OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM

February 13, 2017

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

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

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

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

FROM: Lisa Cox, E.I., Existing Source Permit Section

SUBJECT: Evaluation of Permit Application No. 2016-0491-C (M-1)
Kingfisher Midstream, L.L.C.
Kingfisher Midstream Lincoln Gas Plant
(SIC 1321/NAICS 211112)
Facility ID No. 15531
Latitude: 35.9988°, Longitude: -97.8072°
Section 35, Township 18N, Range 6W, Kingfisher County, Oklahoma
Directions: From the intersection of U.S. Highway 81 N and E Redford Dr in Dover, Oklahoma go north 1.4 miles on U.S. Highway 81 N. Turn right on E0700 Rd and travel east 5.6 miles. Turn right through facility gate onto lease road and travel south 0.1 mile to facility location.

SECTION I. INTRODUCTION

Kingfisher Midstream, L.L.C. (Kingfisher Midstream) owns and operates the Kingfisher Midstream Lincoln Gas Plant (SIC 1321), located in Kingfisher County. The facility is currently operating as authorized by General Permit for Oil and Natural Gas Facilities (GP-OGF) Permit No. 2015-1326-O (M-1), issued on December 23, 2016. Kingfisher Midstream has requested a construction permit to authorize the following modifications:

1. Add five (5) 2,500-hp Caterpillar G3608 LE compressor engines with oxidation catalyst (K-100A through K-100E);
2. Add a second amine unit (AU-02);
3. Add one (1) 4.0-MMBTUH line heater (H-301);
4. Add one (1) 44-MMBTUH medium heater (H-801);
5. Add one (1) 8-MMBTUH regenerator gas heater (H-101, 8MM);
6. Add one (1) 400-bbl slop oil storage tank (TK-6);
7. Add one (1) 400-bbl water storage tank (TK-W7);
8. Add a second flare (D-701).

After the modifications, emissions sources at the facility will include six (6) natural gas fired 1,775-hp Caterpillar G3606LE compressor engines with oxidation catalyst, three (3) natural gas
fired 1,380-hp Caterpillar G3526B compressor engines with oxidation catalyst, five (5) 2,500-hp Caterpillar G3608 LE compressor engines with oxidation catalyst, two (2) process flares, one (1) 2.0-MMBTUH condensate stabilizer (heater-treater), one (1) 4.0-MMBTUH line heater, one (1) 4.87-MMBTUH regen gas heater, one (1) 8-MMBTUH regen gas heater, one (1) 1.5-MMBTUH amine reboiler, one (1) 44-MMBTUH combined heater, one (1) NGL amine unit, one (1) 200-MMSCFD amine unit, one (1) 50,000-bbl internal floating roof (IFR) crude oil storage tank, two (2) 400-bbl slop oil storage tanks, one (1) 400-bbl “bad crude” storage tank, two (2) 400-bbl produced water storage tanks, truck loading losses, and fugitive emissions.

With the additional emissions units, the facility will become a major source for nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs).

**Aggregation**

EPA requires that separate permitting projects be evaluated to determine whether they should be combined into a single application for PSD applicability and PSD BACT analysis on a case-by-case basis, commonly referred to as “aggregation”. Because of the relatively short time lapse between issuance of the GP-OGF and this major source construction permit, DEQ requested that Kingfisher Midstream evaluate aggregation and associated emissions.

To demonstrate that aggregation is not applicable to the proposed project, Kingfisher Midstream addresses the five screening criteria specified in EPA’s evaluation of the 3M – Maplewood facility [adopted from the “John B. Rasnic” memorandum] to evaluate whether aggregation is required. Following are the five specific criteria and the accompanying response as submitted by Kingfisher Midstream, condensed and paraphrased with certain revisions and amendments by DEQ for added clarity.

1. **Filing of more than one minor source or minor modification application associated with emissions increases at a single plant within a short time period.** If a source files more than one minor source permit application simultaneously or within a short time period of each other, this may constitute strong evidence of an intent to circumvent the requirements of preconstruction review. Authorities should scrutinize applications that relate to the same process or units that the source files either before initial operation of the unit or after less than a year of operation. The September 18, 1989 memorandum from John Calcagni to William Hathaway states that two or more related minor changes over a short time period should be studied for possible circumvention.

Kingfisher Midstream submitted their original minor source GP-OGF construction application in July 2015. A modification was proposed in July 2016 to reflect changes from the original proposal; however, the changes did not exceed major source (non-PSD) thresholds in any pollutant and the facility was still eligible for the GP-OGF. The major source construction permit application was submitted in late October 2016, while the GP-OGF operating permit was under technical review. Per mutual agreement between Kingfisher Midstream and DEQ, it was
decided to move forward with issuing the GP-OGF prior to addressing the major source construction permit.

2. Application of funding. Applications for commercial loans or, for public utilities, bond issues, should be scrutinized to see if the source has treated the projects as one modification for financial purposes. If the project would not be funded or if it would not be economically viable if operated on an extended basis (at least a year) without the other projects, this should be considered evidence of circumvention.

Kingfisher Midstream submitted their project financial forecast, dated October 15, 2015 and their project forecast, dated December 10, 2015. These documents show that the original AFE value for the project was $177 MM. This included the cryogenic plant, gathering pipelines, pipeline field compressors, and take away pipelines. This includes all of the scope of work included in the GP-OGF permits. The project scope changes that necessitate the need for the major source permit were added in the December 10, 2015 document and include an additional ~$10 MM for increased number of compressors and additional amine plant.

3. Reports of consumer demand and projected production levels. Stockholder reports, reports to the Securities and Exchange Commission, utility board reports, or business permit applications should be reviewed for projected operation or production levels. If reported levels are necessary to meet projected consumer demand but are higher than permitted levels, this is additional evidence of circumvention.

Kingfisher Midstream submitted their original volume projection, which contains production data demonstrating that Oklahoma Energy Acquisition (OEA), the producer whose gas will be flowing into the Kingfisher Midstream Lincoln Gas Plant, originally forecasted a 2 rig drill plan and a forecast type curve which forecasted <28 MMSCF of production until about January 2019. However, after a few successful wells in the area, they revised their type curves and changed their plan from 2 to 4 rigs which accelerated the need for the plant to change its compression requirements.

4. Statements of authorized representatives of the source regarding plans for operation. Statements by representatives of the source to EPA or to State or local permitting agencies about the source's plans for operation can be evidence to show intent to circumvent preconstruction review requirements.

Kingfisher Midstream submitted their board of directors meeting minutes dated October 29, 2015. The minutes demonstrate that the facility modification was planned after the original GP-OGF application was submitted.

5. EPA’s own analysis of the economic realities of the projects considered together. EPA may determine that it is reasonable to expect that company management would coordinate the planning and execution of projects considering their intrinsic relationship with each other (physical proximity, stages of production process, etc.) and their impact on economic viability of the plant (scheduling down time in light of production targets, economies of scale, etc.).
DEQ does not have any reason to believe that company management coordinated the planning and execution of projects considering the above stated factors; therefore, the two projects are considered separate and aggregation is not required. DEQ reserves the right to request any additional documentation for future review of our decision or to reopen the permit if necessary.

SECTION II. PROCESS DESCRIPTION

Low pressure and high pressure gas enter the facility through a natural gas gathering system of pipelines to be processed, boosted into a sales pipeline, and/or sent to a cryogenics plant where Natural Gas Liquids (NGLs) are recovered and stored. Crude oil is also stored on-site.

All natural gas is routed to the free water knockout separators (FWKO) where entrained water is removed and routed to the produced water storage tanks (T-950 and TK-W7) before being trucked off location. Low pressure gas is then boosted by the six natural gas fired compressor engines (C-801 through C-806) before further water removal in a three-phase separator. Any remaining entrained water is removed and routed to the separator for further separation and then to the condensate stabilizer (V-880A), and the gas is routed to one of the two cryogenics plants. An amine unit (AU-01) will treat the natural gas liquids (NGL) from cryogenics plant 1 to remove CO$_2$ when the plant is operating in ethane recovery modes. A second amine unit (AU-02) will treat the gas entering the second cryogenics plant upstream of the demethanizer.

Gas entering either of the cryogenics plants is cooled by a gas/gas exchanger and demethanizer reboiler, after which it flows to a cold separator. Liquid from the lower section of the cold separator feeds midway into the demethanizer tower, which separates the methane from the liquids. High pressure cold vapor from the cold separator flows to the turbo expander and subcooler. The cooled gas and condensed liquid flow into the demethanizer tower where the gas rises and the liquid descends. The liquid product exits the bottom of the tower to be further processed as required. The cold residual gas exits the top of the tower and flows through the subcooler and into the gas/gas heat exchanger. Warm gas exiting the gas/gas exchanger flows to the suction side of the booster compressor and then to compression by natural gas-fired residue compressor engines for pipeline delivery. Three engines (C-852 to C-854) serve cryogenics plant 1 and five engines (K-100A to K-100E) serve cryogenics plant 2. NGLs are normally sent off site via pipeline but can be trucked occasionally if necessary, in the event of product that is off specification.

