UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

Ref: 8P-AR

JUL 07 2017

Shèk Jain
Chief Operating Officer
BioUrja New Town Terminal, LLC
1080 Eldridge Parkway, Suite 1175
Houston, Texas 77077

Re: Administrative Revisions to Synthetic Minor New Source Review Permit
BioUrja New Town Terminal, LLC – New Town Transfer Facility,
Permit # SMNSR-TAT-000285-2013.002

Dear Mr. Jain:

The U.S. Environmental Protection Agency, Region 8 received a request from Dakota Plains Holdings, Inc. (Dakota Plains), dated January 30, 2017, to administratively revise the synthetic minor permit that the EPA issued to Dakota Plains, pursuant to the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49, for the New Town Transfer Facility (SMNSR-TAT-000285-2013.002). Dakota Plains requested to revise the MNSR permit to reflect a permit transfer of the facility. BioUrja New Town Terminal, LLC (BioUrja) acquired ownership of the facility from Dakota Plains, effective on March 1, 2017.

The EPA has verified that the requested revisions qualify as administrative revisions under 40 CFR 49.159(f) and has revised the permit to incorporate BioUrja as the current permit holder. We hereby issue the enclosed revised MNSR permit for the New Town Transfer Facility (SMNSR-TAT-000285-2017.003). Administrative permit revisions are not subject to the permit application, public participation, issuance or administrative and judicial review requirements of the MNSR Permit Program.

If you have any questions concerning the enclosed final permit, please contact Colin Schwartz of my staff at (303) 312-6043.

Sincerely,

Monica S. Morales

Monica S. Morales
Director, Air Program
Office of Partnerships and Regulatory Assistance

Enclosure

United States Environmental Protection Agency
Region 8, Air Program
1595 Wynkoop Street
Denver, CO 80202

Air Pollution Control
Synthetic Minor Source Permit to Construct

40 CFR 49.151

#SMNSR-TAT-000285-2017.003

New Town Transfer Facility Modification

Synthetic Minor Permit to Construct to establish legally and practically enforceable restrictions on volatile organic compound (VOC) emissions to avoid the permitting requirements of the Prevention of Significant Deterioration Permit Program at 40 CFR part 52 (PSD) for a modification, and to become a minor VOC source with respect to the Title V Operating Permit Program at 40 CFR part 71 (Part 71).

Permittee:

BioUrja New Town Terminal, LLC

Permitted Facility:

New Town Transfer Facility
Crude Oil Railcar Loading Operations
Fort Berthold Indian Reservation
Mountrail County, North Dakota

Summary

On January 30, 2017, Dakota Plains Holding, LLC (Dakota Plains) notified the EPA of a Minor New Source Review (MNSR) permit transfer of the New Town Transfer Facility from Dakota Plains to BioUrja New Town Terminal, LLC (BioUrja), effective March 1, 2017. There will be no changes in the environmental regulations and procedures that were permitted prior to the transfer of the permit.

Dakota Plains Holdings, Inc. (Dakota Plains) owns and operates the New Town Transfer Facility, an existing truck-to-railcar crude oil loading operation. The facility is located along the Canadian Pacific Railway, 800 feet south of the intersection of College Drive and Highway 23 and was first issued a MNSR permit effective September 20, 2012.

The EPA has approved the change to the crude oil transfer methodology at the facility from a direct truck-to-railcar loading model to operating more like a crude oil terminal with significant onsite storage, adding additional crude oil storage, and fixed loading arms to load the railcars directly from the storage tanks, rather than directly from trucks using portable loading units. As a back-up operating scenario, in the event that the storage tank-to-railcar transfer equipment is unavailable, the EPA has approved the limited use of the existing direct truck-to-railcar transfer operations. The EPA has also approved transfer of crude oil at the facility. BioUrja will bring crude oil on site by both truck and pipeline modes. The transfer of crude oil from the trucks to the storage tanks will be done using ten (10) stationary loading stations. The transfer of crude oil from the pipelines will be done using five (5) pipeline loading stations.

The primary air quality concerns at the facility are ozone and nitrogen dioxide (NO_2). Ambient monitoring data show that both ozone and NO_2 levels in North Dakota are below the National Ambient Air Quality Standards (NAAQS). Based on the existing air quality information and an analysis of the effects of the controlled emissions, the EPA determined that issuance of this MNSR permit will not contribute to an ozone or NO_2 NAAQS violation, or have potentially adverse effects on ambient air due to increases in NO_x or VOC emissions.

