Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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November 4, 2010

Steve Krahenbuhl
Director of Operations, Texon L.P. – Richey Station
11757 Katy Freeway, Suite 1400
Houston, Texas 77079

Dear Mr. Krahenbuhl:

Montana Air Quality Permit #4590-00 is deemed final as of November 4, 2010, by the Department of Environmental Quality (Department). This permit is for a crude oil unloading station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Ed Warner
Environmental Engineer
Air Resources Management Bureau
(406) 444-2467

VW:EW
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

# Montana Air Quality Permit #4590-00

Texon, L.P. – Richey Station
11757 Katy Freeway, Suite 1400
Houston, Texas 77079

November 4, 2010

# MONTANA AIR QUALITY PERMIT

Issued To: Texon, L.P.
Richey Station
11757 Katy Freeway, Suite 1400
Houston, TX 77079

Montana Air Quality Permit (MAQP): #4590-00
Application Complete: 9/17/10
Preliminary Determination Issued: 9/30/10
Department's Decision Issued: 10/18/10
Permit Final: 11/4/10
AFS #: 021-0025

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Texon, L.P. (Texon), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Permitted Equipment

Texon proposes to construct and operate a crude oil truck unloading station known as the Richey Station. This facility would be used to unload crude oil from transport trucks to storage tanks and to inject the oil into a pipeline. The equipment at the Richey Station would consist of:

- Four crude oil tanks with a capacity of 400 barrels (bbl) (16,800 gallons)
- Crude oil tanker truck unloading station
- Lease Automatic Custody Transfer (LACT) unit.

B. Plant Location

The facility would be located in the SE¼ of Section 3, Township 21 North, Range 53 East, approximately nine miles southeast of Richey, in Dawson County, Montana.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Texon shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

2. Texon shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

3. Texon shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.2 (ARM 17.8.752).

4. Texon shall limit throughput of the facility to 425 barrels (bbl) per hour or 3,723,000 bbl (156,366,000 gallons) per year (ARM 17.8.749).

5. Texon shall use pressure/vacuum relief valves on the tank vents (ARM 17.8.752).

6. The transfer of crude oil from the tanker trucks to the storage tanks shall make use of a submerged fill pipe at all times (ARM 17.8.752).

B. Inspection and Repair Requirements

1. Each calendar month, all fugitive piping components (valves, flanges, pump seals, open-ended lines) shall be inspected for leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.105 and ARM 17.8.752).

2. Texon shall (ARM 17.8.105 and ARM 17.8.752):

   a. Make a first attempt at repair for any leak no later than 5 calendar days after the leak is detected; and

   b. Repair any leak as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Section II.B.3.

3. Delay of repair of equipment for which a leak has been detected would be allowed if repair is technically infeasible without a source shutdown. Such equipment shall be repaired before the end of the first source shutdown after detection of the leak (ARM 17.8.752).

C. Record Keeping Requirements

1. A record of each monthly leak inspection required by Section II.B.1 of the MAQP shall be kept on file with Texon. Inspection records shall include, at a minimum, the following information (ARM 17.8.749):

   a. Date of inspection;

   b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);

   c. Leak determination method;

   d. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and

   e. Inspector's name and signature.

2. The records compiled in accordance with the requirements above shall be maintained by Texon as a permanent business record for at least 5 years, shall be submitted to the Department of Environmental Quality (Department) upon request, and shall be available for inspection by the Department (ARM 17.8.749).

D. Testing Requirements

1. The Department may require testing (ARM 17.8.105).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

E. Operational Reporting Requirements

1. Texon shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Texon shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by Texon as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – Texon shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Texon fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Texon of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Texon may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
Texon, L.P.
MAQP #4590-00

I. Introduction/Process Description

Texon, L.P. (Texon) proposes to construct and operate a crude oil unloading station called the Richey Station. The facility would be located in the SE¼ of Section 3, Township 21 North, Range 53 East, approximately nine miles southeast of Richey, in Dawson County, Montana.

