Colorado Department of Public Health and Environment

# OPERATING PERMIT

Kerr-McGee Gathering LLC – Frederick Compressor Station

First Issued: April 1, 1998

Renewed: January 1, 2007

# AIR POLLUTION CONTROL DIVISION
# COLORADO OPERATING PERMIT

| | | |
|---|---|---|
| FACILITY NAME: | Frederick Compressor Station | OPERATING PERMIT NUMBER |
| FACILITY ID: | 1230184 | **95OPWE035** |
| RENEWED: | January 1, 2007 | |
| EXPIRATION DATE: | January 1, 2012 | |
| MODIFICATIONS: | See Appendix F of Permit | |

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:

Kerr McGee Gathering LLC
1999 Broadway, Suite 3600
Denver, CO 80202

PLANT SITE LOCATION:

Sec. 15, T1N, R67W, 3988 Weld County Road 19
Frederick, Colorado
Weld County

INFORMATION RELIED UPON

| | |
|---|---|
| Operating Permit Renewal Application Received: | September 13, 2002 |
| And Additional Information Received: | Too many to list. |

| | |
|---|---|
| Nature of Business: | Natural gas gathering and compression |
| Primary SIC: | 1311 |

| RESPONSIBLE OFFICIAL | | FACILITY CONTACT PERSON | |
|---|---|---|---|
| Name: | Robert E. Justice | Name: | Jill D. Henderson |
| Title: | Manager, Kerr-McGee Gathering LLC | Title: | Senior Environmental Specialist |
| Phone: | 303-659-5922 | Phone: | 303-296-9600 |
| Alternates: | Alan Harrison | | |

SUBMITTAL DEADLINES

| | |
|---|---|
| Semi-Annual Monitoring Period: | October 1 – March 31 & April 1 – September 30 |
| Semi-Annual Monitoring Report: | May 1, 2007 & November 1, 2007 and subsequent years |
| Annual Compliance Period: | April 1 through March 31 |
| Annual Compliance Certification: | May 1, 2007 and subsequent years |

**Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.**

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## SECTION I - General Activities and Summary

### 1. Permitted Activities

1.1 This facility is a Natural Gas Gathering and Compression facility as defined under Standard Industrial Classification 1311. Gas is compressed to specification for transmission to sales pipelines using three (3) Internal Combustion Engines to power compressor units. Other activities conducted on site include dehydration of the gas through contact with triethylene glycol, and gravity separation of condensates. The dehydrator is equipped with a thermal oxidizer unit to control VOC emissions. Emissions from the tanks are controlled with an air-assist vertical flare. The Caterpillar engine is equipped with an oxidizing catalyst for CO and formaldehyde control. Fugitive VOC emissions also result from equipment leaks.

The facility is located at 3988 Weld County Road 19, Frederick, Weld County, Colorado. The area in which the plant operates is designated as attainment for all criteria pollutants. This facility is located in the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.16.

There are no affected states within 50 miles of the plant. The following Federal Class I designated areas are within 100 kilometers of the plant: Rocky Mountain National Park.

1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.

1.3 The Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this Operating Permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: 12WE804, 13WE199, 01WE0349, 03WE0064, 03WE1153.

1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section IV - Conditions 14, 18 & 3.g (as noted).

1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit. Either electronic or hard copy records are acceptable.

## 2. Alternative Operating Scenarios (ver. 06/01/2006)

The following Alternative Operating Scenario (AOS) for temporary and permanent engine replacement has been reviewed in accordance with the requirements of Regulation No. 3., Part A, Section IV.A, Operational Flexibility-Alternative Operating Scenarios, and Regulation No. 3, Part B, Construction Permits, and Regulation No. 3, Part D, Major Stationary Source New Source review and Prevention of Significant Deterioration, and has been found to meet all applicable substantive and procedural requirements. This permit incorporates and shall be considered a Construction Permit for any engine replacement performed in accordance with this AOS, and the permittee shall be allowed to perform such engine replacement without applying for a revision to this permit or obtaining a new Construction Permit.

### 2.1 Engine Replacement

The following AOS is incorporated into this permit in order to deal with a compressor engine breakdown or periodic routine maintenance and repair of an existing onsite engine that requires the use of either a temporary or permanent replacement engine. "Temporary" is defined as in the same service for 90 operating days or less in any 12 month period. "Permanent" is defined as in the same service for more than 90 operating days in any 12 month period. The 90 days is the total number of days that the engine is in operation. If the engine operates only part of a day, that day counts towards the 90 day total. Note that the compliance demonstrations and any periodic monitoring required by this AOS are in addition to any compliance demonstrations or periodic monitoring required by this permit.

All replacement engines are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping), and shall be subject to any shield afforded by this permit.

Results of all tests and the associated calculations pursuant required by this AOS shall be submitted to the Division within 30 calendar days of the test. Results of all tests shall be kept on site for five (5) years and made available to the Division upon request.

The permittee shall maintain a log on-site to contemporaneously record the start and stop date of any engine replacement, the manufacturer, model number, horsepower, and serial number of the engine(s) that are replaced during the term of this permit, and the manufacturer, model number, horsepower, and serial number of the replacement engine.

2.1.1 The permittee may **temporarily** replace an existing compressor engine that is subject to the emission limits set forth in this permit with an engine that is of the same manufacturer, model, and horsepower or a different manufacturer, model, or horsepower as the existing engine without modifying this permit**,** so long as the emissions from the temporary replacement engine comply with the emission limitations for the existing permitted engine as determined in section 2.2. Measurement of emissions from the temporary replacement engine shall be made as set forth in section 2.2.

The permittee may temporarily replace a grandfathered or permit exempt engine or an engine that is not subject to emission limits without modifying this permit. In this circumstance, potential annual emissions of $NO_x$ and CO from the temporary replacement engine must be less than or equal to the potential annual emissions of $NO_x$ and CO from the original grandfathered or permit exempt engine or for the engine that is not subject to emission limits, as determined by applying appropriate emission factors (e.g. AP-42 or manufacturer's emission factors)

2.1.2 The permittee may **permanently** replace the existing compressor engine for the emission points specified in Table 1 with the manufacturer, model, and horsepower engines listed in Table 1 without modifying this permit so long as the emissions from the permanent replacement engine comply with the emission limitations for the existing permitted engine as determined in section 2.2. Measurement of emissions from the permanent replacement engine shall be made as set forth in section 2.2.

An Air Pollutant Emissions Notice (APEN) that includes the specific manufacturer, model and serial number and horsepower of the permanent replacement engine shall be filed with the Division for the permanent replacement engine within 14 calendar days of commencing operation of the replacement engine. The APEN shall be accompanied by the appropriate APEN filing fee and a cover letter explaining that the permittee is exercising an alternative operating scenario and is installing a permanent replacement engine.

This AOS cannot be used for permanent engine replacement of a grandfathered or permit exempt engine or an engine that is not subject to emission limits.

The permittee shall agree to pay fees based on the normal permit processing rate for review of information submitted to the Division in regard to any permanent engine replacement.

At its discretion, the Division may require that the permittee apply for and obtain a minor permit modification, in accordance with the provisions of Regulation No. 3, Part C, § X, for any permanent engine replacement.

Nothing in this AOS shall preclude the Division from taking an action, based on any permanent engine replacement(s), for circumvention of any state or federal Prevention of Significant Deterioration or Non-Attainment New Source Review ("PSD/NSR") requirement. Additionally, in the event that any permanent engine replacement(s) constitute(s) a circumvention of applicable PSD/NSR requirements, nothing in this AOS shall excuse the permittee from complying with PSD/NSR and applicable Title V permitting requirements.

Except as provided below, if this engine is located at a major source for Hazardous Air pollutants as defined in Regulation No. 3, Part A, section I.B.59.a., any

permanent engine replacement under this AOS shall result in the replacement engine being considered a new affected source for purposes of 40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and shall be subject to all appropriate applicable requirements of that Subpart.

Exemptions:

1) Engines site rated at 500 hp or less are not subject to Subpart ZZZZ

2) Engines site rated at greater than 500 hp that the Division has determined are not subject to Subpart ZZZZ (see Table 1)

If Subpart ZZZZ is newly triggered by a permanent replacement engine, the permittee must apply for a revision to their operating permit within 90 days of installation.

## 2.2 Portable Analyzer Testing

The permittee shall measure nitrogen oxide ($NO_x$) and carbon monoxide (CO) emissions in the exhaust from the replacement engine using a portable flue gas analyzer *within seven (7) calendar days of commencing operation of the replacement engine*.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's website at: http://www.cdphe.state.co.us/ap/down/portanalyzeproto.pdf

Results of the portable analyzer tests shall be used to monitor the compliance status of this unit. For comparison with an annual or short term emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable analyzer results indicate compliance with both the $NO_X$ and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the $NO_X$ and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the $NO_X$ or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the $NO_X$ and CO emission limitations or until the engine is taken offline.

### 2.3 Additional Sources

The replacement of an existing engine with a new engine is viewed by the Division as the installation of a new emissions unit, not "routine replacement" of an existing unit. The AOS is therefore essentially an advanced construction permit review. The AOS cannot be used for additional new emission points for any site; an engine that is being installed as an entirely new emission point and not as part of an AOS-approved replacement of an existing onsite engine has to go through the appropriate Construction/Operating permitting process prior to installation.

## Table 1

| Emission Point | Replacement Engine | Periodic Monitoring | Stack Test | MACT Status |
|---|---|---|---|---|
| EU-41 | Exact replacement | Quarterly | No | Existing 2SLB, Serial Number: 48715 |
| EU-42 | Exact replacement | Quarterly | No | Existing 2SLB, Serial Number: 48799 |
| EU-43 | Exact replacement | Quarterly | No | New 4SLB, 03WE1153 |

## 3. Prevention of Significant Deterioration

3.1 This facility is located in an area designated attainment for all pollutants. It is categorized as a major stationary source (Potential to Emit > 250 Tons/Year for Oxides of Nitrogen. Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.27 and 44) for any pollutant as listed in Regulation No. 3, Part D, Section II.A.44 or a modification which is major by itself may result in the application of the PSD review requirements.