Table of Contents

I. Conditional Permit to Construct

A. General Information

Facility:	New Town Transfer Facility
Permit number:	SMNSR-TAT-000285-2017.003
SIC Code and SIC Description:	5171 – Petroleum Bulk Stations and Terminals

Site Location:
New Town Transfer Facility
NW ¼ NW ¼ Sec 21 T152N R92W &
N ½ NE ¼ Sec 20 T152N R92W
Fort Berthold Indian Reservation
Mountrail County, ND

Corporate Office Location
BioUrja New Town Terminal, LLC
1080 Eldridge Parkway, Suite 1175
Houston, TX 77077

The EPA has approved the construction of the equipment listed in this permit to BioUrja New Town Terminal, LLC. at the following location:

Latitude 47.977678N, Longitude -102.476119W

B. Applicability

1. This Federal Permit to Construct is being issued under authority of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49 and replaces Permit #SMNSR-TAT-000285-2013.001, which was revoked and terminated for cause pursuant to the Tribal MNSR at §49.155(a)(7)(iv).

2. The requirements in this permit have been created, at the Permittee's request to establish legally and practically enforceable restrictions on VOC emissions to become a minor VOC source with respect to PSD and Part 71.

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 PSD or Tribal MNSR that are in effect shall continue to apply.

4. By issuing this permit, the 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.

C. Facility-Wide Requirements

1. Emissions Limit

   Facility-wide VOC emissions shall not exceed 97.0 tons in any consecutive 12-month period.

2. Construction and Operational Limits

(a) *Crude Oil Storage Tanks:* The Permittee is authorized to install no more than three 90,000 bbls crude oil storage tanks.

(b) *Crude Oil Storage Tank Loading (truck-to-storage tank and pipeline-to-storage tank crude oil transfers):*

(i) The Permittee is authorized to install no more than ten (10) stationary loading stations to load the crude oil to the storage tanks directly from trucks;

(A) Each fixed loading arm shall be limited to a crude oil loading rate of no more than 400 gallons per minute (gpm); and

(B) Each station shall be operated with no detectable VOC emissions.

(ii) The Permittee is authorized to install crude oil pipeline transfer stations to load the crude oil directly to the storage tanks. Each station shall be operated with no detectable VOC emissions.

(c) *Stationary Crude Oil Railcar Loading (storage tank-to-railcar crude oil transfers):*

(i) The Permittee is authorized to install ten (10) railcar loading stations that use fixed loading arms to load the crude oil directly to the railcars from the storage tanks;

(ii) Each fixed loading arm shall be limited to a crude oil loading rate of no more than 700 gpm; and

(iii) The total volume of crude oil transferred to railcars from the storage tanks shall not exceed 32,850,000 bbls in any consecutive 12-month period.

(d) *Portable Crude Oil Railcar Loading (truck-to-railcar crude oil transfers):*

The Permittee is authorized to use portable loading units and pumping systems mounted to each truck to load crude oil directly to the railcars from the trucks. This method of railcar loading shall be limited as follows:

(i) Temporary Operations: Until the start-up of the stationary crude oil railcar loading stations (storage tank-to-railcar), the total crude oil loaded directly from the trucks to the railcars shall not exceed 17,000,000 bbls in any consecutive 12-month period. The Permittee shall discontinue the use of the portable crude oil loading units as the primary mode of railcar loading no later than 30 days after the EPA's receipt of a written notice from the Permittee that the stationary crude oil railcar loading station has commenced operation; and

(ii) Back-up Operations: Thirty days after the start-up of the fixed crude oil railcar loading stations (storage tank-to-railcar), the use of the portable crude oil railcar loading units may only be used when the fixed crude oil rail car loading stations (storage tank-to-railcar) are not operational and shall be limited to 5,475,000 bbls in any consecutive 12-month period.

(e) *Portable Diesel Fuel Truck Loading (railcar-to-truck diesel fuel transfers):*

The Permittee is authorized to use portable diesel fuel truck loading units and pumping systems mounted to each truck for railcar-to-truck diesel fuel transfers.

3. Monitoring and Testing Requirements

(a) The Permittee shall record the total volume of crude oil loaded, in bbls, at the end of each month, beginning with the first calendar month that permitted operations commence for each of the following operations:

(i) Storage tank loading (from tanker trucks and pipelines):

Total crude oil loaded to each storage tank shall be continuously measured using liquid flow meters.

(ii) Railcar loading from storage tanks (through railcar loading stations):

Total crude oil loaded to the railcars shall be continuously measured using liquid flow meters; and

(iii) Railcar loading from trucks (through portable units or by way of a truck mounted pumping system):

Total crude oil loaded to the railcars shall be measured each time a railcar is filled by manual gauging of the liquid level in the railcar.

(b) Prior to 12 full months of crude oil loading data from each operation, the Permittee shall, within seven (7) calendar days of the end of each month, add the volume for that month to the recorded crude oil loaded and/or transferred for each operation for all previous months since permitted operations commenced and record the total for each. Thereafter, the Permittee shall, within seven (7) calendar days of the end of each month, add the volume of crude oil loaded for each operation for that month to the calculated volume from the preceding 11 months and record a new 12- month total for each.

