NORTH Dakota | Environmental Quality

Be Legendary.™

FILE

May 13, 2020

Mr. David Roensch
VP, Natural Gas Gathering & Processing Operations
ONEOK Rockies Midstream, L.L.C.
P.O. Box 871
Tulsa, OK 74102

Re: Permit to Construct No. PTC20020

Pursuant to the Air Pollution Control Rules of the State of North Dakota, the Department of Environmental Quality (the Department) has reviewed of your application, dated December 19, 2019, for the modifications to the Bear Creek Gas Plant, located in Dunn County, North Dakota.

Based on the results of the documents reviewed, this Department hereby issues the enclosed North Dakota Air Pollution Control Permit to Construct No. PTC20020.

Please advise the Department within 15 days after completing the project to allow for an inspection by the Department.

Note that the above-referenced permit addresses only air quality requirements applicable to your facility. Other divisions (Water Quality, Waste Management and Municipal Facilities) within the Department of Environmental Quality may have additional requirements. Contact information for the various divisions is listed at the bottom of this letter.

If you have any questions regarding air quality, please contact me at (701)328-5186 or at rkautzman@nd.gov.

Sincerely,

Rheanna Kautzman

Rheanna Kautzman
Environmental Scientist
Division of Air Quality

RH:saj
Enc:
xc: Hanna Bentley, Environmental Engineer, ONEOK Rockies Midstream, L.L.C. (email)

AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

Pursuant to Chapter 23.1-06 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota (Article 33.1-15 of the North Dakota Administrative Code), and in reliance on statements and representations heretofore made by the owner designated below, a Permit to Construct is hereby issued authorizing such owner to construct and initially operate the source unit(s) at the location designated below. This Permit to Construct 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 below:

I. General Information:

A. **Permit to Construct Number**: PTC20020

B. **Source**:

1. Name: Bear Creek Gas Plant
2. Location: Lat. 47.443875 Long. -102.7993528
   NE ¼ Sec. 28, T146N, R95W
   Dunn County, North Dakota
3. Source Type: Natural Gas Processing Plant [Electric]
4. Existing Equipment at the Facility: The facility is a natural gas processing plant with a nominal design rated capacity of 80 million standard cubic feet of natural gas per day (MMscfd), with this permit action the capacity will increase to 375 MMscfd. All compressors at the facility are electric-driven.

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Regeneration gas process heater rated at 19.54 MMBtu/hr and fired on natural gas	H-1	H-1	None
Hot oil heater rated at 38.76 MMBtu/hr and fired on natural gas (2015, Dc)	H-2	H-2	None

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
One emergency generator driven by a Caterpillar Model G3516B natural gas-fired engine with a maximum rating of 1,380 bhp (2015, JJJJ)	EGEN-1 [A]	EGEN-1	None
300-barrel methanol storage tank	TK-M1	TK-M1	Submerged Fill Pipe (SFP)
400-barrel slop water tank	TK-W1 [B] (9610TK-1750-1)	TK-W1	SFP
400-barrel slop water tank	TK-W2 [B] (9610TK-1755-1)	TK-W2	SFP
One emergency generator driven by a Caterpillar Model G3516B natural gas-fired engine with a maximum rating of 1,380 bhp (2015, JJJJ)	EGEN-1 [A]	EGEN-1	None
Condensate truck loading	TL-1	COMB-1	Combustor
Combustor for condensate loading	COMB-1	COMB-1	None
Flare (process/emergency)	FL-1	FL-1	None
Miscellaneous Venting and Blowdowns	BD	BD	None
Fugitive emissions	FUG-3	FUG-3	None
Fugitive emissions (OOOO/OOOOa)	FUG-4	FUG-4	Leak Detection and Repair Program (LDAR)

A 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 JJJJ 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(s). There is no time limit on the use of emergency stationary RICE in emergency situations.

B Storage tanks are registered under the Department's *Guidance Policy for Establishing Legally and Practically Enforceable Emission Limits for Storage Vessels of Oil, Condensate and Produced Water* to have a 5.99 ton per year per tank emission limit and are thus not subject sources under 40 CFR 60, Subparts OOOO or OOOOa per §60.5365(e) and §60.5365a(e).

5. New Equipment to be Added:

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Regeneration process heater rated at 24.96 MMBtu/hr	H-3	H-3	None
Hot oil heater rated at 60.60 MMBtu/hr (Dc)	H-4	H-4	None

C. **Owner/Operator (Permit Applicant)**:

1. Name: ONEOK Rockies Midstream, L.L.C.
2. Address: P.O. Box 871
   Tulsa, OK 74102-0871
3. Application Date: December 26, 2019

II. **Conditions**: The source may be operated under this Permit to Construct until a Permit to Operate is issued unless this permit is suspended or revoked. The source is subject to all applicable rules, regulations, and orders now or hereafter in effect of the North Dakota Department of Environmental Quality and to the conditions specified below.

A. **Emission Limits**: Emission limits from the operation of the source unit(s) identified in Item I.B of this Permit to Construct (hereafter referred to as "permit") are as follows. Source units not listed are subject to the applicable emission limits specified in the North Dakota Air Pollution Control Rules.

Emission Unit Description	EU	EP	Pollutant / Parameter	Emission Limit
Regeneration gas heater	H-3	H-3	Opacity	20% (40%) [A]
Hot oil heater	H-4	H-4	Opacity	20% (40%) [A]

[A] Permissible for not more than one six-minute period per hour.

B. **Fuel Restriction**: The heaters (EUs H-3 and H-4) are restricted to combusting only pipeline quality natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet.

C. **Flaring Restrictions**:

1. 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 of 20% not to exceed 60% for more than one six-minute period per hour.