Crude oil gathered at surrounding well sites is temporarily stored there in atmospheric storage tanks and later sent to the Kingfisher Lincoln Gas Plant via pipeline. Once it arrives at the facility, the crude oil is stored in one 50,000-bbl crude oil storage tank (T-997). Truck loading/unloading (LOAD1) will occur from T-997. Two 400-bbl slop oil storage tanks (T-951 and TK-6) will be used on-site as well. There is an additional 400-bbl storage tank (T-952) which will be used to dump “bad crude” into if necessary. The loading and working/breathing/flashing VOC emissions from the crude oil storage tanks are routed to the flare (F-960) for destruction.
SECTION III. EQUIPMENT

EUG-1  Spark-Ignition Reciprocating Internal Combustion Engines

<table>
<thead>
<tr>
<th>EU</th>
<th>Make/Model</th>
<th>Controls</th>
<th>HP</th>
<th>Serial #</th>
<th>Mfg. Date</th>
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<tbody>
<tr>
<td>C-801</td>
<td>Caterpillar G3606 LE</td>
<td>Oxidation Catalyst</td>
<td>1,775</td>
<td>4ZS02174</td>
<td>July 2015</td>
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<td>C-802</td>
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<td>C-803</td>
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<td>Oxidation Catalyst</td>
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<td>4ZS02177</td>
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<td>C-804</td>
<td>Caterpillar G3606 LE</td>
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<td>1,775</td>
<td>4ZS02058</td>
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<td>C-805</td>
<td>Caterpillar G3606 LE</td>
<td>Oxidation Catalyst</td>
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<td>4ZS02066</td>
<td>July 2016</td>
</tr>
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<td>C-806</td>
<td>Caterpillar G3606 LE</td>
<td>Oxidation Catalyst</td>
<td>1,775</td>
<td>4ZS02069</td>
<td>July 2016</td>
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<td>C-852</td>
<td>Caterpillar G3516B</td>
<td>Oxidation Catalyst</td>
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<td>N6E00337</td>
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<td>C-853</td>
<td>Caterpillar G3516B</td>
<td>Oxidation Catalyst</td>
<td>1,380</td>
<td>N6E00338</td>
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<td>C-854</td>
<td>Caterpillar G3516B</td>
<td>Oxidation Catalyst</td>
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<td>K-100A</td>
<td>Caterpillar G3608 LE</td>
<td>Oxidation Catalyst</td>
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<td>TBD</td>
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<td>K-100B</td>
<td>Caterpillar G3608 LE</td>
<td>Oxidation Catalyst</td>
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<td>TBD</td>
<td>TBD</td>
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<td>Caterpillar G3608 LE</td>
<td>Oxidation Catalyst</td>
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<td>TBD</td>
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<td>K-100D</td>
<td>Caterpillar G3608 LE</td>
<td>Oxidation Catalyst</td>
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<td>K-100E</td>
<td>Caterpillar G3608 LE</td>
<td>Oxidation Catalyst</td>
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EUG-2  Process Flares

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<tr>
<th>EU</th>
<th>Name</th>
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<tbody>
<tr>
<td>F-960</td>
<td>3.5-MMBTUH Process Flare</td>
<td>July 2015</td>
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<tr>
<td>D-701</td>
<td>47.8-MMBTUH Process Flare</td>
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EUG-3  Heaters and Reboilers

<table>
<thead>
<tr>
<th>EU</th>
<th>Name</th>
<th>Constr. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-880A</td>
<td>2.0-MMBTUH Condensate Stabilizer</td>
<td>July 2015</td>
</tr>
<tr>
<td>V-501</td>
<td>1.5-MMBTUH Amine Reboiler</td>
<td>July 2016</td>
</tr>
<tr>
<td>H-301</td>
<td>4.0-MMBTUH Line Heater</td>
<td>TBD</td>
</tr>
<tr>
<td>H-801</td>
<td>44-MMBTUH Combined Heater</td>
<td>TBD</td>
</tr>
<tr>
<td>H-101 (8MM)</td>
<td>8-MMBTUH Regen Gas Heater</td>
<td>TBD</td>
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</table>
EUG-4  Large Storage Tanks

Large Storage Tank Data

<table>
<thead>
<tr>
<th>EU</th>
<th>Name</th>
<th>Control</th>
<th>Throughput (bbl/day)</th>
<th>Mfg. Date</th>
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<tbody>
<tr>
<td>T-997</td>
<td>50,000-bbl IFR Crude Oil Storage Tank</td>
<td>Flare</td>
<td>25,000</td>
<td>March 2016</td>
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EUG-5  Small Storage Tanks

Small Storage Tank Data

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<thead>
<tr>
<th>EU</th>
<th>Name</th>
<th>Control</th>
<th>Throughput (gal/year)</th>
<th>Mfg. Date</th>
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</thead>
<tbody>
<tr>
<td>T-950</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>None</td>
<td>76,650</td>
<td>March 2016</td>
</tr>
<tr>
<td>T-951</td>
<td>400-bbl Slop Oil Storage Tank</td>
<td>Flare</td>
<td>76,650</td>
<td>March 2016</td>
</tr>
<tr>
<td>T-952</td>
<td>400-bbl “Bad Crude” Storage Tank</td>
<td>Flare</td>
<td>1,000</td>
<td>March 2016</td>
</tr>
<tr>
<td>TK-6</td>
<td>400-bbl Slop Oil Storage Tank</td>
<td>None</td>
<td>438,000</td>
<td>TBD</td>
</tr>
<tr>
<td>TK-W7</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>None</td>
<td>43,800</td>
<td>TBD</td>
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EUG-6  Large Tank Truck Loading

Large Tank Truck Loading Data

<table>
<thead>
<tr>
<th>Unit ID</th>
<th>Emission Source</th>
<th>Throughput (gal/yr)</th>
<th>Control Method</th>
<th>Capture Efficiency</th>
</tr>
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<tbody>
<tr>
<td>LOAD1</td>
<td>T-997 Loading Losses</td>
<td>383,250,000</td>
<td>Flare</td>
<td>98.7%</td>
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EUG-7  Small Tank Truck Loading

Small Tank Truck Loading Data

<table>
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<tr>
<th>Unit ID</th>
<th>Emission Source</th>
<th>Throughput (gal/yr)</th>
<th>Control Method</th>
<th>Capture Efficiency</th>
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</thead>
<tbody>
<tr>
<td>LOAD3</td>
<td>Slop Oil Loading Losses</td>
<td>76,650</td>
<td>Flare</td>
<td>98.7%</td>
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<tr>
<td>LOAD4</td>
<td>Produced Water Loading Losses</td>
<td>76,650</td>
<td>None</td>
<td>NA</td>
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<tr>
<td>LOAD5</td>
<td>T-980A Loading Losses</td>
<td>42,000</td>
<td>None</td>
<td>NA</td>
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EUG-8  Fugitive Emissions

Fugitive Emission Data

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Number of Sources</th>
<th>Emission Factor</th>
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<tbody>
<tr>
<td>Valves – Gas</td>
<td>400</td>
<td>9.92E-03</td>
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<tr>
<td>Flanges – Gas</td>
<td>440</td>
<td>8.60E-04</td>
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<tr>
<td>Other – Gas</td>
<td>300</td>
<td>1.90E-02</td>
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<tr>
<td>Valves – Light Liquid</td>
<td>20</td>
<td>5.50E-03</td>
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<tr>
<td>Flanges – Light Liquid</td>
<td>22</td>
<td>2.43E-04</td>
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<td>Other – Light Liquid</td>
<td>10</td>
<td>1.70E-02</td>
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<tr>
<td>Pumps – Light Liquid</td>
<td>20</td>
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EUG-9  Amine Units

Amine Unit Data

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<th>EU</th>
<th>Name</th>
<th>Constr. Date</th>
</tr>
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<tbody>
<tr>
<td>AU-01</td>
<td>NGL Amine Unit</td>
<td>July 2016</td>
</tr>
<tr>
<td>AU-02</td>
<td>200-MMSCFD Amine Unit</td>
<td>TBD</td>
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</table>

SECTION IV. EMISSIONS

➢ Emissions from the natural gas-fired engines are based on the data presented in the previous section and the following emission factors:

Engine Emission Factors*

<table>
<thead>
<tr>
<th>Point</th>
<th>NOX (g/hp-hr)</th>
<th>CO (g/hp-hr)</th>
<th>VOC (g/hp-hr)</th>
<th>H2CO (g/hp-hr)</th>
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<tbody>
<tr>
<td>C-801</td>
<td>0.5</td>
<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
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<td>C-802</td>
<td>0.5</td>
<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
</tr>
<tr>
<td>C-803</td>
<td>0.5</td>
<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
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<tr>
<td>C-804</td>
<td>0.5</td>
<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
</tr>
<tr>
<td>C-805</td>
<td>0.5</td>
<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
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<tr>
<td>C-806</td>
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<td>0.19</td>
<td>0.47</td>
<td>0.06</td>
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<td>C-852</td>
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<td>0.24</td>
<td>0.36</td>
<td>0.08</td>
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<tr>
<td>C-853</td>
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<td>0.24</td>
<td>0.36</td>
<td>0.08</td>
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<tr>
<td>C-854</td>
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<td>0.24</td>
<td>0.36</td>
<td>0.08</td>
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<td>K-100A</td>
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<td>0.05</td>
<td>0.03</td>
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<td>K-100C</td>
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<td>0.15</td>
<td>0.05</td>
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<td>0.15</td>
<td>0.05</td>
<td>0.03</td>
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<tr>
<td>K-100E</td>
<td>0.5</td>
<td>0.15</td>
<td>0.05</td>
<td>0.03</td>
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</table>

*Based on Manufacturer’s data. VOC emissions do not include H2CO.
Emissions (working, breathing, and flashing losses) from the 50,000-bbl IFR tank (T-997) were calculated using ProMax simulation software, version 4.0 with a maximum throughput of 25,000 bbl/day. Working and breathing emissions are routed to the flare with 100% capture efficiency and 98% destruction efficiency. Since the crude initially flashes off site in atmospheric storage tanks and is then transported to the facility via pipeline, Promax indicates that there is no additional flash associated with the crude oil.