3.2 There are no other Operating Permits associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations.

## 4. Accidental Release Prevention Program (112(r))

4.1 Based upon the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act).

## 5. Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

Condensate tanks

Triethylene Glycol Dehydration Unit

## 6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

| Emission Unit Number | AIRS Point Number | Description | Pollution Control Device |
|---|---|---|---|
| EU-41 | 004 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48715 | Uncontrolled |
| EU-42 | 005 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48799 | Uncontrolled |
| EU-01 | 006 | QB Johnson Custom Triethylene Glycol Dehydration Unit, Design Rated at 80 MMscf/day | Thermal oxidizer with fin-fan air-cooled condenser |
| F001 | 007 | Fugitive Emissions of Volatile Organic Compound From Equipment Leaks | Uncontrolled |
| T001 | 008 | Condensate tanks - Five (5) 225 barrel, one (1) 200 barrel, and one (1) 300 barrel with vents manifolded together | Air-assist vertical flare |
| EU-43 | 009 | Caterpillar model G3608LE, Internal Combustion Engine, four-cycle Low NOx, 2104 HP, natural gas fired, Serial No. 4WF0087 | Oxidizing Catalyst |

## SECTION II - Specific Permit Terms

### 1. EU-41/EU-42 - Two (2) Cooper Bessemer Internal Combustion Engines

[Limits are for Each Engine]

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---|---|---|---|---|---|---|
| | | Short Term | Long Term | | Method | Interval |
| $NO_X$ | 1.1 | | 223.6 tons per year | 1.73 lb/MMBtu | Record keeping and calculation | Monthly |
| VOC | | | 49.1 tons per year | 0.38 lb/MMBtu | | |
| CO | | | 113.6 tons per year | 0.88 lb/MMBtu | | |
| $PM_{10}$ | | | 6.24 tons per year | 0.048 lb/MMBtu | | |
| Natural Gas Consumption | 1.2 | | 260.8 MMscf per year | | Fuel Meter | Monthly |
| Opacity – **Applies to Each Unit** | 1.3 | Not to Exceed 20% | | | Fuel Restriction | Only Natural Gas is Used as Fuel |
| Portable Monitoring | 1.4 | | | | Flue Gas Analyzer | Quarterly |
| Btu content of natural gas | 1.5 | | | | ASTM or other Division Approved Method | Semi-Annually |
| Operations & Maintenance | 1.6 | | | | See Condition 1.6 | |
| Emissions Controls for Stationary and Portable engines | 1.7 | Installation of an oxidation catalyst | | | See Condition 1.7 | |

1.1 Nitrogen Oxide ($NO_X$), Carbon Monoxide (CO), Volatile Organic Compound (VOC), and $PM_{10}$ emissions from this engine shall not exceed the limitations stated above (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Section I.A.7 and Part C, Section III.B.7 based on maximum production rate of 260.8 MMscf/yr per engine identified in an APEN filed by the source dated 8/9/2005). Except as provided for below, the emission factors listed above (from manufacturer, converted to lbs/MMBtu based on an engine heat rate of 7,000 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine, as follows:

Monthly emissions of each pollutant shall be calculated by the end of the subsequent month using the above emission factors, the monthly natural gas consumption and the lower heating value of the fuel in the equation below:

$$\text{Tons/mo} = \frac{\text{CEF (lbs/MMBtu) x Monthly Fuel Use (MMscf/mo) x Heat Content of Fuel (MMBTU/MMscf)}}{\text{2000 lbs/ton}}$$

A twelve month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

If the results of the portable analyzer testing conducted under the provisions of condition 1.4 show that either the $NO_X$ or CO emission rates/factors are greater than those listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test**.**

1.2 Natural gas consumption for the engines shall not exceed the limitations shown in Summary Table 1 above. (Construction Permits 13WE199, 12WE804 as modified under the provisions of Section I, Condition 1.3 of this Operating Permit). Within the first seven days of every month, the fuel meter shall be read and recorded. The natural gas use shall be measured no more than one (1) hour from the time that run time hours have been recorded. A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

1.3 Opacity of emissions from each engine shall not exceed 20% (Colorado Construction Permit 13WE199 & 12WE804). In the absence of any evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for these engines.

1.4 Portable Monitoring (06/01/2006 version): Emission measurements of nitrogen oxides ($NO_X$) and carbon monoxide (CO) shall be conducted quarterly using a portable flue gas analyzer. At least one calendar month shall separate the quarterly tests**.** Note that if the engine is operated for less than 100 hrs in any quarterly period, then the portable monitoring requirements do not apply.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's website at: http://www.cdphe.state.co.us/ap/down/portanalyzeproto.pdf

Results of the portable analyzer tests shall be used to monitor the compliance status of this unit. For comparison with an annual or short term emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable analyzer results indicate compliance with both the $NO_X$ and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the $NO_X$ and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the $NO_X$ or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the $NO_X$ and CO emission limitations or until the engine is taken offline.

For comparison with the emission rates/factors, the emission rates/factors determined by the portable analyzer tests and approved by the Division shall be converted to the same units as the emission rates/factors in the permit. If the portable analyzer tests shows that either the $NO_X$ or CO emission rates/factors are greater than the relevant ones set forth in the permit, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rate/factor within 60 days of the completion of the test.

Results of all tests conducted shall be kept on site, or at a local field office, and made available to the Division upon request**.**

1.5 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.

1.6 Each engine shall be operated and maintained in accordance with internal operating and maintenance standards, which shall consider manufacturer's recommendations and good engineering practices, at all times, including periods of start-up, shut-down and malfunction.

1.7 Control of Emissions from Stationary and Portable Engines in the 8-Hour Ozone Control Area

Any existing natural gas-fired stationary or portable reciprocating internal combustion engine with a manufacturer's design rate greater than 500 horsepower, which existing engine was operating in the 8-hour Ozone Control Area prior to June 1, 2004, shall employ air pollution control technology on and after May 1, 2005, as provided in Condition 1.7.1 & 1.7.2 (Colorado Regulation No. 7, Section XVI.A.2).

1.7.1 For lean burn reciprocating internal combustion engines, an oxidation catalyst shall be required. A lean burn reciprocating internal combustion engine is one with a normal exhaust oxygen concentration of 2% by volume, or greater. (Colorado Regulation No. 7, Section XVI.B.2).

1.7.2 The emission control equipment required by this Condition 1.7 shall be appropriately sized for the engine and shall be operated and maintained according to manufacturer specifications. (Colorado Regulation No. 7, Section XVI.B.3).

## 2. EU-01 QB Johnson Custom Triethylene Glycol Dehydration Unit with thermal oxidizer and condenser;

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---|---|---|---|---|---|---|
| | | Short Term | Long Term | | Method | Interval |
| NOx Emissions | 2.1 | | 2.62 tons/yr | 0.138 lb/MMBtu | Record keeping and Calculation | Monthly |
| CO Emissions | | | 5.27 tons/yr | 0.2755 lb/MMBtu | | |
| VOC Emissions | | | 15.15 tons/yr | Based on GRI GlyCalc Model, Version 4.0 or Higher | Parametric | Daily |
| HAP Emissions from glycol dehydration units and storage tanks with potential for flash | | | Each individual HAP: 8.0 tons per year<br>Total HAPs: 20.0 tons per year | | | |
| Extended Gas Analysis | | | | | EPA Reference Methods | Quarterly |
| Thermal Oxidizer Maintenance | | | 60 hours/yr | | Recordkeeping | Monthly |
| Gas Processed | 2.2 | | 29,200 million scf per year | | Recordkeeping | Monthly |
| Hours of Operation | 2.3 | | | | Recordkeeping | Monthly |
| Control System | 2.4 | | 99.0% reduction<br>1200°F - 1900°F TO temp.<br>≤ 140°F condenser setpoint temp. | | Recordkeeping | Continuous & Daily |
| Thermal Oxidizer Opacity | 2.5 | | Not to exceed 20% except as provided in condition 2.6 | | | |
| Compliance Assurance Monitoring (CAM) | 2.7 | | | | See Condition 2.7 | |
| VOC Emissions from Oil and Gas Operations | 2.8 | | | | See Condition 2.8 | |
| Compliance Test | 2.9 | | | | Testing conducted according to Condition 2.9 | |

2.1 Emissions of air pollutants shall not exceed the limitations listed in the table above. Compliance with the annual limits shall be determined on a rolling 12-month total. By the end of each month a new twelve month total is calculated based on the previous twelve months data. Monthly records of the actual emissions shall be maintained by the applicant and made available to the Division for inspection upon request. (Construction Permit 01WE0349, as modified under the provisions of Section I, Condition 1.3. Based on the emissions identified on the APEN and worst-case dehydrator emission data submitted to the Division on September 15, 2006).

2.1.1 The triethylene glycol circulation rate and inlet (wet) gas temperature for this unit shall be measured and recorded daily. The circumstances surrounding any day on which the required parameters fail to be measured and recorded shall be described in a log to be maintained on-site. The average value for each of these parameters shall be determined for any month during which a daily recorded parameter fails the stipulated passing criteria compared to the values listed in the table below. Data from the previous-most day for which data exists may be substituted for missing data in the event the calculation of a monthly-average value is required.

| Parameter | Value | Units | Criteria |
|---|---|---|---|
| Inlet (Wet) Gas Temperature | 70.0 | degrees Fahrenheit | At or Above |
| Glycol Circulation Rate | 14.0 | gallons per minute | At or Below |
| Benzene Content of Gas | 300.0 | parts per million | At or Below |
| Toluene Content of Gas | 390.0 | parts per million | At or Below |
| Ethyl Benzene Content of Gas | 20.0 | parts per million | At or Below |
| Xylene Content of Gas | 130.0 | parts per million | At or Below |

2.1.2 Samples of inlet gas shall be collected and analyzed (extended gas analysis) to determine $C_1$ to $C_6$, n-hexane, benzene, toluene, ethyl benzene and total xylene (BTEX) composition once per calendar quarter. Frequency of extended gas analyses shall move to semi-annually (calendar semi-annual period) after the first year, then to annually (calendar year) after the second year if BTEX concentrations remain consistently below the established values as identified in the above table. Frequency will revert back to quarterly (calendar quarter) if any of the BTEX constituents exceed the listed values.

2.1.3 If the average glycol circulation rate, the average inlet gas temperature, or the concentration of a BTEX constituent does not meet the stipulated passing criteria, the GRI GLYCalc (Version 4.0 or higher) model shall be run to determine monthly emission rates. Inputs to the model will be the recorded average values for inlet temperature and glycol circulation rate, gas data from the most recent required analysis (Condition 2.1.2), the average daily gas throughput rate (Condition 2.2) and the following assumed values:

| | |
|---|---|
| Inlet Gas Pressure: | 964.7 psia |
| Theoretical Stages: | 1.25 |

Thermal Oxidizer Control Efficiency: 99.0%

GLYCalc model runs shall be conducted for the month(s) in which the monthly average value of a GLYCalc parameter recorded daily was exceeded and for every month in which any BTEX constituent exceeds the values listed in Condition 2.1.1, beginning with the month in which the gas sample was taken which indicates the exceedance and ending in the month in which a gas sample is taken that indicates no exceedance. GLYCalc model runs shall be completed by the end of the subsequent month.