A. Permitted Equipment

- Four crude oil tanks with a capacity of 400 barrels (bbl) (16,800 gallons) each and pressure/vacuum relief valves on the roof vents
- Crude oil tanker truck unloading station
- Lease Automatic Custody Transfer (LACT) unit

B. Source Description

Crude oil is unloaded from crude oil tanker trucks in any of the four bays of the unloading station. The oil flows equally into all four of the tanks via submerged fill pipes. When the tanks contain a certain volume of crude oil, the LACT unit will pump the oil into the pipeline via an electric compressor. The maximum rated design throughput of the facility is 425 bbl per hour of crude oil or 3,723,000 bbl per year.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

Texon shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide ($SO_2$)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide ($NO_2$)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of 10 Microns or Less ($PM_{10}$)

Texon must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Texon shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Texon submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year (TPY) of any pollutant. Texon has a PTE greater than 25 TPY of volatile organic compounds (VOC); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Texon submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Texon submitted an affidavit of publication of public notice for the August 22, 2010, issue of the *Ranger Review*, a newspaper of general circulation in the Town of Glendive in Dawson County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Texon of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 TPY of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

a. PTE > 100 TPY of any pollutant;

b. PTE > 10 TPY of any one hazardous air pollutant (HAP), PTE > 25 TPY of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 TPY of $PM_{10}$ in a serious $PM_{10}$ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4590-00 for Texon, the following conclusions were made:

a. The facility's PTE is less than 100 TPY for any pollutant.

b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY for all HAPs.

c. This source is not located in a serious $PM_{10}$ nonattainment area.

d. This facility is not subject to any current NSPS.

e. This facility is not subject to any current NESHAP standards.

f. This source is not a Title IV affected source, or a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Texon will be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or modified source. Texon shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. The control options selected are comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

A. VOC BACT

A BACT analysis was submitted by Texon in MAQP application #4590-00 addressing some available methods of controlling VOC emissions from the working and breathing losses that occur from the filling and emptying of the storage tanks. The Department reviewed these methods, as well as other previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determination.

*Floating Roof Storage Tanks*

Floating roofs are required by 40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. 40 CFR 60.110b(a) states that the facilities to which this subpart applies are each storage vessel with a capacity greater than or equal to 75 cubic meters ($m^3$). 75 $m^3$ is equivalent to approximately 471 bbl; therefore, the tanks at the Richey station are below this minimum threshold for the Subpart to apply. In addition, the Department has not required floating roof tanks as BACT for other similar sources. Therefore, floating roofs are not considered BACT in this case.

*Flares*

Texon provided a review of operating an open or enclosed flare to thermally destroy the VOC emissions. Flares provide a high level of destruction efficiency and can be operated with low capital cost and maintenance; however, their operation requires full-time onsite personnel to maintain and monitor safely due to the potential fire hazards. A flare located at a crude oil unloading station presents a safety concern due to the intake of air into the tanks while they are emptied and the potential of the flare to ignite the vapors within the tank during this intake. Therefore, their use is not generally accepted practice at crude oil unloading stations. There is not a continuous source of fuel gas for the pilot flame, nor is there a continuous vent gas stream for the primary flame. Additional fuel would also be required to enrich the vent stream to maintain a minimum heating value for flare combustion. A flare system is considered technically and economically impracticable as BACT in this instance.

*Other Technologies*

Texon provided a review of several other vapor recovery technologies which capture high value/high energy vent stream gases to either generate a sales gas or create electricity. These technologies included compressor-based vapor recovery, eductor-based vapor recovery, refrigeration-based vapor recovery, and micro-turbine electricity generators. These technologies would all require a continuous source of fuel gas which is not available on site for the project. In addition, there is no sales gas line available for a recovered gas stream nor is there access to an electric power grid for integrating any generated electricity. These technologies were eliminated as BACT in this instance due to technical infeasibility.

*Pressure/Vacuum Relief Valves*

Texon has proposed that pressure/vacuum relief valves (PVRV) on the tank roof vents would constitute VOC BACT for the Richey Station. The PVRV would minimize the emission of the internal tank vapors to the atmosphere by only opening in instances when the internal tank pressure or vacuum exceeds a pressure set point. The opened PVRV would allow the built-up vapor pressure to escape or for atmospheric air to enter the tank until the internal tank pressure or vacuum goes below the pressure set point. The PVRV would then close and the internal tank vapors would again be sealed from the atmosphere. These valves would be placed directly above the center of the tanks and raised three to four feet above the top in order to vent away from the breathing space on the roofs of the tanks. The Department has determined that in addition to PVRV on the tank roof vents, inspecting all fugitive components for leaks on a monthly basis and the use of submerged fill of crude oil to the storage tanks shall be included as VOC BACT for the Richey Station. Monthly inspections have been required of recently permitted similar sources.