(c) The Permittee shall conduct semiannual extended laboratory analysis of the crude oil received at the facility to obtain the actual physical and chemical properties of the hydrocarbon liquid and associated vapors to be used in calculating monthly VOC emissions.

(d) The Permittee shall maintain documentation, provided by the supplier, of the properties of the diesel fuel received from the supplier.

4. VOC Emissions Calculation Requirements

(a) Facility-wide VOC emissions shall be calculated, in tons, and recorded at the end of each month, beginning with the first calendar month that permitted operations commence.

(b) Prior to 12 full months of facility-wide VOC emissions calculations, the Permittee shall, within seven (7) calendars days of the end of each month, add the emissions for that month to the calculated emissions for all previous months since production commenced and record the total. Thereafter, the Permittee shall, within seven (7) calendars days of the end of each month, add the emissions for that month to the calculated emissions for the preceding 11 months and record a new 12-month total.

(c) VOC emissions from all controlled and uncontrolled emission sources at the facility shall be included in the monthly calculation, including, but not limited to: the crude oil storage tanks, storage tank loading operations, railcar loading operations, and diesel fuel truck loading operations.

(d) VOC emissions from each approved emitting unit shall be calculated as specified in this permit.

5. Recordkeeping Requirements

The Permittee shall maintain the following records:

(a) The actual monthly and rolling 12-month facility-wide VOC emissions, in tpy;

(b) The actual monthly and rolling 12-month volume of crude oil loaded to the storage tanks (from trucks and pipelines), in bbls;

(c) The actual monthly and rolling 12-month volume of crude oil loaded to railcars from the storage tanks, in bbls;

(d) The actual monthly and rolling 12-month volume of crude oil loaded to railcars directly from trucks, in bbls;

(e) The results of each extended laboratory analysis of the hydrocarbon liquids received at the facility; and

(f) All input parameters and methodologies used to calculate the facility-wide monthly VOC emissions from each VOC emitting unit identified in this permit.

D. Requirements for Minimizing Fugitive Dust

1. Work Practice and Operational Requirements

(a) The Permittee shall take all reasonable precautions to prevent fugitive dust emissions at the facility and shall construct, maintain, and operate the facility to minimize fugitive dust emissions. Reasonable precautions include, but are not limited to the following:

(i) Using, where possible, water or suitable chemicals for control of dust during construction and operations, during grading of roads, or during clearing of land;
(ii) Applying asphalt, water, or other suitable chemicals on unpaved roads, materials stockpiles, and/or other surfaces located at the facility that can create airborne dust;
(iii) Promptly removing from paved streets, located at the facility, of earthen or other material that does or may become airborne; and
(iv) Restricting vehicle speeds at the facility.

(b) The Permittee shall prepare and implement a written fugitive dust emission prevention plan that specifies the reasonable precautions to be taken and the procedures to be followed to prevent fugitive dust emissions.

2. Monitoring Requirements

(a) The Permittee shall survey the facility during construction and operation to determine if there are obvious visible dust plumes. This survey shall be done at a minimum once per week in all active areas and during daylight hours.

(b) The Permittee shall document the results of the survey, including the date and time of the survey, identification of the cause of any visible dust plumes observed, and the reasonable precautions taken to prevent continued fugitive dust emissions.

3. Recordkeeping Requirements

The Permittee shall maintain records for five (5) years that document the fugitive dust prevention plan, the periodic surveys and the reasonable precautions that were taken to prevent fugitive dust emissions.

E. Requirements for Crude Oil Storage Tanks

1. Installation and Operational Requirements

The Permittee shall install, operate and maintain each crude oil storage tank with a fixed roof in combination with an internal floating roof designed and operated as specified in

40 CFR part 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.

2. Monitoring Requirements

(a) The Permittee shall visually inspect the internal floating roof, the seal system, and any other gaskets, slotted membranes, and sleeve seals, prior to initial filling of each storage tank with crude oil, at least once every six (6) months, after the initial fill, and each time a storage tank is emptied, degassed, and/or refilled.

(b) The Permittee shall repair any items before filling or refilling a storage tank with crude oil if one or more of the following are observed:

(i) Except in the case of floating roof landings, the internal floating roof is not resting on the surface of the liquid inside the storage tank;
(ii) There is liquid accumulated on the roof;
(iii) The seal is detached, or there are holes, tears, or other openings in the primary or secondary seal or seal fabric;
(iv) The gaskets no longer close off the liquid surfaces from the atmosphere; or
(v) The slotted membrane has more than 10% open area.

3. VOC Emissions Calculation Requirements

(a) VOC emissions from each crude oil storage tank at the facility due to working and breathing losses for each calendar month shall be calculated using the most current version of the EPA TANKS program (found at www.epa.gov/ttn/chief/efpac/efsoftware.html) and the following:

(i) The total measured volume of crude oil transferred to each storage tanks for the month; and
(ii) The actual physical and chemical properties of the crude oil and its associated vapors from the most recent semiannual extended laboratory analysis of the crude oil received at the facility.

