.

ii. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with NO_x and CO emission limitations. A copy of the first quarter testing shall be provided to AQD within 60 days of start-up of each replacement engine/turbine. The test report shall include the engine/turbine fuel usage, stack flow (ACFM), stack temperature (°F), and pollutant emission rates (g/hp-hr, lbs/hr, and TPY) at maximum rated horsepower for the altitude/location.

iii. Replacement equipment and emissions are limited to equipment and emissions which are not a modification under NSPS or NESHAP, or a significant modification under PSD. For existing PSD facilities, the permittee shall calculate the PTE or the net emissions increase resulting from the replacement to document that it does not exceed significance levels and submit the results with the notice required by i. of this Specific Condition.

iv. Engines installed as allowed under the replacement allowances in this Specific Condition that are subject to 40 CFR Part 63, Subpart ZZZZ and/or 40 CFR Part 60, Subpart JJJJ shall comply with all applicable requirements.

- i. The owner/operator (O/O) shall comply with the Standards of Performance for Stationary Spark Ignition Internal Combustion Engine (SI-ICE), NSPS Subpart JJJJ, for all affected emission units, including but not limited to the following: [40 CFR §§ 60.4230-60.4248]

Emission Standards for O/O

i. § 60.4233 What emission standards must I meet if I am an O/O of a stationary SI-ICE?

ii. § 60.4234 How long must I meet the emission standards if I am an O/O of a stationary SI-ICE?

Other Requirements for O/O

- iii. § 60.4235 What fuel requirements must I meet if I am an O/O of a stationary SI gasoline fired ICE subject to this subpart?
- iv. § 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?
- v. § 60.4237 What are the monitoring requirements if I am an O/O of an emergency stationary SI-ICE?

Compliance Requirements for O/O

- vi. § 60.4243 What are my compliance requirements if I am an O/O of a stationary SI-ICE?

Testing Requirements for O/O

- vii. § 60.4244 What test methods and other procedures must I use if I am an O/O of a stationary SI-ICE?

Notification, Reports, and Records for O/O

- viii. § 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an O/O of a stationary SI-ICE?

General Provisions

- ix. § 60.4246 What parts of the General Provisions apply to me?

EU	Point	Make/Model	hp	Serial #
26	EG-1	Detroit Diesel	635	06R0872277
27	EG-2	TBD	635	TBD

- j. EU 26 and 27 shall each be limited to 500 hours of operation in any 12-month period. These EU shall only be operated during emergency situations and required testing and maintenance and as limited by 40 CFR Part 63, Subpart ZZZZ or 40 CFR Part 60, Subpart III.
- k. EU 26 and 27 shall be equipped with hour meters and the permittee shall record the hours of operation of these EU.

EUG 2 Heaters/Reboilers: Emissions from EU E12 through E16 and E 24 and are based on the equipment design and are considered insignificant.

EU	Point	Make/Model	MMBTUH ¹
13	H-401	Glycol Dehydration Unit Reboiler	0.35
14	H-1	Amine Reboiler	7.50
15	H-501	Hot Oil Heater	9.00
16	H-114	Mole Sieve Regeneration Heater	8.00
24	H-741	Mole Sieve Regeneration Heater	7.50

¹ - Based on duty rating. Heat input determined using efficiency of heaters 0.8, 0.7, 0.88, 0.91, and 0.78, respectively.

- a. EU 15, the Hot Oil Heater, is subject to the NSPS, Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units and shall comply with all applicable requirements including but not limited to the following:
 - i. The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each calendar month. [§ 60.48c(g)(2)]

EUG 3 Plant Flares: Emissions from EU E17 and E 25 are based on an annual throughput of 25 MMSCF/year and a heat rating of 1,043 BTU/SCF and are considered insignificant. However, since the flare will control emissions from a natural gas processing plant subject to New Source Performance Standards (NSPS), Subpart KKK it is subject to the requirements of NSPS, Subpart A.