2. The flare/combustor 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.

3. The presence of a flame shall be monitored using a thermocouple or any other equivalent device approved by the Department.

D. **New Source Performance Standards (NSPS)**: The permittee shall comply with all applicable requirements of the following NSPS subparts as referenced in Chapter 33.1-15-12 of the North Dakota Air Pollution Control Rules and 40 CFR 60.

1. 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (EUs H-2 & H-4).

2. 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (EU EGEN-1).

3. 40 CFR 60, Subparts OOOO and OOOOa - 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 and Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015.

E. **Maximum Achievable Control Technology Standards (MACT)**: The permittee shall comply with all applicable requirements of the following MACT subparts as referenced in Chapter 33.1-15-22 of the North Dakota Air Pollution Control Rules and 40 CFR 63.

1. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU EGEN-1). The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. Please send all documentation to EPA at the following address:

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

F. **Construction**: Construction of the above described facility shall be in accordance with information provided in the permit application as well as any plans, specifications and supporting data submitted to the Department. The Department

shall be notified ten days in advance of any significant deviations from the specifications furnished. The issuance of this Permit to Construct may be suspended or revoked if the Department determines that a significant deviation from the plans and specifications furnished has been or is to be made.

Any violation of a condition issued as part of this permit to construct as well as any construction which proceeds in variance with any information submitted in the application, is regarded as a violation of construction authority and is subject to enforcement action.

G. **Organic Compounds Emissions**: The permittee shall comply with all applicable requirements of NDAC 33.1-15-07 – Control of Organic Compounds Emissions.

H. **Permit Invalidation**: This permit shall become invalid if construction is not commenced within eighteen months after issuance of such permit, if construction is discontinued for a period of eighteen months or more; or if construction is not completed within a reasonable time.

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

J. **Annual Emission Inventory/Annual Production Reports**: The owner/operator shall submit an annual emission inventory report and/or an annual production report upon Department request, on forms supplied or approved by the Department.

K. **Source Operations**: Operations at the installation shall be in accordance with statements, representations, procedures and supporting data contained in the initial application, and any supplemental information or application(s) submitted thereafter. Any operations not listed in this permit are subject to all applicable North Dakota Air Pollution Control Rules.

L. **Alterations, Modifications or Changes**: Any alteration, repairing, expansion, or change in the method of operation of the source which results in the emission of an additional type or greater amount of air contaminants or which results in an increase in the ambient concentration of any air contaminant, must be reviewed and approved by the Department prior to the start of such alteration, repairing, expansion or change in the method of operation.

M. **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.

N. **Recordkeeping**: The owner/operator shall maintain any compliance monitoring records required by this permit or applicable requirements. The owner/operator

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 sample, measurement, report or application. Support information may include all calibration and maintenance records and all original strip-chart recordings/computer printouts for continuous monitoring instrumentation, and copies of all reports required by the permit.

O. **Nuisance or Danger**: This permit shall in no way authorize the maintenance of a nuisance or a danger to public health or safety.

P. **Malfunction Notification**: The owner/operator shall notify the Department of any malfunction which can be expected to last longer than twenty-four hours and can cause the emission of air contaminants in violation of applicable rules and regulations.

Q. **Operation of Air Pollution Control Equipment**: The owner/operator shall maintain and operate all air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

R. **Transfer of Permit to Construct**: The holder of a permit to construct may not transfer such permit without prior approval from the Department.

S. **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 at which the source listed in Item I.B of this permit is located at any time for the purpose of ascertaining the state of compliance with 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.

T. **Other Regulations**: The owner/operator of the source unit(s) described in Item I.B of this permit shall comply with all State and Federal environmental laws and rules. In addition, the owner/operator shall comply with all local burning, fire, zoning, and other applicable ordinances, codes, rules and regulations.

U. **Permit Issuance**: This permit is issued in reliance upon the accuracy and completeness of the information set forth in the application. Notwithstanding the tentative nature of this information, the conditions of this permit herein become, upon the effective date of this permit, enforceable by the Department pursuant to any remedies it now has, or may in the future have, under the North Dakota Air Pollution Control Law, NDCC Chapter 23.1-06. Each and every condition of this permit is a material part thereof and is not severable.

V. **Odor Restrictions**: The owner/operator shall not discharge into the ambient air any objectionable odorous air contaminant which is in excess of the limits established in NDAC 33.1-15-16.

The owner/operator shall not discharge into the ambient air hydrogen sulfide (H_2S) 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.

W. **Sampling and Testing**: The Department may require the owner/operator to conduct tests to determine the emission rate of air contaminants from the source. The Department may observe the testing and may specify testing methods to be used. A signed copy of the test results shall be furnished to the Department within 60 days of the test date. The basis for this condition is NDAC 33.1-15-01-12 which is hereby incorporated into this permit by reference. To facilitate preparing for and conducting such tests, and to facilitate reporting the test results to the Department, the owner/operator shall follow the procedures and formats in the Department's Emission Testing Guideline.

FOR THE NORTH DAKOTA DEPARTMENT
OF ENVIRONMENTAL QUALITY

Date 5/13/2020

By _____
James L. Semerad
Director
Division of Air Quality

Air Quality Effects Analysis
for
Permit to Construct
PTC20020

I. **Date of Review**:
May 13, 2020 (Final)

II. **Applicant**:
ONEOK Rockies Midstream, L.L.C.
P.O. Box 871
Tulsa, OK 74102-0871

III. **Source Location**:
Bear Creek Gas Plant
Lat. 47.443875 Long. -102.7993528
NE ¼ Sec. 28, T146N, R95W
Dunn County, North Dakota

IV. **Introduction and Background**:

ONEOK Rockies Midstream, L.L.C. (ONEOK) submitted a permit application on December 26, 2019 for the construction and initial operation of a new natural gas processing train at the existing Bear Creek Gas Plan. The expansion increases the plants natural gas processing capability from 80 MMscfd to 375 MMscfd. The natural gas compression at the site is electric-driven. The Bear Creek Gas Plant is adjacent to the ONEOK Killdeer Compressor Station, and the Killdeer Compressor Station is one of the field gas collection compressor stations that feed the Bear Creek Gas Plant; therefore, emissions from Killdeer Compressor Station were evaluated with Bear Creek Gas Plant for PSD, Title V and MACT applicability (see discussion in Section VI.G.1.).