B. Particulate BACT

The fugitive particulate emissions at the Richey Station would be relatively low and originate from vehicle traffic on the gravel roads at the facility. Two types of emissions controls are readily available and are typically used for dust suppression of fugitive particulate emissions – chemical dust suppressant and water. Chemical dust suppressant could be used on the gravel roads at the facility. However, because water is more readily available, is less expensive, is as equally affective, and is more environmentally friendly than chemical dust suppressant, water has been identified as the BACT for particulate emissions at the facility. Texon may, however, use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area. Water suppression, with the option of using chemical dust suppressant, has been required of recently permitted similar sources.

IV. Emission Inventory

| | TPY | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Source** | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$NO_x$** | **CO** | **VOC** | **$SO_2$** |
| #1 Crude Oil Storage Tank – 400 bbl | ---- | ---- | ---- | ---- | ---- | 8.4 | ---- |
| #2 Crude Oil Storage Tank – 400 bbl | ---- | ---- | ---- | ---- | ---- | 8.4 | ---- |
| #3 Crude Oil Storage Tank – 400 bbl | ---- | ---- | ---- | ---- | ---- | 8.4 | ---- |
| #4 Crude Oil Storage Tank – 400 bbl | ---- | ---- | ---- | ---- | ---- | 8.4 | ---- |
| Haul Roads | 22.04 | 5.62 | 0.56 | ---- | ---- | ---- | ---- |
| **Total Emissions** | **22.04** | **5.62** | **0.56** | **----** | **----** | **33.6** | **----** |

*Tank Emissions*

VOC Emissions from crude oil storage tank working and breathing losses are calculated using EPA's TANKS 4.0.9d computer software which is based on the emission estimation procedures from Chapter 7 of AP-42. The following tank parameters were used in the emissions estimation model for each tank:

**Tank Dimensions**

| | |
|---|---|
| Tank Type: | Vertical Fixed-Roof |
| Shell Height (ft): | 20.00 |
| Diameter (ft): | 12.00 |
| Liquid Height (ft): | 19.86 |
| Avg. Liquid Height (ft): | 3.00 |
| Volume (gallons): | 16,799.10 |

| | |
|---|---|
| Turnovers per year: | 2,327.00 |
| Net Throughput (gal/yr): | 39,091,500.00 |
| Is Tank Heated: | No |

**Paint Characteristics**

| | |
|---|---|
| Shell Color/Shade: | Gray/Light |
| Shell Condition: | Good |
| Roof Color/Shade: | Gray/Light |
| Roof Condition: | Good |

**Roof Characteristics**

| | |
|---|---|
| Type: | Cone |
| Height (ft) | 0.00 |
| Slope (ft/ft) (Cone Roof) | 0.00 |

| | |
|---|---|
| Mixture Component: | Crude Oil (RVP 5) |
| Meteorological Dataset: | Billings, Montana |

*Haul Roads*

Fugitive PM, $PM_{10}$, and $PM_{2.5}$ emissions from unpaved roads

Vehicle Miles Traveled (VMT) per year = (37,230,000 bbl/yr)/(200 bbl/truck)*(0.5 VMT/truck) = 9,308 VMT/yr
VMT per hour = (9,308 VMT/yr) * (yr/8,760 hrs) = 1.06 VMT/hr
Hours of Operation = 8,760 hrs/yr

**PM Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 9.47 lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 4.8 % (Mean value, sand/gravel processing, plant road, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (8760 hrs/yr) * (1.06 VMT/hr) * (9.47 lb/VMT) * (ton/2000 lb) * (1-50/100) = 22.04 tons/yr

**$PM_{10}$ Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 2.41 lb/VMT
Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 4.8 % (Mean value, sand/gravel processing, plant road, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (8760 hrs/yr) * (1.06 VMT/hr) * (2.41 lb/VMT) * (ton/2000 lb) * (1-50/100) = 5.62 tons/yr

**$PM_{2.5}$ Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 0.24 lb/VMT
Where: k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 4.8 % (Mean value, sand/gravel processing, plant road, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (8760 hrs/yr) * (1.06 VMT/hr) * (0.24 lb/VMT) * (ton/2000 lb) * (1-50/100) = 0.56 tons/yr

V. Existing Air Quality

The Richey Station would be located in eastern Montana in a sparsely populated area with generally very good ventilation throughout the year. The area is designated unclassified/attainment with all ambient air quality standards. There are no major air pollution sources in the surrounding area. The Department does not believe that the area is in danger of approaching any ambient air quality standards at the present time.