(b) VOC emissions from each crude oil storage tank at the facility due to roof landing losses for each calendar month shall be calculated using the techniques in AP-42, Chapter 7.1: Organic Liquid Storage Tanks for standing idle losses and filling losses for floating roof tanks and the actual physical and chemical properties of the crude oil and its associated vapors from the most recent semiannual extended laboratory analysis of the crude oil received at the facility. Other techniques for calculating the roof landing losses may be used upon the EPA's written approval.

(c) VOC emissions from each crude oil storage tank at the facility due to degassing for each calendar month shall be calculated. The emissions shall be calculated using the most current version of the EPA Tanks program and the actual physical

and chemical properties of the crude oil and its associated vapors from the most recent semiannual extended laboratory analysis of the crude oil received at the facility. Other techniques for calculating degassing emissions may be used upon the EPA's written approval. The degassing emissions using the EPA Tanks program shall be determined as follows:

(i) Determine emissions for one tank turnover;
(ii) Determine the emissions from the tank modeled as a fixed roof tank with a tank height equal to the height of the deck legs; and
(iii) Approximate the vapor displaced from the space under the floating roof by summing these two emission rates to determine degassing emissions.

4. Recordkeeping Requirements

(a) The Permittee shall document crude oil storage tank inspections. All crude oil storage tank inspection records shall include, at a minimum, the following information:

(i) The date of the inspection;
(ii) All documentation and/or images produced in the inspection;
(iii) The findings of the inspection;
(iv) Any corrective action taken; and
(v) The inspector's name and signature.

(b) The Permittee shall document and maintain a record of each time a storage tank's floating roof rests on the deck legs or other supports, a storage tank is degassed, and/or a storage tank is cleaned and refilled.

(c) The Permittee shall document and maintain a record of the monthly VOC emissions, in tons, from each crude oil storage tank, the emission calculations, all inspections, and any repairs.

F. Requirements for Crude Oil Storage Tank Loading

1. Installation and Operations Requirements

(a) The Permittee shall install, operate and maintain a crude oil piping system designed for submerged filling by either bottom loading or loading through a submerged fill pipe. A submerged fill pipe shall be no more than 12 inches from the bottom of each crude oil storage tank. The Permittee shall not conduct crude oil storage tank loading by either pipeline or truck unless bottom or submerged loading is used.

(b) The Permittee shall monitor all lines, connections, fittings, valves, or any other appurtenance employed to collect, contain, and/or move crude oil at each truck loading station for crude oil leaks during all crude oil loading events using

olfactory, visual, and auditory techniques. If a crude oil leak is detected, the Permittee shall discontinue the use of the station and repair the leak prior to resuming use of the truck loading station.

(c) The Permittee shall monitor each pipeline storage tank loading station for crude oil leaks on a weekly basis during crude oil storage tank loading events using olfactory, visual, and auditory techniques. If a crude leak is detected, the Permittee shall discontinue the use of the station and repair the leak prior to resuming the use of the pipeline storage tank loading station.

2. VOC Emissions Control Requirements

(a) The Permittee shall install, maintain, and operate all crude oil storage tank loading stations (truck and pipeline loading stations) with no detectable VOC emissions.

(b) The Permittee shall install, operate and maintain each truck storage tank loading unit using the following design criteria:

(i) All vapor connections and lines on the trucks and storage tanks shall be equipped with closures that seal upon disconnect; and
(ii) The vapor line from the trucks to the storage tanks shall be vapor-tight and liquid fill connections for all systems shall be equipped with vapor-tight caps. Vapor-tight means equipment that allows no loss of vapors.

(c) All vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain, collect, and remove gases, vapors, and fumes from the trucks and/or pipeline stations to the storage tanks shall be maintained and operated during any time any crude oil storage tank is being loaded.

(d) If any crude oil storage tank loading station (truck and pipeline) contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from the trucks or pipelines to the atmosphere, the Permittee shall meet one of the following requirements for each bypass device:

(i) At the inlet to the bypass device that could divert the stream into the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking continuous readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted 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.

3. Monitoring Requirements

The Permittee shall monitor each crude oil storage tank loading station (truck and

pipeline stations) to ensure that they are operating with no detectable VOC emissions as follows:

(a) The Permittee shall monitor each truck storage tank loading station for gas leaks during all crude oil storage tank loading events using olfactory, visual, and auditory techniques. If a gas leak is detected, the Permittee shall discontinue the use of the truck loading station and repair the gas leak prior to resuming use of the truck loading station.

(b) The Permittee shall monitor each pipeline storage tank loading station for gas leaks weekly during crude oil storage tank loading events using olfactory, visual, and auditory techniques. If a gas leak is detected, the Permittee shall discontinue the use of the pipeline loading station and repair the gas leak prior to resuming use of the pipeline loading station.