2.1.4 A rolling 12-month total for VOC and individual HAP emissions shall be maintained to monitor compliance with the annual limitations. The 12-month total may be assumed to be equal to the annual limitations for any 12-month period for which no GLYCalc runs were triggered. The calculation of the 12-month total shall be performed for any month a GLYCalc run is triggered. If a GLYCalc run is required for any reason for a given month, the pounds per hour of emissions predicted by the model shall be multiplied by number of hours the unit ran for that month. The monthly VOC and individual HAP emissions used in the rolling 12-month total for months that do not trigger a GLYCalc run shall be the number of operating hours in the month multiplied by an hourly VOC emission rate of 2.1 lbs/hr and individual HAP emission rate of 0.39 lbs/hr (Worst Case Dehydrator Emissions - Submitted to the Division on September 15, 2006). If the 12-month rolling total of VOC and/or individual HAP emissions exceeds the annual limitation, emissions for the previous months must be calculated with GLYCalc using the parameters described in Condition 2.1.3 until the rolling 12-month total is less than the annual VOC and/or individual HAP limitation or all twelve months have been recalculated.

2.1.4.1 The combined HAP emissions from all the glycol dehydration units and storage vessels with the potential for flash shall not exceed the limitations listed in Summary Table 2 above (Construction Permit 01WE0349, as modified under the provisions of Section I, Condition 1.3).

2.1.5 The permittee may temporarily operate the dehydration unit while the thermal oxidizer is undergoing periodic maintenance. The time during which the dehydration unit operates without control from the thermal oxidizer shall not exceed 60 hours per year. The permittee shall submit a notice of the periodic maintenance to the Division at least five days prior to the periodic maintenance. This notice shall explain that the dehydration unit will be operated without control from the thermal oxidizer and shall contain the dates and expected length of the maintenance. The permittee shall maintain a log onsite to record the start and stop times when the dehydration unit operates without control from the thermal oxidizer. These records shall be made available to the Division upon request. The permittee shall calculate uncontrolled emissions from any period that the dehydration unit is not controlled. The permittee will incorporate the calculated uncontrolled emissions into the rolling 12 month total emissions to insure compliance with the annual limit.

2.1.6 NOx and CO emissions shall not exceed the above limitations (Colorado Construction Permit 01WE0349, as modified under the provisions of Section I, Condition 1.3). Monthly emissions of each pollutant shall be calculated using the listed emissions factors (from Texas Natural Resource Conservation Commission (TNRCC) factors) in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lbs/MMBtu) x monthly heat input to thermal oxidizer (MMBtu/mo)}}{\text{2000 lbs/ton}}$$

Heat input to thermal oxidizer = heat input from supplemental fuel + heat input from glycol still vent.

2.2 Processing of natural gas shall not exceed 29,200 MMscf per year. (Construction Permit 01WE0349, as modified under the provisions of Section I, Condition 1.3)

The gas throughput to the dehydration unit shall be recorded monthly using existing flow meters. A twelve-month rolling total will be maintained to monitor compliance with annual throughput limitations. An average daily gas throughput rate shall be determined by dividing the monthly gas throughput by the number of operating days in the previous month. This average daily gas throughput rate shall be used in any required GlyCalc runs.

2.3 The Hours/Days of Operation shall be monitored monthly and recorded and maintained to be made available to the Division upon request. The hours of operation shall be used to calculate the monthly emissions in any month that a GLYCalc run is required as specified in Condition 2.1.3 and to calculate the hourly supplemental fuel to the thermal oxidizer (Condition 2.1.6). The days of operation shall be used to calculate an average daily gas throughput as specified in Condition 2.2.

2.4 This emission unit is designed with a control system which shall be capable of reducing the emissions of volatile organic compounds by at least 99%. (Construction Permit 01WE0349, as modified under the provisions of Section I, Condition 1.3).

2.4.1 The thermal oxidizer shall be equipped with a heat sensing monitoring device, equipped with a temperature monitoring device equipped with a continuous recorder. The monitoring device shall have a minimum accuracy of ± 2 percent of the temperature being monitored in °C (3.6 percent in °F), or ± 2.5°C (4.5°F), whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

2.4.2 The combustion temperature of the thermal oxidizer shall not be less than 1200 ºF or greater than 1900 ºF. Records of the times and duration of all periods during which the temperature is out of compliance with this condition shall be kept and made available for Division review upon request.

2.4.3 The condenser shall be operated with an outlet temperature of 140 °F or less. The actual temperature shall be recorded on a daily basis and these records shall be kept and make available for Division review upon request.

2.5 Except as provided in Condition 2.6 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).

In the absence of credible evidence to the contrary, compliance with the opacity limit shall be presumed since only natural gas is being burned as fuel for the thermal oxidizer.

2.6 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

2.7 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to the TEG dehydrator with respect to the VOC and HAP limitations identified in Condition 2.1 as follows:

2.7.1 The permittee shall follow the CAM Plan provided in Appendix H of this permit. Excursions, for purposes of reporting are any time the thermocouple temperature indicates a temperature less than 1200º F or greater than 1900º F, or the absence of a flame. Excursions shall be reported as required by Section IV, Conditions 21 and 22.d of this permit.

2.7.2 Operation of Approved Monitoring

2.7.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation

No. 3, Part C, Section XIV).

2.7.2.3 Response to excursions or exceedances

a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Determination of whether the owner of operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3 Quality Improvement Plan (QIP) Requirements

2.7.3.1 Based on the results of a determination made under the provisions of Condition 2.7.2.3.b, the Division may require the owner or operator to

develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 2.7.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 2.7.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or

b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance

with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.4 Reporting and Recordkeeping Requirements

2.7.4.1 Reporting Requirements: The reports required by Section IV, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:

a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and

b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 2.7.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section IV, Condition 22.a through c.

a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 2.7.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict

with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.5 Savings Provisions

2.7.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.7.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

2.8 Volatile Organic Compound Emissions from Oil and Gas Operations

On or after May 1, 2005, any still vent and vent from any gas-condensate-glycol (GCG) separator (flash separator or flash tank), if present, on a glycol natural gas dehydrator located at an oil and gas exploration and production operation, natural gas compressor station, drip station or gas-processing plant in the 8-hour Ozone Control Area shall reduce uncontrolled actual emissions of volatile organic compounds by at least 90 percent through the use of a condenser or air pollution control equipment. This Condition shall not apply to any single natural gas dehydrator, or grouping of dehydrators at an oil and gas exploration and production operation,

natural gas compressor station, drip station or gas-processing plant, with uncontrolled actual emissions of volatile organic compounds of less than 15 tons per year. The control requirement in this Condition shall not apply to a natural gas dehydrator with emissions below the APEN reporting thresholds in Regulation No. 3, Part A, Section II.D that is part of a grouping of dehydrators, but the emissions from such dehydrator shall be included in the calculation used to determine whether the grouping of dehydrators exceeds the 15 tons per year threshold. (Colorado Regulation No. 7, Section XII.C.)

2.8.1 General requirements for air pollution control equipment, prevention of leakage, and flares and combustion devices. (Colorado Regulation No. 7, Section XII.D.2.)

2.8.1.1 All air pollution control equipment required by this Condition 2.8 shall be operated and maintained pursuant to manufacturer specifications. In addition, all such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates required by this Condition 2.8 and to handle reasonably foreseeable fluctuations in emissions of volatile organic compounds. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable.

2.8.1.2 All condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the maximum extent practicable.

2.8.1.3 If a flare or other combustion device is used to control emissions of volatile organic compounds, it shall be enclosed, have no visible emissions, and be designed so that an observer can, by means of visual observation from the outside of the enclosed flare or combustion device, or by other convenient means approved by the division, determine whether it is operating properly.

2.8.2 The emission estimates and emission reductions required by Condition 2.8 shall be demonstrated using one of the emission factors outlined in Regulation No. 7, Section XII.D.3.

2.9 A source compliance test shall be conducted within 180 days of achieving an 80% throughput month to measure the emission rate(s) for the pollutants listed below in order to show compliance with the emission limits and 99% control efficiency requirement of the thermal oxidizer. An 80% throughput month shall be defined as any month in which the natural gas throughput exceeds 1947 million scf. The 180 days shall start on the first day of the month following the 80% throughput month. Note that only one test shall be required based on this permit condition (not one for each 80% month). A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No stack test required herein shall be performed without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date (s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test.

The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The required number of copies of the compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

Inlet and outlet concentration of Volatile Organic Compounds using EPA approved methods or alternates approved by the Division. The testing must be conducted at ≥ 80% of the current throughput limit of 29,200 MMscf per year.

## 3. F001 -Fugitive Emissions of VOCs from Equipment Leaks;

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---|---|---|---|---|---|---|
| | | Short Term | Long Term | | Method | Interval |
| VOC | 3.1 | | 38.6 tons/yr | By Component Type - EPA Protocol for Equipment Leak Estimates | Recordkeeping | Annual |

3.1 VOC emissions from equipment leaks shall not exceed the limitations stated above. Emissions shall be calculated using the emission factors and equations listed below:

Emission Factors for individual types of components in lbs/component-hr (Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017). The most appropriate emission factors from the EPA document shall be used (gas service only factors listed below).

Connectors = 0.00044
Flanges = 0.000858
Open-ended Line = 0.0044
*Other = 0.01936
Pump = 0.00528
Valve = 0.0099

* This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps or valves.

Emissions of VOC per component:

No. of Components x EF (lbs/component-hr) x 8760 hrs/yr x weight %VOC in gas stream

Total Fugitive VOC emissions will be the sum of emissions for each type of component.

3.1.1 The most recent gas analysis as required under Condition 2.1.2 of this Permit shall be used to determine the appropriate VOC content to use in the above equation.

3.1.2 A component count shall be conducted within one year of the issuance of this permit and annually thereafter to verify existing components and inventory.