VI. Ambient Air Impact Analysis

The Department determined, based on the minimal amount of potential emissions from the facility and the existing air quality in the area, that the impacts from this permitting action would be minor. The Department believes it would not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

| YES | NO | |
|---|---|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)]. |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |
| | X | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |
| | X | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**
**Permitting and Compliance Division**
**Air Resources Management Bureau**
**P.O. Box 200901, Helena, Montana 59620**
**(406) 444-3490**

## ENVIRONMENTAL ASSESSMENT (EA)

*Issued To*: Texon – Richey Station
11757 Katy Freeway, Suite 1400
Houston, Texas 77079

*MAQP Number*: 4590-00

*Preliminary Determination Issued*: 9/30/10
*Department Decision Issued*: 10/18/10
*Permit Final*: 11/4/10

1. *Legal Description of Site*: The facility would be located in the SE¼ of Section 3, Township 21 North, Range 53 East, approximately nine miles southeast of Richey, in Dawson County, Montana.

2. *Description of Project*: Texon proposes to construct and operate a crude oil truck unloading station known as the Richey Station. This facility would be used to unload crude oil from transport trucks to storage tanks and to inject the oil into a pipeline.

3. *Objectives of Project*: The objectives of the project would be to generate business and revenue from the transport of crude oil to sales destinations.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Texon demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4590-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|---|---|---|---|---|---|---|---|
| A | Terrestrial and Aquatic Life and Habitats | | | X | | | Yes |
| B | Water Quality, Quantity, and Distribution | | | X | | | Yes |
| C | Geology and Soil Quality, Stability and Moisture | | | X | | | Yes |
| D | Vegetation Cover, Quantity, and Quality | | | X | | | Yes |
| E | Aesthetics | | | X | | | Yes |
| F | Air Quality | | | X | | | Yes |
| G | Unique Endangered, Fragile, or Limited Environmental Resources | | | | X | | Yes |
| H | Demands on Environmental Resource of Water, Air and Energy | | | X | | | Yes |
| I | Historical and Archaeological Sites | | | | X | | Yes |
| J | Cumulative and Secondary Impacts | | | X | | | Yes |

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Minor impacts on terrestrial or aquatic life and habitats would be expected from the proposed project because the facility would be a source of air pollutants and site disturbance would be required for the construction of the new facility. The proposed project would result in an increase in VOC and particulate matter emissions in the area. The MAQP contains limitations and conditions to minimize the impact of the air emissions on the surrounding environment. While an increase in air emissions and corresponding pollutant deposition would occur, the Department determined that any impacts from the deposition would be minor due to dispersion characteristics of the pollutants and the atmosphere and conditions that would be placed in MAQP #4590-00. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity and Distribution

Minor impacts would be expected on water quality, quantity, and distribution from the proposed project due to pollutant deposition and the use of water for dust suppression on the gravel roads. There are no surface or groundwater discharges expected from this project, nor are there any surface waters at or near the project site. Therefore minor, if any, impacts would be expected from the proposed project.

C. Geology and Soil Quality, Stability and Moisture

This project would have a minor effect on geology and soil quality, stability, and moisture because the construction of the new facility would require ground disturbance at a previously undeveloped location. The proposed project would result in air emissions and pollutant deposition; however, the MAQP associated with the project contains limitations and conditions to minimize the effect of those emissions on the surrounding environment. Overall, any impacts to the geology and soil quality, stability, and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

This project would have a minor impact on vegetation cover, quantity, and quality because the construction of the new facility would require the disturbance of approximately two acres of land. The current land use is described as agricultural and is occupied with native grasses. The proposed project would result in air emissions and pollutant deposition; however, the MAQP associated with the project contains limitations and conditions to minimize the effect of those emissions on the surrounding environment. Overall, any impacts to the vegetation cover, quantity, and quality would be minor.

E. Aesthetics

The proposed project would have a minor impact on the aesthetics of the area because it would involve the construction of a new facility. There would be visible equipment as well as increased truck traffic which would increase the overall level of activity in the area. VOC emissions from the tanks are not visible; however, they may present an odor. The truck traffic would create visible particulate emissions. The MAQP associated with the project contains limitations and conditions to minimize the effect of air emissions on the surrounding environment. Overall, any impacts to the aesthetics would be minor.

