

May 3, 2024

Mr. Robert Van Borssum Sr. Engineer Environmental Chord Energy 1001 Fannin Street, Suite 1500 Houston, TX 77002

Re:

Air Quality

Title V (Renewal)
Permit to Operate

Dear Mr. Van Borssum:

Pursuant to the Air Pollution Control Rules of the State of North Dakota, the Department of Environmental Quality has reviewed your permit application dated March 12, 2024, for the Ray Gas Plant located in Williams County, North Dakota.

Enclosed is a copy of the Department's draft/proposed Title V Permit to Operate and statement of basis for the facility. Before making final determinations on the permit application, the Department provides for public comment by means of the enclosed public notice, to be immediately followed by a 45-day Environmental Protection Agency (EPA) review period. As indicated in the notice, the 30-day public comment period will begin May 18, 2024 and end June 16, 2024.

If any changes are subsequently made to the draft permit, then a review copy of the proposed permit reflecting those changes will be provided to EPA prior to the start of a 45-day EPA review period. The 45-day EPA review period is scheduled to begin June 17, 2024 and end July 31, 2024.

All comments received will be considered in the final determination concerning issuance of the permit. The Department will take final action on the permit application following the public comment period and the EPA review period. You will be notified in writing of our final determination.

If you have any questions, please contact me at (701)328-5218 or email kkschneider@nd.gov.

Sincerely.

Kyla K. Schneider Environmental Scientist Division of Air Quality

KKS:er Enc:

xc/enc:

EPA Region 8, Air Permitting (email - r8airpermitting@epa.gov)

NOTICE OF INTENT TO ISSUE AN AIR POLLUTION CONTROL TITLE V PERMIT TO OPERATE

Take notice that the North Dakota Department of Environmental Quality (NDDEQ) proposes to reissue an Air Pollution Control Permit to Operate to Whiting Oil and Gas Corporation, LLC for operation of the Ray Gas Plant in accordance with the ND Air Pollution Control Rules. The facility is located at 11221 Highway 2, Ray ND in Williams County, ND and processes field gas into commercial products. The Whiting Oil and Gas Corporation, LLC mailing address is 1001 Finnan Street, Suite 1500, Houston, TX 77002. There are no changes in potential emissions.

A thirty-day public comment period for the draft permit will begin May 18, 2024 and end on June 16, 2024. Direct comments in writing to the NDDEQ, Division of Air Quality, 4201 Normandy Street 2nd Floor, Bismarck, ND 58503-1324 or email AirQuality@nd.gov, Re: Public Comment Permit No. AOP-28412 v2.0. Please note that, to be considered, comments submitted by email must be sent to the email address listed; comments sent to any other email address will not be considered. Comments must be received by 11:59 p.m. central time on the last day of the public comment period to be considered in the final permit determination. A public hearing regarding issuance of the permit will be held if a significant degree of public interest exists as determined by the NDDEQ. Requests for a public hearing must be received in writing by the NDDEQ before the end of the public comment period.

The notice, draft permit, statement of basis and application are available for review at the NDDEQ address and at the Division of Air Quality website at https://deq.nd.gov/AQ/PublicCom.aspx. A copy of these documents may be obtained by writing to the Division of Air Quality or contacting Kyla Schneider at (701)328-5218 or emailing kkschneider@nd.gov.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

Dated this 3rd day of May 2024

James L. Semerad Director Division of Air Quality

AIR POLLUTION CONTROL TITLE V PERMIT TO OPERATE

Permittee:	Permit Number:
Name:	AOP-28412 v2.0
Whiting Oil and Gas Corporation, LLC	
	Source Name
Address:	Ray Gas Plant
1001 Fannin Street, Suite 1500	
Houston, TX 77002	
Source Location:	Source Type
11221 Highway 2	Natural Gas Processing
Ray, ND 58849	*** *********************************
Williams County	
Expiration Date:	
August	26 , 2029

Pursuant to Chapter 23,1506 of the North Dakota Century Code (NDCC), and the Air Pollution Control Rules of the State of North Dakota, Article 33.1-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions units at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department) and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal: TBD James L. Semerad Director

4201 Normandy Street

Bismarck ND 58503-1324

Fax 701-328-5200

Division of Air Quality

deq.nd.gov

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1. Emission Unit Identification:

The emission units regulated by this permit are as follows:

Entire Half Daniel	Emission	Emission	Air Pollution
Emission Unit Description	Unit (EU)	Point (EP)	Control Equipment
Ethylene glycol dehydration unit rated at 30 MMscfd	(DEHY-1)	17	Still Vent to Condenser & FLARE-3
Natural gas-fired hot oil heater rated at 13.93 x 10 ⁶	2		Low NO _x Burner
Btu/hr (NSPS Dc)	(HTR-1)	* * * * * * * * * * * * * * * * * * *	Low NO _x Burner
Two 400-bbl condensate storage tanks	3 A & 4 A	10	Submerged Fill Pipes
1 WO 400-DOI CONGCINSATE STOTAGE TAIRS	(TANKS)	10	(SFP) & FLARE-2
400-bbl produced water storage tank	6 A	10	SFP & FLARE-2
400-001 produced water storage tank	(PWTANK)	10	SIT & TLAKE-2
Two 500-gallon methanol storage tanks	7 & 15 A	7 & 15	None
	(MTANK-1 & MTANK-2)		
500-bbl gunbarrel tank	8 A	10	FLARE-2
	(GBTANK)	10	1 51 11 62 5
Emergency/process flare	9	9	None
	(FLARE-1)		
Tanks flare	10 B (FLARE-2)	10	None
Condensate loadout	17 A	11	None
Produced water loadout	(TL-1) 12 ^A	10	N.T.
Froduced water loadout	(TL-2)	12	None
NGL loadout station no. 1	13 A (TL-3)	13	None
NGL loadout station no. 2	19 A	19	None
NOL loadout station no. 2	(TL-4)	19	None
Diesel engine-driven emergency generator set rated	14 A, C	14	None
at 923 blip (certified; manuf, after January 1, 2011)	(GEN-1)	14	None
(NSPS III, NESHAP/MACT ZZZZ)	(GLIVI)		
16,800-gallon methanol storage tank	16 A	10	FLARE-2
1 o, o o o g	(MTANK-3)	10	
Air-assisted delay unit flare	17 B	17	None
	(FLARE-3)	-,	1 (SAC
Pigging activities	18 A	18	None
	(PIGGING)	_	
Fugitive emissions (includes fugitive emissions	F1 A	F1	None D
subject to NSPS OOOO or OOOOa)	(FUG-1)		
Five electric motor compressors (NSPS OOOO or OOOOa)	A	A	Not Applicable
Insignificant or fugitive emission sources (no s	• • • • •		

A Insignificant or fugitive emission sources (no specific emission limit).

FLARE-2 is the primary control equipment for TANKS, PWTANK, GBTANK, and MTANK-3. FLARE-3 is the primary control for DEHY-1.

The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the subpart (40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the RICE rules, engine operations must comply with the operating hour limits as specified in the applicable subpart. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 60, Subpart IIII, §60.4211(f) and 40 CFR 63, Subpart ZZZZ, §63.6640(f)]. Fugitive emissions subject to 40 CFR 60, Subpart OOOO or Subpart OOOO must conduct leak detection and repair in accordance with the applicable regulation.

2. Applicable Standards, Restrictions and Miscellaneous Conditions.

A. Fuel Restrictions:

- All fuel burning equipment at the facility, except the diesel engine driven generator (EU 14), is restricted to combusting only natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet.
- The diesel engine-driven emergency generator (EU 14) is restricted to combusting only distillate oil containing no more than 0.0015 percent sulfur by weight.

Applicable Requirement: NDAC 33 1-15-14-06.5.b(1)

B. Flaring Restrictions:

- When it is necessary to operate the flare(s) during emergency, malfunction or maintenance, all precautions shall be taken to minimize emissions and maintain compliance with the applicable ambient air quality standards as outlined in NDAC 33.1-15-02 and the opacity standard.
- 2) Each flare (EU 9, EU 10 and EU 17) must be equipped and operated with an automatic ignitor or a continuous burning pilot which must be maintained in good working order as outlined in NDAC 33.1-15-07-02.
- The flares EU 9 and EU 10 shall be operated in accordance with the requirements of 40 CFR 60.18
- 4) Each flare (EU 9, EU 10 and EU 17) shall be designed, operated and maintained to achieve a VOC destruction efficiency of at least 98%.

Applicable Requirements: ACP-17637 v1.0, ACP-17637 v1.1, ACP-17891 v1.0 and NDAC 33.1-15-14-06.5.b(1)

- C. New Source Performance Standards (NSPS): The permittee shall comply with all applicable requirements of the following NDAC 33.1-15-12-02 and 40 CFR 60 subparts in addition to complying with Subpart A General Provisions.
 - 1) Subpart Dc Standards of performance for small industrial-commercial-institutional steam generating units (EU 2).
 - 2) Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU 14).
 - Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015 (EU F1 and electric compressors).
 - 4) Subpart OOOOa Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 (EU F1 equipment in VOC service associated with EU 19 and electric compressors).

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A, Dc, IIII, OOOO and OOOOa

- D. National Emission Standards for Hazardous Air Pollutants (NESHAP)/Maximum Achievable Control Technology (MACT): The permittee shall comply with all applicable requirements of the following NDAC 33.4-15-22-03 and 40 CFR 63 subparts in addition to complying with Subpart A General Provisions.
 - 1) Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU 14). As an area source of HAP emissions, compliance with 40 CFR 63, Subpart ZZZZ is achieved by complying with 40 CFR 60, Subpart IIII. The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. All required documentation must be submitted to EPA at the address below.

U.S. EPA Region 8 1595 Wynkoop Street Mail Code 8ENF-AT Denver, CO 80202-1129

Applicable Requirements: NDAC 33.1-15-22-03, Subpart A and 40 CFR 63, Subpart ZZZZ

- E. Like-Kind Engine Replacement: This permit allows the permittee to replace the existing engine(s) with a like-kind engine. Replacement is subject to the following conditions.
 - 1) The Department must be notified within 10 days after change-out of the engine.
 - 2) The replacement engine shall operate in the same manner, provide no increase in

throughput and have equal or less emissions than the engine it is replacing.