Existing emission units at the facility:
Note: Only Bear Creek Gas Plant Equipment is listed here; however, Bear Creek Gas Plant and Killdeer Compressor Station potential to emit are included in Section V of this analysis.

Table 1 - Existing Equipment List

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Regeneration gas process heater rated at 19.54 MMBtu/hr and fired on natural gas	H-1	H-1	None
Hot oil heater rated at 38.76 MMBtu/hr and fired on natural gas (2015, Dc)	H-2	H-2	None

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
One emergency generator driven by a Caterpillar Model G3516B natural gas-fired engine with a maximum rating of 1,380 bhp (2015, JJJJ)	EGEN-1 [A]	EGEN-1	None
300-barrel methanol storage tank	TK-M1	TK-M1	Submerged Fill Pipe (SFP)
400-barrel slop water tank	TK-W1 [B]	TK-W1	SFP
400-barrel slop water tank	TK-W2 [B]	TK-W2	SFP
Condensate truck loading	TL-1	COMB-1	Combustor
Combustor for condensate loading	COMB-1	COMB-1	None
Flare (process/emergency)	FL-1	FL-1	None
Miscellaneous Venting and Blowdowns	BD	BD	None
Fugitive emissions	FUG-3	FUG-3	None
Fugitive emissions (OOOO/OOOOa)	FUG-4	FUG-4	Leak Detection and Repair Program (LDAR)

[A] 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 JJJJ 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(s). There is no time limit on the use of emergency stationary RICE in emergency situations.

[B] Storage tanks are registered under the Department's *Guidance Policy for Establishing Legally and Practically Enforceable Emission Limits for Storage Vessels of Oil, Condensate and Produced Water* to have a 5.99 ton per year per tank emission limit and are thus not subject sources under 40 CFR 60, Subparts OOOO or OOOOa per §60.5365(e) and §60.5365a(e).

Table 2-New Equipment to be Added

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Regeneration process heater rated at 24.96 MMBtu/hr and fired on natural gas	H-3	H-3	None
Hot oil heater rated at 60.60 MMBtu/hr and fired on natural gas (Dc)	H-4	H-4	None

V. Potential to Emit (PTE) Emissions

Emissions from the facility are as follows:

Table 2-PTE Calculations for Bear Creek Gas Plant (in tons per year) [A]

Emission Unit(s)	EU	PM/PM_{10}/$PM_{2.5}$	SO_2	NO_x	CO	VOCs
Regeneration gas heater 19.54 MMBtu/hr	H-1	0.63/0.63/0.63	0.05	4.17	7.01	0.46
Hot oil heater t 38.76 MMBtu/hr	H-2	1.26/1.26/1.26	0.10	8.27	13.90	0.91
Regeneration heater 24.96 MMBtu/hr	H-3	0.81/0.81/0.81	0.06	5.33	8.95	0.59
Hot oil heater 60.60 MMBtu/hr	H-4	1.97/1.97/1.97	0.16	12.94	21.73	1.42
300-barrel methanol tank	TK-M1	--	--	--	--	0.19
400-barrel slop water tank	TK-W1	--	--	--	--	0.04
400-barrel slop water tank	TK-W2	--	--	--	--	0.04
Caterpillar Model G3516B (500 hrs/yr)	EGEN-1	0.02/0.02/0.02	<0.01	1.52	3.04	0.78
Condensate truck loading	TL-1	--	--	--	--	25.04 [B]
Combustor for condensate loading	COMB-1	<0.01/<0.01/<0.01	<0.01	0.50	2.18	<0.01
Flare (process/emergency)	FL-1	0.04/0.04/0.04	<0.01	8.81	38.14	15.81
Miscellaneous Venting and Blowdowns	BD	--	--	--	--	10.00
Fugitive emissions	FUG-3	--	--	--	--	1.76
Fugitive emissions (OOOO/OOOOa)	FUG-4	--	--	--	--	41.21
New Total (w/o fugitives) [C]		**4.73/4.73/4.73**	**0.38**	**41.54**	**94.95**	**45.28**
New Total (w/ fugitives)		**4.73/4.73/4.73**	**0.38**	**41.54**	**94.95**	**98.25**

[A] Pollutants are abbreviated as follows:
PM: particulate matter

PM_{10}: particulate matter under 10 microns (<10 μg), includes $PM_{2.5}$.
$PM_{2.5}$: particulate matter under 2.5 microns (<2.5 μg)
SO_2: sulfur dioxide
NO_x: nitrogen oxides
VOC: volatile organic compounds (any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions)
CO: carbon monoxide

[B] Using 6.38 lb/10^3 gallons of condensate loadout.

[C] Fugitive emissions are not counted for PTE totals in determining major source status under the PSD rules.