(c) On a semiannual basis the Permittee shall conduct a visual inspection of each flow indicator and associated alarm for each bypass device, where applicable, to ensure proper operation and a visual inspection of each car-seal or lock-and-key configuration on each bypass device, where applicable, to ensure that the bypass device is in a non-diverting position.

(d) On a semiannual basis and during a storage tank loading event (truck and pipeline stations), the Permittee shall ensure that the concentration at all potential leak sources on each truck and pipeline loading station is not equal to or greater than 100% of the Lower Explosive Limit of the Bakken hydrocarbon liquids (LEL = 0.8% by volume) when measured with a combustible gas detector, calibrated with propane, at a distance of one (1) inch from each possible source. If a leak is detected, the Permittee shall repair the leak prior to using the storage tank loading station again.

4. VOC Emissions Calculation Requirements

VOC emissions from each pipeline and truck storage tank loading station shall be considered to be undetectable (0 tpy) unless a leak was detected. If a leak was observed, the VOC emissions shall be calculated using the length of time of the leak from each equipment type and the following emission factors from the *Protocol For Equipment Leak Emission Estimates*, EPA-453/R-95-017, November 1995, Table 2-3 (http://www.epa.gov/ttnchie1/efdocs/equiplks.pdf):

Equipment Type	Emission Factor (lb/hr/source)[a]
Valves	0.0000947
Pump Seals	0.0011904
Fittings (connectors and flanges)	0.0000176

Other (any equipment type other than fittings, pumps, or valves)	0.0002866

a. These factors are for total organic compound emission rates including non-VOCs such as methane and ethane.

5. Recordkeeping Requirements

(a) The Permittee shall keep records of the day, time, and results of all monitoring performed at each station and the protocol used for the inspection.

(b) The Permittee shall keep records of all instances where a leak of gases, vapors, or fumes was detected at a crude oil storage tank truck and pipeline loading station. The records shall include a description of each leak, including the equipment type, the length of time of the leak, and the corrective measures taken to address the leak.

(c) The Permittee shall keep a monthly record of the estimated VOC emissions where a leak of gases, vapors, or fumes was detected for that month.

G. Requirements for Stationary Crude Oil Railcar Loading

1. Installation and Operational Requirements

(a) The Permittee shall install, operate and maintain a piping system designed for submerged filling by either bottom loading or loading through a submerged fill pipe. The submerged fill pipe shall be no more than 12 inches from the bottom of each railcar. The Permittee shall not conduct railcar loading operations unless submerged loading is used.

(b) The Permittee shall monitor all lines, connections, fittings, valves, or any other appurtenance employed to collect, contain, and/or move crude oil at each railcar loading station for crude oil leaks during all crude oil loading events using olfactory, visual, and auditory techniques. If a crude oil leak is detected, the Permittee shall discontinue the use of the railcar loading station and repair the leak prior to using the railcar loading station for the next railcar.

2. VOC Emissions Control Requirements

VOC emissions from the stationary railcar loading operations at the facility shall be continuously controlled using a closed-vent system that routes vapors to an enclosed combustion device designed, operated, and maintained to reduce the mass content of VOC emissions in the vapors by at least 98.0%.

(a) Closed-Vent System Installation and Operation Requirements

(i) The closed-vent system shall be designed and maintained to operate with no detectable emissions. All piping connections, fittings, valves, or any

other appurtenance employed to contain and collect vapors and transport them to the enclosed combustion device shall be connected and operational during any time the control equipment is operating.

(ii) If the 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 enclosed combustion device, the Permittee shall meet one of following requirements for each bypass device:

(A) At the inlet to each bypass device that could divert the stream away from the enclosed combustion device and into the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking continuous readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the enclosed combustion device and into the atmosphere; or

(B) 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.

(b) Enclosed Combustion Device Installation and Operation Requirements

(i) The enclosed combustion device shall be designed to minimize visible smoke emissions and have sufficient capacity to achieve at least 98.0% VOC emissions destruction efficiency for the minimum and maximum hydrocarbon mass flow routed to the device.

(ii) The enclosed combustion device shall be equipped with an automatic ignition system or continuous burning pilot flame, a thermocouple, or similar temperature sensing device, to detect the presence of a flame; and a continuous recording device, such as a chart recorder or similar device, to document the presence of a flame.

(iii) The enclosed combustion device shall be maintained in a leak-free condition.

(iv) The Permittee shall follow the manufacturer's written operating instructions, procedures and maintenance schedule for the enclosed combustion device, to ensure good air pollution control practices for minimizing emissions.

(v) A control device other than the enclosed combustion device that is capable of achieving a control efficiency equivalent to that specified in this permit may be used upon EPA approval.

3. Monitoring Requirements

(a) On a semiannual basis and during a railcar loading event, the Permittee shall conduct a visual inspection of each flow indicator and associated alarm for each bypass device, where applicable, to ensure proper operation and a visual

inspection of each car-seal or lock-and-key configuration on each bypass device, where applicable, to ensure that the bypass device is in a non-diverting position.