Emissions (working and breathing losses) from the slop oil storage tanks (T-951 and TK-6) were calculated using TANKS V4.0.9d software program incorporating a throughput of 76,650 gallons per year for T-951 and 438,000 gallons per year for TK-6. Crude oil with a RVP of 10 was also assumed. Flashing losses were estimated using the Vasquez-Beggs equation with the following inputs: 32 API gravity, 50 psig separator pressure, 100 °F separator temperature, 5 BOPD, 80% VOC, and the remaining values default.

Emissions (working, breathing, and flashing losses) from the produced water tanks (T-950 and TK-W7) were calculated using the Tanks V4.0.9d software program incorporating a throughput of 76,650 gallons per year for T-950 and 43,800 gallons per year for TK-W7. It was also assumed the tank contents are 95 wt% water and 5 wt% crude oil with a RVP of 10. Flashing losses were assumed to be 1% of the emissions from the flash from the slop oil tank (T-951).

Emissions (working and breathing losses) from the “bad crude” storage tank (T-952) were calculated using TANKS V4.0.9d software program incorporating a throughput of 1,000 gallons per year and assuming crude oil with a RVP of 10. There is no flash loss with the “bad crude” storage tank since it is for off-specification product that will have been flashed previous to getting moved into this tank.

<table>
<thead>
<tr>
<th>EU Group</th>
<th>Unit ID</th>
<th>Emission Source</th>
<th>Control Method</th>
<th>PTE (TPY)</th>
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<tbody>
<tr>
<td>5</td>
<td>T-950</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>None</td>
<td>0.01</td>
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<tr>
<td>5</td>
<td>T-951</td>
<td>400-bbl Slop Oil Storage Tank</td>
<td>Flare</td>
<td>1.12</td>
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<tr>
<td>5</td>
<td>T-952</td>
<td>400-bbl &quot;Bad Crude&quot; Storage Tank</td>
<td>Flare</td>
<td>&lt;0.01</td>
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<td>5</td>
<td>TK-6</td>
<td>400-bbl Slop Oil Storage Tank</td>
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<td>5</td>
<td>TK-W7</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>None</td>
<td>0.01</td>
</tr>
</tbody>
</table>

T-980A is a pressurized NGL process tank. There are no working, breathing, or flashing losses in this tank due to the pressurized nature of the tank. However, a small amount of loading losses can occur if off-specification product is loaded via truck instead of the normal pipeline delivery method which has no emissions. The maximum expected off-specification events is 6 truckloads per year with 92.18 wt % VOC, based on the worst case of possible streams that may be off-loaded via pressurized truck, resulting in 5.121 lb/load flashed total mass flashed. The other components of the stream are non-VOC compounds mostly consisting of methane with some ethane present.
- Emissions for the NGL amine unit (AU-01) were calculated using ProMax with a maximum flowrate of 266 gpm of NGLs and a maximum achievable lean amine circulation rate of 25 gpm. Emissions from the 200-MMSCFD amine unit (AU-02) were calculated based on a process simulator proprietary to Dow Chemical, with a maximum natural gas throughput of 200-MMSCFD and a lean amine circulation rate of 550 gpm. All emissions from both the amine unit and the associated flash tank and vents are routed to the flare (F-960) with 100% capture efficiency and 98% destruction efficiency.

- Emissions from the flare are calculated using AP-42 (4/15), Section 13.5, Equation 1, a normal operating heat rate of 3.5-MMBTUH for F-960 and 47.8-MMBTUH for D-701, continuous operation, and a VOC destruction efficiency of 98%. NOx and CO emissions are based on AP-42 whereas VOC emissions are based on the composition of flared streams taken from ProMax simulation.

- Emissions from the heaters (V-880A, V-501, AR-01, and H-301) are calculated using AP-42 (7/98), Section 1.4-1 through 1.4-3, a fuel heat value of 1,020 btu/scf, and continuous operation.

- Emissions from loading into tank trucks were estimated using AP-42 (6/08), Section 5.2, Equation 1, and the throughputs shown in the truck loading data tables. LOAD1 and LOAD3 have a capture efficiency of 98.7%, based on AP-42 (6/08) with a vapor recovery system that vents to the flare and NSPS-level annual testing for the trucks.

- Emissions from fugitive equipment leaks are based on EPA’s “Protocol for Equipment Leak Emission Estimates” (11/95, EPA-453/R-95-017), an estimated number of components based on similar facilities, and the VOC (C3+) content of the materials handled which is 23.59% for gas service and 99.04% for liquid service.
### Facility-Wide Criteria Pollutant Emissions

<table>
<thead>
<tr>
<th>EU Group</th>
<th>Unit ID</th>
<th>Emission Source</th>
<th>NOx</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>lb/hr</td>
<td>TPY</td>
<td>lb/hr</td>
</tr>
<tr>
<td>1</td>
<td>C-801</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-802</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-803</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-804</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-805</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-806</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>0.75</td>
</tr>
<tr>
<td>1</td>
<td>C-852</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
<td>1.52</td>
<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>1</td>
<td>C-853</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
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<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>1</td>
<td>C-854</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
<td>1.52</td>
<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>1</td>
<td>K-100A</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>1</td>
<td>K-100B</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>1</td>
<td>K-100C</td>
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<tr>
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<td>K-100D</td>
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</tr>
<tr>
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<td>K-100E</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
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<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>2</td>
<td>F-960</td>
<td>3.5-MMBTUH Process Flare</td>
<td>1.25</td>
<td>5.47</td>
<td>5.69</td>
</tr>
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<td>2</td>
<td>D-701</td>
<td>47.8-MMBTUH Process Flare</td>
<td>3.25</td>
<td>14.25</td>
<td>14.83</td>
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<td>3</td>
<td>V-880A</td>
<td>2.0-MMBTUH Condensate Stabilizer</td>
<td>0.20</td>
<td>0.86</td>
<td>0.16</td>
</tr>
<tr>
<td>3</td>
<td>H-301</td>
<td>4.0-MMBTUH Line Heater</td>
<td>0.39</td>
<td>1.72</td>
<td>0.33</td>
</tr>
<tr>
<td>3</td>
<td>H-801</td>
<td>44-MMBTUH Combined Heater</td>
<td>4.31</td>
<td>18.89</td>
<td>3.62</td>
</tr>
<tr>
<td>3</td>
<td>H-101</td>
<td>4.87-MMBTUH Regen Gas Heater</td>
<td>0.48</td>
<td>2.09</td>
<td>0.40</td>
</tr>
<tr>
<td>3</td>
<td>H-101, 8MM</td>
<td>8-MMBTUH Regen Gas Heater</td>
<td>0.78</td>
<td>3.44</td>
<td>0.66</td>
</tr>
<tr>
<td>3</td>
<td>V-501</td>
<td>1.5-MMBTUH Amine Reboiler</td>
<td>0.15</td>
<td>0.64</td>
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</tr>
<tr>
<td>4</td>
<td>T-997</td>
<td>50,000-bbl IFR Crude Oil Storage Tank(2),(4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>T-950</td>
<td>400-bbl Produced Water Storage Tank(3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>T-951</td>
<td>400-bbl Slop Oil Storage Tank(3),(4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EU Group</td>
<td>Unit ID</td>
<td>Emission Source</td>
<td>NOx</td>
<td>CO</td>
<td>VOC</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>-----------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>lb/hr</td>
<td>TPY</td>
<td>lb/hr</td>
</tr>
<tr>
<td>5</td>
<td>T-952</td>
<td>400-bbl &quot;Bad Crude&quot; Storage Tank(^{(2),(4)})</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>5</td>
<td>TK-6</td>
<td>400-bbl Slop Oil Storage Tank(^{(1)})</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>TK-W7</td>
<td>400-bbl Produced Water Storage Tank(^{(3)})</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>LOAD1</td>
<td>T-997 Loading Losses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>LOAD4</td>
<td>T-950 Loading Losses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>LOAD3</td>
<td>T-951 Loading Losses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>LOAD5</td>
<td>T-980A Loading Losses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>FUG</td>
<td>Fugitive Emissions</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>AU-01</td>
<td>NGL Amine Unit(^{(4)})</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>AU-02</td>
<td>200-MMSCFD Amine Unit(^{(4)})</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40.90</td>
<td>179.12</td>
<td>36.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Total Before Modification</strong></td>
<td>18.37</td>
<td>80.47</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Change</strong></td>
<td>22.53</td>
<td>98.65</td>
</tr>
</tbody>
</table>

\(^{(1)}\) With Oxidation Catalyst  
\(^{(2)}\) Includes Working and Breathing Losses  
\(^{(3)}\) Includes Working, Breathing, and Flashing Losses  
\(^{(4)}\) Emissions Reported at Flare
The lean-burn internal combustion engines will have emissions of hazardous air pollutants, the most significant being formaldehyde. Formaldehyde emissions from the engines have been estimated based on manufacturer’s data. Potential formaldehyde emissions are above the 10 TPY major source threshold. This facility will be a major source for formaldehyde.

