



Comments on Proposed Synthetic Minor Permit, # SMNSR-TAT-000211-2011.001-QEP
Energy Company
Dan Ryan

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2 Attachments



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Ladies and Gentlemen –

Attached please find QEP Energy's comments on the subject proposed SMNSR permit for QEP Energy Company's 4-35E Facility, FBR, North Dakota. The attached comments are in the form of requested changes (**shown in RED, or in BLUE**) to the version of the document issued for public comment on March 23, 2012.

The comments should be self explanatory and I verified that the redline format employed is an acceptable way of providing comments via e-mail exchange with Claudia Smith of Region 8 on April 18, 2012. However if you have any questions or need any clarification. please contact me at your convenience.

Thank you.

Dan Ryan



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Air Pollution Control
Synthetic Minor Source Permit to Construct

40 CFR 49.151

SMNSR-TAT-000211-2011.001

Proposed Synthetic Minor Permit to Construct to establish facility-wide limits to avoid Prevention of Significant Deterioration (PSD) permitting requirements, and hazardous air pollutant (HAP) requirements for major sources.

Permittee:

QEP Energy Company

Permitted Facility:

4-35E Facility
Oil & Gas Production Facility
Fort Berthold Indian Reservation
Dunn County, North Dakota

QEP ENERGY COMPANY PUBLIC COMMENTS/SUGGESTED REVISIONS
April 23, 2012

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I. Conditional Permit to Construct

A. General Information

Permit number: SMNSR-TAT-000211-2011.001
SIC Code and SIC Description: 1321- Oil and Gas Production
API Well No: [TBD]

Site Location:
4-35E Facility
NW ¼ NW ¼ Sec 35 T149N R91W
Fort Berthold Indian Reservation
Dunn County, ND

Corporate Office Location
QEP Energy Company
1050 17th St., Suite 500
Denver, CO 80265

The equipment listed in this permit shall be operated by QEP Energy Company (QEP) at the following location:

Latitude 47.68672N, Longitude -102.29754W

B. Construction Proposal

QEP is proposing to construct and operate a five (5) well oil and natural gas exploration and production facility.

The comingled fluid stream (containing produced oil, natural gas and water) flows from each drilled well to one of two (2) respective 6' x 20' vertical separator and heater/treater processing unit, which will each be equipped with a 0.5 MMBtu/hr capacity burner. In the vertical separator and heater/treater processing unit, the fluid is heated to a desired temperature and range to aid in separation of the condensate, natural gas and produced water. The separated produced oil and produced water flow to respective 400 barrel (bbl) storage tanks.

The produced natural gas stream from the vertical separator and heater/treater processing unit is expected to be metered into a natural gas sales pipeline. If the pipeline is not immediately available or if it becomes unavoidable to route produced natural gas to the pipeline due to upset conditions, the natural gas will be directed to a utility flare for combustion.

From the produced oil storage tanks, the produced oil will initially be loaded and sold from the respective storage tanks into tanker trucks and hauled from the facility location. A produced oil sales pipeline is expected to be installed in the future. Once installed, the produced oil will be metered through a lease automated custody transfer (LACT) unit and sold as it is pumped, using electric motor driven pumps, into the produced oil sales pipeline. If the produced oil does not meet sales quality standards, it will be automatically diverted to one of five (5) 400-bbl "divert tanks" where it will be recycled back through the separator and heater/treater processing units to be treated until it can meet sales specifications and be sold.

The produced water will initially be loaded from one of four (4) 400-bbl produced water storage tanks using tanker trucks. Once a produced water pipeline is available, the produced water will be routed to the produced water pipeline using an electric motor driven transfer pump for transportation to a centralized water handling facility for disposal.

The hydrocarbon vapors from all of the storage tanks at the facility will be routed to a utility flare through a common closed-vent piping system.

Emissions resulting from gas leaks from piping connections, seats, seals, flanges, valves, etc., associated with each closed-vent piping system are expected.

QEP will also use up to two (2) trailer or skid-mounted dual fueled (diesel and natural gas) engine driven electric generators for facility power until utility power is available. The generators will supply the power necessary to operate the LACT pumps, electric motor driven pumping units, and other facility power needs.