(b) The Permittee shall continuously monitor the blower fan on the closed-vent system to ensure that it is operating at all times a railcar loading event is occurring using vacuum pressure measurement upstream of the blower fan. In the event that the blower fan is not operational, the Permittee shall immediately shut down all railcar loading operations and repair the blower fan. Railcar loading operations shall not resume until the blower fan is repaired and operational.

(i) The Permittee shall demonstrate that the enclosed combustion device achieves the 98.0% VOC emission destruction efficiency requirement by performing an initial performance test of the device within 180 days of commencing operation of a new, repaired, or replaced unit. Subsequent performance tests of the enclosed combustion device shall be conducted every 3 years thereafter.

(ii) Subsequent performance tests are not required for an enclosed combustion device that is model tested under and meets the criteria of the New Source Performance Standard for Crude Oil and Natural Gas Production, Transmission and Distribution (NSPS OOOO) at §60.5413(d).

(iii) The Permittee shall demonstrate that the enclosed combustion device achieves the 98.0% VOC emissions destruction efficiency requirement using the following performance test methods and procedures:

(A) Method 1 or 1A, as appropriate for the selection of the sampling sites;
(B) Method 2, 2A, 2C, or 2D, of 40 CFR part 60, appendix A to determine gas volumetric flow rate; and
(C) Method 18 at 40 CFR part 60, appendix A, Method 25A at 40 CFR part 60, appendix A, ASTM D6420-99 (2004), or any other method or data that have been validated according to the applicable procedures in Method 301 at 40 CFR part 63, appendix A, to determine compliance with the 98.0% VOC emissions destruction efficiency requirement.

(iv) The Permittee shall monitor the enclosed combustion device to confirm proper operation as follows:

(A) Continuously monitor the pilot flame using a thermocouple, or other temperature sensing device, and recording device that indicates the continuous ignition of the pilot flame at all times the enclosed combustion device is operating;
(B) Check the recording device to ensure proper operation once per day;

(C) Check the auto-ignition system, where applicable, to ensure proper operation once per day;

(D) Check the pilot flame to ensure proper operation once per day; and

(E) Correct a pilot flame failure and auto-ignitions system, where applicable, when notified by the malfunction alarm, as soon as possible, but no longer than five (5) days from the day of the notification.

4. VOC Emissions Calculation Requirements

VOC emissions from railcar loading operations for each calendar month shall be calculated using the following:

(a) The total measured volume of crude oil loaded for the month (bbls);

(b) The actual physical and chemical properties of the crude oil and its associated vapors from the most recent semiannual extended laboratory analysis of the hydrocarbon liquid received at the facility;

(c) The monthly average temperature as determined from information available from the National Weather Service (NWS) Forecast Office in Bismarck, ND;

(d) The procedure outlined in AP-42 Chapter 5.2, Transportation and Marketing of Petroleum Liquids for the actual method of loading;

(e) The most current tested VOC emission destruction efficiency of the enclosed combustor; and

(f) If a leak was observed, the VOC emissions shall be calculated using the length of time of the leak from each equipment type and the following emission factors from the *Protocol For Equipment Leak Emission Estimates*, EPA-453/R-95-017, November 1995, Table 2-3 (http://www.epa.gov/ttnchie1/efdocs/equiplks.pdf):

Equipment Type	Emission Factor (lb/hr/source)[a]
Valves	0.0000947
Pump Seals	0.0011904
Fittings (connectors and flanges)	0.0000176
Other (any equipment type other than fittings, pumps, or valves)	0.0002866

a. These factors are for total organic compound emission rates including non-VOCs such as methane and ethane.

5. Recordkeeping Requirements

The Permittee shall keep the following records for the stationary railcar loading operations:

(a) The date and time of all testing, monitoring, and inspections, the results of all testing, monitoring, and inspections performed, and the protocols used for each. All exceedances of the annual hydrocarbon liquid railcar loading limit as specified in this permit.

(b) The site specific design input parameters provided by the manufacturer or vendor, and used to properly size the enclosed combustor to assure the 98.0 % minimum VOC emissions destruction efficiency requirement in this permit and any instances in which any parameter was exceeded.

(c) Any instances in which the enclosed combustion device was bypassed or down in each calendar month during stationary railcar loading operations, the reason for each incident, its duration, and the corrective actions taken or the preventative measures adopted to avoid such bypasses or downtimes.

(d) Any instances in which the pilot flame is not present in the enclosed combustion device while it is operating, the date and times that the flame was not present and the corrective actions taken or the preventative measures adopted to increase the operating time of the flame.

(e) Any instances in which the thermocouple, or other temperature sensing device, installed to detect the presence of a flame in the enclosed combustion device, is not operational while the enclosed combustion device is operating, the time period during which it was not operational, and the corrective measures taken.