- The date of manufacture of the replacement engine must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.
- The replacement engine is subject to the same state emission limits as the existing engine in addition to any NSPS or MACT emission limit that is applicable.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

F. Best Management Practices: At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

Applicable Requirements: ACP-18169 v1.0 and NDAC 33.1-15-14-06.5.b(1)

3. Emission Unit Limits:

	,	,	2303333333333		.
			Pollutant/		NDAC Applicable Requirement
Emission Unit Description	EU	EP	Parameter	Emission Limit	
Ethylene glycol dehydration	1 &	17	Opacity	20% A	ACP-17805 v1.0 &
unit & dehy. unit flare	17				33.1-15-03-03.1
Hot oil heater	2	2	Opacity	20% B	ACP-17637 v1.1,
				* *	33.1-15-12-02, Subpart Dc &
					33.1-15-03-02,
Emergency/process flare	9	9	Opacity	0% C	ACP-17891 v1.0 &
***					33.1-15-12-02, Subpart A, §60.18
Tanks flare	10	10	Opacity	0% c	ACP-17891 v1.0 &
					33.1-15-12-02, Subpart A, §60.18
Engine-driven generator	14	14	Opacity	20% B	ACP-17637 v1.1 &
/					33.1-15-03-02
· · · · · · · · · · · · · · · · · · ·					
			Operating	See Condition	33.1-15-12-02, Subpart IIII
			Hours	(Cond.) 1,	
				Footnote C	
Compressors & Fugitives	F 1	F1	VOC	See Cond. 2.C.3	33.1-15-12-02, Subpart OOOO or
(OOOO/OOOOa)				& 2.C.4	OOOOa, as applicable
C00/	'1 1 C		.1		1 1 41 1' 1'

A 60% opacity is permissible for not more than one six-minute period per hour. Also applies during exception periods as indicated in footnote C below.

B 40% opacity is permissible for not more than one six-minute period per hour.

Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours. Exception periods must comply with footnote A above.

4. Monitoring Requirements and Conditions:

A. Requirements:

			Monitoring		
		Pollutant/	Requirement	Condition	NDAC Applicable
Emission Unit Description	EP	Parameter	(Method)	Number	Requirement
Hot oil heater	2	Opacity	Recordkeeping	4.B.1	33.1-15-14-06.5.a(3)(a)
Emergency/process flare	. 9	Opacity	Recordkeeping &	4.B.2.&	33.1-15-14-06.5.a(3)(a) &
			Visible Emissions	4.B.3	ACP-17891 v1.0
			Observation <a> 		
			(VEO)		
Tanks flare	10	Opacity	Recordkeeping &	4.B.2 &	33.1-15-14-06.5.a(3)(a) &
			VEO	4.B.3	ACP-17891 v1.0
Engine-driven generator	14	Opacity	Recordkeeping	4.B.1	33.1-15-14-06.5.a(3)(a)
		Operating	Recordkeeping	4.B.4	33.1-15-12-02, Subpart IIII
		Hours		×	
Ethylene glycol dehydration	17	Opacity	Recordkeeping &	4.B.2 &	33.1-15-14-06.5.a(3)(a)
unit & dehy. unit flare			VEO	4.B.3	
Compressors & fugitives	F1	VOC 🦠	LDAR &	4.B.5	33.1-15-12-02,
(OOOO/OOOOa)			Monitoring Data		Subpart OOOOa, as
					applicable

B. Monitoring Conditions

- 1) For purposes of compliance monitoring, burning of fuels outlined in Condition 2.A shall be considered credible evidence of compliance with the opacity limit for EU 2 and EU 14. However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over the burning of gaseous fuel as outlined in Condition 2.A for evidence of compliance or noncompliance with the opacity limit in the event of enforcement action.
- At least once per week in which each emission unit (EP 10, 17) is operated, a company representative who is certified or has received Department approved visible emissions training (requires a one-time visible emissions session, plus one-hour visible emissions field training; need not be certified) shall observe (VEO) the emission point.
 - a) If no visible emissions are present, the permittee shall record the date, time and observation results. If the observation indicates visible emissions are present:
 - The permittee must investigate for a potential problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the situation is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G. All