### Formaldehyde Emissions

<table>
<thead>
<tr>
<th>Unit ID</th>
<th>Emission Source</th>
<th>Emission Factor</th>
<th>Formaldehyde Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-801</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-802</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-803</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-804</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-805</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-806</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine</td>
<td>0.06</td>
<td>0.23</td>
</tr>
<tr>
<td>C-852</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine</td>
<td>0.08</td>
<td>0.24</td>
</tr>
<tr>
<td>C-853</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine</td>
<td>0.08</td>
<td>0.24</td>
</tr>
<tr>
<td>C-854</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine</td>
<td>0.08</td>
<td>0.24</td>
</tr>
<tr>
<td>K-100A</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine</td>
<td>0.03</td>
<td>0.19</td>
</tr>
<tr>
<td>K-100B</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine</td>
<td>0.03</td>
<td>0.19</td>
</tr>
<tr>
<td>K-100C</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine</td>
<td>0.03</td>
<td>0.19</td>
</tr>
<tr>
<td>K-100D</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine</td>
<td>0.03</td>
<td>0.19</td>
</tr>
<tr>
<td>K-100E</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine</td>
<td>0.03</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3.09</strong></td>
<td><strong>13.53</strong></td>
</tr>
</tbody>
</table>

### Facility HAP Emissions

<table>
<thead>
<tr>
<th>Description</th>
<th>lb/hr</th>
<th>TPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
<td>0.53</td>
<td>2.31</td>
</tr>
<tr>
<td>Acrolein</td>
<td>0.50</td>
<td>2.17</td>
</tr>
<tr>
<td>Methanol</td>
<td>0.58</td>
<td>2.53</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>3.09</td>
<td>13.53</td>
</tr>
<tr>
<td><strong>TOTAL</strong>(1)</td>
<td><strong>5.11</strong></td>
<td><strong>22.49</strong></td>
</tr>
</tbody>
</table>

(1) – Total includes individual HAPs of less than 1 TPY which are not shown individually on the table.

**SECTION V. INSIGNIFICANT ACTIVITIES**

The insignificant activities identified and justified in the application are duplicated below. Records are available to confirm the insignificance of the activities. Appropriate recordkeeping of activities indicated below with “*” is specified in the Specific Conditions. Any Activity to which a State of federal applicable requirement applies is not insignificant even if it is included on this list.
1. 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.

2. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. None identified but may be used in the future.

3. Emissions from crude oil or condensate marine and truck loading equipment operations at crude oil and natural gas production sites where the loading rate does not exceed 10,000 gallons per day averaged over a 30-day period. Unloading of the condensate into tank trucks is less than 10,000 gallons/day.

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 tank stores condensate prior to custody transfer and has a capacity less than 420,000 gallons.

5. * Records of tank capacity and contents for storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. The glycol, lube oil, and antifreeze 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 VI. NAAQS COMPLIANCE**

**Introduction**

Kingfisher Midstream is proposing to expand the Kingfisher Midstream Lincoln Gas Plant, and with these changes the site is expected to be a major source of emissions for NO\(_x\), CO, VOC, and HAPs. Although the proposed changes are less than 100 TPY for each pollutant, Kingfisher Midstream has submitted air dispersion modeling to demonstrate compliance with NAAQS for NO\(_2\) and CO and the increment for NO\(_2\).

**Emission Source Parameters**

The existing emission sources and proposed amendments at the Lincoln Gas Plant that are sources of NO\(_2\) and CO emissions include the compressor engines, flares, and heaters. For each
of these sources, the parameters such as stack height and inner diameter are available from field measurements and/or design data. The stack exit velocity and temperature are obtained from manufacturer specifications.

**Tiered Approach for NO₂ Modeling**

In order to demonstrate compliance with NO₂, AERMOD was run using Ambient Ratio Method 2 (ARM2), a Tier 2 method which varies the NOₓ to NO₂ conversion factor based on the modeled NOₓ concentration and an experimentally determined function.

**Meteorological Data**

The meteorological data required by AERMOD consists of a combination of surface data and upper air data. AERMOD utilizes algorithms that incorporate air dispersion based on planetary boundary layer turbulence structure and scaling concepts. Subsequently, meteorological data must be prepared utilizing the combination of the upper air data, surface data, and also incorporate the following boundary layer parameters:

- Albedo – The albedo is the fraction of total incident solar radiation reflected by the surface.
- Bowen Ratio – The Bowen Ratio is the ratio of the sensible heat flux (H) to the latent (evaporative) heat flux (E).
- Surface Roughness Factor – The surface roughness length is related to the height of obstacles to the wind flow and is, in principle, the height at which the mean horizontal wind speed is zero. The region surrounding the Lincoln Gas Plant is a rural area.

The five year (2011 – 2015) AERMET pre-processed meteorological data for Kingfisher County was obtained from the Oklahoma Department of Environmental Quality. The following table provides the details of the meteorological data used for this study:

<table>
<thead>
<tr>
<th>Meteorological Data Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>MesoNet Station/Data File Version</td>
</tr>
<tr>
<td>File Name</td>
</tr>
<tr>
<td>Surface Station</td>
</tr>
<tr>
<td>Upper Air Station</td>
</tr>
<tr>
<td>Years to be Modeled</td>
</tr>
</tbody>
</table>

**Terrain Data and Receptors**

Terrain/Elevation data was obtained from Multi-resolution Land Characteristics Consortium (MRLC); an online Digital Elevation Data repository (www.mrlc.gov). Terrain data was obtained as a GeoTIFF file covering approximately 50 kilometers (km) from the Lincoln Gas Plant property line. The GeoTIFF data file thus obtained has been processed using AERMOD Terrain Preprocessor (AERMAP) using National Elevation Data (NED) and TIFFDEBUG
option. This data processing step provided actual terrain elevation for each receptor point (within the modeling domain) and the applicable locations inside and on the property fence line. The following receptor criteria have been used to generate the receptor grids for this study:

- Fence line receptors: Spaced 100 m apart.
- Spaced 100 m apart: Extends 1 km from the fence line.
- Spaced 250 m apart: Extends 2.5 km from the fence line; starting after the 100 m receptors.
- Spaced 500 m apart: Extends 5 km from the fence line; starting after the 250 m receptors.
- Spaced 750 m apart: Extends 7.5 km from the fence line; starting after the 500 m receptors.
- Spaced 1 km apart: Extends 10 km from the fence line, starting after the 750 m receptors.

**Downwash**

EPA’s Building Profile Input Program (BPIP-Prime) was used to compute Good Engineering Practice (GEP) stack heights for each emission source. The program then computed direction-specific building dimensions (height and projected width) for each non-GEP stack to be modeled. These dimensions are used by the AERMOD model to simulate downwash effects for each point source exhausting at heights less than GEP stack height. The location and dimensions for all buildings and tanks on site were input to the BPIP-PRIME program. The BPIP-PRIME output used in the analysis is from the most recent version of BPIP-PRIME: version 04274 and indicates that none of the facility tanks or buildings create a downwash effect.

**Increment Analysis**

Modeling was conducted by evaluating the total source impact, without background, which was compared to the annual NO$_2$ increment value of 25 $\mu$g/m$^3$. The total statewide impacts are below 25 $\mu$g/m$^3$ therefore no additional monitoring requirements are anticipated for this site.

**Background Concentration Data and Emissions from Nearby Sources**

Per DEQ recommendation, data from OKC North Monitor (AQS Site: 40-109-1037) was used to calculate the background concentration. This monitor is considered to provide a conservative background level given that the land use around the monitor is more densely developed than the land use surrounding the facility.

NO$_2$ monitoring data was obtained from USEPA website (https://www3.epa.gov/airdata/) from the AQS Site ID: 40-109-1037 monitor for the most recent five full years the monitor was operational (2011 to 2015). This coincides with the meteorological data period as well.

To account for diurnal and seasonal variations in the background NO$_2$ the SEASHR flag as used in the AERMOD input file. Per EPA guidance the H3H hourly background value was determined for each year-season-hour data group and the determined values were averaged by season-hour between the five included years. The following table provides the calculated NO$_2$ background concentration across each season-hour combination.
Calculated NO₂ Background Concentration, ppb

<table>
<thead>
<tr>
<th>Hour</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31.0</td>
<td>23.4</td>
<td>13.3</td>
<td>24.8</td>
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<td>5</td>
<td>26.6</td>
<td>21.2</td>
<td>13.3</td>
<td>22.0</td>
</tr>
<tr>
<td>6</td>
<td>27.6</td>
<td>22.4</td>
<td>17.0</td>
<td>23.0</td>
</tr>
<tr>
<td>7</td>
<td>29.8</td>
<td>26.4</td>
<td>22.5</td>
<td>26.0</td>
</tr>
<tr>
<td>8</td>
<td>31.2</td>
<td>24.6</td>
<td>19.0</td>
<td>27.5</td>
</tr>
<tr>
<td>9</td>
<td>28.0</td>
<td>18.0</td>
<td>13.5</td>
<td>22.3</td>
</tr>
<tr>
<td>10</td>
<td>21.0</td>
<td>10.0</td>
<td>10.3</td>
<td>16.5</td>
</tr>
<tr>
<td>11</td>
<td>15.2</td>
<td>7.4</td>
<td>7.3</td>
<td>11.0</td>
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<tr>
<td>12</td>
<td>10.2</td>
<td>6.6</td>
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<td>8.0</td>
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<td>6.3</td>
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<td>10.2</td>
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<td>7.5</td>
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<td>18</td>
<td>15.6</td>
<td>6.4</td>
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<td>15.5</td>
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<td>19</td>
<td>27.8</td>
<td>8.4</td>
<td>7.0</td>
<td>24.0</td>
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<td>20</td>
<td>33.4</td>
<td>14.0</td>
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<td>22</td>
<td>35.4</td>
<td>23.4</td>
<td>15.0</td>
<td>30.3</td>
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<tr>
<td>23</td>
<td>34.2</td>
<td>26.2</td>
<td>16.3</td>
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<tr>
<td>24</td>
<td>32.4</td>
<td>25.4</td>
<td>15.0</td>
<td>26.5</td>
</tr>
</tbody>
</table>

The same air monitoring station as used for NO₂ was used to evaluate the CO background. The maximum 1-hour concentration, between 2011 and 2015, was 3.9 ppm which occurred in 2015. This value was used as the background for both the 1-hour and the 8-hour standard.