This permit approves the installation of the following emission units and air pollution-generating activities:

- 2 - oil/natural gas/water separator and heater/treater processing units;
- 2 - natural gas-fired 0.5 MMBtu/hr heater/treater burners;
- 4 - produced water storage tanks (400 bbl each);
- 5 - produced oil/condensate storage tanks (400 bbl each);
- 5 - produced oil/condensate divert tanks (400 bbl each);
- 1 - closed-vent product and vapor collection system;
- 1 - 90.0% volatile organic compound (VOC) destruction efficiency pit flare;
- 1 - 98.0% VOC destruction efficiency enclosed combustor or utility flare;
- 2 - 400 brake horsepower (bhp) dual fuel (diesel and natural gas) fired Tier 2, compression ignition, reciprocating internal combustion engines (RICE) driving electric generators;
- 2 - 1,000-gallon diesel fuel storage tanks attached to respective generator RICE; and
- Truck load out of produced oil and produced water

Equipment size, type and quantity changes are permitted as long as facility-wide emission limits do not exceed those specified in Section I.D.1. of this permit. Notification of such changes to EPA will be made according to the requirements of Section II.A.2., as applicable.

C. Applicability

1. This Federal Permit to Construct is being issued under authority of 40 CFR 49.151, Federal Minor New Source Review Program in Indian Country (Minor NSR).
2. The requirements in this permit have been created, at the Permittee's request, to limit VOC and hazardous air pollutant (HAP) emissions prior to construction avoid Prevention of Significant Deterioration (PSD) permitting requirements at 40 CFR Part 52 and HAP requirements for major stationary sources at 40 CFR Part 63.
3. Any conditions established for this facility or any specific units at this facility pursuant to any Conditional Permit to Construct issued under the authority of 40 CFR Part 52 (PSD) or 40 CFR Part 49 (Federal Minor NSR) shall continue to apply.

4. By issuing this permit, EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner, and/or Operator, if the conditions of this permit are not met by the Permittee, Owner, and/or Operator.

D. Facility-wide Requirements

1. Emission Limits

- (a) Facility-wide VOC emissions shall apply at all times and shall not exceed 230.0 tons during any consecutive twelve (12) months.
- (b) Facility-wide emissions of total HAPs shall apply at all times and shall not exceed 23.0 tons during any consecutive twelve (12) months.
- (c) Facility-wide emissions of individual HAPs shall apply at all times and shall not exceed 9.2 tons during any consecutive twelve (12) months.

2. Production Limits

Total liquid flow rate of produced oil loaded to tank trucks and/or injected directly into a sales pipeline from the produced oil storage tanks shall not exceed 377,170 barrels in any given consecutive 12-month period.

3. Construction and Operational Requirements

- (a) All liquid and hydrocarbon gas collection, storage, processing and handling operations, regardless of size, shall be designed and maintained so as to minimize leakage of hydrocarbon gases to the atmosphere.
- (b) During all well completion or recompletion operations, the permittee shall, at a minimum, route all hydrocarbon gas emissions to a pit flare capable of 90.0% VOC destruction efficiency.
- (c) On the first date of production from any one well, the Permittee shall, at a minimum, route all hydrocarbon gas emissions (including produced gas from the separator and heater/treater processing units) to a control device capable of 90.0% VOC destruction efficiency.
- (d) Within ninety (90) days of the first date of production from any one well, the Permittee shall:
 - i. Route the produced hydrocarbon gas from the separator and heater/treater processing unit (produced gas) through a closed-vent system to:
 - (A) An operating system designed to recover and inject it into the pipeline system for sale or other beneficial purpose (i.e., vapor recovery unit (VRU)); or
 - (B) An enclosed combustor or utility flare capable of 98.0% VOC destruction efficiency and operated as specified in the Requirements for Control Systems for VOC & HAP Emissions section of this permit.

- ii. Route all standing, working, breathing, and flashing gases from the produced oil tanks and any produce water tanks interconnected with the oil tank vapor recovery systems through a closed-vent system to:
 - (A) An operating system designed to recover and inject it into the pipeline system for sale or other beneficial purpose (i.e., vapor recovery unit (VRU)); or
 - (B) An enclosed combustor or utility flare capable of 98.0% VOC destruction efficiency and operated as specified in the Requirements for Control Systems for VOC & HAP Emissions section of this permit.

[Note: The first date of production is the date that saleable oil or gas is recovered from a well and on which payments to the royalty holder must be based. Typically this is when oil physically comes out of the ground and flows through the separator and heater/treater processing unit to a storage tank.]