EU	Point	Name	MMBTUH
17	F-1	Plant #1 Flare	2.0
25	F-2	Plant #2 Flare	2.0

- a. The flares are subject to the NSPS, Subpart A General Provisions for control devices and shall be designed and operated in accordance with the requirements of 40 CFR Part 60, Paragraph 60.18.
- b. Records of pilot flame(s) outages shall be maintained along with the time and duration of all periods during which the pilot flame is/are absent. Periods of pilot flame outages shall be an excursion, except during startup, shutdown, or malfunction of the flare and when there are no gases being vented to the flare, and shall be reported in the semi-annual monitoring reports.
- c. The permittee shall also record and maintain the following:
 - i. The flare design.

EUG 4 Still Vents: Emissions from the glycol dehydration unit are based on a natural gas throughput of 15 MMSCFD, a recent gas analysis, a lean glycol recirculation rate of 3.5 GPM, recycle/recompression of the flash tank off-gases, condensation of the still vent off-gases, and combustion of the condenser off-gases. After control emissions are insignificant. The glycol dehydration unit shall be operated and maintained as follows:

EU	Point	Name
18	H-401 Still Vent	Dehydration Unit Still Vent

- a. The natural gas throughput of the glycol dehydration unit shall not exceed 15 MMSCFD based on a monthly average.
- b. The lean glycol recirculation rate of the glycol dehydration unit shall not exceed 3.5 gallons per minute.
- c. The rated capacity of the glycol recirculation pump shall be shown on the pump or performance data for the model of pump, that verifies the rated capacity of the pump, shall be maintained and available for inspection.

- d. The glycol dehydration unit shall be equipped with a flash tank on the rich glycol stream. All emissions from the glycol dehydration unit’s flash tank shall be recycled/recompressed into the facility’s inlet stream.
- e. The permittee shall continue to operate and maintain a condenser on the glycol dehydration unit’s still vent when the dehydration unit is in operation. The system shall condense and contain the overhead still vent vapors. The uncondensed vapors from the condenser shall be routed to the dehydration unit’s reboiler firebox for destruction.
- f. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Oil and Natural Gas Production, Subpart HH, for each affected dehydration unit including but not limited to the following:
[40 CFR 63.760 through 63.775]
 - i. An owner or operator of a glycol dehydration unit that meets the exemption criteria in § 63.764(e)(1)(i) or § 63.764(e)(1)(ii) shall maintain the records specified in §§ 63.774(d)(1)(i) or (d)(1)(ii), as appropriate, for that glycol dehydration unit.

Emissions from the amine unit’s still vent were estimated using ProMax Version 3.2.10286.0, an amine sweetening simulation program, a natural gas liquids flow rate of 820 gallons per minute (gpm), a diethanolamine (DEA) solution (30%) flow rate of 120 gpm.

EU	Point	Name
19	H-1 Still Vent	Amine Unit Still Vent

Emission Limits	
Units	SO ₂
TPY	14.70

- g. The permittee shall measure and record quarterly the H₂S concentration and volume of acid gas from the amine treater still vent exhaust. Measurements shall be conducted using stain tubes or an equivalent method approved by Air Quality with an accuracy of 0.1 ppmv or ppmw and a volumetric flow meter. Emissions shall be calculated based on the quarterly H₂S concentration and the average acid gas flow rate determined from quarterly volume reports. [OAC 252:100-31-26]
- h. The amine unit still vent shall be routed to an oxidation system that will remove or oxidize the H₂S to SO₂ with an efficiency of at least 95%. [OAC 252:100-31-26(a)(1)]
- i. All thermal devices used to oxidize H₂S to SO₂ shall have installed, calibrated, maintained, and operated an alarm system that will signal non-combustion of the gas. [OAC 252:100-31-26(c)]

EUG 5 Storage Tanks: No emissions were estimated from the gas plant pressurized tanks since these will be controlled using a vapor recovery system. No flashing emissions were estimated from the gas plant condensate production since the gas plant will be equipped with a condensate stabilizer that is vented to the gas plant or compressor station inlet. Flashing emissions from the existing compressor station were based on the Vasquez-Beggs Equation and a throughput of 12,780 barrels per year. Emissions from the other tanks were based on TANKS4.0.