**Modeled Impacts**

The following table shows that compliance with the appropriate federal air quality standards is achieved for each of the pollutants and averaging periods. Note that the 1-hour NO₂ values reported below are for the receptor with the highest average concentration and do not necessarily represent the receptor with the maximum concentration for each given year. Since the model was run with a multi-year met file AERMOD did not return a district result for the annual NO₂ concentration each year. For NAAQS comparison NO₂ uses the 5-year average and CO uses the 5-year maximum.
Air Dispersion Modeling Results (µg/m³)

<table>
<thead>
<tr>
<th>Year</th>
<th>NO₂</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-hour</td>
<td>Annual</td>
</tr>
<tr>
<td>2011</td>
<td>152.57</td>
<td>See Below</td>
</tr>
<tr>
<td>2012</td>
<td>156.74</td>
<td>See Below</td>
</tr>
<tr>
<td>2013</td>
<td>153.42</td>
<td>See Below</td>
</tr>
<tr>
<td>2014</td>
<td>152.43</td>
<td>See Below</td>
</tr>
<tr>
<td>2015</td>
<td>157.49</td>
<td>See Below</td>
</tr>
<tr>
<td>Average/Maximum</td>
<td>154.53 (H8H, avg)</td>
<td>41.04 (H1H)</td>
</tr>
</tbody>
</table>

NAAQS Requirements

<table>
<thead>
<tr>
<th></th>
<th>NO₂</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass/Fail</td>
<td>187.78</td>
<td>99.52</td>
</tr>
<tr>
<td></td>
<td>25.00</td>
<td>40,075</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10,305</td>
</tr>
</tbody>
</table>

SECTION VII. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter I 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 HAPs 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 Permit No. 2012-1421-TVR2 and information in the permit application.

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 MMBTU or less. For units with a heat input \( \leq 25 \text{ MMBTU} \) the lowest allowable emission rate is 0.484 lb/MMBTU. For external combustion units burning natural gas, AP-42, Table 1.4-2 (7/98), lists the total PM emissions for natural gas to be 7.6 lb/MMft\(^3\) 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 less than 0.02 lb/MMBTU. For large (\( \geq 600\)-hp) diesel-fired CI ICE, AP-42 (10/1996), Section 3.4, lists the total PM emissions as 0.1 lb/MMBTU. The permit requires the use of natural gas for all fuel-burning equipment, except for the diesel-fired emergency generator which is limited to low sulfur diesel, 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 concentration of hydrogen sulfide (H₂S) emissions from any facility
to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 μg/m³. Based
on modeling conducted for the general permit for oil and gas facilities, controlled amine units
(still vent routed to a flare) at minor facilities are unlikely to exceed the H₂S ambient air
concentration limit. Also, since the ambient impacts of H₂S from the engines, heaters, and
boilers is so low, and there are no significant emissions of H₂S from the condensate or “sweet”
crude oil storage, the facility as a whole would be in compliance with the H₂S ambient air
concentration limit.

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.

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 acid gas stream will contain no more than 0.54
long tons per day (LT/D) of sulfur (S). Alternatively, compliance with 0.54 LT/D can be
demonstrated by establishing the emission rate of 100 lb/hr or less of SO₂ (2-hour average).

Based on the permitted throughput of the entire facility, the SO₂ emissions are 0.56 lb/hr, which
is below the threshold and sulfur recovery is not required.

OAC 252:100-33 (Nitrogen Oxides)   [Not Applicable]
This subchapter limits NOₓ 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 tank is
subject to this requirement.

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

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

Part 7 requires fuel-burning and refuse-burning equipment to be operated 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 Area of Concern (AOC) has been designated anywhere in the state, 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:

<table>
<thead>
<tr>
<th>OAC 252:100-11</th>
<th>Alternative Emissions Reduction</th>
<th>Not requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAC 252:100-15</td>
<td>Mobile Sources</td>
<td>Not in source category</td>
</tr>
<tr>
<td>OAC 252:100-17</td>
<td>Incinerators</td>
<td>Not type of emission unit</td>
</tr>
<tr>
<td>OAC 252:100-23</td>
<td>Cotton Gins</td>
<td>Not type of emission unit</td>
</tr>
<tr>
<td>OAC 252:100-24</td>
<td>Grain Elevators</td>
<td>Not in source category</td>
</tr>
<tr>
<td>OAC 252:100-39</td>
<td>Nonattainment Areas</td>
<td>Not in area category</td>
</tr>
<tr>
<td>OAC 252:100-47</td>
<td>Municipal Solid Waste Landfills</td>
<td>Not in source category</td>
</tr>
</tbody>
</table>
SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Final total emissions are less than the major source threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Subparts A, Dc, Kb, JJJJ, OOOO, and OOOOa are Applicable]
Subpart A, General Requirements. The flares are subject to the requirements of 60.18.
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 44-MMBTUH combined heater is subject to the recordkeeping requirements of this subpart. All applicable requirements have been incorporated into the permit.
Subpart K, Ka, Kb, VOL Storage Vessels. The 2,100,000-gallon condensate tank (T-997) is subject to the requirements of Subpart Kb. All applicable requirements have been incorporated into the permit. T-980A is a 90,000-gallon process vessel meeting the volume requirement for Subpart Kb. However, the vessel operates between 200-240 psig and is therefore not subject to Subpart Kb.
Subpart GG, Stationary Gas Turbines. There are no turbines located at this facility.
Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. The equipment is not in a SOCMI plant so this subpart is not applicable.
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 on or before August 23, 2011. The natural gas processing plant was constructed after August 23, 2011 so this subpart is not applicable.
Subpart LLL, Onshore Natural Gas Processing: SO₂ Emissions. This subpart affects sweetening units and sweetening units followed by a sulfur recover unit which commence construction or modification after January 20, 1984. A sweetening unit means a process device that removes hydrogen sulfide and/or carbon dioxide from the sour natural gas stream. A sour natural gas stream is defined as containing greater than or equal to 0.25 grains sulfur per 100 standard cubic feet or 4 ppmv. The natural gas stream at this facility does not contain greater than 0.25 grains sulfur per 100 standard cubic feet or 4 ppmv, therefore the facility does not treat a sour natural gas stream. Therefore, this subpart is not applicable.
Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). This subpart affects CI ICE manufactured after 2007. There are no CI ICE manufactured after 2007 at this facility.
Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and numerous manufacture dates. The engines at this facility shall comply with all applicable requirements.
Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution, affects the following sources that commenced construction, reconstruction, or modification after August 23, 2011 and on or before September 18, 2015.

1. Each single gas well.
2. Single centrifugal compressors using wet seals that are located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.

3. Reciprocating compressors that are single reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.

4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, which commenced construction after August 23, 2011, located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant.

5. Single continuous bleed natural gas driven pneumatic controllers that commenced construction after August 23, 2011, and are located at a natural gas processing plant.

6. Single storage vessels located in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment.

7. All equipment, except compressors, within a process unit at an onshore natural gas processing plant.

8. Sweetening units located at onshore natural gas processing plants.

All tanks at this facility were constructed after September 18, 2015, so the subpart does not apply to the tanks. There are no natural gas driven pneumatic controllers at this facility. Compressors C-801, C-802, C-803, C-804, C-852, and C-853 were constructed prior to September 18, 2015, and therefore must comply with this subpart.

Subpart OOOOa, Crude Oil and Natural Gas Production, Transmission, and Distribution. This subpart was published in the Federal Register on June 3, 2016, with an effective date of August 3, 2016. This subpart regulates equipment at crude oil and natural gas production, transmission and distribution facilities that commenced construction, reconstruction, or modification after September 18, 2015. This subpart regulates single well heads, centrifugal and reciprocating compressors, single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, storage vessels with the potential for VOC emissions greater than 6 TPY after federally enforceable conditions, onshore natural gas processing plants, sweetening units, single natural gas driven pneumatic diaphragm pumps located at onshore natural gas processing plants, and fugitive emission components located at a compressor station. Tank T-997 is subject to Subpart Kb so therefore it is not subject to Subpart OOOOa. Tanks T-950, T-951, T-952, TK-6, and TK-W7 are potentially subject to this subpart. However, since the PTE is less than 6 TPY for each of these tanks as established in 2015-1326-NOI (M-1) for T-950, T-951, T-952 and 2016-0491-C (M-1) for TK-6 and TK-W7, Subpart OOOOa does not apply. Compressors C-805, C-806, C-854, K-100A, K-100B, K-100C, K-100D, and K-100E are subject to this subpart. The site will also be subject to the fugitive monitoring portion of this subpart with compliance required by June 3, 2017.

NESHAP, 40 CFR Part 61

[Not Applicable]
NESHAP, 40 CFR Part 63

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. There are no dehydration units at this facility.

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. The facility is a major source of HAP emissions and is therefore an affected source under this subpart. The engines are four stroke lean burn engines greater than 500-hp located at a major source of HAPs and must meet the requirements from Tables 2a and 2b of this subpart. All applicable requirements have been incorporated into the permit.