## 4. Unit T001 – Condensate storage tank battery with flare;

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---|---|---|---|---|---|---|
| | | Short Term | Long Term | | Method | Interval |
| VOC Emissions | 4.1 | | 38.7 ton/yr | API E & P Tanks Version 2.0 or Higher | Calculation | Monthly |
| NOx Emissions | 4.2 | | 2.82 ton/yr | 0.138 lb/MMBtu | | |
| CO Emissions | | | 5.63 ton/yr | 0.2755 lb/MMBtu | | |
| E & P Tanks Input Parameters | 4.3 | | | | Recordkeeping and Analysis | Monthly, Annually |
| Condensate Produced | 4.4 | | 35,000 bbls/yr | | Recordkeeping | Monthly |
| Sales Condensate Analysis | 4.5 | | | | Analytical Methods | Per sale, Annually |
| Control System | 4.6 | 95% Reduction of VOC | | | See Condition 4.6 | |
| Compliance Assurance Monitoring | 4.7 | | | | See Condition 4.7 | |
| VOC Emissions from Oil and Gas Operations | 4.8 | | | | See Condition 4.8 | |
| Follow O&M Plan | 4.9 | | | | | |

4.1 VOC emissions from the tank battery shall not exceed the above limitations (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part A, Section I.B.36.h, and Part C, Section III.B.7 based on maximum production rate of 35,000 bbl/yr identified in an APEN filed by the source dated 04/17/2006). Monthly emissions shall be calculated using API's E & P Tanks Version 2.0. Emissions for each month shall be calculated using the input parameters specified in Condition 4.3, the monthly quantity of condensate sold and the sales oil properties as determined by Condition 4.5. Monthly emissions shall be used in a rolling twelve-month total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

4.2 Emissions of air pollutants shall not exceed the limitations listed in the table above. Compliance with the annual limits shall be determined on a rolling 12-month total. By the end of each month a new twelve month total is calculated based on the previous twelve months data. Monthly records of the actual emissions shall be maintained by the applicant and made available to the Division for inspection upon request (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part A, Section I.B.36.h, and Part C, Section III.B.7 based on maximum production rate of 35,000 bbl/yr identified in an APEN filed by the source dated 04/17/2006).

4.2.1 NOx and CO emissions shall not exceed the above limitations (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part A, Section I.B.36.h, and Part C, Section III.B.7 based on maximum production rate of 35,000 bbl/yr identified in an APEN filed by the source dated 04/17/2006). Monthly emissions of each pollutant shall be calculated using the listed emissions factors (from TNRCC factors) in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lbs/MMBtu) x monthly heat input to flare (MMBtu/mo)}}{\text{2000 lbs/ton}}$$

Heat input to flare = heat input from supplemental fuel + heat input from condensate storage tank battery.

Note: The maximum design rate of the pilot can be substituted for the actual heat input from supplemental fuel, if desired.

4.3 The input parameters to E & P Tanks shall be monitored as follows:

4.3.1 The separator temperature and pressure shall be monitored and recorded monthly. Monthly values shall be representative of the unit's operation during the month. The recorded values for separator temperature and pressure shall be used to calculate emissions as required by Condition 4.1.

4.3.2 For purposes of calculating emissions as required by Condition 4.1, the permittee shall use the historical monthly mean temperature recorded at Denver International Airport (DIA).

4.3.3 The permittee shall sample and analyze liquids annually for the compositional E&P Tanks input requirements. The 'low pressure oil' condensate sample must be collected and analyzed per Division approved methods. This stream is located at the outlet of the separator, prior to flashing. Sampling must occur when the systems are operating such that any xylene and/or methanol injections that occur upstream of the facility are captured by the sampling. A copy of the procedures used to obtain and analyze the samples as well as records of the analyses shall be maintained and made available to the Division upon request.

4.4 The quantity of condensate processed through the tank battery shall not exceed the above limitations (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part A, Section I.B.36.h, and Part C, Section III.B.7 based on maximum production rate of 35,000 bbl/yr identified in an APEN filed by the source dated 04/17/2006). The quantity of condensate processed through the tank battery shall be monitored and recorded monthly and used to calculate emissions as required by Condition 4.1. The monthly quantity of condensate processed shall be used in a twelve month rolling total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

4.5 The sales condensate shall be analyzed as follows:

4.5.1 The sales condensate shall be sampled and analyzed annually to determine the reid vapor pressure (RVP). A copy of the procedures used to obtain and analyze samples shall be maintained and made available to the Division upon request. The RVP determined by the analysis shall be used to calculate emissions as required by Condition 4.1.

4.5.2 Records of the actual API gravity from sales receipts shall be retained and made available to the Division upon request. All sales receipts for the annual period shall be used to determine the average API gravity. The average API gravity shall be used to calculate emissions as required by Condition 4.1.

4.6 This emission unit is designed with a control system which shall be capable of reducing the emissions of volatile organic compounds by at least 95%. (Construction Permit 03WE0064, as modified under the provisions of Section I, Condition 1.3).

For purposes of calculating emissions, a control efficiency of 95% may be assumed for the flare, provided the CAM requirements in Condition 4.7 have been met.

4.7 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to the condensate storage tank battery with respect to the VOC limitations identified in Condition 4.1 as follows:

4.7.1 The permittee shall follow the CAM Plan provided in Appendix I of this permit. Excursions, for purposes of reporting are any time the thermal device indicates there is no flame present or no flame sensed and no audible detection of a spark for more than 22 seconds. Excursions shall be reported as required by Section IV, Conditions 21 and 22.d of this permit.

4.7.2 Operation of Approved Monitoring

4.7.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all

the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.2.3 Response to excursions or exceedances

a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Determination of whether the owner of operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring

of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3 Quality Improvement Plan (QIP) Requirements

4.7.3.1 Based on the results of a determination made under the provisions of Condition 4.7.2.3.b, the Division may require the owner or operator to develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 4.7.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 4.7.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or

b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.4 Reporting and Recordkeeping Requirements

4.7.4.1 Reporting Requirements: The reports required by Section IV, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:

a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.7(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and

b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 4.7.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.7(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section IV, Condition 22.a through c.

a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 4.7.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as

adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.5 Savings Provisions

4.7.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.7.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

4.8 Volatile Organic Compound Emissions from Oil and Gas Operations

Any owner or operator of an oil and gas exploration and production operation, natural gas compressor station or natural gas drip station located upstream of a natural gas-processing plant that collects, stores, or handles condensate in the 8-hour Ozone Control Area shall employ air pollution control technology to control emissions of volatile organic compounds associated with atmospheric condensate storage tanks as required by Regulation No. 7, Section XII.A.

4.8.1 The owners and operators of affected operations shall employ air pollution control equipment to reduce emissions of volatile organic compounds from atmospheric storage tanks associated with affected operations by the dates and amounts listed below. Emission reductions shall not be required for each and every unit, but instead shall be based on overall reductions in uncontrolled actual emissions from all the atmospheric storage tanks associated with the affected operations for which the owner or operator filed, or was required to file, an APEN pursuant to Regulation No. 3. The dates and requisite reductions are as follows: (Colorado Regulation No. 7, Section XII.A.2)

4.8.1.1 For the period May 1 through September 30, 2005 such emissions shall be reduced by 37.5% from uncontrolled actual emissions on a daily basis;

4.8.1.2 For the period of May 1 through September 30 of each year, beginning with the year 2006, such emissions shall be reduced by 47.5% from uncontrolled actual emissions on a daily basis.

4.8.1.3 Emission reductions achieved between January 1 and April 30, 2005 shall be averaged with emission reductions achieved between October 1 and December 31, 2005. For these two time periods, emissions shall be reduced by 30% from uncontrolled actual emissions and shall be calculated as an average of the emission reductions achieved during the seven months covered by the two periods.

4.8.1.4 Beginning with the year 2006, and each year thereafter, emission reductions achieved between January 1 and April 30 shall be averaged with emission reductions achieved between October 1 and December 31. Emissions shall be reduced by 38% from uncontrolled actual emissions, calculated as an average of the emission reduction achieved during the seven months covered by the two periods.

4.8.2 Any failure to achieve the emission reductions required by Condition 4.8.1 shall be a violation of Regulation No. 7. (Colorado Regulation No. 7, Section XII.A.3)

4.8.3 Each owner or operator shall, at all times, maintain a spreadsheet of information describing the affected operations, the air pollution control equipment being used, and the emission reductions achieved, as follows: (Colorado Regulation No. 7, Section XII.A.4)

4.8.3.1 The spreadsheet shall list all condensate storage tanks subject to section

XII of Regulation No. 7, and shall list the production volumes for each tank. The spreadsheet shall list the most recent measurement of such production at each tank, and the time period covered by such measurement of production.

4.8.3.2 The spreadsheet shall list the emission factor used for each tank. The emission factors shall comply with section XII.D.3 of Regulation No. 7.

4.8.3.3 The spreadsheet shall list the location and control efficiency value for each unit of air pollution control equipment, and shall identify the tanks being controlled by each.

4.8.3.4 Between May 1 and September 30 of each year, the spreadsheet shall track the reductions in emissions of volatile organic compounds on a daily basis, as follows:

a. The spreadsheet shall list the production volume for each tank, expressed as a daily average based on the most recent measurement available. The daily average shall be calculated by averaging the most recent measurement of such production, which may be the amount shown on the receipt from the refinery purchaser for delivery of condensate from such tank, over the time such delivered condensate was collected. The daily average from the most recent measurement will be used to estimate daily volumes of controlled and uncontrolled actual emissions for all days following the measurement until the next measurement is taken.

b. The spreadsheet shall show the daily uncontrolled actual emissions and the daily controlled actual emissions for each tank.

c. The spreadsheet shall show the total system-wide daily uncontrolled actual emissions and the total system-wide daily controlled actual emissions.

d. The spreadsheet shall show the total system-wide daily percentage reduction of emissions.

4.8.3.5 The spreadsheet shall note any shutdown of air pollution control equipment, and shall account for such shutdown in the daily emission reduction totals. The notations shall include the date, time and duration of any scheduled shutdown. For any unscheduled shutdown, the spreadsheet shall record the date and time the shutdown was discovered and the date and time the air pollution control equipment was last observed to be operating.

4.8.3.6 The spreadsheet shall be maintained in a manner approved by the division and shall include any other information requested by the division that is reasonably necessary to determine compliance with this section of the regulation.

4.8.3.7 An up-to-date spreadsheet shall be promptly provided by e-mail or fax to

the division upon its request. The U.S. mail may also be used if acceptable to the division.

4.8.3.8 Failure to properly install, operate, and maintain air pollution control equipment at the locations indicated in the spreadsheet shall be a violation of Regulation No. 7.

4.8.3.9 A copy of each daily spreadsheet shall be retained for three years. A spreadsheet may apply to more than one day if there are no changes in any of the required data and the spreadsheet clearly identifies the days it covers. The spreadsheet may be retained electronically, however, any loss of data may be treated by the division as if the data were not collected.

4.8.4 On or before April 30, 2006, and annually by April 30 of each year thereafter, each owner or operator shall submit a report describing the air pollution control equipment used during the preceding calendar year and how it complied with the emission reductions required by Condition 4.8.1. Such reports shall be submitted to the division on a form provided by the division for that purpose. (Colorado Regulation No. 7, Section XII.A.5)

4.8.4.1 The report shall list all condensate storage tanks subject to section XII of Regulation No. 7 and the production volumes for each tank, which amounts may be the amounts shown on the receipt from the refinery purchasers for delivery of condensate from such tanks.