Table 3 - PTE Calculations for Killdeer Compressor Station (in tons per year) [A]

Emission Unit(s)	EU	PM/PM_{10}/$PM_{2.5}$	SO_2	NO_x	CO	VOCs
400-bbl Condensate Tank (Flash Tank)	TK-KD1.2 [D]	--	--	--	--	5.98
400-bbl Condensate Tank	TK-KD2.2 [D]	--	--	--	--	0.16
400-bbl Condensate Tank	TK-KD3.2 [D]	--	--	--	--	0.16
Condensate Truck Loading	TL-KD [B]	--	--	--	--	17.95
Tank Flare	FL-KDTK	<0.01/<0.01/<0.01	<0.01	0.67	2.72	<0.01
300-bbl Methanol Tank	TK-KDM1	--	--	--	--	0.12
Process Flare	FL-KD	<0.01/<0.01/<0.01	<0.01	0.09	0.37	0.80
Fugitive Emissions	FUG-2	--	--	--	--	4.83
Blowdown Emissions	BD	--	--	--	--	5.26
New Total (w/o fugitives) [C]		**<0.01/<0.01/<0.01**	**<0.01**	**0.76**	**3.09**	**25.17**
New Total (w/ fugitives)		**<0.01/<0.01/<0.01**	**<0.01**	**0.76**	**3.09**	**35.26**

[A] Pollutants are abbreviated as follows:
PM: particulate matter
PM_{10}: particulate matter under 10 microns (<10 μg), includes $PM_{2.5}$.
$PM_{2.5}$: particulate matter under 2.5 microns (<2.5 μg)
SO_2: sulfur dioxide
NO_x: nitrogen oxides
VOC: volatile organic compounds (any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions)
CO: carbon monoxide

[B] Using 6.38 lb/10^3 gallons of condensate loadout.

C Fugitive emissions are not counted for PTE totals in determining major source status under the PSD rules.

D All condensate storage tanks are registered under the Department's *Guidance Policy for Establishing Legally and Practically Enforceable Emission Limits for Storage Vessels of Oil, Condensate and Produced Water* to have a 5.99 ton per year per tank emission limit and are controlled to 95% VOC reduction via flare and are thus not subject sources under 40 CFR 60, Subparts OOOO or OOOOa per §60.5365(e) and §60.5365a(e).

Table 4 - PTE Calculations (in tons per year)

Facility-wide Emissions	EU	Total HAPs [A]	Major Source of HAPs
Bear Creek Gas Plant (Facility-wide)	ALL including Fugitive	7.71	No
Killdeer Compressor Station (Facility-wide)	ALL including Fugitive	3.50	No
Aggregate Emissions	ALL including Fugitive	11.21	No

[A] HAPs: hazardous air pollutants as defined in Section 112(b) of the Clean Air Act Amendments of 1990 (see 2)

See application for more detailed emission calculations.

VI. Applicable Standards

Table 5 - Applicable Standards

Emission Unit Description	Emission Unit (EU)	Applicable Standards
Regeneration gas heater 19.54 MMBtu/hr	H-1	33.1-15-03-02 33.1-15-06-01.1.e
Hot oil heater t 38.76 MMBtu/hr	H-2	33.1-15-03-02 33.1-15-06-01.1.e 33.1-15-12-02, Subpart Dc
Regeneration heater 24.96 MMBtu/hr	H-3	33.1-15-03-02 33.1-15-06-01.1.e
Hot oil heater 60.60 MMBtu/hr	H-4	33.1-15-03-02 33.1-15-06-01.1.e 33.1-15-12-02, Subpart Dc
300-barrel methanol tank	TK-M1	33.1-15-07-01.2

Emission Unit Description	Emission Unit (EU)	Applicable Standards
400-barrel slop water tank	TK-W1	33.1-15-07-01.2
400-barrel slop water tank	TK-W2	33.1-15-07-01.2
Caterpillar Model G3516B (500 hrs/yr)	EGEN-1	33.1-15-03-02 33.1-15-06-01.1.e 33.1-15-12-02, Subpart JJJJ 40 CFR 63, Subpart ZZZZ [A]
Condensate truck loading	TL-1	33.1-15-07-02
Combustor for condensate loading	COMB-1	33.1-15-03-02 33.1-15-07-02
Flare (process/emergency)	FL-1	33.1-15-03-03.1 33.1-15-07-02
Miscellaneous Venting and Blowdowns	BD	33.1-15-07-02
Fugitive emissions	FUG-3	33.1-15-17
Fugitive emissions (OOOO/OOOOa)	FUG-4	40 CFR 60, Subpart OOOO [B] 40 CFR 60, Subpart OOOOa [B]

[A] The Department has not adopted the area requirements of this subpart; EPA Region 8 is the implementing and enforcement authority for this subpart at minor sources of hazardous air pollutants.

[B] The Department has not adopted this subpart; all required documentation should be sent to EPA Region 8.

A. NDAC 33.1-15-02 - Ambient Air Quality Standards

The facility must comply with the Ambient Air Quality Standards. Other requirements of this chapter include general prohibitions against harming health, causing damage to plants, animals, other property and visible degradation. In addition to these standards, compliance with the Department's Air Toxics Policy is required.

Applicability and Expected Compliance Status

Per the October 6, 2014 Department memorandum, *Criteria Pollutant Modeling Requirements for a Permit to Construct*[1] (see Table 5), the stack heights of all emission units are at least 1.5 times the nearby building and less than the emission rates for NO_x, SO_2, PM_{10} and $PM_{2.5}$; therefore, modeling is not required to demonstrate compliance with the ambient air quality standards. Based on the expected emissions, compliance with the AAQS is expected. For a source with these expected emissions and proposed stack heights, compliance with the ambient air quality standards is expected.