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following emission limitation, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>4SLB stationary RICE</td>
<td>a. Reduce CO emissions by 93 percent or more; or</td>
</tr>
<tr>
<td></td>
<td>b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O₂</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following operating limitation, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New and reconstructed 2SLB and CI stationary RICE &gt;500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE &gt;500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.</td>
<td>a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.</td>
</tr>
</tbody>
</table>
Subpart DDDDD. National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters at major sources of HAPs. The heaters in EUG-3 are all “units designed to burn gas-1 fuels” (natural gas and process off-gases not containing measurable sulfur compounds” and are subject to this subpart. The following standards are specified for those units:

<table>
<thead>
<tr>
<th>If your unit is . . .</th>
<th>You must meet the following . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater</td>
<td>Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.</td>
</tr>
<tr>
<td>4. An existing boiler or process heater located at a major source facility, not including limited use units</td>
<td>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575.</td>
</tr>
</tbody>
</table>

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

Compliance Assurance Monitoring, 40 CFR Part 64

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:

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

The compressor engines may be equipped with a catalyst to meet the applicable NOx and/or CO emissions limits. They are subject to NSPS Subpart JJJJ emissions limitations, thus, meeting the CAM exemption for units subject to emission limitations or standards proposed by the
Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act. Therefore, the engines are not subject to CAM.

Chemical Accident Prevention Provisions, 40 CFR Part 68  
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 with more than the threshold quantity of a regulated substance. This facility has submitted their plan to EPA. More information on this federal program is available on the web page: www.epa.gov/rmp.

Stratospheric Ozone Protection, 40 CFR Part 82  
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 I based on the request for construction permit for a Title V facility.

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 Kingfisher Times and Free Press, a daily newspaper in Kingfisher County, on December 5, 2016. The notice stated that the application was available for public review at the facility and at the AQD main office. The applicant will publish a “Notice of Draft Permit,” stating that the draft permit will be available for public review for a period of thirty days at the facility, at the AQD main office, and on the Air Quality section of the DEQ web page at http://www.deq.state.ok.us. This facility is not located within 50 miles of the border of Oklahoma and any other state.

EPA Review
Concurrent to the public comment period, the permit will also be submitted for review by EPA Region 6.

Fees Paid
The applicant submitted $7,500, the application fee for a construction permit of a Title V Source.

SECTION X. SUMMARY

The applicant has demonstrated the ability to achieve compliance with all applicable Air Quality Rules and Regulations. Ambient air quality standards are not threatened at this site. There is no other active Air Quality compliance or enforcement issues other than those noted above. Issuance of the construction permit is recommended, contingent on public and EPA review.
PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Kingfisher Midstream, L.L.C.  
Permit Number 2016-0491-C (M-1)  
Kingfisher Midstream Lincoln Gas Plant (SIC 1321)

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on October 26, 2016. The Evaluation Memorandum dated February 13, 2017, 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 operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

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

EUG-1 Spark-Ignition Reciprocating Internal Combustion Engines

a. Emissions from EUG-01 are limited as follows. Limits shown are per engine.

<table>
<thead>
<tr>
<th>EU ID</th>
<th>Description</th>
<th>NOx</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>lb/hr</td>
<td>TPY</td>
<td>lb/hr</td>
</tr>
<tr>
<td>C-801</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-802</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-803</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-804</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-805</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-806</td>
<td>1,775-hp Caterpillar G3606 LE Compressor Engine(1)</td>
<td>1.96</td>
<td>8.57</td>
<td>1.10</td>
</tr>
<tr>
<td>C-852</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
<td>1.52</td>
<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>C-853</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
<td>1.52</td>
<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>C-854</td>
<td>1,380-hp Caterpillar G3516B Compressor Engine(1)</td>
<td>1.52</td>
<td>6.66</td>
<td>0.73</td>
</tr>
<tr>
<td>K-100A</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>K-100B</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>K-100C</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>K-100D</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
<tr>
<td>K-100E</td>
<td>2,500-hp Caterpillar G3608 LE Compressor Engine(1)</td>
<td>2.76</td>
<td>12.07</td>
<td>0.85</td>
</tr>
</tbody>
</table>

(1) – With Oxidation Catalyst

b. The engines shall be equipped with properly functioning oxidation catalyst. [OAC 252:100-8-6(a)(1)]
c. The engines at the facility shall have a permanent identification plate attached that shows the make, model number, and serial number.

   [OAC 252:100-43]

d. Within 180 days of operational start-up of the new engines, the permittee shall conduct testing of emissions of formaldehyde from at least one engine of each model on location and furnish a written report to AQD documenting that formaldehyde emissions are below permitted values. Testing shall be conducted both before and after the oxidation catalyst. Testing shall be conducted while the engines are operating within 10% of the maximum site rated horsepower. The following US EPA methods shall be used for testing of the formaldehyde emissions unless an alternative is approved by Air Quality: Method 320 or Method 323 for formaldehyde concentrations, Method 3A for the oxygen concentrations, and Method 19 or Methods 1 – 4 for the mass emission rates. In addition to reporting measured concentrations and mass emission rates for formaldehyde, the permittee shall report an emissions factor for formaldehyde in units of g/hp-hr both controlled and uncontrolled. At least 30 days advanced notice of testing with a testing protocol shall be provided to AQD to allow the opportunity to have an observer present. The DEQ shall be provided with a protocol describing the test procedures at least 30 days before each test or group of tests.

   [OAC 252:100-43]

e. The engines are subject to 40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, including but not limited to the following.

   [40 CFR §63.6580 to §63.6675]

   i. §63.6580 What is the purpose of subpart ZZZZ?

   ii. §63.6585 Am I subject to this subpart?

   iii. §63.6590 What parts of my plant does this subpart cover?

   iv. §63.6595 When do I have to comply with this subpart?

   v. §63.6600 What emission limitations and operating limitations must I meet?

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

   vii. §63.6625 What are my monitoring, installation, operation, and maintenance requirements?

   viii. §63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

   ix. §63.6635 How do I monitor and collect data to demonstrate continuous compliance?

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

   xi. §63.6655 What records must I keep?

   xii. §63.6660 In what form and how long must I keep my records?

   xiii. §63.6665 What parts of the General Provisions apply to me?

   xiv. §63.6670 Who implements and enforces this subpart?

   xv. §63.6675 What definitions apply to this subpart?
f. The permittee shall comply with all applicable requirements in 40 CFR Part 60 Subpart JJJJ for all stationary spark ignition (SI) internal combustion engines (ICE) subject to Subpart JJJJ including, but not limited to, the following. [40 CFR §60.4230 to §60.4246]

i. §60.4230 Am I subject to this subpart?

ii. §60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?

iii. §60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

iv. §60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

v. §60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

vi. §60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

vii. §60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?

viii. §60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

ix. §60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP) or a manufacturer of equipment containing such engines?

x. §60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?

xi. §60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?

xii. §60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?

xiii. §60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

xiv. §60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

xv. §60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

xvi. §60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

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

xviii. §60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

xix. §60.4248 What definitions apply to this subpart?
g. The permittee shall at all times properly operate and maintain all engines in a manner that will minimize emissions of hydrocarbons or other organic materials.

[OAC 252:100-37-36]

h. The permittee shall keep operation and maintenance (O&M) records for each engine that is not tested in a quarter. Such records shall at a minimum include the dates of operation and maintenance and type of work performed.

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

i. At least once per calendar quarter, the permittee shall conduct tests of NO\textsubscript{X} and CO emissions in exhaust gases from each engine/turbine and from each replacement engine/turbine when operating under representative conditions for that period. Testing is required for each engine or any replacement 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. Any reduction in the testing frequency shall be noted in the next required compliance certification.

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

j. When periodic compliance testing shows exhaust emissions from the engines in excess of the lb/hr limits in Specific Condition No. 1, the permittee shall comply with the provisions of OAC 252:100-9. Requirements of OAC 252:100-9 include immediate notification and written notification of Air Quality and demonstrations that the excess emissions meet the criteria specified in OAC 252:100-9.

[OAC 252:100-9]

k. 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/turbines of lesser or equal emissions of each pollutant (in lb/hr and TPY) are authorized under the following conditions.

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

i. The permittee shall notify AQD in writing not later than 7 days in advance of the start-up of the replacement engine(s)/turbine(s). Said notice shall identify the
equipment removed and shall include the new engine/turbine make, model, and horsepower; date of the change, and any change in emissions.

ii. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with NO\textsubscript{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, serial number, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emission rates (g/hp-hr, lbs/hr, and TPY) at maximum rated horsepower for the altitude/location.

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 a. 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 III or JJJJ shall comply with all applicable requirements.

**EUG-2 Flares**

a. Emissions from EUG-02 are limited as follows.

<table>
<thead>
<tr>
<th>EU ID</th>
<th>Description</th>
<th>NO\textsubscript{x}</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>lb/hr</td>
<td>lb/hr</td>
<td>lb/hr</td>
</tr>
<tr>
<td>F-960</td>
<td>3.5-MMBTUH Process Flare</td>
<td>1.25</td>
<td>5.69</td>
<td>5.47</td>
</tr>
<tr>
<td>D-701</td>
<td>47.8-MMBTUH Process Flare</td>
<td>3.25</td>
<td>14.83</td>
<td>14.25</td>
</tr>
</tbody>
</table>

b. The permittee shall determine and record the amount of gas vented to each flare (monthly and 12-month rolling totals).

c. The permittee shall comply with the NSPS, General Provisions, Subpart A and shall comply with all applicable requirements: [40 CFR 60.1 to 60.19]

i. § 60.18 General control device and work practice requirements.

   ii. § 60.19 General notification and reporting requirements.

d. The permittee shall also record and maintain the following:

   i. The flare design;

   ii. All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance demonstration; and

   iii. All periods during the compliance determination when the pilot flame was absent.
EUG-3 Heaters/Reboilers

a. Emissions from EUG-03 are limited as follows.