- (e) In the event the produced hydrocarbon gas cannot be injected into a gas gathering/sales line or used for other beneficial purposes due to sudden, infrequent, and unavoidable events, **including limitations or restrictions of pipeline capacity**, the Permittee may temporarily route the produced hydrocarbon gas through a closed-vent system to an enclosed combustor, utility flare or pit flare operated as specified by the Requirements for Control Systems for VOC & HAP Emissions section of this permit.

4. Monitoring Requirements

- (a) The Permittee shall measure the barrels of oil produced at the facility each time the oil is unloaded from the oil storage tanks using the methodologies of tank gauging or positive displacement metering system, as appropriate and as described in the “Onshore Oil and Gas Operations; Federal and Indian Oil & Gas Leases; Onshore Oil and Gas Order No. 4; Measurement of Oil” developed by the US Department of the Interior’s Bureau of Land Management.

[Note: The EPA is incorporating by reference the measurement methodologies described in this document only. There are no other enforcement implications intended. The Onshore Oil and Gas Operations; Federal and Indian Oil & Gas Leases; Onshore Oil and Gas Order No. 4 can be found 43 CFR 3160; Federal Register/Vol. 54, No. 36 or on- line at http://www.blm.gov/pgdata/etc/medialib/blm/mt/blm_programs/energy/oil_and_gas/operations/orders.Par.92085.File.dat/ord4.pdf]

- (b) The Permittee shall monitor the volume of produced gas sent to an enclosed combustor or utility flare due to sudden, infrequent, and unavoidable events, **including periods of inadequate pipeline capacity**. Methods to measure the volume include, but are not limited to direct measurement, GOR laboratory analyses, or other methods as approved by EPA.
- (c) The Permittee shall monitor the volume of standing, working, breathing, and flashing gases from the produced oil and produced water tanks sent to an enclosed combustor or utility

flare. Methods to measure the volume include, but are not limited to direct measurement, GOR laboratory analyses, or other methods as approved by EPA.

- (d) Facility-wide actual VOC and HAP emissions shall be calculated by the Permittee, in tons, and recorded at the end of each month, beginning with the first full calendar month of **production after** production commences. The monthly emissions shall be based on the actual average daily oil production for this facility for each calendar month.
- (e) Prior to twelve (12) full months of facility-wide emissions calculations, the Permittee shall, at the end of each calendar month, add the facility-wide emissions for that calendar month to the calculated facility-wide emissions for all previous calendar months since production commenced and record the total. Thereafter, the Permittee shall, at the end of each calendar month, add the facility-wide emissions for that month to the calculated facility-wide emissions for the preceding eleven (11) months and record a new twelve (12) month total.
- (f) The Permittee shall include emissions from all controlled and uncontrolled emission sources at the facility shall be included in the calculations, including, but not limited to: separator and heater/treater processing units, produced oil storage tanks; produced water storage tanks; truck load out operations, line heater burners; engines; enclosed combustors; flares; and equipment leaks.
- (g) VOC and HAP emissions from permitted equipment and operations shall be calculated by the Permittee as specified in this permit.

5. Testing Requirements

Within one (1) year of the first date of production, the Permittee shall obtain an extended laboratory analysis of the oil and hydrocarbon gas produced at this facility to confirm the accuracy of the emissions estimates provided in the application. Thereafter, the Permittee shall obtain an extended laboratory analysis of the oil and hydrocarbon gases produced at this facility every five (5) years and use the new data for emissions calculations required in this permit.

6. Recordkeeping Requirements

- (a) The Permittee shall maintain the following records:
 - i. The measured barrels of oil produced at the facility each time the oil is unloaded from the oil storage tanks;
 - ii. The volume of produced gas sent to an enclosed combustor or utility flare due to sudden, infrequent, and unavoidable events;
 - iii. The volume of standing, working, breathing, and flashing gasses from the oil and produced water tanks sent to an enclosed combustor or utility flare;
 - iv. The actual rolling monthly facility-wide VOC and HAP emissions, in tpy;
 - v. All input parameters and calculations used to determine the monthly emissions from all controlled and uncontrolled emission sources at the facility;
 - vi. The extended laboratory analysis conducted on the hydrocarbon streams and used to calculate emissions at the facility; and

- vii. All deviations from the requirements of this permit.
- (b) Where sufficient to meet the record keeping requirements, the Permittee may use a Supervisory Control and Data Acquisition (SCADA) system to monitor and record the needed data in this permit.