[1]October 6, 2014 NDDoH Memo: *Criteria Pollutant Modeling Requirements for a Permit to Construct*, https://deq.nd.gov/publications/AQ/policy/Modeling/Criteria_Modeling_Memo.pdf

Table 6 - Projects not Subject to PSD modeling triggers

Pollutant	All emissions vent from stacks with height ≥1.5 time nearby bldg. height.	Some emissions vent from stacks<1.5 times nearby bldg. height.
NO_x	100 tons per year	40 tons per year
SO_2	100 tons per year	40 tons per year
PM_{10}	40 tons per year	15 tons per year
$PM_{2.5}$	25 tons per year	10 tons per year

B. **NDAC 33.1-15-03 - Restriction of Emission of Visible Air Contaminants**

This chapter restricts the amount of visible air contaminants primarily particulate matter, from incinerators and fuel-burning units.

Applicability and Expected Compliance Status

The facility must comply with an opacity limit of 20% except for one six-minute period per hour when 40% opacity is permissible for the heaters and condensate truck loading combustor (EUs H-1 through H-4 and COMBO-1)

The facility must comply with an opacity limit of 20% except for one six-minute period per hour when 60% opacity is permissible for the flare (EU FL-1).

Table 7 - Opacity Limits

Emission Unit Description	EU	Pollutant/ Parameter	Emission Limit
Regeneration gas heater 19.54 MMBtu/hr	H-1	Opacity	20% (40% [A])
Hot oil heater t 38.76 MMBtu/hr	H-2	Opacity	20% (40% [A])
Regeneration heater 24.96 MMBtu/hr	H-3	Opacity	20% (40% [A])
Hot oil heater 60.60 MMBtu/hr	H-4	Opacity	20% (40% [A])
Combustor for condensate loading	COMB-1	Opacity	20% (40% [A])
Flare (process/emergency)	FL-1	Opacity	20% (60% [A])

[A] Permissible for not more than one six-minute period per hour.

C. **NDAC 33.1-15-06 - Emissions of Sulfur Compounds Restricted**

This chapter applies to any installation where fuel is burned in which the SO_2 emissions are substantially due to the sulfur content of the fuel burned and where the fuel is burned

primarily to produce heat. This chapter is not applicable to installations which are subject to a SO_2 emission limit under Chapter 33.1-15-12, Standards for Performance for New Stationary Sources, or installations which burn pipeline quality natural gas.

Applicability and Expected Compliance Status

The heaters, combustor, and flare (EUs H-1 through H-4, COMBO-1, and FL-1) are restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet.

Table 8 - Fuel Restrictions

Emission Unit Description	EU	Requirement
Regeneration gas heater 19.54 MMBtu/hr	H-1	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. - Recordkeeping: Fuel log and analysis.
Hot oil heater t 38.76 MMBtu/hr	H-2	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. - Recordkeeping: Fuel log and analysis.
Regeneration heater 24.96 MMBtu/hr	H-3	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. - Recordkeeping: Fuel log and analysis.
Hot oil heater 60.60 MMBtu/hr	H-4	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet.

Emission Unit Description	EU	Requirement
		- Recordkeeping: Fuel log and analysis.
Combustor for condensate loading	COMB-1	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. - Recordkeeping: Fuel log and analysis.
Flare (process/emergency)	FL-1	- Restricted to combusting only commercial propane as defined by the Gas Processors Association, LPG, field gas, or natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. - Recordkeeping: Fuel log and analysis.

D. **NDAC 33.1-15-07 – Control of Organic Compounds Emissions**

The facility must comply with the applicable requirements in this chapter for construction of organic compounds facilities and for organic compounds gas disposal.

This chapter requires volatile organic storage tanks to be equipped with a submerged fill pipe if the tank is greater than 1,000 gallons. All tanks are greater than 1,000 gallons (23.81 bbl) and must be equipped with a submerged fill pipe.

The May 27, 2015 Department memorandum, *Storage Vessels at Oil and Gas Non-Production Facilities* requires the control of VOC emissions from tanks and other sources of VOC.

> *No person may cause or permit the emission of organic compounds gases and vapors, except from an emergency vapor blowdown system or emergency relief system, unless these gases and vapors are burned by flares, or an equally effective control device as approved by the department. Minor sources, as determined by the department and not subject to New Source Performance Standards (NSPS), may be granted exemptions to this subsection.*

Emissions from a storage vessel at a non-production facility are considered to be adequately controlled for purposes of compliance with the above-referenced subsection if

emissions are controlled by a flare, floating roof, vapor recovery unit or equally effective control device.

A storage vessel is considered to be uncontrolled if emissions are not controlled by a flare, floating roof, vapor recovery unit or equally effective control device. Uncontrolled storage vessels at a non-production facility are considered to be minor sources which are not subject to the control requirements of the above subsection if both of the following conditions are met:

1. Maximum expected annual emissions from each uncontrolled storage vessel are less than 6 tons/year of volatile organic compounds (VOCs); **and**
2. Combined maximum expected annual emissions from all uncontrolled storage vessels at the facility are less than 20 tons/year of VOCs.

Storage vessels with maximum expected annual VOC emissions of less than 2 tons/year are not required to control emissions under this policy and are not to be included when calculating emissions from uncontrolled storage vessels at the facility for purposes of this policy.

To be considered adequately controlled for purposes of demonstrating compliance with the requirements of Subsection 33.1-15-07-02.1 of the rules, storage vessels at a facility must either be controlled in accordance with the requirements of this policy or a site-specific written determination must be obtained from the Department indicating that emissions from each storage vessel are adequately controlled.

On February 3, 2020, the Department released a policy memorandum entitled *Compliance Requirements for Condensate Truck Loadout Emissions*[2]. Under this policy the Department clarified and reconfirmed the Department's policy that VOC emissions from reasonably controllable sources, that are greater than 20 tons per year, be controlled under NDAC 33.1-15-07.02.1, and that all sources must comply with the control requirements by July 31, 2020. The Condensate truck loadout (EU TL-1) operations' PTE is 25.46 tons per year of VOCs and are subject to the control requirements of this policy.