EU	Point	Contents	Barrels	Gallons
Tanks	VS-801	Condensate	210	8,820
	VS-802	Condensate	210	8,820
	VS-803	Condensate	210	8,820
	VS-804	Condensate	210	8,820
	TK-801	Slop Water	210	8,820
	TK-802	Lube Oil	24	1,000
	TK-803	Triethylene Glycol	36	1,500
	TK-804	Methanol	36	1,500
	TK-805	Lube Oil	24	1,000
	TK-806	Lube Oil	24	1,000
	TK-807	Antifreeze	12	500
	TK-808	Antifreeze	12	500
	TK-270A	Slop Water	400	16,800
	TK-270B	Slop Water	400	16,800
	TK-270C	Slop Water	400	16,800
	TK-270D	Slop Water	400	16,800
	V-270A	Antifreeze	24	1,000
	V-270B	Methanol	119	5,000
	V-270F	Lube Oil	119	5,000

The facility will have other miscellaneous tanks including pressurized tanks that will qualify as insignificant/trivial activities.

Storage Tank Emission Limits	
Units	VOC
TPY	34.98

- a. The produced liquids from the gas plant shall be treated by a condensate stabilizer. The off-gases from the stabilizer shall be either recycled/recompressed into the inlet manifold of the gas plant or the compressor station.
- b. The pressurized vessels at the gas plant shall be vented to a closed system such that the vapors will be either recycled/recompressed into the inlet manifold of the gas plant or the compressor station. Pressurized storage vessels that are designed to operate as a closed system shall be operated with no detectable emissions at all times when material is in the storage vessel, except that one or more safety devices that vent directly to the atmosphere may be used on the storage vessel and equipment complying with this section.

EUG 6 Fugitives: Emissions from the fugitive equipment leaks are based on equipment type, the number of components and the average emission factors for oil and gas facilities. There are no emission limits applied to these EU but they are required to meet certain work practices. Emissions from loading of tank trucks are based on a throughput of 12,780 barrels per year at the compressor station and 365,357 barrels at the gas plant.

EU	Number Items	Type of Equipment
Fugitives	1,580	Valves
	4,160	Connectors
	2,160	Flanges
	231	Open Ended Lines
	42	Pump Seals
	123	Other

- a. The permittee shall comply with NSPS, Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants, for all affected equipment located at this facility, including but not limited to the following:
- [40 CFR 60.630 to 60.636]
- i. The owner/operator shall comply with the requirements of §§ 60.482-1(a), (b), and (d) and § 60.482-2 through § 60.482-10 except as provided in § 60.633. [§ 60.632(a)]
 - ii. The owner/operator shall demonstrate compliance with §§ 60.482-1 to 60.482-10 for all affected equipment within 180 days of initial startup which shall be determined by review of records, reports, performance test results, and inspection using methods and procedures specified in § 60.485 unless the equipment is in vacuum service and is identified as required by § 60.486(e)(5).
 - iii. The owner/operator shall comply with the monitoring, inspection, and repair requirements, for pumps in light liquid service, of §§ 60.482-2(a), (b), and (c) except as provided in §§ 60.482-2(d), (e), (f), and 60.633(d).
 - iv. Information and data used to demonstrate that a reciprocating compressor is in wet gas service or is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [§§ 60.633(f), 60.635(c), & § 60.486(j)]
 - v. The owner/operator shall comply with the operation and monitoring requirements, for pressure relief devices in gas/vapor service, of §§ 60.482-4(a) and (b) except as provided in § 60-482-4(c) and § 60.633(b).
 - vi. Sampling and connection systems are exempt from the requirements of § 60.482-5. [§ 60.633(c)]
 - vii. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.632(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall be closed at all other times. [§ 60.482-6]
 - viii. The owner/operator shall comply with the monitoring, inspection, and repair requirements, for valves in gas/vapor service and light liquid service, of §§ 60.482-7(b) through (e), except as provided in §§ 60.633(d), 60.482-7(f), (g), and (h), §§ 60.483-1, 60.483-2, and 60.482-1(c). [§ 60.482-7(a)]