E. Requirements for Control Systems for VOC & HAP Emissions

1. Closed-Vent Systems

The Permittee shall meet the following requirements for the closed-vent systems:

- (a) Each closed-vent system shall route all VOC and HAP emissions from the hydrocarbon gas emitting operations to the control devices required by this permit.
- (b) All vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain and collect gases, vapors, and fumes and transport them to the VOC and HAP control equipment shall be maintained and operated during any time the control equipment is operating.
- (c) Each closed-vent system shall be designed to operate with no detectable emissions.
- (d) If any closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control devices, the Permittee shall meet the one of following requirements for each bypass device:
 - i. At the inlet to the bypass device that could divert the stream away from the control device and into the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device and into the atmosphere; or
 - ii. Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration; or
 - iii. Label the bypass device valve installed at the inlet to indicate that the non-diverting position is the correct position for normal operation. The permittee shall check the bypass device valve **during normal operator visits to the facility, or weekly at a minimum**, to ensure it is in the correct position for normal operation and the label is legible. The valve shall only be switched to the divert position during times of sudden, infrequent, and unavoidable events. If the label is illegible, the Permittee shall replace the label.

2. Enclosed Combustors and Utility Flares

- (a) For each enclosed combustor or utility flare, the Permittee shall follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions.
- (b) The Permittee shall ensure that each enclosed combustor **and utility flare** is designed, operated, and maintained in accordance with the manufacturer's written instructions and

has sufficient capacity to achieve at least a 98.0% VOC destruction efficiency for the minimum and maximum hydrocarbon volumetric flow rate and BTU content routed to the device.

- (c) The Permittee shall ensure that each utility flare is designed, operated, and maintained in accordance with the requirements of 40 CFR 60.18 and 40 CFR 63.11 and has sufficient capacity to achieve at least a 98.0% VOC destruction efficiency for the minimum and maximum hydrocarbon volumetric flow rate and BTU content routed to the device.
- (d) The Permittee shall ensure that enclosed combustors and utility flares are:
 - i. Operated at all times that VOC and HAP emissions are routed to it;
 - ii. Operated with a liquid knock-out system to collect any condensable vapors (to prevent liquids from going through the control device);
 - iii. Equipped with a thermocouple to detect the presence of a pilot flame with a minimum accuracy of $\pm 2\%$ of the temperature being monitored expressed in degrees C, or ± 2.5 degrees C; **or**
 - iv. **Equipped with an electronically controlled ignition system with a malfunction alarm and remote notification system;**
 - v. **Equipped with a continuous recording device, such as a chart recorder, data logger or similar device, or connection to SCADA, to monitor and document proper operation of the pilot flame or electronically controlled ignition system; [switched order of iv. and v.]**
 - vi. Maintained in a leak-free condition; and
 - vii. Operated in a smokeless mode.
- (e) The Permittee shall monitor each enclosed combustor and utility flare operation to confirm proper operation as follows:
 - i. Continuously monitor the **combustor operation or pilot flame** using one of the following:
 - (A) A gas/vapor flow detector, an automatic ignition system and a recording device, and check the system **for proper operation** whenever an operator is on site, or at a minimum quarterly; or
 - (B) A thermocouple, recording device, and alarm signaling the lack of the continuous ignition of the pilot flame;
 - (C)** Respond to any alarm and ensure the pilot flame is relit or auto igniter restored to proper operation as soon as practicable and safe to do so, after an alarm sounds.
 - ii. Visually confirm that no smoke is present during operation of any enclosed combustor or utility flare whenever an operator is on site; at a minimum, quarterly.
- (f) VOC and HAP emissions from any produced gas or standing, working, breathing and flashing gases from the produced oil and produced water tanks that is sent to an enclosed combustor or utility flare shall be calculated using the monitored volume of gas as required above, the most recent direct sample and lab analysis of the produced gas, and the enclosed combustor or utility flare destruction efficiency.

- (g) The Permittee shall keep records of the emissions calculations included in the consecutive 12-month facility-wide total.