- instances of visible emissions observed, associated investigations of malfunctions, and corrective actions taken shall be recorded.
- Following corrective maintenance, a visible emissions observation shall be made by a trained company representative (need not be certified). If no visible emissions are observed, the date and time shall be recorded. If visible emissions are observed, a formal visible emissions evaluation shall be conducted in accordance with Condition 4.B.2b.
- b) If visible emissions are observed for longer than 24 hours, the permittee shall conduct a formal visible emissions evaluation of the flare to determine if the emissions are in compliance with the applicable opacity standard. Opacity readings shall consist of three consecutive six-minute periods per day of flaring using EPA Reference Method 9 or Method 22, as applicable, and conducted by a certified visible emissions reader.
- c) All investigations of malfunctions and visible emissions shall be recorded. The permittee shall comply with the visible emissions emission limits and nothing in this condition shall be construed as authorizing otherwise.
- The presence of a flame for EP 9, 10 and 17 shall be monitored using a thermocouple based on hourly thermocouple average, or any other equivalent device approved by the Department.
- 4) For EU 14 a log shall be kept of the total hours of operation on a calendar year basis. Records shall be maintained to differentiate between time operated for emergency purposes, for maintenance/testing purposes, and for other nonemergency purposes.
 - a) Collect operational and maintenance data to demonstrate that the facility complies with the engine manufacturer's emission-related written instructions [40 CFR 60.4211(a)].
 - b) For emergency engines, any time the operating hours exceeds the allowable emergency limit defined by the applicable subpart(s), the permittee shall notify the Department within 10 working days. The operating hours shall be kept on file (easily accessible format, electronic or otherwise) for five years and submitted to the Department upon request.
- For all equipment subject to the standard, the permittee shall comply with the inspection, monitoring, maintenance and repair requirements of Subpart OOO §60.5385 and §60.5400 and Subpart OOOOa §60.5385a and §60.5400a, as applicable.
- C. In addition to the requirements outlined in Conditions 4.A and 4.B, monitoring shall be in accordance with the following requirements of the North Dakota Air Pollution Control Rules (NDAC) 33.1-15-12, as applicable.

1) NDAC 33.1-15-12-02, Subpart OOOO and OOOOa, Continuous Compliance and Monitoring

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A, OOOO, OOOOa

5. Recordkeeping Requirements:

- A. The permittee shall maintain compliance monitoring records as outlined in the Monitoring Records table that include the following information.
 - 1) The date, place (as defined in the permit) and time of sampling or measurement.
 - 2) The date(s) testing was performed.
 - 3) The company, entity, or person that performed the testing.
 - 4) The testing techniques or methods used.
 - 5) The results of such testing.
 - 6) The operating conditions that existed at the time of sampling or measurement.

Applicable Requirement: NDAC 33.1-15-14-06.5 a(3)(b)[1]

Monitoring Records

Emission Unit Description	EP	Pollutant/ Parameter	Compliance Monitoring Record
Ethylene glycol dehydration unit & dehy. unit flare	17	Opacity	Fuel Type, Recordkeeping & VEO Data
Hot oil heater	2	Opacity	Fuel Type Data
Emergency/process flare	9 /	Opacity	Fuel Type, Recordkeeping & VEO Data
Tanks flare	10	Opacity	Fuel Type, Recordkeeping & VEO Data
Engine-driven generator	<i>4</i> 14	Opacity	Fuel Type Data
		Operating Hours	Hours of Operation Data
Compressors & fugitives	F1	VOC	LDAR Inspection, Monitoring,
(OOOO/OOOOa)			Maintenance & Repair Records Data

- B. In addition to requirements outlined in Condition 5.A, recordkeeping shall be in accordance with the following requirements of NDAC 33.1-15-12 and 40 CFR 63, as applicable:
 - 1) NDAC 33.1-15-12-02, Subpart A, §60.7, Notification and Recordkeeping
 - 2) NDAC 33.1-15-12-02, Subpart Dc, §60.48c, Reporting and Recordkeeping Requirements

- 3) NDAC 33.1-15-12-02, Subpart IIII, §60.4214, Notification, Reports and Records for Owners and Operators
- 4) NDAC 33.1-15-12-02, Subpart OOOO, §60.5420 and §60.5421, Notification, Reporting, and Recordkeeping Requirements and Additional Recordkeeping Requirements
- 5) NDAC 33.1-15-12-02, Subpart OOOOa, §60.5420a and §60.5421a, Notification, Reporting, and Recordkeeping Requirements and Additional Recordkeeping Requirements
- 6) 40 CFR 63, Subpart A, §63.10, Recordkeeping and Reporting Requirements
- 7) 40 CFR 63, Subpart ZZZZ, §63.6645 §63.6660, Notifications, Reports and Records

Applicable Requirements: NDAC 33.1-15-12 and 40 CFR 63, Subparts A and ZZZZ

C. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings/computer printouts of continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirement: NDAC 33,1-15-14-06.5.a(3)(b)[2]

6. Reporting:

- A. Reporting shall be in accordance with the following requirements of NDAC 33.1-15-12 and 40 CFR 63, as applicable.
 - 1) NDAC 33:1-15-12-02, Subpart A, §60.7, Notification and Recordkeeping
 - 2) NDAC 33.1-45-12-02, Subpart Dc, §60.48c, Reporting and Recordkeeping Requirements
 - 3) NDAC 33.1-15-12-02. Subpart IIII, §60.4214, Notification, Reports and Records for Owners and Operators
 - 4) NDAC 33 1-15-12-02, Subpart OOOO, §60.5420, Notification, Reporting, and Recordkeeping Requirements
 - 5) NDAC 33.1-15-12-02, Subpart OOOOa, §60.5420a, Notification, Reporting, and Recordkeeping Requirements
 - 6) 40 CFR 63, Subpart A, §63.10, Recordkeeping and Reporting Requirements
 - 7) 40 CFR 63, Subpart ZZZZ, §63.6645 §63.6660, Notifications, Reports and Records

Applicable Requirements: NDAC 33.1-15-12 and 40 CFR 63, Subparts A and ZZZZ

B. The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 5 in a format provided or approved by the Department. All instances of deviations from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(c)[1] and [2]

C. The permittee shall submit an annual compliance certification report in accordance with NDAC 33.1-15-14-06.5.c(5) within 45 days after December 31 of each year in a format provided or approved by the Department.