<table>
<thead>
<tr>
<th>EU ID</th>
<th>Description</th>
<th>NOx</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-880A</td>
<td>2.0-MMBTUH Condensate Stabilizer</td>
<td>0.20</td>
<td>0.86</td>
<td>0.16</td>
</tr>
<tr>
<td>H-301</td>
<td>4.0-MMBTUH Line Heater</td>
<td>0.39</td>
<td>1.72</td>
<td>0.33</td>
</tr>
<tr>
<td>H-801</td>
<td>44-MMBTUH Combined Heater</td>
<td>4.31</td>
<td>18.89</td>
<td>3.62</td>
</tr>
<tr>
<td>H-101</td>
<td>4.87-MMBTUH Regen Gas Heater</td>
<td>0.48</td>
<td>2.09</td>
<td>0.40</td>
</tr>
<tr>
<td>H-101, 8MM</td>
<td>8-MMBTUH Regen Gas Heater</td>
<td>0.78</td>
<td>3.44</td>
<td>0.66</td>
</tr>
<tr>
<td>V-501</td>
<td>1.5-MMBTUH Amine Reboiler</td>
<td>0.15</td>
<td>0.64</td>
<td>0.12</td>
</tr>
</tbody>
</table>

a. The permittee shall comply with the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, Subpart Dc, and shall comply with all applicable requirements:

[40 CFR 60.40c to 60.48c]

i. § 60.40c Applicability and delegation of authority.
ii. § 60.41c Definitions.
iii. § 60.42c Standard for sulfur dioxide (SO₂).
iv. § 60.43c Standard for particulate matter (PM).
v. § 60.44c Compliance and performance test methods and procedures for SO₂.
vi. § 60.45c Compliance and performance test methods and procedures for PM.
vii. § 60.46c Emission monitoring for SO₂.
viii. § 60.47c Emission monitoring for PM.
ix. § 60.48c Reporting and recordkeeping requirements.

A. The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

[40 CFR 60.48c(g)]

b. The permittee shall comply with 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, for each of the affected heaters, including but not limited to:

[40 CFR 63.7480 to 63.7575]

i. § 63.7480 What is the purpose of this subpart?
ii. § 63.7485 Am I subject to this subpart?
iii. § 63.7490 What is the affected source of this subpart?
iv. § 63.7491 Are any boiler or process heaters not subject to this subpart?
v. § 63.7495 When do I have to comply with this subpart?
vi. § 63.7499 What are the subcategories of boilers and process heaters?
vii. § 63.7500 What emission limits, work practice standards, and operating limits must I meet?
viii. § 63.7505 What are my general requirements for complying with this subpart?
ix. § 63.7510 What are my initial compliance requirements and by what date must I conduct them?

x. § 63.7515 When must I conduct subsequent performance tests or fuel analyses?

xi. § 63.7520 What performance test and procedures must I use?

xii. § 63.7521 What fuel analyses and procedures must I use?

xiii. § 63.7522 Can I use emission averaging to comply with this subpart?

xiv. § 63.7525 What are my monitoring, installation, operation and maintenance requirements?

xv. § 63.7530 How do I demonstrate initial compliance with the emissions limits and work practice standards?

xvi. § 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

§ 64.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

xvii. § 63.7541 How do I demonstrate continuous compliance under the emission averaging provisions?

xviii. § 63.7545 What notifications must I submit and when?

xix. § 63.7550 What reports must I submit and when?

xx. § 63.7555 What records must I keep?

xxi. § 63.7560 In what form and how long must I keep my records?

xxii. § 63.7565 What parts of the General Provisions apply to me?

xxiii. § 63.7570 Who implements and enforces this subpart?

xxiv. § 63.7575 What definitions apply to this subpart?

EUG-4 Large Storage Tank

a. Crude oil throughput for T-997 shall not exceed 9,125,000 barrels in any 12-month period.

b. Each month the permittee shall calculate and record the crude oil throughput of the facility over the past month and the 12-month rolling total crude oil throughput.

c. T-997 is subject to NSPS, 40 CFR 60 Subpart Kb, and shall comply with all applicable standards including but not limited to: [40 CFR 60.110b to 60.117b]

i. § 60.110b Applicability and designation of affected facility.

ii. § 60.111b Definitions.

iii. § 60.112b Standards for volatile organic compounds (VOC).

iv. § 60.113b Testing and procedures.

v. § 60.114b Alternative means of emission limitation.

vi. § 60.115b Reporting and recordkeeping requirements.

vii. § 60.116b Monitoring of operations.

viii. § 60.117b Delegation of authority.
EUG-5 Small Storage Tanks

a. Throughput for each small storage tank at the facility shall not exceed the amounts shown in the below table in any 12-month period.

<table>
<thead>
<tr>
<th>EU</th>
<th>Name</th>
<th>Throughput (gal/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-950</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>76,650</td>
</tr>
<tr>
<td>T-951</td>
<td>400-bbl Slop Oil Storage Tank</td>
<td>76,650</td>
</tr>
<tr>
<td>T-952</td>
<td>400-bbl “Bad Crude” Storage Tank</td>
<td>1,000</td>
</tr>
<tr>
<td>TK-6</td>
<td>400-bbl Slop Oil Storage Tank</td>
<td>438,000</td>
</tr>
<tr>
<td>TK-W7</td>
<td>400-bbl Produced Water Storage Tank</td>
<td>43,800</td>
</tr>
</tbody>
</table>

b. The emissions from T-951 and T-952 shall be routed to a flare.

c. Each month the permittee shall calculate and record the condensate/slop oil throughput of each tank over the past month and the 12-month rolling total condensate/slop oil throughput.

EUG-6 Large Tank Truck Loading

a. Emissions from EUG-06 are limited as follows.

<table>
<thead>
<tr>
<th>EU ID</th>
<th>Description</th>
<th>VOC TPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD1</td>
<td>T-997 Loading Losses</td>
<td>3.24</td>
</tr>
</tbody>
</table>

b. Crude oil loading from T-997 shall not exceed 9,125,000 barrels in any 12-month period.

c. Each month the permittee shall calculate and record the crude oil throughput of the tank T-997 over the past month and the 12-month rolling total crude oil throughput.

d. Truck loading emissions when loading from T-997 shall be controlled with a vapor recovery system routed to the flare.

e. Trucks loaded to from T-997 shall be certified to have passed NSPS-level annual testing.

EUG-7 Small Tank Truck Loading

a. Emissions from EUG-07 are limited as follows.

<table>
<thead>
<tr>
<th>EU ID</th>
<th>Description</th>
<th>VOC TPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD3</td>
<td>T-951 Loading Losses</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>LOAD4</td>
<td>T-950 Loading Losses</td>
<td>0.01</td>
</tr>
<tr>
<td>LOAD5</td>
<td>T-980A Loading Losses</td>
<td>0.01</td>
</tr>
</tbody>
</table>
b. Condensate/slop oil loading from small tanks shall not exceed the amounts shown in the following table.

<table>
<thead>
<tr>
<th>Unit ID</th>
<th>Emission Source</th>
<th>Throughput (gal/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD3</td>
<td>T-951 Loading Losses</td>
<td>76,650</td>
</tr>
<tr>
<td>LOAD4</td>
<td>T-950 Loading Losses</td>
<td>76,650</td>
</tr>
<tr>
<td>LOAD5</td>
<td>T-980A Loading Losses</td>
<td>42,000</td>
</tr>
</tbody>
</table>

c. Each month the permittee shall calculate and record the contents and throughput of each loading activity over the past month and the 12-month rolling throughput, separated by each tank.

d. Truck loading emissions when loading from LOAD3 shall be controlled with a vapor recovery system routed to the flare.

e. Trucks loaded to from LOAD3 shall be certified to have passed NSPS-level annual testing.

EUG-8 Fugitives
Emissions from the fugitive equipment leaks are based on the 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.

a. The permittee shall maintain, and update annually, an inventory of fugitive emission sources at the facility. The record shall include the following: [OAC 252:100-8-6 (a)(3)]
   i. type of service (gas, heavy oil, light oil, and water/light oil),
   ii. component type and count, and
   iii. VOC content of stream handled.

b. The permittee shall comply with the NSPS for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011, Subpart KKK, and shall comply with all applicable requirements: [40 CFR 60.630 to 60.636]
   i. § 60.630 Applicability and designation of affected facility.
   ii. § 60.631 Definitions.
   iii. § 60.632 Standards.
   iv. § 60.633 Exceptions.
   v. § 60.634 Alternative means of emission limitation.
   vi. § 60.635 Recordkeeping requirements.
   vii. § 60.636 Reporting requirements.

EUG-9 Amine Units

a. The NGL Amine Unit, AU-01, shall be limited to 266 gpm NGL throughput and 25 gpm lean amine throughput.

b. The Amine Unit, AU-02, shall be limited to 200 MMSCFD natural gas throughput and 500 gpm lean solvent throughput.

c. The facility inlet natural gas H₂S content shall not exceed 4 ppmv with testing completed at least monthly using methods accurate to within 0.5 ppm H₂S.

d. The off-gases from both amine units’ flash tanks and vents shall be routed to the flare.
2. All fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once per calendar year. 

3. Upon issuance of an operating permit, the permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). 

4. When periodic compliance testing shows emissions in excess of the lb/hr limits, the permittee shall comply with the provisions of OAC 252:100-9. 