Applicability and Expected Compliance Status

The facility is expected to comply with this chapter and has installed or will install submerged fill pipes on the tanks. The facility is also controlling emissions from the fixed roof tanks (EUs TK-1 through TK-6) with a vapor recovery unit (VRU) and process emissions are controlled by a flare (EU FL-1).

[2] February 3, 2020 NDDEQ *Compliance Requirements for Condensate Truck Loadout Emissions,* ,https://deq.nd.gov/publications/AQ/policy/PC/Cond_Loadout_Memo.pdf

Table 9-Organic Compound Requirements

Emission Unit Description	Emission Unit (EU)	Requirement
300-barrel methanol tank	TK-M1	Submerged Fill Pipes (SFP)
400-barrel slop water tank	TK-W1	- Submerged Fill Pipes (SFP) - Both condensate storage tanks are registered under the Department's *Guidance Policy for Establishing Legally and Practically Enforceable Emission Limits for Storage Vessels of Oil, Condensate and Produced Water* to have a 5.99 ton per year per tank emission limit and are thus not subject sources under 40 CFR 60, Subparts OOOO or OOOOa per §60.5365(e) and §60.5365a(e).
400-barrel slop water tank	TK-W2	
Condensate truck loadout	TL-1	Controlled by Combustor (EU COMBO-1)

E. **NDAC 33.1-15-12 - Standards of Performance for New Stationary Sources [40 Code of Federal Regulations Part 60 (40 CFR Part 60)]**

This chapter adopts most the Standards of Performance for New Stationary Sources (NSPS) under 40 CFR Part 60. The facility is subject subparts listed in Table 11 under 40 CFR Part 60 which have been adopted by North Dakota.

Table 10 - Applicable NSPS

Emission Unit Description	EU	Applicable Standard
Hot oil heater t 38.76 MMBtu/hr	H-2	33.1-15-12-02, Subpart Dc
Hot oil heater 60.60 MMBtu/hr	H-4	33.1-15-12-02, Subpart Dc
Caterpillar Model G3516B (500 hrs/yr)	EGEN-1	33.1-15-12-02, Subpart JJJJ
Fugitive emissions (OOOO/OOOOa)	FUG-4	40 CFR, 60 Subpart OOOO [EPA B] 40 CFR, 60 Subpart OOOOa [EPA B]
Compressor Rod Packing	N/A	40 CFR, 60 Subpart OOOOa [EPA B]

A The Department has not adopted the area requirements of this subpart; EPA Region 8 is the implementing and enforcement authority for this subpart at minor sources of hazardous air pollutants.

B The Department has not adopted this subpart; all required documentation should be sent to EPA Region 8.

1. Subpart A - General Provisions

The facility is subject to one or more NSPS (NDAC 33.1-15-12/40 CFR 60) and is subject to this subpart, compliance is expected.

Applicability and Expected Compliance Status

Subpart A contains the NSPS General Provisions, compliance with the requirements of Subpart A is expected through compliance with each applicable NSPS subpart.

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

This subpart applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

Applicability and Expected Compliance Status

This facility has four heaters with heat inputs of greater than 10 MMBtu/hr, however, only two (EUs H-2 7 H-4) are steam generation units subject to this Subpart.

Table 11 - NSPS Dc Applicable Requirements

Emission Unit Description	EU	Requirements [A]
Regeneration gas heater 19.54 MMBtu/hr	H-1	- Unit is not subject to 33.1-15-12-02, Subpart Dc as unit is process heater not steam generation heater.
Hot oil heater t 38.76 MMBtu/hr	H-2	- Combust low sulfur natural gas - Recordkeeping of fuel combusted and sulfur content
Regeneration heater 24.96 MMBtu/hr	H-3	- Unit is not subject to 33.1-15-12-02, Subpart Dc as unit is process heater not steam generation heater.

Emission Unit Description	EU	Requirements [A]
Hot oil heater 60.60 MMBtu/hr	H-4	- Combust low sulfur natural gas - Recordkeeping of fuel combusted and sulfur content

3. **Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

This subpart applies to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP).

Applicability and Expected Compliance Status

The compressors are electric-driven and are not subject to this subpart. The Emergency Engine (EU EGEN-1) is subject to this subpart.

The ten compressor engines (EUs ENG-1, ENG-2, and ENG-4 to ENG-13) must comply with this subpart. As such they have catalytic oxidation control and will have period testing to ensure compliance with emission limits.

Table 12 - NSPS JJJJ Applicable Requirements

Emission Unit Description	EU	Requirements [A]
Caterpillar Model G3516B	EGEN-1	- Operate/maintain engine & control device per manufacturer's instructions or owner-developed maintenance plan. - May use oil analysis program instead of prescribed oil change frequency. - Emergency engines must have hour meter and record hours of operation. - Keep records of maintenance. - Reporting and ULSD for emergency engines used for local reliability.

[A] Applies to each engine.

Compliance with this subpart is expected.

4. **Subparts OOOO and OOOOa - 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 and Standards of Performance for**

Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

OOOO establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO2) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015.

OOOOa establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG). The greenhouse gas standard in this subpart is in the form of a limitation on emissions of methane from affected facilities in the crude oil and natural gas source category that commence construction, modification, or reconstruction after September 18, 2015. This subpart also establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO_2) emissions from affected facilities in the crude oil and natural gas source category that commence construction, modification or reconstruction after September 18, 2015. The effective date of the rule is August 2, 2016.