Applicable Requirement: NDAC 33.1-15-14-06.5.c(5)

D. For emission units where the method of compliance monitoring is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(e)

E. The permittee shall submit an annual emission inventory report (AEIR) in a format provided or approved by the Department. This report shall be submitted by March 15 of each year. Insignificant units/activities listed in this permit do not need to be included in the report.

Applicable Requirements: NDAC 33.1-15-23-04

7. Facility Wide Operating Conditions:

A. Ambient Air Quality Standards:

- Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33.1-15-02, external to buildings, to which the general public has access.
- 2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33.1-10.
- 3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.
- 4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirements: NDAC 33.1-15-02-04 and 40 CFR 50.1(e)

B. **Fugitive Emissions**: The release of fugitive emissions shall comply with the applicable requirements in NDAC 33.1-15-17.

Applicable Requirement: NDAC 33.1-15-17

C. **Open Burning**: The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in Section 33.1-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33.1-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33.1-15-04

D. **Asbestos Renovation or Demolition**: Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33.1-15-13.

Applicable Requirement: NDAC 33.1-15-13-02

E. Requirements for Organic Compounds Gas Disposal

- Any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining or processing operations and which contain hydrogen sulfide shall be incinerated, flared or treated in an equally effective manner before being released into the ambient air.
- 2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement, NDAC 33.1-15-07-02

F. Rotating Pumps and Compressors. All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33.1-15-07-01.5

G. Shutdowns/Malfunction/Continuous Emission Monitoring System Failure:

- Maintenance Shutdowns. In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least 24 hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:
 - a) Identification of the specific facility to be taken out of service as well as its location and permit number.

- b) The expected length of time that the air pollution control equipment will be out of service.
- c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.
- d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.
- e) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.
- f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.

Applicable Requirement: NDAC 33.1-15-01-13.1

2) Malfunctions.

- a) When a malfunction in any installation occurs that can be expected to last longer than 24 hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The Department shall be notified when the condition causing the malfunction has been corrected.
- b) Immediate notification to the Department is required for any malfunction that would threaten health or welfare or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the Department can be contacted through the 24-hour state radio emergency number 1-800-472-2121. If calling from out of state, the 24-hour number is 701-328-9921.
- c) Unavoidable Malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:
 - The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.
 - [2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.

- [3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent with good practice for minimizing emissions, including minimizing any bypass emissions.
- [4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.
- [5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.
- [6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within 30 days of the end of the calendar quarter in which the malfunction occurred or within 30 days of a written request by the Department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33,1-15-01-13.2

Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made. The provisions of this subsection do not apply to sources that are subject to monitoring requirements in Chapter 33.1-15-21 (40 CFR 75, Acid Rain Program).

Applicable Requirement: NDAC 33.1-15-01-13.3

H. **Air Pollution from Internal Combustion Engines**: The permittee shall comply with all applicable requirements of NDAC 33.1-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33.1-15-08-01

I. Prohibition of Air Pollution:

- 1) The permittee shall not permit or cause air pollution, as defined in NDAC 33.1-15-01-04.
- 2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33.1-15-01-15

J. Performance Tests:

- The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23.1-06. All tests shall be made, and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Environmental Quality Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.
- The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary and adequate access into stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33.1-15-01-12

Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63, unless otherwise specified by the subpart. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(a), NDAC 33.1-15-12-02 Subpart A (40 CFR 60.8), NDAC 33.1-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33.1-15-22-03 Subpart A (40 CFR 63.7)

K. **Pesticide Use and Disposal**: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33.1-15-10.

Applicable Requirements: NDAC 33.1-15-10-01 and NDAC 33.1-15-10-02

L. **Air Pollution Emergency Episodes**: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33.1-15-11.

Applicable Requirements: NDAC 33.1-15-11-01 through NDAC 33.1-15-11-04

- M. Stratospheric Ozone Protection: The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F except as provided for MVACs in Subpart B:
 - 1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
 - 2) Equipment used during the maintenance, service repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
 - Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.
 - 4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

- N. Chemical Accident Prevention: The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:
 - Three years after the date on which a regulated substance is first listed under this part; or
 - 2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

O. Air Pollution Control Equipment: The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The

permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

P. Prevention of Significant Deterioration of Air Quality (40 CFR 52.21 as incorporated by NDAC Chapter 33.1-15-15): If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a "major modification" under 40 CFR 52.21(b)(2).