5. The permittee shall comply with the NSPS for Crude Oil and Natural Gas Production, Transportation, and Distribution, Subpart OOOO, and shall comply with all applicable requirements:
   a. § 60.5360 What is the purpose of this subpart?
   b. § 60.5365 Am I subject to this subpart?
   c. § 60.5370 When must I comply with this subpart?
   d. § 60.5375 What standards apply to gas well affected facilities?
   e. § 60.5380 What standards apply to centrifugal compressor affected facilities?
   f. § 60.5385 What standards apply to reciprocating compressor affected facilities?
   g. § 60.5390 What standards apply to pneumatic controller affected facilities?
   h. § 60.5395 What standards apply to storage vessel affected facilities?
   i. § 60.5400 What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?
   j. § 60.5401 What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plants?
   k. § 60.5402 What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?
   l. § 60.5405 What standards apply to sweetening units at onshore natural gas processing plants?
   m. § 60.5406 What test methods and procedures must I use for my sweetening units affected facilities at onshore natural gas processing plants?
   n. § 60.5407 What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?
   o. § 60.5408 What is an optional procedure for measuring hydrogen sulfide in acid gas-Tutwiler Procedure?
   p. § 60.5410 How do I demonstrate initial compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?
   q. § 60.5411 What additional requirements must I meet to determine initial compliance for my closed vent systems routing emissions from storage vessels or centrifugal compressor wet seal fluid degassing systems?
r. § 60.5412 What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my storage vessel or centrifugal compressor affected facility?
s. § 60.5413 What are the performance testing procedures for control devices used to demonstrate compliance at my storage vessel or centrifugal compressor affected facility?
t. § 60.5415 How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?
u. § 60.5416 What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my storage vessel or centrifugal compressor affected facility?
v. § 60.5417 What are the continuous control device monitoring requirements for my storage vessel or centrifugal compressor affected facility?
w. § 60.5420 What are my notification, reporting, and recordkeeping requirements?
x. § 60.5421 What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
y. § 60.5422 What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
z. § 60.5423 What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?

aa. § 60.5425 What parts of the General Provisions apply to me?
bb. § 60.5430 What definitions apply to this subpart?

6. The permittee shall comply with the NSPS for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After September 18, 2015, Subpart OOOOa, and shall comply with all applicable requirements:

[40 CFR 60.5360a to 60.5499a]

a. § 60.5360a What is the purpose of this subpart?
b. § 60.5365a Am I subject to this subpart?
c. § 60.5370a When must I comply with this subpart?
d. § 60.5375a What GHG and VOC standards apply to well affected facilities?
e. § 60.5380a What GHG and VOC standards apply to centrifugal compressor affected facilities?
f. § 60.5385a What GHG and VOC standards apply to reciprocating compressor affected facilities?
g. § 60.5390a What GHG and VOC standards apply to pneumatic controller affected facilities?
h. § 60.5393a What GHG and VOC standards apply to pneumatic pump affected facilities?
i. § 60.5395a What VOC Standards apply to storage vessel affected facilities?
j. § 60.5397a What fugitive emissions GHG and VOC standards apply to the affected facility which is the collection of fugitive emissions components at a well
site and the affected facility which is the collection of fugitive emissions components at a compressor station?

k. §60.5398a What are the alternative means of emission limitations for GHG and VOC from well completions, reciprocating compressors, the collection of fugitive emissions components at a well site and the collection of fugitive emissions components at a compressor station?

l. §60.5400a What equipment leak GHG and VOC standards apply to affected facilities at an onshore natural gas processing plant?

m. §60.5401a What are the exceptions to the equipment leak GHG and VOC standards for affected facilities at onshore natural gas processing plants?

n. §60.5402a What are the alternative means of emission limitations for GHG and VOC equipment leaks from onshore natural gas processing plants?

o. §60.5405a What standards apply to sweetening unit affected facilities at onshore natural gas processing plants?

p. §60.5406a What test methods and procedures must I use for my sweetening unit affected facilities at onshore natural gas processing plants?

q. §60.5407a What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?

r. §60.5408a What is an optional procedure for measuring hydrogen sulfide in acid gas—Tutwiler Procedure?

s. §60.5410a How do I demonstrate initial compliance with the standards for my well, centrifugal compressor, reciprocating compressor, pneumatic controller, pneumatic pump, storage vessel, collection of fugitive emissions components at a well site, collection of fugitive emissions components at a compressor station, and equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?

t. §60.5411a What additional requirements must I meet to determine initial compliance for my covers and closed vent systems routing emissions from centrifugal compressor wet seal fluid degassing systems, reciprocating compressors, pneumatic pumps and storage vessels?

u. §60.5412a What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my centrifugal compressor, and storage vessel affected facilities?

v. §60.5413a What are the performance testing procedures for control devices used to demonstrate compliance at my centrifugal compressor and storage vessel affected facilities?

w. §60.5415a How do I demonstrate continuous compliance with the standards for my well, centrifugal compressor, reciprocating compressor, pneumatic controller, pneumatic pump, storage vessel, collection of fugitive emissions components at a well site, and collection of fugitive emissions components at a compressor station affected facilities, and affected facilities at onshore natural gas processing plants?

x. §60.5416a What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my centrifugal compressor, reciprocating compressor, pneumatic pump, and storage vessel affected facilities?
y. §60.5417a What are the continuous control device monitoring requirements for my centrifugal compressor and storage vessel affected facilities?
z. §60.5420a What are my notification, reporting, and recordkeeping requirements?
aa. §60.5421a What are my additional recordkeeping requirements for my affected facility subject to GHG and VOC requirements for onshore natural gas processing plants?
bb. §60.5422a What are my additional reporting requirements for my affected facility subject to GHG and VOC requirements for onshore natural gas processing plants?
cc. §60.5423a What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?
dd. §60.5425a What parts of the General Provisions apply to me?
ee. §60.5430a What definitions apply to this subpart?
ff. §60.5432a How do I determine whether a well is a low pressure well using the low pressure well equation?

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

a. For fuel storage/dispensing equipment operated solely for facility owned vehicles: Records of the type and amount of fuel dispensed (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).

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

a. Periodic emission testing for the engines and each replacement engine.
b. Operating hours for the engines if less than 220 hours per quarter and not tested.
c. O&M records for any engine if not tested in each 6-month period.
d. Records of the flare pilot flame outages.
e. For fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 2.
f. Records required by NESHAP, Subparts ZZZZ and DDDDD.
g. Records required by NSPS, Subparts A (fuel gas, design tip velocity, design heating value), Dc (fuel usage for the hot oil heater as required by Dc), Kb, KKK (maintain semi-annual reports, etc.), JJJJ, OOOO and OOOOa.
h. Amount of gas vented to each flare (monthly and 12-month rolling totals).
i. Crude oil throughput (monthly and 12-month rolling total).

j. Condensate/slop oil throughput (monthly and 12-month rolling total).

k. Testing of H₂S concentration in the plant inlet gas stream (monthly).

9. The permittee shall submit a request for a Title V operating permit within 180 days of commencement of operations of the proposed project.
MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(June 21, 2016)

SECTION I. DUTY TO COMPLY

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

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

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

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

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

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

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

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

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

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

   [OAC 252:100-43]

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

   [OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]
G. Any owner or operator subject to the provisions of New Source Performance Standards (“NSPS”) under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

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

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

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

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

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

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

SECTION IV. COMPLIANCE CERTIFICATIONS

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

[OAC 252:100-8-6(c)(5)(A), and (D)]
B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

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

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

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

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

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

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

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

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

SECTION VI. PERMIT SHIELD

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

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

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

[OAC 252:100-8-6(d)(2)]
SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

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

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

SECTION VIII. TERM OF PERMIT

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

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

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

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

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

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

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

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking,
reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.  
\[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.  
\[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.  
\[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.  
\[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:  
\[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

(1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

(2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.

(3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.

(4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

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

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a “grandfathered source,” as defined under AQD rules. Such changes may require a permit modification.  
\[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]
E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited.  [OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

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

(1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.  [OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.  [OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

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

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

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:  [OAC 252:100-8-6 (e)(2)]
(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;  
(2) the permitted facility was at the time being properly operated;  
(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

(1) 5 tons per year of any one criteria pollutant.
(2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.  
[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.  
[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

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

2. No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

3. For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for:

   (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. 2016-0491-C (M-1)

Kingfisher Midstream, L.L.C

having complied with the requirements of the law, is hereby granted permission to modify
The Kingfisher Midstream Lincoln Gas Plant located in Section 35, T18N, R6W,
Kingfisher County, Oklahoma, subject to the Standard Conditions dated June 21, 2016,
and the Specific Conditions, both of which are attached.

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

_________________________ _______________________
Division Director Date
Air Quality Division
Kingfisher Midstream, L.L.C.
Attn: Mr. Mark Bounds
20329 State Highway 249
Suite 450
Houston, TX 77070

SUBJECT: Permit No. 2016-0491-C (M-1)
Facility: Kingfisher Midstream Lincoln Gas Plant
Facility ID#: 15531
Section 35, Township 18N, Range 6W, Kingfisher County, Oklahoma

Dear Mr. Bounds:

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

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

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me at (405) 702-4100 or the permit writer, Lisa Cox, at (405) 702-4187.

Sincerely,

Phillip Fielder, P.E., Permits and Engineering Group Manager
AIR QUALITY DIVISION
Enclosures
Kingfisher Midstream, L.L.C.
Attn: Mr. Mark Bounds
20329 State Highway 249
Suite 450
Houston, TX 77070

SUBJECT: Permit No. 2016-0491-C (M-1)
Facility: Kingfisher Midstream Lincoln Gas Plant
Facility ID#: 15531
Section 35, Township 18N, Range 6W, Kingfisher County, Oklahoma

Dear Mr. Bounds:

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

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

Thank you for your cooperation in this matter. If we may be of further service, please contact me at lisa.cox@deq.ok.gov or (405) 702-4187.

Sincerely,

Lisa Cox, E.I.
Existing Source Permits Section
AIR QUALITY DIVISION

Enclosures