This subpart defines a *compressor station* as a site that has any permanent combination of one or more compressors that move natural gas at increased pressure through gathering or transmission pipelines, or into or out of storage. The compressor stations are typically called "gathering and boosting", "transmission" or "storage" compressor stations. A *modification* to a compressor station occurs when **an additional compressor is installed at the compressor station or when one or more compressors are replaced by compressors with a greater horsepower**. If one or more compressors are replaced with compressors with equal or less horsepower, then installation of the compressors does not trigger a modification.

Therefore, if additional horsepower is added to a site, the whole site becomes subject to this subpart.

Applicability and Expected Compliance Status

NSPS OOOO and OOOOa may apply to the new and existing units. Under this subpart there are rod packing requirements for the ten compressor engines and for minimizing fugitive leaks from pipeing. The company may have a leak detection and repair (LDAR) program requirement and other requirements under this subpart. NDDEQ has not adopted these subparts, as such EPA Region 8 is the implementing and enforcement agency; all required documentation must be sent to them.

Table 13 - NSPS OOOOa Applicable Requirements

Emission Unit Description	EU	Requirements
Compressors	N/A	- Replace the rod packing on or before 26,000 hours of operations or 36 calendar months or route emissions from the rod packing to a process through a closed vent system under negative pressure. [A] - Must keep records of hours of operations for each unit. - Submit annual report per §60.5420a(b)(1) and (4) [see §60.5385a(d)]
400-barrel slop water tank	TK-W1	-These tanks are registered under the Department's *Guidance Policy for Establishing Legally and Practically Enforceable Emission Limits for Storage Vessels of Oil, Condensate and Produced Water* to have a 5.99 ton per year per tank emission limit and are thus not subject sources under 40 CFR 60, Subparts OOOO or OOOOa per §60.5365(e) and §60.5365a(e).
400-barrel slop water tank	TK-W2	
Fugitive emissions (OOOO/OOOOa)	FUG-4	- Develop an LDAR program. - Monitoring and repair of fugitive emission components using optical gas imaging (OGI) or use Method 21 as an alternative at 500 parts per million (ppm). Any gas detected using OGI is defined as a leak under this Subpart. - Conduct initial LDAR survey within 60-days of startup. - Conduct follow-up LDAR surveys no sooner than 60 days but no later than 3 months after the last survey. - Maintain records of LDAR surveys and submit initial and annual reports per

Emission Unit Description	EU	Requirements
		§60.5420a(b)(1) and (7)] [see §60.5397a(j)]

[A] Applies to each compressor.

F. **NDAC 33.1-15-13 - Emission Standards for Hazardous Air Pollutants [40 Code of Federal Regulations Part 61 (40 CFR Part 61)]**

This chapter adopts most the National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 61.

Applicability and Expected Compliance Status

The if the facility has equipment that has 10% by weight of VHAP it may have applicable requirements under Subpart V and will comply with the requirements. Ethylene glycol, diethylene glycol and diethylene glycol are not VHAPs. Methanol and some other constituents of the field gas may contain VHAPs, if total percent by weight is 10 or greater the stream is in VHAP service and has requirements under this subpart. Note that many of the equipment subject to this subpart are also subject under NSPS OOOOa which has a leak detection threshold equal to or more stringent that NESHAP V.

G. **NDAC 33.1-15-14 - Designated Air Contaminant Sources, Permit to Construct, Minor Source Permit to Operate, Title V Permit to Operate**

This chapter requires the facility to obtain a Permit to Construct prior to installation of sources of air pollution. This chapter also applies to Permit to Operate requirements for facilities that have sources of air pollution.

Applicability and Expected Compliance Status

The facility has submitted an application for modifications to the facility and for a permit to construct.

This facility is not a major source under PSD nor Title V and has not taken any synthetic minor operating limits and therefore does not require a public comment period.
This facility is required to obtain a permit to construct and a permit to operate. However, due to the proximity and ownership of the Bear Creek Gas Plant to the Killdeer Compressor Station the applicability of which permit requirements the source or sources are subject to requires a more in-depth analysis as conducted below.

1. **Aggregate Source Determination**

Bear Creek Gas Plant and Killdeer Compressor Station are adjacent and share common ownership and thus must be evaluated for combined emissions. Combined emissions are evaluated for three different programs:

a. PSD (Part 52.21), see Subparagraph (a) for discussion and analysis;
b. Title V (Part 70/71) see Subparagraph (b) for discussion and analysis;
c. MACT (Part 63) see Subparagraph (c) for discussion and analysis;

For a summary of the conclusions of these analyses see Table 15 - Summary of Major Source Aggregation Requirements Determination by Part.

Table 14 - Facility PTE for Aggregate Review (in tons per year)

Facility Emissions	$PM/PM_{10}/PM_{2.5}$	SO_2	NO_x	CO	VOCs	HAPs
Bear Creek Gas Plant	4.73/4.73/4.73	0.38	41.54	94.95	45.29	7.71
Killdeer Compressor Station	<0.01/<0.01/<0.01	<0.01	0.76	3.09	25.17	3.50
New Total (w/o fugitives) [A]	**4.73/4.73/4.73**	**0.38**	**42.30**	**98.04**	**70.46**	**11.21 [B]**

[A] Fugitive emissions are not counted for PTE totals in determining major source status under the PSD rules as this source is not one of the 28 listed source categories in §52.21(b). PSD evaluates CAPs only, it does not consider HAP emissions.

[B] This is combined HAP and includes fugitive emissions.

Table 15 - Summary of Major Source Aggregation Requirements Determination by Part

Total Facility Emissions	Major PSD	Major Title V	Major MACT
Bear Creek Gas Plant	No	No	No
Killdeer Compressor Station	No	No	No
Aggregation of Facilities Required?	**Required [A]**	**Not Required**	**Required**
Aggregate Facilities meet Major Source definition?	**No**	**No**	**No**

[A] Aggregation under the PSD program is unclear given the information provided in the application, however, the Department has conservatively decided to aggregate them for this analysis—see discussion in part (a) below.