F. Air Quality

The proposed project would have a minor impact on the local air quality because it would be source of VOC and particulate matter air pollutant emissions. The air emissions from the facility would be minimized by enforceable conditions in the facility's MAQP. The Department determined, based on the minimal amount of potential emissions from the facility and the existing air quality in the area, that the impacts from this permitting action would be minor. The Department believes it would not cause or contribute to a violation of any ambient air quality standard.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search did not identify any species of special concern in the vicinity of the project area. In this case, the area was defined by the section, township, and range of the proposed location with an additional one mile buffer zone. Due to the minor levels of potential air pollutant emissions and the results of the NRIS search, the Department has determined that the project would have no effect on any unique endangered, fragile, or limited environmental resources.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed project would have minor impacts on the demands of environmental resources of water, air, and energy because the facility would be a source of air pollutants. Water would be required for the control of particulate matter from vehicle traffic. An additional three-phase power line would be required to supply adequate electricity to the facility. The Department has determined that while the proposed project would require environmental resources of water, air, and energy, the impact would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites at or near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to the SHPO, there have not been any previously recorded sites within the designated search locale and that there is a low likelihood that cultural properties would be impacted. In this case, the area was defined by the section, township, and range of the proposed location. Based on the size of the proposed project site and the results of SHPO search, the Department had determined that there would be no impact on any historical or archaeological sites.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment from this project would be minor because the facility would be a minor source of emissions and conditions in the MAQP would minimize air pollutant emissions. The MAQP requirements would ensure that the facility would operate in compliance with applicable rules and regulations that are protective of human health and welfare.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|---|---|---|---|---|---|---|---|
| A | Social Structures and Mores | | | | X | | Yes |
| B | Cultural Uniqueness and Diversity | | | | X | | Yes |
| C | Local and State Tax Base and Tax Revenue | | | X | | | Yes |
| D | Agricultural or Industrial Production | | | X | | | Yes |
| E | Human Health | | | X | | | Yes |
| F | Access to and Quality of Recreational and Wilderness Activities | | | X | | | Yes |
| G | Quantity and Distribution of Employment | | | X | | | Yes |
| H | Distribution of Population | | | | X | | Yes |
| I | Demands for Government Services | | | X | | | Yes |
| J | Industrial and Commercial Activity | | | X | | | Yes |
| K | Locally Adopted Environmental Plans and Goals | | | | X | | Yes |
| L | Cumulative and Secondary Impacts | | | X | | | Yes |

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed facility would not cause a disruption to any native or traditional lifestyles or communities in the area. The proposed location is on private property owned by Texon.

B. Cultural Uniqueness and Diversity

The proposed facility would not cause a change in the cultural uniqueness and diversity of the area because the surrounding land use would remain unchanged.

C. Local and State Tax Base and Tax Revenue

The project would have a minor impact on the local and state tax base and tax revenue from the financial transactions that would occur during the construction of the facility. Texon has indicated that the project would require the hiring of one part time employee.

D. Agricultural or Industrial Production

The proposed project would have a minor impact on the agricultural production because it would require the disturbance of approximately two acres of agricultural-use land for facility construction. This disturbed land would no longer be viable for agriculture. In addition, the industrial production would increase from the installation of the new crude oil unloading station.

E. Human Health

As described in Section 7.F of the EA, the impacts from this facility on human health would be minor because it would be considered a minor source of emissions and the MAQP conditions would ensure that the facility would operate in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

There are no access points to recreational or wilderness activities near the proposed project site. The increase in truck traffic would create additional activity and noise levels in the area which would have a minor impact on the quality of any local recreational and wilderness activities.

G. Quantity and Distribution of Employment

The proposed project would have a minor impact on the quantity and distribution of employment because Texon has indicated that the project would require the hiring of a part-time employee.

H. Distribution of Population

The proposed project would not require any significant physical changes that would affect the location, distribution, density, or growth rate of the human population.

I. Demands for Government Services

The proposed project would have a minor impact on the demands for government services from the acquisition of the appropriate permits by the facility including local building permits and a MAQP.

J. Industrial and Commercial Activity

The local industrial and commercial activity would experience a minor increase from the installation of this new facility. There would be additional truck traffic as well as an increase in crude oil transportation capacity associated with this project.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals that would be affected by the proposed facility. The facility would be similar to other sources with no locally adopted environmental plans or goals.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the social and economic aspects of the human environment would be minor because of the increase in industrial activity and tax revenue. Texon has indicated that they would hire a part-time employee for operation of the facility. There would be no impact to the culture or character of the area.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of crude oil unloading station. MAQP #4590-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Ed Warner
Date: September 23, 2010