(f) All required testing and monitoring. The records shall include the following:

(i) The date, place, and time of observations, sampling or measurements;
(ii) The date(s) analyses were performed;
(iii) The companies or entities that performed observations and the analyses;
(iv) The analytical techniques or methods used;
(v) The results of such analyses or measurements; and
(vi) The operating conditions as existing at the time of sampling or measurement.

H. Requirements for Portable Crude Oil Railcar Loading

1. Installation and Operational Requirements

The Permittee shall install, operate and maintain a piping system designed for submerged loading by either bottom loading or loading through a submerged fill pipe. The

submerged fill pipe shall be no more than 12 inches from the bottom of the railcar. The Permittee shall not conduct portable railcar loading unless submerged loading is used.

2. VOC Emission Control Requirements

(a) All VOC emissions from all portable railcar loading at the facility shall be continuously controlled using vapor balance control systems designed and operated to reduce the mass content of VOC emissions by at least 90.0%. The Permittee shall not conduct portable crude oil railcar loading unless the vapor balance control system is used.

(b) Any planned release of vapor from the trucks following vapor balance during portable crude oil railcar loading prior to leaving the facility shall be controlled using an enclosed combustion device that is installed, operated, monitored, and tested as specified in the section labeled, **Requirements for Stationary Crude Oil Railcar Loading**.

(c) The Permittee shall install, operate and maintain each vapor balance control system using the following design criteria:

(i) All vapor connections and lines on the trucks and railcars shall be equipped with closures that seal upon disconnect;
(ii) The vapor line from the railcars to the trucks shall be vapor-tight and liquid fill connections for all systems shall be equipped with vapor-tight caps. Vapor-tight means equipment that allows no loss of vapors; and
(iii) The vapor balance control system shall be designed such that the pressure in the tank of the trucks does not exceed the maximum allowable tank pressure (design pressure) of the truck during the portable railcar loading so that tank relief valves on the trucks are not activated.

3. Monitoring Requirements

(a) The Permittee shall monitor each vapor balance control system during each portable railcar loading operation to confirm proper operation as follows:

(i) Measure the pressure in the tank of the trucks to ensure that each truck's tank design pressure is not being exceeded; and
(ii) Inspect each vapor return line for leaks using olfactory, visual, and auditory techniques. If a leak is detected, the Permittee shall repair the leak prior to portable railcar loading from the next truck using the same vapor return line.

(b) On a semiannual basis and during a portable railcar loading event, the Permittee shall ensure that the concentration at all potential leak sources on each portable loading unit is not equal to or greater than 100% of the Lower Explosive Limit of the Bakken hydrocarbon liquids (LEL = 0.8% by volume) when measured with a combustible gas detector, calibrated with propane, at a distance of one (1) inch

from each possible source.

4. VOC Emissions Calculation Requirements

VOC emissions from the portable railcar loading for each calendar month shall be calculated using the following:

(a) The total measured volume of crude oil loaded via a portable unit for the month (bbls);

(b) The actual physical and chemical properties of the crude oil and its associated vapors from the most recent semiannual extended laboratory analysis of the hydrocarbon liquid received at the facility;

(c) The monthly average temperature as determined from information available from the National Weather Service (NWS) Forecast Office in Bismarck, ND;

(d) The procedure outlined in AP-42 Chapter 5.2, Transportation and Marketing of Petroleum Liquids for the actual method of loading; and

(e) The 90.0% vapor balance control efficiency, unless a leak in a vapor return line on any one portable railcar loading unit was visibly observed or measured during any one portable railcar loading event; in which case, the vapor balance control efficiency shall be considered 0.0% for the actual measured volume of crude oil loaded during that event.

6. Recordkeeping Requirements

The Permittee shall keep the following records for portable railcar loading operations:

(a) The date and time of all testing, monitoring, and inspections, the results of all testing, monitoring, and inspections performed, and the protocols used for each.

(b) All exceedances of the crude oil truck-to-railcar limit as specified in this permit.

(c) All instances where a leak was visually observed or tested during a portable railcar loading event, the corrective measures taken, and the volume of crude oil loaded with the leaking vapor balance control system.

(d) The required vapor tight testing of each portable railcar loading unit and shall include the following:

(i) The date, place, and time of observations, sampling or measurements;
(ii) The date(s) analyses were performed;
(iii) The companies or entities that performed observations and the analyses;
(iv) The analytical techniques or methods used;

(v) The results of such analyses or measurements; and
(vi) The operating conditions as existing at the time of sampling or measurement.

I. Requirements for Portable Diesel Fuel Truck Loading

1. The Permittee shall install, operate and maintain a piping system designed for submerged filling by either bottom loading or loading through a submerged fill pipe. The submerged fill pipe shall be no more than 12 inches from the bottom of each truck. The Permittee shall not conduct diesel fuel filling operations unless submerged loading is used.