4.8.4.2 The report shall list the emission factor used for each tank. The emission factors shall comply with section XII.D.3 of Regulation No. 7.

4.8.4.3 The report shall list the location and control efficiency value for each unit of air pollution control equipment, and shall identify the tanks being controlled by each.

4.8.4.4 The report shall show the uncontrolled actual emissions and the controlled actual emissions for each tank for January 1 through April 30, May 1 through September 30 and October 1 through December 31 of the previous year.

4.8.4.5 The report shall show the total system-wide uncontrolled actual emissions and the total system-wide controlled actual emissions for January 1 through April 30, May 1 through September 30 and October 1 through December 31 of the previous year.

4.8.4.6 The report shall show the total system-wide percentage reduction of emissions for May 1 through September 30 of the previous year, and for the combined periods of January 1 through April 30 and October 1 through December 31 of the previous year.

4.8.4.7 The report shall note any shutdown of air pollution control equipment and shall account for such shutdown in the emission reduction totals. The notations shall include the date, time and duration of any scheduled

shutdown. For any unscheduled shutdown, the date and time the shutdown was discovered, the last date the air pollution control equipment was observed to be operating and the date the source believes the shutdown occurred, including the basis for such belief, shall be recorded in the report.

4.8.4.8 The report shall state whether the required emission reductions were achieved during the preceding year, and whether the required emission reductions were achieved on a daily basis during the preceding ozone season (May 1 through September 30). If the required emission reductions were not achieved, the report shall state why not, and shall identify steps being taken to ensure subsequent compliance.

4.8.4.9 The report shall include any other information requested by the division that is reasonably necessary to determine compliance with this section of the regulation.

4.8.4.10 A copy of each annual report shall be retained for three years.

4.8.5 Each combustion device and vapor recovery unit used to comply with Condition 4.8 shall have a control efficiency of at least 95% for volatile organic compounds. (Colorado Regulation No. 7, Section XII.A.7)

4.8.6 The requirements of this Condition 4.8 shall not apply to any owner or operator in any calendar year in which the APENs for all of the atmospheric condensate storage tanks associated with the affected operations owned or operated by such person reflect a total of less than 30 tons-per-year of actual uncontrolled emissions of VOCs in the 8-hour Ozone Control Area. Such requirements shall, however, apply to such owner or operator in any subsequent calendar year in which the APENs for atmospheric condensate storage tanks associated with such affected operations reflect a total of 30 tons-per-year or more of actual uncontrolled emissions of VOCs in the 8-hour Ozone Control Area. (Colorado Regulation No. 7, Section XII.A.8)

4.8.7 Alternative emissions control equipment and pollution prevention devices and processes installed and implemented after June 1, 2004 shall qualify as air pollution control equipment, and may be used in lieu of, or in combination with, combustion devices and vapor recovery units to achieve the emission reductions required by this Condition 4.8, if the following conditions are met: (Colorado Regulation No. 7, Section XII.A.9)

4.8.7.1 The owner or operator obtains a construction permit authorizing such use of the alternative emissions control equipment or pollution prevention device or process. The proposal for such equipment, device or process shall comply with all regulatory provisions for construction permit applications and shall include the items listed in Regulation No. 7 XII.A.9.a.i. through XII.A.9.a.v. (Colorado Regulation No. 7, Section XII.A.9.a.)

4.8.7.2 Public notice of the application is provided pursuant to Regulation No.3, Part B, Section III.C.4. (Colorado Regulation No. 7, Section XII.A.9.b.)

4.8.7.3 EPA approves the proposal. The division shall transmit a copy of the permit application and any other materials provided by the applicant, all public comments, all division responses and the division's permit to EPA Region 8. If EPA fails to approve or disapprove the proposal within 45 days of receipt of these materials, EPA shall be deemed to have approved the proposal. (Colorado Regulation No. 7, Section XII.A.9.c.)

4.8.8 General requirements for air pollution control equipment, prevention of leakage, and flares and combustion devices. (Colorado Regulation No. 7, Section XII.D.2.)

4.8.8.1 All air pollution control equipment required by this Condition 4.8 shall be operated and maintained pursuant to manufacturer specifications. In addition, all such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates required by this Condition 4.8 and to handle reasonably foreseeable fluctuations in emissions of volatile organic compounds. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable.

4.8.8.2 All condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the maximum extent practicable.

4.8.8.3 If a flare or other combustion device is used to control emissions of volatile organic compounds, it shall be enclosed, have no visible emissions, and be designed so that an observer can, by means of visual observation from the outside of the enclosed flare or combustion device, or by other convenient means approved by the division, determine whether it is operating properly.

4.8.9 The emission estimates and emission reductions required by Condition 4.8 shall be demonstrated using one of the emission factors outlined in Regulation No. 7, Section XII.D.3.

4.9 The permit holder shall follow the most current operating and maintenance plan and record keeping format approved by the Division, in order to demonstrate compliance on an ongoing basis with the requirements of this permit.

## 5. EU-43 - Caterpillar, Model G3608LE, 2104 HP with oxidizing catalyst;

| Parameter | Permit Condition Number | Limitations Short Term | Limitations Long Term | Compliance Emission Factor | Monitoring Method | Monitoring Interval |
|---|---|---|---|---|---|---|
| $NO_X$ | 5.1 | | 14.3 tons/yr | 0.23 lb/MMBtu | Recordkeeping, Calculation and Portable Monitoring (Condition 5.4) | Monthly, Quarterly |
| CO | | | 10.2 tons/yr | 0.16 lb/MMBtu | | |
| VOC | | | 15.5 tons/yr | 0.25 lb/MMBtu | | |
| Formaldehyde | | | 1.6 tons/yr | 0.03 lb/MMBtu | | |
| Natural Gas Use | 5.2 | | 133 MMscf/yr | | Fuel Meter | Monthly |
| Opacity | 5.3 | Not to Exceed 20% | | | Fuel Restriction | Only Natural Gas is Used as Fuel |
| Portable Monitoring | 5.4 | | | | Flue Gas Analyzer | Quarterly |
| BTU Content of Natural Gas | 5.5 | | | | ASTM Methods | Semi-Annually |
| Catalyst Inlet Temperature | 5.6 | Keep inlet temperature within manufacturers range | | | Recordkeeping | Monthly |
| Emissions Controls for Stationary and Portable engines | 5.7 | Installation of an oxidation catalyst | | | See Condition 5.7 | |
| Oxidizing Catalyst | 5.8 | 80% CO reduction | | | O&M Plan and Miratech Oxidation Catalyst Maintenance Procedures (See Appendix J) | |
| | | 50% VOC reduction | | | | |
| | | 80% Formaldehyde reduction | | | | |
| MACT ZZZZ | 5.9 | Emission Limitation: Reduce CO Emissions by 93% | | | See Condition 5.9 | |
| | | Operating Limitations: 1.) Maintain catalyst so that the pressure drop does not change by more than 2" of $H_2O$ at 100% load plus or minus 10% from pressure drop measured during the initial performance test. **AND** 2.) Maintain the temperature of the exhaust so that the inlet temperature to the catalyst is greater than or equal to 450 º F and less than or equal to 1350 º F. | | | | |
| 40 CFR part 63 Subpart A "General Provisions" | 5.10 | | | | See Condition 5.10 | |

5.1 Nitrogen Oxide ($NO_X$), Carbon Monoxide (CO), and Volatile Organic Compound (VOC) emissions from this engine shall not exceed the limitations stated above (Colorado Construction Permit 03WE1153, as modified under the provisions of Section I, Condition 1.3). Except as provided for below, the emission factors listed above (from manufacturer, converted to lbs/MMBtu based on an engine heat rate of 6814 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine, as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factor, the monthly natural gas consumption and the lower heating value of the fuel in the equation below:

$$\text{Tons/mo} = \frac{\text{CEF (lbs/MMBtu) x Monthly Fuel Use (MMscf/mo) x Heat Content of Fuel (MMBTU/MMscf)}}{\text{2000 lbs/ton}}$$

A twelve month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

If the results of the portable analyzer testing conducted under the provisions of condition 5.4 show that either the $NO_X$ or CO emission rates/factors are greater than those listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test**.**

5.2 Natural gas consumption for this engine shall not exceed the limitation stated above (Colorado Construction Permit 03WE1153, as modified under the provisions of Section I, Condition 1.3). Monthly natural gas use shall be used in a rolling twelve month total to monitor compliance with the annual limitation.

5.3 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Construction Permit 03WE1153 and Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for this engine.

5.4 Portable Monitoring (06/01/2006 version): Emission measurements of nitrogen oxides ($NO_X$) and carbon monoxide (CO) shall be conducted quarterly using a portable flue gas analyzer. At least one calendar month shall separate the quarterly tests**.** Note that if the engine is operated for less than 100 hrs in any quarterly period, then the portable monitoring requirements do not apply.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's website at: http://www.cdphe.state.co.us/ap/down/portanalyzeproto.pdf

Results of the portable analyzer tests shall be used to monitor the compliance status of this unit. For comparison with an annual or short term emission limit, the results of the tests shall be

converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable analyzer results indicate compliance with both the $NO_X$ and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the $NO_X$ and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the $NO_X$ or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the $NO_X$ and CO emission limitations or until the engine is taken offline.

For comparison with the emission rates/factors, the emission rates/factors determined by the portable analyzer tests and approved by the Division shall be converted to the same units as the emission rates/factors in the permit. If the portable analyzer tests shows that either the $NO_X$ or CO emission rates/factors are greater than the relevant ones set forth in the permit, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rate/factor within 60 days of the completion of the test.

Results of all tests conducted shall be kept on site, or at a local field office, and made available to the Division upon request**.**

5.5 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.

5.6 The inlet temperature to the catalyst shall be maintained within the manufacturer's recommended operating range of 450ºF to 1350ºF. Catalyst inlet temperature shall be monitored and recorded on a monthly basis.

5.7 Control of Emissions from Stationary and Portable engines in the 8-Hour Ozone Control Area

Any existing natural gas-fired stationary or portable reciprocating internal combustion engine with a manufacturer's design rate greater than 500 horsepower, which existing engine was operating in the 8-hour Ozone Control Area prior to June 1, 2004, shall employ air pollution control technology on and after May 1, 2005, as provided in Condition 5.7.1 & 5.7.2 (Colorado Regulation No. 7, Section XVI.A.2).

5.7.1 For lean burn reciprocating internal combustion engines, an oxidation catalyst shall be required. A lean burn reciprocating internal combustion engine is one with a normal exhaust oxygen concentration of 2% by volume, or greater. (Colorado Regulation No. 7, Section XVI.B.2).