If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33.1-15-15-01.2

8. General Conditions:

A. Annual Fee Payment: The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within 60 days following the date of such notice. Any source that qualifies as a "small business" may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(7) and NDAC 33.1-15-23-04

B. Permit Renewal and Expiration: This permit shall be effective from the date of its issuance for a fixed period of five years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than 18 months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within 60 days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33.1-15-14-06.4 and NDAC 33.1-15-14-06.6

C. **Transfer of Ownership or Operation**: This permit may not be transferred except by procedures allowed in Chapter 33.1-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

D. **Property Rights**: This permit does not convey any property rights of any sort, or any exclusive privilege.

Applicable Requirement: NDAC 33.1-15-14-06.5 a(6)(d)

E. Submissions:

Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to the Department using a format provided or approved by the Department. Physical submittals shall be submitted to:

North Dakota Department of Environmental Quality Division of Air Quality 4201 Normandy Street, 2nd Floor Bismarck, ND 58503-1324

2) Any application form, report or compliance certification submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33.1-15-14-06.4.d

F. Right of Entry: Any duly authorized officer, employee or agent of the North Dakota Department of Environmental Quality may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33.1-15-14-06.5.c(2) and NDAC 33.1-15-01-06

G. Compliance: The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23.1-06 and NDAC 33.1-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23.1-06. It shall not be a defense for a permittee in an enforcement

action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(a) and NDAC 33.1-15-14-06.5.a(6)(b)

Н. **Duty to Provide Information:** The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This includes instances where an alteration repair, expansion, or change in method of operation of the source occurs. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. Items that warrant supplemental information submittal include but are not limited to, changes in the ambient air boundary and changes in parameters associated with emission points (i.e., stack parameters). The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(e) NDAC 33.1-15-14-06.6.b(3) and NDAC 33.1-15-14-06.4.b

- I. Reopening for Cause: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:
 - Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit
 - The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
 - The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - 4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33.1-15-14-06.6.f

J. **Permit Changes**: The permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(c)

- K. **Off-Permit Changes**: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:
 - 1) No such change may violate any term or condition of this permit.
 - 2) Each change must comply with all applicable requirements.
 - Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.
 - 4) A Permit to Construct under NDAC 33.1-15-14-02 has been issued, if required.
 - Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (&P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33.1-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.
 - The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee's facility.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(3)

- L. Administrative Permit Amendments: This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:
 - Corrects typographical errors.
 - 2) Identifies a change in the name, address or phone number of any person identified in this permit or provides a similar minor administrative change at the source.
 - 3) Requires more frequent monitoring or reporting by the permittee.
 - 4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.

- Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.
- 6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department's approved Title V operating permit program.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

- M. **Minor Permit Modification**: This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:
 - 1) Does not violate any applicable requirement.
 - 2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.
 - 3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.
 - Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 1.12(i)(5) of the Federal Clean Air Act.
 - 5) Is not a modification under NDAC 33.1-15-12, 33.1-15-13, and 33.1-15-15 or any provision of Title I of the Federal Clean Air Act.
 - (a) Is not required to be processed as a significant modification.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(1)

N. Significant Modifications:

Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.

Significant permit modifications shall meet all Title V requirements, including those for applications, public participation, review by affected states, and review by the United States Environmental Protection Agency, as they apply to permit issuance and permit renewal. The Department shall complete review of significant permit modifications within nine months after receipt of a complete application.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(3)

O. **Operational Flexibility**: The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements; or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.

The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(2)

- P. Relationship to Other Requirements: Nothing in this permit shall alter or affect the following:
 - The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.
 - 2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.
 - The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.
 - 4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33.1-15-14-06.3 and NDAC 33.1-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause**: The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the

application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(5)

R. **Circumvention**: The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

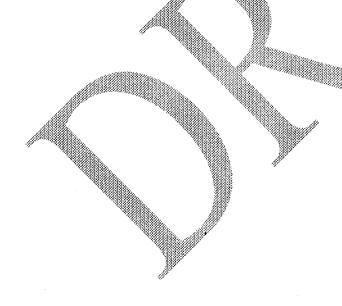
Applicable Requirement: NDAC 33.1-15-01-08

- 9. State Enforceable Only Conditions (not Federally enforceable):
 - A. General Odor Restriction: The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33.1-15-16.

Applicable Requirement: NDAC 33.1-15-16

B. **Hydrogen Sulfide Restriction**: The permittee shall not discharge into the ambient air hydrogen sulfide (H₂S) in concentrations that would be objectionable on land owned or leased by the complainant or in areas normally accessed by the general public. For the purpose of complaint resolution, two samples with concentrations greater than 0.05 parts per million (50 parts per billion) sampled at least 15 minutes apart within a two-hour period and measured in accordance with Section 33.1-15-16-04 constitute a violation.