- ix. The owner/operator shall comply with the monitoring and repair requirements, for pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors, of §§ 60.482-8(a) through (d).
[§ 60.482-8]
- x. Delay of repair of equipment is allowed if it meets one of the requirements of §§ 60.482-9(a) through (e).
- xi. The owner/operators using a closed vent system and control device to comply with these provisions shall comply with the design, operation, monitoring and other requirements of 60.482-10(b) through (g).
[§ 60.482-10(a)]
- b. An owner/operator may elect to comply with the alternative requirements for valves of §§ 60.483-1 and 60.483-2.
[§ 60.632(b) & § 60.482-1(b)]
- c. An owner/operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in NSPS Subpart KKK. In doing so, the owner or operator shall comply with requirements of § 60.634.
[§ 60.632(c)]
- d. The owner/operator shall comply with the test method and procedures of § 60.485 except as provided in §§ 60.632(f) and 60.633(h).
[§ 60.632(d)]
- e. The owner/operator shall comply with the record-keeping requirements of § 60.486 and the reporting requirements of § 60.487 except as provided in §§ 60.633, 60.635, and 60.636.
[§ 60.632(e)]
- f. The owner/operator shall comply with the record-keeping requirements of §§ 60.635(b) and (c) in addition to the requirements of § 60.486.
[§ 60.635(a)]
- g. The owner/operator shall comply with the reporting requirements of §§ 60.636(b) and (c) in addition to the requirements of § 60.487.
[§ 60.636(a)]

EU	Type of Equipment
Truck Loading	Tank Truck Loading

Tank Truck Loading Emission Limits	
Units	VOC
TPY	8.62

- h. Condensate throughput for the compressor station shall not exceed 12,780 barrels per 12-month rolling period. Condensate throughput at the gas plant shall not exceed 365,357 barrels per 12-month rolling period. These records shall be kept independent of each other.
- i. The stabilized condensate loading system shall be equipped with a vapor recovery system that collects the gases from the tank trucks being loaded and routes the vapors back to the tanks being unloaded.
 - i. All loading and vapor lines for the stabilized condensate loading system shall be equipped with fittings that make vapor-tight connections and which close automatically when disconnected.
 - ii. A means shall be provided to prevent VOC drainage from the stabilized condensate loading device when it is removed from the tank truck or which completely drains before removal.

- iii. The tank truck shall also be equipped with a vapor collection system that will route the displaced VOC vapors from the tank truck being loaded to the stabilized condensate loading vapor recovery system.
- iv. The tank truck vapor system shall be connected to the stabilized condensate vapor recovery system when loading stabilized condensate from the gas plant.

2. The fuel-burning equipment shall be fired with commercial grade natural gas or other gaseous fuel with a sulfur content less than 4 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-31]

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

- a. EU 10, 11, and 12 which are limited to a total of 21,900 hours based on a 12-month rolling total.
- b. EU 5, 6, 7, 20, 21, 22, and 23 which are limited to a total of 56,940 hours based on a 12-month rolling total.

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

4. The permittee shall comply with 40 CFR Part 60, Subpart IIII, Compression Ignition Internal Combustion Engines, for each affected facility located on-site.

What This Subpart Covers

- a. § 60.4200 Am I subject to this subpart?
- Emission Standards for Owners and Operators (O/O)
- b. § 60.4205 What emission standards must I meet for emergency engines if I am an O/O of a stationary CI ICE?
- c. § 60.4206 How long must I meet the emission standards if I am an O/O of a stationary CI ICE?
- Fuel Requirements for O/O
- d. § 60.4207 What fuel requirements must I meet if I am an O/O of a stationary CI ICE subject to this subpart?
- Other Requirements for O/O
- e. § 60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?
- f. § 60.4209 What are the monitoring requirements if I am an O/O of a stationary CI ICE?
- Compliance Requirements
- g. § 60.4211 What are my compliance requirements if I am an O/O of a stationary CI ICE?
- Testing Requirements for O/O
- h. § 60.4212 What test methods and other procedures must I use if I am an O/O of a stationary CI ICE with a displacement of less than 30 liters per cylinder?

- i. Notification, Reports, and Records for O/O
§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an O/O of a stationary CI ICE?
- j. General Provisions
§ 60.4218 What parts of the General Provisions apply to me?
- k. Definitions
§ 60.4219 What definitions apply to this subpart?