5.7.2 The emission control equipment required by this Condition 5.7 shall be appropriately sized for the engine and shall be operated and maintained according to manufacturer specifications. (Colorado Regulation No. 7, Section XVI.B.3).

5.8 This engine shall be equipped with an oxidizing catalyst capable of reducing uncontrolled emissions of carbon monoxide by at least 80%, volatile organic compounds by at least 50%, and formaldehyde by at least 80% (Colorado Construction Permit 03WE1153, as modified under the provisions of Section I, Condition 1.3). The engine and catalyst shall be operated and maintained according to the most recent Division-approved O&M Plan and Miratech Oxidation Catalyst Maintenance Procedures found in Appendix J.

5.9 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as adopted by reference in Colorado Regulation No. 8, Part E, Section III, including, but not limited to the following:

5.9.1 General Requirements:

5.9.1.1 This unit must be in compliance with the emission limitations and operating limitations in Conditions 5.9.2 and 5.9.3 at all times, except during periods of startup, shutdown and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6605(a))

5.9.1.2 This unit, including air pollution control and monitoring equipment, shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at all time, including during startup, shutdown and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6605(b)).

5.9.2 Emission Limitations: Carbon Monoxide (CO) emissions from this engine must be reduced by 93 percent or more (40 CFR Part 63 Subpart ZZZZ § 63.6600(b), Table 2a, item 2).

5.9.3 Operating Limitations: This unit is subject to the following operating limitations (40 CFR Part 63 Subpart ZZZZ § 63.6600(b), Table 2b, item1):

5.9.3.1 The catalyst must be maintained so that the pressure drop across the catalyst does not change my more than two inches of water at 100 percent load plus or minus ten percent from the pressure drop across the catalyst that was measured during the initial performance test; and

5.9.3.2 The temperature of the stationary RICE exhaust shall be maintained so that the catalyst inlet temperature is greater than or equal to 450 º F and

less than or equal to 1350 º F.

5.9.4 Initial Testing and Compliance Requirements: An initial performance test shall be conducted by February 10, 2005 to measure the $O_2$ and CO at the inlet and outlet of the control device using a portable CO and $O_2$ analyzer in accordance with the requirements in ASTM D6522-00 (incorporated by reference, see § 63.14). The CO concentration must be at 15% $O_2$ on a dry basis. Measurements to determine $O_2$ must be made at the same time as the measurements for CO concentration (40 CFR Part 63 Subpart ZZZZ § 63.6610(a), Table 4, item 1 and (b)):

5.9.5 Subsequent Performance Test Requirements: Subsequent performance tests shall be conducted semi-annually. After compliance has been demonstrated for two consecutive tests, the frequency of semi-annual tests may be reduced to annually. If the results of any subsequent annual performance test indicates the stationary RICE is not in compliance with the CO emission limitations, or you deviate from any of your operating limitations, you must resume semi-annual performance tests (40 CFR Part 63 Subpart ZZZZ § 63.6615, Table 3, item 1).

5.9.6 Performance Tests and Other Procedures: Each of the performance tests conducted under Conditions 5.9.4 and 5.9.5 are subject to the following requirements:

5.9.6.1 Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the conditions specified in Condition 5.9.4. The test must be conducted at any load condition plus or minus 10 percent of 100 percent load (40 CFR Part 63 Subpart ZZZZ § 63.6620(b)).

5.9.6.2 You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6620(c)).

5.9.6.3 You must conduct three separate test runs for each performance test required in Conditions 5.9.4 and 5.9.5 as specified in § 63.7(e)(3). Each test run must last at least 1 hour (40 CFR Part 63 Subpart ZZZZ § 63.6620(d)).

5.9.6.4 You must use the equation below to determine compliance with the percent reduction requirements (40 CFR Part 63 Subpart ZZZZ § 63.6620(e)(1)).

$$\frac{C_i - C_o}{C_i} \times 100 = R$$

Where:
$C_i$ = concentration of CO at the control device inlet
$C_o$ = concentration of CO at the control device outlet, and
R = percent reduction of CO emissions.

5.9.6.5 You must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or

an equivalent percent of carbon dioxide ($CO_2$). If pollutant concentrations are to be corrected to 15 percent oxygen and $CO_2$ concentration is measured in lieu of oxygen concentration measurement, a $CO_2$ correction factor is needed. Calculate the $CO_2$ correction factor in accordance with the requirements in § 63.6620(e)(2)(i) and (ii)) (40 CFR Part 63 Subpart ZZZZ § 63.6620(e)(2)).

5.9.6.6 The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value must be provided (40 CFR Part 63 Subpart ZZZZ § 63.6620(i))

5.9.7 Monitoring, Installation, Operation and Maintenance Requirements: You must install, maintain and operate a continuous parametric monitoring system (CPMS) to continuously monitor the catalyst inlet temperature in accordance with the requirements in §63.8 (40 CFR Part 63 Subpart ZZZZ § 63.6625(b), Table 5, item 1)

5.9.8 Demonstrate Initial Compliance with Emissions and Operating Limitations: Initial compliance shall be demonstrated as follows:

5.9.8.1 The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction and a CPMS to continuously monitor catalyst inlet temperature has been installed in accordance with the requirements in Condition 5.9.7 (40 CFR Part 63 Subpart ZZZZ § 63.6630(a), Table 5, items 1.i and ii).

5.9.8.2 You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test (40 CFR Part 63 Subpart ZZZZ § 63.6630(b), Table 5, item 1.iii)

5.9.8.3 You must submit the Notification of Compliance status containing the results of the initial compliance demonstration according to the requirements in Condition 5.9.11.4 (40 CFR Part 63 Subpart ZZZZ § 63.6630(c))

5.9.9 Monitoring and Collecting Data for Continuous Compliance: Data must be monitored and collected in accordance with the following (40 CFR Part 63 Subpart ZZZZ § 63.6635(a)):

5.9.9.1 Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating (40 CFR Part 63 Subpart ZZZZ § 63.6635(b)).

5.9.9.2 You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must however, use all the valid data collected during all other periods (40 CFR Part 63 Subpart ZZZZ § 63.6635(c)).

5.9.10 Demonstrating Continuous Compliance with the Emission and Operating Limitations: Continuous compliance with the emission and operating limitations shall be determined as follows:

5.9.10.1 You must demonstrate continuous compliance with each emission and operating limitation in Conditions 5.9.2 and 5.9.3 as follows:

a. Conducting subsequent performance tests as specified in Condition 5.9.5 and demonstrating the required CO reduction (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, item 1.i).

b. Collecting the catalyst inlet temperature data according to Condition 5.9.7 and reducing these data to 4-hour rolling averages and maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, items 1.ii thru iv).

c. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the initial performance test (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, item 1.v).

5.9.10.2 You must report each instance in which you did not meet each emission limitation or operating limitation in Conditions 5.9.2 and 5.9.3. These instances are deviations from the emission and operating limitations in Conditions 5.9.2 and 5.9.3. These deviations must be reported according to the requirements in Conditions 5.9.12.3 and 5.9.12.4. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE (40 CFR Part 63 Subpart ZZZZ § 63.6640(b)).

5.9.10.3 During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan (40 CFR Part 63 Subpart ZZZZ § 63.6640(c)).

5.9.10.4 Consistent with § 63.6(e) and 63.7(e)(1), deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Division's satisfaction that you were operating in accordance with the startup, shutdown and malfunction plan. For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR § 94.11(a) (40 CFR Part 63 Subpart ZZZZ § 63.6640(d)).

5.9.10.5 You must also report each instance in which you did not meet the requirements in Condition 5.10 of this permit (40 CFR Part 63 Subpart ZZZZ § 63.6640(e)).

5.9.11 <u>What Notifications to Submit and When:</u>

5.9.11.1 You must submit all of the notifications in § 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified (40 CFR Part 63 Subpart ZZZZ § 63.6645(a)).

5.9.11.2 As specified in § 63.9(b)(2), if you start up your stationary RICE before the effective date of 40 CFR Part 63 Subpart ZZZZ, you must submit an Initial Notification not later than December 13, 2004 (40 CFR Part 63 Subpart ZZZZ § 63.6645(b)).

5.9.11.3 If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6645(e)).

5.9.11.4 If you are required to conduct a performance test or other initial compliance demonstration as specified in Conditions 5.9.4 and 5.9.8, you must submit the Notification of Compliance Status before the close of the business on the 30th day following the completion of the initial compliance demonstration

5.9.12 <u>What Reports to Submit and When</u>:

Compliance Reports

5.9.12.1 Unless the Division has approved a different schedule for submission of reports under § 63.10(a), you must submit Compliance Reports in accordance with the following requirements:

a. The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date

that is specified for your source in §63.6595 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(1)).

Note that the compliance dated for this engine is August 16, 2004 as specified in Condition 63.6595(a)(2).

b. The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(2)).

c. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(3)).

d. Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(4)).

e. For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(5)).

5.9.12.2 The Compliance Reports must include the information in § 63.6650(c)(1) thru (6) (40 CFR Part 63 Subpart ZZZZ § 63.6650(c)).

5.9.12.3 For each deviation from any emission or operating limitation that occurs for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart you must include information in § 63.6650(c)(1) thru (4) and (e)(1) thru (12) (40 CFR Part 63 Subpart ZZZZ § 63.6650(e)).

5.9.12.4 Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Condition 5.9.12 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be

deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority (40 CFR Part 63 Subpart ZZZZ § 63.6650(f)).

Startup, Shutdown and Malfunction Report

5.9.12.5 A startup, shutdown and malfunction report shall be submitted if actions addressing the startup, shutdown and malfunction were inconsistent with your startup, shutdown and malfunction plan during the reporting period. Such reporting shall contain the following:

a. Actions taken for the event shall be reported by fax or telephone within 2 working days after starting the actions inconsistent with the plan (40 CFR Part 63 Subpart ZZZZ § 63.6650(a) and (b), Table 7, item 2.a); and

b. The information specified in § 63.10(d)(5)(ii) shall be submitted by letter within 7 working days after the end of the event unless you have alternative arrangements with the Division (40 CFR Part 63 Subpart ZZZZ § 63.6650(a) and (b), Table 7, item 2.b).

5.9.13 <u>What Records to Keep</u>:

5.9.13.1 A copy of each notification and report that you submitted to comply with this Condition 5.9, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv) (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(1)).

5.9.13.2 The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(2)).

5.9.13.3 Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii) (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(3)).