2. The total diesel fuel loaded to the trucks shall, at a minimum, be measured by manual gauging of the liquid level in the railcar and recorded at the end of each calendar month.

3. VOC emissions from the portable diesel fuel truck loading for each calendar month shall be calculated using the following:

   (a) The total measured volume of diesel fuel loaded for the month (bbl);

   (b) The actual physical and chemical properties of the diesel fuel and its associated vapors from the most recent analysis of the diesel fuel received from the supplier;

   (c) The monthly average temperature as determined from information available from the National Weather Service (NWS) Forecast Office in Bismarck, ND; and

   (d) The procedure outlined in AP-42 Chapter 5.2, Transportation and Marketing of Petroleum Liquids for the actual method of loading.

4. The Permittee shall document and maintain a record of the monthly VOC emissions from all diesel fuel truck loading and the emission calculations.

J. Requirements for Records Retention

1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

2. Records shall be kept at the facility or the location that has day-to-day operational control over the facility.

K. Requirements for Reporting

1. Annual Emission Reports

   (a) The Permittee shall submit a written annual report of the actual annual VOC emissions from all emission units at the facility each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports

shall be certified to truth and accuracy by the responsible official.

(b) The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to r8AirPermitting@epa.gov.

2. All other documents required to be submitted under this permit, with the exception of the Annual Emission Reports, 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

Documents may be submitted electronically to r8airreportenforcement@epa.gov.

3. The Permittee shall promptly submit to the 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 r8airreportenforcement@epa.gov as follows:

(a) Within 30 days from the discovery of a deviation that would cause the Permittee to exceed the emission limits or operational limits if left un-corrected for more than five (5) days after discovering the deviation;

(b) Within 30 days from the discovery of an equipment leak as a result of monitoring; and

(c) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee's ability to meet the emission limits.

4. The Permittee shall submit a written report for any required performance tests to the EPA within 60 days after completing the tests.

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, the EPA hereby conditionally grants this permit to construct. This authorization is expressly conditioned as follows:

1. *Document Retention and Availability:* This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.

2. *Permit Application:* The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. The EPA shall be notified 10 days in advance of any significant deviation from the permit application as well as any plans, specifications or supporting data furnished.

3. *Permit Deviations:* The issuance of this permit may be suspended or revoked if the 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. *Compliance with Permit:* The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted facility/source. Noncompliance with any permit term or condition is a violation of this 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. *Fugitive Emissions:* The Permittee shall take all reasonable precautions to prevent and/or minimize fugitive emissions during the construction period.

6. *National Ambient Air Quality Standard and PSD Increment:* The permitted source shall not cause or contribute to a National Ambient Air Quality Standard violation or a PSD increment violation.

7. *Compliance with Federal and Tribal Rules, Regulations, and Orders:* Issuance of this permit does not relieve the Permittee of the responsibility to comply fully with all other applicable federal and tribal rules, regulations, and orders now or hereafter in effect.

8. *Enforcement:* 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. *Facility/Source Modifications:* For proposed modifications, as defined at §49.152(d), that would increase an emissions unit allowable emissions of a PSD, Tribal MNSR, or hazardous air pollutants (HAPs) above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit modification pursuant to the Tribal MNSR

regulations approving the increase. For a proposed modification that is not otherwise subject to review under the PSD or Tribal MNSR regulations, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at §49.159(f).

10. *Relaxation of Legally and Practically Enforceable Limits:* At such time that a new or modified source within the permitted facility/source or modification of this permitted facility/source 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 this permitted facility/source to otherwise emit a pollutant, such as a restriction on hours of operation, then the requirements of the PSD regulations 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:* This 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 this permit contains a material mistake or the Permittee 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:* This 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 the EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating this permit or to determine compliance with this permit. For any such information claimed to be confidential, the Permittee shall also submit a claim of confidentiality in accordance with 40 CFR part 2, subpart B.

15. *Inspection and Entry:* The EPA or its authorized representatives may inspect this permitted facility/source 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 the EPA or its authorized representative to:

    (a) Enter upon the premises where a permitted facility/source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;

(c) Inspect, during normal business hours or while the permitted facility/source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this 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 proposed permit, in which case this 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 30 days of receipt of this permit and should include the reason or reasons for rejection.

17. *Permit Transfers:* Permit transfers shall be made in accordance with 40 CFR 49.159(f). The Air Program Director 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
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

18. *Invalidation of Permit:* This permit becomes invalid if construction is not commenced within 18 months after the effective date of the permit, construction is discontinued for 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 18 months of the projected and approved commencement date.

19. *Notification of Start-Up*: The Permittee shall submit a notification of the anticipated date of initial start-up of the permitted source to the EPA within 60 days of such date.

B. Authorization

Authorized by the United States Environmental Protection Agency, Region 8

Monica S. Morales 7/7/17

Monica S. Morales
Director, Air Program
Office of Partnerships and Regulatory Assistance

Date