Applicable Requirement: NDAC 33.1-15-16-04



Whiting Oil and Gas Corporation, LLC Ray Gas Plant Title V Permit to Operate No. AOP-28412 v2.0 Statement of Basis (April 25, 2024)

Facility Background: The Whiting Oil and Gas Corporation, LLC (Whiting), Ray Gas Plant processes field gas and has a design capacity of about 35 MMscfd. Field gas enters the facility and passes through an inlet separation process where entrained liquids are separated from the produced gas stream. The inlet gas stream from the separator is compressed and routed through a refrigeration system and ethylene glycol (EG) dehydration unit. The rich EG returning from the dehydration process is heated and routed to a flash tank where all the flash tank vapors are captured and recycled back to the facility inlet. The rich EG is then routed to the dehydration still column and reboiler. A hot oil heat exchanger is used to drive off the water and regenerate the EG. The vapors generated in the EG regeneration process are vented to a condenser through the still vent, which is then routed to a dedicated process flare. All compression at the facility is electrically driven. Produced water, methanol, lube oil, and used oil are stored in atmospheric storage tanks. Natural gas liquid products are stored in high pressure storage tanks and leave the plant by truck. Condensate and natural gasoline are stored in low atmospheric pressure condensate tanks, controlled by a dedicated flare, and is then transferred to trucks for off-site transportation and sales. A hot oil heater (equipped with Low-NO_x burners) is used to accommodate the facility's heat loads, which includes the EG dehydration unit reboiler. The predominant sources of air emissions are a dehydration unit with a flare, hot oil heater, emergency/process flare and tank flare. The plant is located in Williams County about 2.5 miles northeast of Ray.

Chronology of significant events (not all-inclusive):

August 8, 2014 - Whiting was issued Air Quality Permit to Construct (PTC)14047 (ACP-17637 v1.0) on August 8, 2014, which permitted the construction and initial operation of the Ray Gas Plant.

February 6, 2015 - The facility began operations.

June 22, 2015 - The PTC was amended on for the removal of a condensate storage tank and the addition of two methanol storage tanks (ACP-17637 v1.1).

September 27, 2016 - PTC16033 (ACP-17805 v1.0) was issued for the addition of a dehydrator flare and pigging activities.

August 10, 2017 - The initial minor source operating permit, PTO O17011 (AOP-28019 v1.0) was issued.

January 2, 2018 - A revised (admin. revision) minor source PTO was issued (AOP-28019 v1.1).

December 17, 2018 - PTC18035 (ACP-17891 v1.0) was issued for emission increases from the emergency/process flare and natural gas liquid (NGL) loadout resulting in the facility's carbon monoxide (CO) potential to emit to be above 100 tons per year.

August 26, 2019 - The initial Title V PTO, T5-O17011 (AOP-28412 v1.0), was issued for the Ray Gas Plant; it incorporated ACP-17891 v1.0.

March 2, 2022 - Information was provided to the Department regarding a nonoperating, insignificant emission unit described as a Frick electric-driven propane rotary screw refrigeration compressor. The unit, which is stored on site, is not connected to the facility's piping system, but is being used to source replacement parts as needed for the two existing refrigeration units that are in service.

December 8, 2022 - PTC ACP-18169 v1.0 was issued, which increased the EG dehydration unit throughput from 25 to 30 MMscfd, updated dehydration unit emission calculations, tank emission calculations, inlet and residue gas analysis, throughputs and stream properties for sources modeled, clarified site information, EU 19 (TL-4)/EP 19, as well as added a 2nd NGL loadout station [EU 19 (TL-4)], and replaced a 16" pig receiver with a 20" pig receiver. During construction of the NGL loadout permitted by ACP-17891 v1.0, the activity was split between two emission units/emission points, while keeping the same potential to emit. EU 19 (TL-4) was already listed in AOP-28412 v1.0 and confirmed by inspection prior to the issuance of ACP-18169 v1.0.

July 7, 2023 - A revised (sig. mod.) Title V (AOP-28412 v1.1) was issued to incorporate ACP-18169 v1.0.

<u>Current Action</u>: On February 22, 2024 the Department received a timely renewal application through CERIS-ND from Whiting Oil and Gas Corporation, LLC for the Ray Gas Plant's Title V Permit to Operate No. AOP-28412. The changes in the draft permit are solely administrative in nature.

The Department proposes to issue Title V Permit to Operate No. AOP-28412 v2.0 after the required 30-day public comment period and subsequent 45-day EPA review period. This statement of basis summarizes the relevant information considered during the issuance of the Title V permit. The legal basis for each permit condition is stated in the draft permit under the heading of "Applicable Requirement."

<u>Applicable Programs/As-Needed Topics:</u>

- 1. **Title V.** The facility is considered a major source under NDAC 33.1-15-14-06 (40 CFR 70) because potential annual CO and volatile organic compound (VOC) emissions exceed the 100 tpy major source threshold. The Ray Gas Plant is considered a minor/area source of Hazardous Air Pollutant (HAP) emissions because individual and combined potential HAP emissions are below 10 tpy and 25 tpy, respectively.
- 2. **New Source Performance Standards (NSPS).** The following NDAC 33.1-15-12-02 and 40 CFR 60 subparts apply to the facility.

Subpart A, General Provisions, applies to all source units to which another NSPS subpart applies.

Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (EU 2).

Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU 14).

Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015 (EU F1 and electric compressors)

Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 (EU F1 equipment in VOC service associated with EU 19 and electric compressors).

Note: Subpart Kb does not apply to the tanks because their capacities are less than 151 cubic meters each with a maximum true vapor pressure less than 15 kPa.