5.9.13.4 For each CPMS you must keep the following requirements (40 CFR Part 63 Subpart ZZZZ § 63.6655(b)(1) thru (3)):

a. Records described in §63.10(b)(2)(vi) through (xi).

b. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

c. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

5.9.13.5 You must keep the records required in Condition 5.9.10.1 to show continuous compliance with each emission or operating limitation that applies to you (40 CFR Part 63 Subpart ZZZZ § 63.6655(d)).

5.9.14 Form and Length of Recordkeeping:

5.9.14.1 Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6660(a)).

5.9.14.2 As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record (40 CFR Part 63 Subpart ZZZZ § 63.6660(b)).

5.9.14.3 You must keep each record readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off-site for the remaining 3 years (40 CFR Part 63 Subpart ZZZZ § 63.6660(c)).

5.10 This engine is subject to the requirements in 40 CFR part 63 Subpart A "General Provisions", as adopted by reference in Colorado Regulation No. 8, Part E, Section I as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6665. These requirements include, but are not limited to the following:

5.10.1 Prohibited activities and circumvention in § 63.4.

5.10.2 Operation and maintenance requirements in § 63.6(e)(1).

5.10.3 Startup, shutdown and malfunction plan requirements in § 63.6(e)(3).

5.10.4 Performance test requirements in § 63.7.

5.10.5 Monitoring requirements in § 63.8.

5.10.6 Notification requirements in § 63.9.

5.10.7 Recordkeeping requirements in § 63.10.

## SECTION III - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D. & XIII.B; § 25-7-114.4(3)(a), C.R.S.

### 1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modifications or reconstruction on which construction commenced prior to permit issuance.

| Emission Unit Description & Number | Applicable Requirement | Justification |
|---|---|---|
| Station wide | 40 CFR, Subpart KKK | No existing natural gas liquid extraction unit located at the Frederick facility. All liquids recovered on-site are done so through gravimetric separation process typical of inlet gas separation implemented at most compressor stations. |

### 2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;

2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;

2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.

2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

## 3. Stream-lined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

No applicable requirements were streamlined out of this permit.

## SECTION IV - General Permit Conditions

**1. Administrative Changes**

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

**2. Certification Requirements**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.

c. Compliance certifications shall contain:

(i) the identification of each permit term and condition that is the basis of the certification;

(ii) the compliance status of the source;

(iii) whether compliance was continuous or intermittent;

(iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and

(v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.

d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

**3. Common Provisions**

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II,.E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

(i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;

(ii) approves the use of an equivalent method;

(iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or

(iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such facility;

(v) Safe sampling platform(s);

(vi) Safe access to sampling platform(s); and

(vii) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Upset Conditions and Breakdowns

Upset conditions, as defined, shall not be deemed to be in violation of the Colorado regulations, provided that the Division is notified as soon as possible, but no later than two (2) hours after the start of the next working day, followed by a written notice to the Division explaining the cause of the occurrence and that proper action has been or is being taken to correct the conditions causing the violation and to prevent such excess emission in the future.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan 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. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

Note that until such time as the U.S. EPA approves this provision into the Colorado State Implementation Plan (SIP), it shall apply only to State-Only permit terms and conditions and shall be enforceable only by the State.

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

(i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;

(ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;

(iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;

(v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation (if at all possible);

(vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

**4. Compliance Requirements**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.

b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.

d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.

e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.

f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and

(ii) 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.

g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

**5. Emergency Provisions**

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.

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 the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. the permitted facility was at the time being properly operated;

c. 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 the permit; and

d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or upset provision contained in any applicable requirement.

**6. Emission Standards for Asbestos**

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "emission standards for asbestos."

**7. Emissions Trading, Marketable Permits, Economic Incentives**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

**8. Fee Payment**

C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.

b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.

c. The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

**9. Fugitive Particulate Emissions**

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

**10. Inspection and Entry**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;

b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;

d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

**11. Minor Permit Modifications**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

**12. New Source Review**

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

**13. No Property Rights Conveyed**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

**14. Odor**

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

**15. Off-Permit Changes to the Source**

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit . The permit shield shall not apply to any off-permit change.

**16. Opacity**

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

**17. Open Burning**

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

**18. Ozone Depleting Compounds**

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

**19. Permit Expiration and Renewal**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.

b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

**20. Portable Sources**

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

**21. Prompt Deviation Reporting**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

"Prompt" is defined as follows:

a. Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or

b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

   i. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;

   ii. For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and

   iii. For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.

c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

"Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

**22. Record Keeping and Reporting Requirements**

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:

   (i) date, place as defined in the Operating Permit, and time of sampling or measurements;

   (ii) date(s) on which analyses were performed;

   (iii) the company or entity that performed the analysis;

   (iv) the analytical techniques or methods used;

   (v) the results of such analysis; and

   (vi) the operating conditions at the time of sampling or measurement.

b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.

c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.

d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.

e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

**23. Reopenings for Cause**

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.

b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.

d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

**24. Section 502(b)(10) Changes**

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

**25. Severability Clause**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

**26. Significant Permit Modifications**

Regulation No. 3, 5 CCR 1001-5, Part C, §III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

**27. Special Provisions Concerning the Acid Rain Program**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.

b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

**28. Transfer or Assignment of Ownership**

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

**29. Volatile Organic Compounds**

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

a. For sources located in an ozone non-attainment area or the Denver Metro Attainment Maintenance Area, all storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

   Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

b. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.

c. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

**30. Wood Stoves and Wood burning Appliances**

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

# OPERATING PERMIT APPENDICES

A - INSPECTION INFORMATION
B - MONITORING AND PERMIT DEVIATION REPORT
C - COMPLIANCE CERTIFICATION REPORT
D - NOTIFICATION ADDRESSES
E - PERMIT ACRONYMS
F - PERMIT MODIFICATIONS
G - Fuel Allocation Procedure
H - Compliance Assurance Monitoring Plan
I - Compliance Assurance Monitoring Plan
J - Miratech Oxidation Catalyst Maintenance Procedures

## *DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

# APPENDIX A - Inspection Information

**Directions to Plant**:

From Denver go North on Hwy. 85 to the Town of Fort Lupton. From Fort Lupton, go West on Hwy. 52 three and one-half (3 ½) miles to Weld County Road 19. Go South on Road 19 on and one-half (1 ½) miles to the plant site.

**Safety Equipment Required**:

Eye Protection, Hard Hat, Safety Shoes, Hearing Protection, and Flame Resistant Clothing.

**Facility Plot Plan:**

Figure 1 (following page) shows the plot plan as submitted on February 1, 1995, with the source's Title V Operating Permit Application.

**List of Insignificant Activities**:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Insignificant activities and/or sources of emissions as submitted in the application are as follows:

<u>Tanks</u>
Methanol Storage (T01)
Glycol Storage (T02)
Used Coolant Storage (T03)
New Coolant Storage (T04)
New Oil Storage (T10)
Used Oil Storage (T11)

<u>Heaters/Boilers</u>
Dehydrator Heater
Direct Fired Heater (H01)
0.025 MMBtu/hr boiler

<u>Miscellaneous</u>
Condensate Loading Equipment
Blowdown Emissions

<u>Engine</u>
Emergency generator: Volvo Penta, 464 hp

# APPENDIX B

## Reporting Requirements and Definitions

with codes ver 6/1/06

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

(A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);

(B) fails to notify or report as required under the Act; or

(C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

---

The Part 70 Operating Permit program requires three types of reports to be filed for all permits.
All required reports must be certified by a responsible official.

**Report #1: Monitoring Deviation Report** (due at least every six months)

*For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit.* All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

**Report #2: Permit Deviation Report (must be reported "promptly")**

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to upset conditions and malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from

any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "upset" shall refer to both emergency conditions and upsets. Additional discussion on these conditions is provided later in this Appendix.

*For purposes of this operating permit, the Division is requiring that the permit deviation reports are.due as set forth in General Condition 21.* Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

(1) A situation where emissions exceed an emission limitation or standard contained in the permit;

(2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;

(3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,

(4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

| | |
|---|---|
| **1 = Standard:** | When the requirement is an emission limit or standard |
| **2 = Process:** | When the requirement is a production/process limit |
| **3 = Monitor:** | When the requirement is monitoring |
| **4 = Test:** | When the requirement is testing |
| **5 = Maintenance:** | When required maintenance is not performed |
| **6 = Record:** | When the requirement is recordkeeping |
| **7 = Report:** | When the requirement is reporting |
| **8 = CAM:** | A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. |
| **9 = Other:** | When the deviation is not covered by any of the above categories |

**Report #3: Compliance Certification (annually, as defined in the permit)**

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;

- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;

- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.[1]

- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

[1] For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event. Further, periods of excess emissions during startup, shutdown and malfunction may not be found to be a violation of an emission limitation or standard where the source adequately shows that any potential deviations as a result of these infrequent periods were minimized to the extent practicable and could not have been prevented through careful planning, design, or were unavoidable to prevent loss of life, personal injury, or severe property damage.

## Startup, Shutdown, Malfunctions, Emergencies, and Upsets

Understanding the application of Startup, Shutdown, Malfunctions, Emergency provisions, and the Upset provisions is very important in both the deviation reports and the annual compliance certifications.

### Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

### Emergencies and Upsets

Under the Emergency provisions of Part 70 and the Upset provisions of the State regulations, certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

### DEFINITIONS

**Malfunction** (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**Malfunction** (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

**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 the 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 preventative maintenance, careless or improper operation, or operator error.

**Upset** means an unpredictable failure of air pollution control or process equipment which results in the violation of emission control regulations and which is not due to poor maintenance, improper or careless operations, or is otherwise preventable through exercise of reasonable care.