5. The owner/operator shall comply with all applicable requirements of 40 CFR Part 63, NESHAP, Subpart ZZZZ: Reciprocating Internal Combustion Engines, for each affected facility including but not limited to: [40 CFR 63.6580 through 63.6675]

- a. What This Subpart Covers
§ 63.6580 What is the purpose of subpart ZZZZ?
- b. § 63.6585 Am I subject to this subpart?
- c. § 63.6590 What parts of my plant does this subpart cover?
- d. § 63.6595 When do I have to comply with this subpart?
- e. Emission and Operating Limitations
§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
- f. § 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?
- g. General Compliance Requirements
§ 63.6605 What are my general requirements for complying with this subpart?
- h. Testing and Initial Compliance Requirements
§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
- i. § 63.6615 When must I conduct subsequent performance tests?
- j. § 63.6620 What performance tests and other procedures must I use?
- k. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- l. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
- m. Continuous Compliance Requirements
§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
- n. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
- o. Notifications, Reports, and Records
§ 63.6645 What notifications must I submit and when?
- p. § 63.6650 What reports must I submit and when?
- q. § 63.6655 What records must I keep?
- r. § 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

- s. § 63.6665 What parts of the General Provisions apply to me?
- t. § 63.6670 Who implements and enforces this subpart?
- u. § 63.6675 What definitions apply to this subpart?

6. 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 diesel fuel which are either used exclusively for emergency power generation or for peaking power service: type of fuel and hours of operation (annual).
- b. For crude oil and condensate storage tanks with a capacity of less than or equal to 420,000 gallons that store crude oil and condensate prior to custody transfer: records of capacity of the tanks and the amount of throughput (annual).
- c. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
- d. 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).

7. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request.

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

- a. Periodic emission testing for the engines and each replacement engine/turbine.
- b. Operating hours for the engines if less than 220 hours per quarter and not tested.
- c. O&M records for an engine if not tested in each 6-month period.
- d. Records of the flare pilot flame outages.
- e. The glycol dehydration unit's average natural gas throughput (monthly).
- f. Records showing the glycol dehydration unit's recirculation pump rating.
- g. Records required by NESHAP, Subparts HH and ZZZZ.
- h. Flow rate of the acid gas from the amine unit (quarterly average).
- i. Amine unit emission estimates and H₂S concentrations of the natural gas or natural gas liquids (quarterly).
- j. Records required by NSPS, Subparts A, Dc, KKK, IIII, and JJJJ.
- k. Condensate throughput for the compressor station and gas plant (monthly and 12-month rolling totals for each).
- l. Records required by Specific Condition No. 2.
- m. Hours of operation of EU 10, 11, and 12 (monthly and 12-month rolling totals).
- n. Hours of operation of EU 5, 6, 7, 20, 21, 22, and 23 (monthly and 12-month rolling totals).

8. The permittee shall submit an application for a Part 70 operating permit within 180 days of commencement of operation. The permittee shall also include in the application testing for the engines showing compliance with the applicable emission limitations.

9. The permittee shall comply with NSPS, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transportation, and Distribution, for all affected equipment located at this facility.

**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]



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. 2006-303-C (M-3) PSD

Atlas Pipeline Mid-Continent WestOK, LLC

having complied with the requirements of the law, is hereby granted permission to construct/modify the Waynoka Natural Gas Processing Plant located in Section 13, T25N, R15W, Woods County, Oklahoma, subject to Specific Conditions and Standard Conditions dated July 21, 2009, 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

Mr. Bret Peterson
Atlas Pipeline Mid-Continent WestOK, LLC
110 West 7th, Suite 2300
Tulsa, OK 74119

SUBJECT: Permit No. 2006-303-C (M-3) PSD
Facility: Waynoka Natural Gas Processing Plant
Location: S13, T25N, R15W, Woods County, Oklahoma

Dear Mr. Peterson:

Enclosed is the permit authorizing construction/modification of the referenced facility. Please note that this permit is issued subject to the certain standards and specific conditions that 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 March 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

If you have any questions, refer to the permit number above and contact Eric Milligan at eric.milligan@deq.ok.gov or at (405) 702-4217. Thank you for your cooperation.

Sincerely,

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

Enclosures