- 3. **National Emission Standards for Hazardous Air Pollutants (NESHAP).** No NDAC 33.1-15-13 and 40 CFR 61 subparts apply to the facility, with the possible exception of NDAC 33.1-15-13-02 (40 CFR 61) Subpart M (National Emission Standard for Asbestos), which may apply during facility modifications involving asbestos.
- 4. **NESHAP/Maximum Achievable Control Technology (MACT).** The following NDAC 33.1-15-22-03 and 40 CFR 63 subpart applies to the facility, which is an area source of HAP emissions.

Subpart A, General Provisions, applies to all source units to which another MACT subpart applies.

Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, applies to the engine (EU 14). Compliance with this subpart is achieved through compliance with 40 CFR 60, Subpart IIII. North Dakota has not adopted the area source provisions of this subpart; all required reports and documentation are to be sent to EPA Region 8.

Note: Subpart HH does not apply because the dehydration unit is classified as a "small dehydration" unit, as the actual annual average benzene emissions are less than 0.90 megagrams per year.

5. **Acid Rain.** NDAC 33.1-15-21 (40 CFR 72, 73, 75 and 76) does not apply to the facility since the plant is not an existing electric utility steam generating plant rated at greater than 25 MWe.

- 6. **Prevention of Significant Deterioration (PSD).** The facility is not a major source under NDAC 33.1-15-15 (40 CFR 52) because it does not have the potential to emit more than 250 tons of any criteria pollutant per year during normal operations and there are no new changes that increase emissions by a PSD significant amount; therefore, this permit is not subject to PSD review.
- 7. **BACT.** Since the plant is not a major PSD source, a BACT review is not required for this draft permit.
- 8. **Gap Filling.** This draft permit contains gap filling for testing, monitoring or recordkeeping not otherwise required by rule. Monitoring not otherwise prescribed by rule was added to ensure fuel-burning sources comply with the ND opacity standard. Additional gap filling conditions are generally identified by the applicable requirement NDAC 33.1-15-14-06.5.a(3)(a).
- 9. **Streamlining Decisions.** The NDAC 33.1-15-06-01.2 *Restrictions applicable to fuel burning installations* emission limit for sulfur (3.0 pounds sulfur per million Btu) was streamlined because the standard ND natural gas fuel restriction for sulfur (2 grains per 100 scf) is more stringent. The opacity limit of 20% on FLARE-2 (EU/EP 10) was streamlined for the voluntary limit of 0% opacity based on its engineered design capability.
- 10. **Compliance Assurance Monitoring (CAM).** CAM does not apply because adequate monitoring is specified in post-11/15/90 NSPS and NESHAP/MACT regulations and no controlled units have an uncontrolled potential to emit (PTE) of ≥100 tons per year of any EPA regulated criteria or HAP pollutant.
- 11. **Permit Shield.** Does not apply because the permit to operate does not contain a permit shield.
- 12. **New Conditions/Limits.** There are no new conditions or limits. Specific changes are identified in the "Permit Changes by Section" below.
- 40 CFR 98 Mandatory Greenhouse Gas Reporting. This rule requires sources above certain emission thresholds or in certain supplier thresholds to calculate, monitor and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR 70.2, neither Subpart 98, nor Clean Air Act Section 307(d)(1)(V), the CAA authority under which Subpart 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR 70, the source is not relieved from the requirement to comply with the rule separately from compliance with their Part 70 operating permit. It is the responsibility of each source to determine applicability to the subpart and to comply, if necessary.

Permit Changes by Section:

Note: Administrative changes were made to some sections of the permit to update to the current North Dakota (ND) format and to correct errors. These changes may not be specifically addressed below.

Cover: Permittee address, permit version number and expiration date were updated.

Table of Contents: Page numbers were updated as necessary.

- 1. **Emission Unit Identification**: Applicable subparts in the emission units description column of the table were clarified.
- 2. **Applicable Standards, Restrictions and Miscellaneous Conditions**: U.S. EPA Region 8 address was provided for Condition No. 2.D.
- 3. Emission Unit Limits: No change.
- 4. **Monitoring Requirements and Conditions**: Condition 4.B.2 was updated to the current ND standard for flare monitoring.
- 5. **Recordkeeping Requirements**: "NDAC 33.1-15-12-02" was added to several conditions where it was missing in the applicable subpart description.
- 6. **Reporting**: "NDAC 33.1-15-12-02" was added to several conditions where it was missing in the applicable subpart description.
- 7. **Facility Wide Operating Conditions**: The Noncompliance Due to an Emergency condition (7.H) was removed per EPA's Affirmative Defense Provision Rule effective 8/21/23 and to reflect the current ND standard facility wide operating conditions. All subsequent condition lettering designation was updated.
- 8. **General Conditions**: No change.
- 9. State Enforceable Only Conditions (not Federally enforceable): No change.

<u>Comments/Recommendations</u>: It is recommended that Title V Permit to Operate AOP-28412 v.2.0 be processed and considered for issuance following a 30-day public comment period and a subsequent 45-day EPA review period.