## APPENDIX B: Monitoring and Permit Deviation Report - Part I

1. Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or upset or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or Upsets) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Kerr McGee Rocky Mountain Corporation – Frederick Compressor Station
OPERATING PERMIT NO: 95OPWE035
REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates)

| Operating Permit Unit ID | Unit Description | Deviations noted During Period?[1] | | Deviation Code [2] | Upset/Emergency Condition Reported During Period? | |
|---|---|---|---|---|---|---|
| | | YES | NO | | YES | NO |
| EU-41 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48715 | | | | | |
| EU-42 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48799 | | | | | |
| EU-01 | QB Johnson Custom Triethylene Glycol Dehydration Unit, Design Rated at 80 MMscf/day | | | | | |
| F001 | Fugitive Emissions of Volatile Organic Compound From Equipment Leaks | | | | | |
| T001 | Condensate tanks - Five (5) 225 barrel, one (1) 200 barrel, and one (1) 300 barrel with vents manifolded together | | | | | |
| EU-43 | Caterpillar model G3608LE, Internal Combustion Engine, four-cycle Low NOx, 2104 HP, natural gas fired, Serial No. 4WF0087 | | | | | |
| General Conditions | | | | | | |
| Insignificant Activities | | | | | | |

[1] See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

[2] Use the following entries, as appropriate

**1 = Standard:** When the requirement is an emission limit or standard

| | |
|---|---|
| **2 = Process:** | When the requirement is a production/process limit |
| **3 = Monitor:** | When the requirement is monitoring |
| **4 = Test:** | When the requirement is testing |
| **5 = Maintenance:** | When required maintenance is not performed |
| **6 = Record:** | When the requirement is recordkeeping |
| **7 = Report:** | When the requirement is reporting |
| **8 = CAM:** | A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. |
| **9 = Other:** | When the deviation is not covered by any of the above categories |

**APPENDIX B: Monitoring and Permit Deviation Report - Part II**

FACILITY NAME: Kerr McGee Rocky Mountain Corporation – Frederick Compressor Station
OPERATING PERMIT NO: 95OPWE035
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Upset _____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____

Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Upsets/Emergencies Reported (if applicable)

Deviation Code _____ Division Code QA: _____

**SEE EXAMPLE ON THE NEXT PAGE**

# EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/04 - 6/30/04

Is the deviation being claimed as an: Emergency _____ Upset __XX____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/96
END- 1800 4/10/96

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Upsets/Emergencies Reported (if applicable)

5/30/04 to A. Einstein, APCD

Deviation Code _____ Division Code QA: _____

## APPENDIX B: Monitoring and Permit Deviation Report - Part III

## REPORT CERTIFICATION

SOURCE NAME: Kerr McGee Rocky Mountain Corporation – Frederick Compressor Station

FACILITY IDENTIFICATION NUMBER: 1230184

PERMIT NUMBER: 95OPWE035

REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

**STATEMENT OF COMPLETENESS**

**I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.**

**Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.**

Printed or Typed Name | Title

Signature of Responsible Official | Date Signed

**Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.**

# APPENDIX C

## Required Format for Annual Compliance Certification Reports

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Kerr McGee Rocky Mountain Corporation – Frederick Compressor Station

OPERATING PERMIT NO: 95OPWE035
REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

| Operating Permit Unit ID | Unit Description | Deviations Reported [1] | | Monitoring Method per Permit?[2] | | Was compliance continuous or intermittent?[3] | |
|---|---|---|---|---|---|---|---|
| | | Previous | Current | YES | NO | Continuous | Intermittent |
| EU-41 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48715 | | | | | | |
| EU-42 | Cooper-Bessemer Model 12Q155HC Quad Internal Combustion Engine, 2 Cycle-Lean Burn, 4670 HP, Natural Gas Fired. Serial No. 48799 | | | | | | |
| EU-01 | QB Johnson Custom Triethylene Glycol Dehydration Unit, Design Rated at 80 MMscf/day | | | | | | |
| F001 | Fugitive Emissions of Volatile Organic Compound From | | | | | | |

| Operating Permit Unit ID | Unit Description | Deviations Reported [1] | | Monitoring Method per Permit?[2] | | Was compliance continuous or intermittent?[3] | |
|---|---|---|---|---|---|---|---|
| | | Previous | Current | YES | NO | Continuous | Intermittent |
| | Equipment Leaks | | | | | | |
| T001 | Condensate tanks - Five (5) 225 barrel, one (1) 200 barrel, and one (1) 300 barrel with vents manifolded together | | | | | | |
| EU-43 | Caterpillar model G3608LE, Internal Combustion Engine, four-cycle Low NOx, 2104 HP, natural gas fired, Serial No. 4WF0087 | | | | | | |
| General Conditions | | | | | | | |
| Insignificant Activities [4] | | | | | | | |

[1] If deviations were noted in a previous deviation report , put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

[2] Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

[3] Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

[4] Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)

B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).

1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Annual Compliance Certification must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

**I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.**

**Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.**

_____

Printed or Typed Name Title

_____

Signature Date Signed

**NOTE:** All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

# APPENDIX D

## Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Jim King

2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 300
Denver, CO 80202

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 300
Denver, CO 80202

# APPENDIX E

## Permit Acronyms

Listed Alphabetically:

| | |
|---|---|
| AIRS - | Aerometric Information Retrieval System |
| AP-42 - | EPA Document Compiling Air Pollutant Emission Factors |
| APEN - | Air Pollution Emission Notice (State of Colorado) |
| APCD - | Air Pollution Control Division (State of Colorado) |
| ASTM - | American Society for Testing and Materials |
| BACT - | Best Available Control Technology |
| BTU - | British Thermal Unit |
| CAA - | Clean Air Act (CAAA = Clean Air Act Amendments) |
| CCR - | Colorado Code of Regulations |
| CEM - | Continuous Emissions Monitor |
| CF - | Cubic Feet (SCF = Standard Cubic Feet) |
| CFR - | Code of Federal Regulations |
| CO - | Carbon Monoxide |
| COM - | Continuous Opacity Monitor |
| CRS - | Colorado Revised Statute |
| EF - | Emission Factor |
| EPA - | Environmental Protection Agency |
| FI - | Fuel Input Rate in Lbs/mmBtu |
| FR - | Federal Register |
| G - | Grams |
| Gal - | Gallon |
| GPM - | Gallons per Minute |
| HAPs - | Hazardous Air Pollutants |
| HP - | Horsepower |
| HP-HR - | Horsepower Hour (G/HP-HR = Grams per Horsepower Hour) |
| LAER - | Lowest Achievable Emission Rate |
| LBS - | Pounds |
| M - | Thousand |
| MM - | Million |
| MMscf - | Million Standard Cubic Feet |
| MMscfd - | Million Standard Cubic Feet per Day |
| N/A or NA - | Not Applicable |
| NOx - | Nitrogen Oxides |
| NESHAP - | National Emission Standards for Hazardous Air Pollutants |
| NSPS - | New Source Performance Standards |
| P - | Process Weight Rate in Tons/Hr |
| PE - | Particulate Emissions |
| PM - | Particulate Matter |
| $PM_{10}$ - | Particulate Matter Under 10 Microns |

| | |
|---|---|
| PSD - | Prevention of Significant Deterioration |
| PTE - | Potential To Emit |
| RACT - | Reasonably Available Control Technology |
| SCC - | Source Classification Code |
| SCF - | Standard Cubic Feet |
| SIC - | Standard Industrial Classification |
| $SO_2$ - | Sulfur Dioxide |
| TPY - | Tons Per Year |
| TSP - | Total Suspended Particulate |
| VOC - | Volatile Organic Compounds |

# APPENDIX F

## Permit Modifications

| DATE OF REVISION | SECTION NUMBER, CONDITION NUMBER | DESCRIPTION OF REVISION |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
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# APPENDIX G

[This Appendix intentionally left blank]

# APPENDIX H

## Compliance Assurance Monitoring Plan

## I. Background

a. Emission Unit Description:

TEG dehydration unit

b. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit Section II, Condition 2.1
Emission Limitations: VOC 16.0 tons/yr

c. Control Technology:

Thermal Oxidizer

## II. Monitoring Approach

| | Indicator No. 1 | Indicator No. 2 |
|---|---|---|
| I. Indicator | **Presence of Flame in thermal oxidizer** | **Thermal oxidizer temperature** |
| Measurement Approach | Ultra violet light detectors | Thermocouple or Resistance Temperature Detector |
| II. Indicator Range | Indicator range is the detection of a flame.<br>Excursions trigger the permittee to investigate the thermal oxidizer performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in a log, to be made available to the Division upon request. | The indicator range is a temperature between 1200º F and 1900º F.<br>Excursions trigger the permittee to investigate the thermal oxidizer performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in a log, to be made available to the Division upon request. |
| III. Performance Criteria | | |
| a. Data Representativeness | N/A | Standard Accuracy to ± 2 % Full Scale |
| b. Verification of Operational Status | Status light on panel and controller. | Temperature reading within indicated range. |
| c. QA/QC Practices/Criteria | UV detector is failsafe. | Calibration annually. |
| d. Monitoring Frequency | Verify operation of unit continuously. | Continuous. |
| f. Data Collection Procedures | N/A | Spot temperature noted on Title V log daily. |
| e. Averaging Time | N/A | N/A |

# APPENDIX I

## Compliance Assurance Monitoring Plan

## I. Background

a. Emission Unit Description:

Condensate Tank Battery – Five (5) 225 bbl, one (1) 200 bbl, and one (1) 300 bbl manifolded together to form a single vent line.

d. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit Section II, Condition 4.1
Emission Limitations: VOC 16.0 tons/yr

e. Control Technology:

Air-Assisted Flare

## II. Monitoring Approach

| | Indicator No. 1 | Indicator No. 2 |
|---|---|---|
| I. Indicator Measurement Approach | Presence of Flame | Pilot Light Spark |
| | Flame detector | Audible |
| II. Indicator Range | Indicator range is no flame sensed, an alarm sounds when no flame is detected.<br>Excursions trigger the permittee to investigate the flare performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in a log, to be made available to the Division upon request. | The indicator range is no audible detection for more then twenty two seconds.<br>Excursions trigger the permittee to investigate the flare performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in a log, to be made available to the Division upon request. |
| III. Performance Criteria | | |
| a. Data Representativeness | The thermal device monitors the presence of a flame, so either a flame or no flame is indicated. | Audible sound is high voltage arcing on igniter head. If spark is not functioning the pilot flame will not re-ignite after a flame-out situation. |
| b. Verification of Operational Status | Status light on panel and visual. If the flame goes out, a call-out is initiated. | Failure of pilot flame ignition and lack of audible sound. |
| c. QA/QC Practices and Criteria | The thermal device is fail-safe. If the thermal device is not functioning, the control system assumes the flame is out.<br>The thermal device is repaired or replaced if not working. | If the spark malfunctions and the flame goes out, the flame cannot be re-ignited and will result in the thermal device noting that the flame is out and initiate call-out.<br>The pilot light is repaired or replaced if not working. |
| d. Monitoring Frequency | Flame status monitored continuously by the | Every 22 seconds. Because the presence of a |

| | Indicator No. 1 | Indicator No. 2 |
|---|---|---|
| | flame detector. | spark is audible, it is only monitored when an operator is present on site. |
| f. Data Collection Procedures | A visual check for the presence of a flame is made and recorded daily. Excursions and any adjustments or repairs made to the flare following an excursion shall be noted in daily log. | Repairs or replacements of the pilot spark are noted in a log.<br><br>Excursions and any adjustments or repairs made to the flare following an excursion shall be noted in daily log. |
| e. Averaging Time | N/A | N/A |

# APPENDIX J

## Oxidation Catalyst Maintenance Procedures