3. Pit Flares

- (a) The Permittee shall only use a pit flare for the following operations:
- i. To control emissions during well completions and re-completions; or
 - ii. To control emissions in the event the produced hydrocarbon gas that is being recovered for sale or other beneficial purpose must be diverted to an emergency control device due to sudden, infrequent, and unavoidable events and the enclosed combustor or utility flare installed at the facility is not operational.
- (b) The Permittee shall only use the pit flare under the following conditions and limitations:
- i. The pit flare is operated with at least 90.0% VOC destruction efficiency; and
 - ii. The facility-wide VOC and HAP emission limits are not exceeded; and
 - iii. Use of the ground pit flare is limited to no more than 500 hours in any twelve (12) consecutive months, for completions, recompletions, and sudden, infrequent and unavoidable events;
 - iv. Operation of the pit flare during completion, recompletion or sudden, infrequent or unavoidable events during the first 90 days of operation is exempt from inclusion in the 500 hours per year of maximum pit flare operation; and
 - v. A demonstration of compliance with the hours of operation limit is made by keeping records in a log book during each period of time that the pit flare is operating. The records shall be kept onsite and shall contain the following information:
 - (A) Date and time the flare was started up and subsequently shut down;
 - (B) Running total of the hours operated for the previous consecutive twelve (12) months; and
 - (C) Brief description of the justification for operation.
 - vi. The pit flare is visually inspected for the presence of a pilot flame anytime the gas is being routed to the pit flare. Should the pilot flame fail, the flame shall be relit as soon as safely possible; and
 - vii. The Permittee shall not deposit or cause to be deposited into a flare pit any oil field fluids or oil and gas wastes other than those designed to go to the pit flare.
- (c) The Permittee shall calculate VOC and HAP emissions for each calendar month due to produced gas that is sent to a pit flare using the following:
- i. The monitored volume of produced hydrocarbon gas (scf/hr) sent to a pit flare for that month;
 - ii. The site-specific emission factor of the produced hydrocarbon gas (scf/bbl);
 - iii. The actual hours the pit flare operated for that month; and

- iv. The lower heating value, average molecular weight, and VOC and HAP weight fractions of the gas as determined using the results of the most recent extended laboratory analysis.

4. Other Control Devices

The Permittee may use control devices other than those listed above that are capable of achieving 98.0% VOC destruction efficiency upon EPA approval.

5. Recordkeeping Requirements

The Permittee shall keep records of the following:

- (a) The site-specific design input parameters provided through an independent engineering analysis or from the manufacturer or vendor and used to properly size the enclosed combustor or utility flare to assure the minimum 98.0 % reduction requirements;
- (b) All required monitoring of the control device operations;
- (c) **Any** exceedances of the operating parameters specified **by** the manufacturer or vendor guarantee or engineering **specifications**. The records will include the enclosed combustor or utility flare's total operating time during the calendar month in which the exceedance occurred, the date, time and length of time that the parameters were exceeded, and the corrective actions taken and any preventative measures adopted to operate the facility within that operating parameter;
- (d) Any instances in which any closed-vent system or control device was bypassed or down in each calendar month, the reason for each incident, its duration, and the corrective actions taken and any preventative measures adopted to avoid such bypasses or downtimes;
- (e) Any instances in which the pilot flame is not present or **the auto-igniter is not functioning** in the smokeless combustor or the utility flare, the date and times **of the malfunction** and the corrective actions taken, and any preventative measures adopted **to reduce likelihood of recurrence of the malfunction**;
- (f) **[Removed because redundant]**
- (f) Any instances in which the recording device installed to record data from the **pilot/thermocouple or auto-igniter** is not operational;
- (g) Any time periods in which visible emissions are observed emanating from a control system; and
- (h) The emissions calculations included in the consecutive 12-month facility-wide total.

F. Equipment Leaks - Closed Vent Systems

1. Work Practice and Operational Requirements

- (a) The Permittee shall minimize leaks of VOC from all vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain, collect, and transport gases, vapors, and fumes.
- (b) The Permittee shall make the first attempt to repair any leaking equipment within five (5) days after the leak is detected. Any leaking equipment shall be repaired as soon as practicable, but no later than fifteen (15) days after the leak is initially detected, unless the repair is technically infeasible without a facility shutdown, **or due to documented back-order of parts**. If a facility shutdown is required, such equipment shall be repaired before the facility resumes operations.

2. Monitoring Requirements

- (a) The Permittee shall conduct leak detection of the system as follows:
 - i. A qualified Permittee designated representative who is familiar with the equipment installed at the facility shall inspect the facility on foot and use audio, visual, and olfactory observations (AVO) to detect leaks quarterly at a minimum.
 - ii. Any leaks detected are defined as a leak unless screened using EPA Method 21 at 40 CFR Part 60, Appendix A-7, in which case, 10,000 ppm or greater is designated as a leak.
- (b) The Permittee shall estimate VOC and HAP emissions from designated leaks using the November 1995 US EPA Protocol for Equipment Leaks Emission Estimates, EPA-453/R-95-017. This document can be found at <http://www.epa.gov/ttnchie1/efdocs/equiplks.pdf>.

3. Recordkeeping Requirements

- (a) The Permittee shall document and maintain a record of each leak detection inspection. All leak detection inspection records must include, at a minimum, the following information:
 - i. A detailed description of the methods used for the inspection;
 - ii. The date of the inspection;
 - iii. All documentation and/or images produced in the inspection;
 - iv. The findings of the inspection;
 - v. Any corrective action taken and the date of the corrective action;
 - vi. Reason for any delays to corrective actions; and
 - vii. The inspector's name and signature.
- (b) The Permittee shall keep records of all input parameters and calculations used to determine the monthly emissions.

G. Requirements for Storage Tanks

1. The Permittee shall install no more than five (5) oil storage tanks, each limited to a volume of 400 bbls.
2. The Permittee shall install no more than five (5) oil storage divert tanks, each limited to a volume of 400 bbls.
3. The Permittee shall install no more than four (4) produced water storage tanks, each limited to a volume of 400 bbls.
4. The Permittee shall install no more than two (2) diesel storage tanks attached to respective generator engines (see the Requirements for Engines section of this permit), each limited to a volume of 1,000 gallons.
5. As stated in the last paragraph of Section I.B. of this permit, substitution of size, number and type of tanks is allowed for equipment under items 1-4 of this Section G, as long as the facility-wide emissions specified in Section I. D of this permit are not exceeded. Monthly emissions shall at all times be calculated using actual equipment in use.
6. The Permittee shall operate and maintain each storage tank such that the long-term facility-wide emission limit requirements in this permit will be met when the total emissions from the operations are included in the consecutive 12-month facility-wide total.
7. The Permittee shall employ the following methods to ensure the tank vapors are efficiently being routed to the vapor recovery system, the enclosed combustor, or the utility flare for each oil storage tank:
 - (a) Weight and properly seat thief hatch covers; and
 - (b) Set pressure relief valves (PRVs) to release at a pressure that will ensure that all gases are routed to the vapor recovery system, the enclosed combustor, or the utility flare under normal operating conditions.
8. Monitoring Requirements
 - (a) The Permittee shall perform quarterly inspections of tank thief hatches, covers, seals, pressure relief valves, and closed loop vent systems to ensure proper condition and functioning, and to reduce venting to the atmosphere and possible damage to equipment.
 - (b) The Permittee shall determine VOC and HAP emissions from standing, working, breathing, and flash gases from the oil and produced water storage tanks by using:
 - i. The actual measured volume of oil produced for the calendar month (bbl);
 - ii. The lower heating value, molecular weight, and VOC and HAP weight fractions of the gas as determined using the results of the most recent extended laboratory analysis;

- iii. The hours that losses from the storage tanks were routed to the enclosed combustion device – assume 24 hours per day for each day of the month;
- iv. The destruction efficiency of the enclosed combustor or utility flare as required by this permit; and
- v. One or more of the following methods as necessary:
 - A. EPA TANKS 4.0.9d (standing, working, breathing losses only);
 - B. Process simulator such as PROMAX, HYSIM, HSYS;
 - C. API E&P TANKS Software V2.0; and/or
 - D. Other methods approved by EPA.

9. Recordkeeping Requirements

- (a) The Permittee shall document and maintain a record of all inspections. All inspection records shall include, at a minimum, the following information:
 - i. The date of the inspection;
 - ii. The findings of the inspection;
 - iii. Any required adjustments or repairs, and the date of the adjustment of repair; and
 - iv. The inspector's name and signature.
- (b) The Permittee shall keep records of the date of tank installations, the manufacturer specifications and all scheduled maintenance and repairs.
- (c) The Permittee shall keep records of the emissions calculations included in the consecutive 12-month facility-wide total.

H. Requirements for Hydrocarbon Loading Operations

- 1. If the Permittee trucks liquids off-site, the Permittee shall install a hydrocarbon loading system designed for submerged filling of tank trucks.
- 2. The Permittee shall operate and maintain hydrocarbon loading systems such that the long-term facility-wide emission limit requirements in this permit will be met when the total emissions from the operations are included in the consecutive 12-month facility-wide total.
- 3. The Permittee shall calculate VOC and HAP emissions from loading operations using the methodology described in the most current version of EPA AP-42 Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Section 5.2 Transportation and Marketing of Petroleum Liquids (for loading losses).
- 4. The Permittee shall follow the manufacturer's recommended maintenance schedule and operating procedures to ensure good air pollution control practices for minimizing emissions.
- 5. The Permittee shall keep records of manufacturer specifications and all scheduled maintenance and repairs for all equipment used for loading operations.

6. The Permittee shall keep records of the emissions calculations included in the consecutive 12-month facility-wide total.

I. Requirements for External Combustion Units

1. The Permittee shall install no more than two (2) heater/treater burners, each with a burner rating that is no greater than 500,000 British thermal units per hour (Btu/hr).
2. As stated in the last paragraph of Section I.B. of this permit, substitution of size, number and type of external combustion units is allowed for equipment in this Section I, as long as the facility-wide emissions specified in Section I. D of this permit are not exceeded. Monthly emissions shall at all times be calculated using actual equipment in use.
3. The Permittee shall fuel each heater using onsite produced gas that is routed to the combustion chamber. Propane may also be used as an alternative fuel if necessary.
4. The Permittee shall operate and maintain the burners such that the long-term facility-wide emission limit requirements in this permit will be met when the total emissions from the operations are included in the consecutive 12-month facility-wide total.
5. The Permittee shall not operate the burners in a manner which will cause visible emissions.
6. The Permittee shall determine VOC and HAP emissions from burners for each calendar month using the maximum burner rating of 500,000 Btu/hr, the maximum hours of operation of 24 hours for every day of the calendar month and using the emission factors described in the most current version of AP-42 Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Section 1.4, Natural Gas Combustion.
7. The Permittee shall keep records of the emissions calculations included in the consecutive 12-month facility-wide total.

J. Requirements for Engines

1. The Permittee shall install no more than two (2) trailer mounted dual fuel (diesel and natural gas) compression ignition internal combustion engines with a site rated horse power of no more than 400 bhp each to be used for electricity generation until utility power is available.
2. As stated in the last paragraph of Section I.B. of this permit, substitution of size, number and type of engines units is allowed for equipment in this Section J, as long as the facility-wide emissions specified in Section I. D of this permit are not exceeded. Monthly emissions shall at all times be calculated using actual equipment in use.
3. The Permittee shall only install engines compliant with the Tier II emissions standards for non-road engines found at 40 CFR Parts 9, 86, and 89, as appropriate.
4. The Permittee shall follow, for the engine and any respective control system, the manufacturer's recommended maintenance schedule and procedures to ensure good air pollution control practices for minimizing emissions.

5. VOC and HAP emissions for each calendar month for the dual-fuel engines driving the electric generators shall be calculated by the permittee using the maximum rated horsepower of the engine, the maximum hours of operation for each engine of 24 hours for each day of the calendar month, and the uncontrolled emission factors for each engine as specified in the most current version of EPA AP-42 – Compilation of Air Pollutant Emission Factors, Chapter 3.4 – Large Stationary Diesel and All Dual-fuel Engines
6. The Permittee shall keep records of the following:
 - (a) The maximum rated bhp of the engine installed at the facility per written manufacturer's specifications or the manufacturer's nameplate on the equipment;
 - (b) The actual number of hours the engine installed at the facility operated, or a notation that 8,760 hours per year operation is assumed; and
 - (c) All maintenance and procedures performed on the engine constructed and operated at the facility.

K. Records Retention

1. The Permittee shall retain all records required by this permit for a period of at least five (5) years from the date the record was created.
2. The Permittee shall keep records at the facility or the location that has day-to-day operational control over the facility.

L. Reporting

1. Any documents required to be submitted under this permit shall be submitted to:

U.S. Environmental Protection Agency
Region 8 Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202
2. The Permittee shall submit an annual report of rolling 12-month facility-wide emissions each year no later than April 1st. The annual report shall cover the period for the previous calendar year. For the first year the Permittee shall submit the cumulative facility-wide emissions.
3. The Permittee shall promptly submit to EPA a written report of any deviations of emission or operational limits and a description of any corrective actions or preventative measures taken. A "prompt" deviation report is one that is post marked or submitted via electronic mail to R8AirPermitting@epa.gov within:
 - (a) Thirty (30) days from the discovery of a deviation that would cause the Permittee to exceed the facility-wide emission limits if left un-corrected for more than five (5) days after discovering the deviation; and

- (b) Twelve (12) months from the discovery of a deviation of recordkeeping or other permit conditions that do not affect the Permittee's ability to meet the facility-wide emission limits.
- 4. The Permittee shall submit a report for any required testing to the EPA Regional Office within sixty (60) days after completing the test.
- 5. The Permittee shall submit any record or report required by this permit upon EPA request.

II. General Provisions

A. Conditional Approval:

Pursuant to the authority of 40 CFR 49.151, EPA hereby conditionally grants a Minor NSR permit. This authorization is expressly conditioned as follows:

1. This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.
2. The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. EPA shall be notified ten (10) days in advance of any significant deviation from the permit application as well as any plans, specifications or supporting data furnished.
3. The issuance of this Permit to Construct may be suspended or revoked if EPA determines that a significant deviation from the permit application, specifications, and supporting data furnished has been or is to be made. If the proposed source is constructed, operated, or modified not in accordance with the terms of this permit, the Permittee will be subject to appropriate enforcement action.
4. The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted source. Noncompliance with any permit term or condition is a violation of the permit and may constitute a violation of the Clean Air Act and is grounds for enforcement action and for a permit termination or revocation.
5. The Permittee shall take all reasonable precautions to prevent and or minimize fugitive emissions during the construction period.
6. The permitted source shall not cause or contribute to a NAAQS violation or, in an attainment area, shall not cause or contribute to a PSD increment violation.
7. Issuance of this permit does not relieve the Permittee, the owner, and/or operator of the responsibility to comply fully with all other applicable Federal and Tribal rules, regulations, and orders now or hereafter in effect.
8. It is not a defense, for the Permittee, in an enforcement action, to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
9. For proposed modifications, as defined at §49.152(d), that would increase an emissions unit's allowable emissions of a regulated NSR pollutant above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit modification pursuant to 40 CFR Part 49 approving the increase. For a proposed modification that is not otherwise subject to review under

major NSR or under this program, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at §49.159(f).

10. At such time that a new or modified source at the permitted facility or modification of the permitted facility becomes a major stationary source or major modification solely by virtue of a relaxation in any legally and practically enforceable limitation which was established after August 7, 1980, on the capacity of the permitted facility otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of 40 CFR 52.21 shall apply to the source or modification as though construction had not yet commenced on the source or modification.
11. **Revise, Reopen, Revoke and Reissue, or Terminate for Cause:** The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee, for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. The EPA may reopen a permit for a cause on its own initiative, e.g., if the permit contains a material mistake or the facility fails to assure compliance with the applicable requirements.
12. **Severability clause:** The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.
13. **Property Rights:** The permit does not convey any property rights of any sort or any exclusive privilege.
14. **Information Requests:** The Permittee shall furnish to the EPA, within a reasonable time, any information that EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. For any such information claimed to be confidential, you shall also submit a claim of confidentiality in accordance with Part 2, Subpart B of Title 40 of the Code of Federal Regulations.
15. **Inspection and Entry:** EPA or its authorized representatives may inspect the permitted facility during normal business hours for the purpose of ascertaining compliance with all conditions of this permit. Upon presentation of proper credentials, the Permittee shall allow EPA or its authorized representative to:
 - (a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
 - (b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - (c) Inspect, during normal business hours or while the source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
 - (e) Record any inspection by use of written, electronic, magnetic and photographic media.
16. Permit Effective Date: This permit is effective immediately upon issuance unless comments resulted in a change in the draft permit, in which case the permit is effective 30 days after issuance. The Permittee may notify the EPA, in writing, that this permit or a term or condition of it is rejected. Such notice should be made within thirty days of receipt of the permit and should include the reason or reasons for rejection.
17. Permit Transfers: Permit transfers shall be made in accordance with 40 CFR Part 122, Subpart D. The Air Program shall be notified in writing at the address shown below if the company is sold or changes its name:
- U.S. Environmental Protection Agency
Region 8 Air Permitting, Modeling, and Monitoring Unit
c/o Tribal Air Permitting, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202
18. Invalidation of Permit: This permit becomes invalid if construction is not commenced within eighteen (18) months after the effective date of the permit, construction is discontinued for eighteen (18) months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between the construction of the approved phases of a phased construction project; the Permittee shall commence construction of each such phase within eighteen (18) months of the projected and approved commencement date.
19. Notification of Start-Up: The Permittee shall submit a notification of the date of initial start-up of the new construction to the EPA no later than sixty (60) days after such date.

B. Authorization:

Authorized by the United States Environmental Protection Agency, Region 8

Callie A. Videtich
Acting Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

Date