(a) **PSD (Part 52.21) Aggregation Source Determination**

A single source determination for major sources of Criteria Air Pollutants (CAPs) under the PSD program is made using the following criteria:

1. Under common control;
2. Located on continuous or adjacent property; and
3. Same two-digit SIC code.

All three criteria must be met for the facilities to be considered a single source, if any one criterion is not met then the sources are not considered a single source.

1. Bear Creek Gas Plant and Killdeer Compressor Station are each owned by ONEOK Rockies Midstream, LLC; therefore, this criterion is met.
2. Bear Creek Gas Plant and Killdeer Compressor Station are on adjacent property; therefore, this criterion is met.
3. Bear Creek Gas Plant and Killdeer Compressor Station both share the same SIC Major Group of 13; HOWEVER; per 40 CFR 52.21(b)(6)(ii), the sites should be aggregated if, they share equipment. It is unclear if the pipeline connecting two sites is considered "shared".

Per 40 CFR 52.21(b)(6)(ii):

"Notwithstanding the provisions of paragraph (b)(6)(i) of this section, building, structure, facility, or installation means, for onshore activities under Standard Industrial Classification (SIC) Major Group 13: Oil and Gas Extraction, all of the pollutant-emitting activities included in Major Group 13 that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or if they are located on surface sites that are located within 1/4 mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site, as used in this paragraph (b)(6)(ii), has the same meaning as in 40 CFR 63.761."

Per 40 CFR 63.761:

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

CONCLUSION: There have been EPA analyses and court cases that use the actual or potential ability to sell the product from the compressor station to another company's gas plant and or the gas plant's ability to accept gas from many compressor stations including the gas from a compressor station owned by a different company which may make these two facilities separate. Since this is unclear, and based on the information provided in the application, the Department has taken a conservative view that at this time they are to be aggregated for PSD applicability.

(b) **Title V (Part 70) Aggregation Source Determination**

For Title V applicability, aggregate sources are determined by the following criteria:

A single source determination for major sources of Criteria Air Pollutants (CAPs) and Hazardous Air Pollutants (HAPs) under the Title V program is made using the following criteria:

1. Under common control;
2. Located on continuous or adjacent property; and
3. Same two-digit SIC code.

All three criteria must be met for the facilities to be considered a single source, if any one criterion is not met then the sources are not considered a single source.

1. Bear Creek Gas Plant and Killdeer Compressor Station are each owned by ONEOK Rockies Midstream, LLC; therefore, this criterion is met.
2. Bear Creek Gas Plant and Killdeer Compressor Station on adjacent property; therefore, this criterion is met.
3. Bear Creek Gas Plant and Killdeer Compressor Station both share the same SIC Major Group of 13; HOWEVER; per 40 CFR 52.2l(b)(6)(ii), the sites should be aggregated if, and only if, they share above ground equipment, the underground pipeline between the two are exempt and the two facilities do not share any above ground equipment. Therefore, this criterion is not met.

   Per NDAC 33.1-15-14-06.1.q(1)(a):
   [(1) pertains to Section 111 of the Clean Air Act and sets HAP levels that require a Title V permit]

   "... Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources."

   Per NDAC 33.1-15-14-06.1.q(2):
   [(2) pertains to Section 112 of the Clean Air Act and sets air contaminates (excluding GHG) levels that require a Title V permit]

   "... The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of this section, unless the source belongs to one of the following categories of stationary source:"

   Under this paragraph, neither natural gas plants nor natural gas compressor stations are listed in Subparagraphs (a) through (zz); however, Subparagraph (aa) does apply to both facilities:

   "(aa) Any other stationary source category which as of August 7, 1980, is being regulated under section 111 or 112 of the federal Clean Air Act."

   If a source is subject to a requirement under Sections 111 or 112, the source is required to obtain a Title V Operating permit, UNLESS, the requirement under Sections 111 or 112 exempts the source from requiring a Title V operating permit, in which case the threshold for requiring a Title V operating permit is the definition

as incorporated into North Dakota's approved Part 70 permit program under NDAC 33.1-15-14-06.1(8)(2).

Both sources are subject to requirements under Section 111 and 112 of the Clean Air Act. Section 111 of the Clean Air Act pertains to Standards of Performance of New Stationary Source, which are under 40 CFR 60. Section 112 of the Clean Air Act pertains to Hazardous Air Pollutants which are under 40 CFR 61 and 63.

Table 16 - Title V Deferrals and Exemptions for Area Sources

Emission Unit Description	**Emission Unit (EU)**	**Applicable Standards**	**NSPS/MACT Exempts Part 70/71 Permit Requirements (Yes/No)**
Hot oil heater t 38.76 MMBtu/hr	H-2	33.1-15-12-02, Subpart Dc	Yes [3]
Hot oil heater 60.60 MMBtu/hr	H-4	33.1-15-12-02, Subpart Dc	Yes [3]
Caterpillar Model G3516B (500 hrs/yr)	EGEN-1	33.1-15-12-02, Subpart JJJJ 40 CFR 63, Subpart ZZZZ	Yes , § 60.4230(c) Yes, § 63.6585(d)
Fugitive emissions (OOOO/OOOOa)	FUG-4	40 CFR 60, Subpart OOOO 40 CFR 60, Subpart OOOOa	Yes, § 60.5370(c) Yes, § 60.5370a(c)

CONCLUSION: source emissions are not to be aggregated under the Title V program.

(c) **MACT (Part 63) Aggregation Source Determination**

For MACT applicability, aggregate sources are determined by the following criteria:

A single source determination for major sources of Hazardous Air Pollutants (HAPs) under Section 111 of the Clean Air Act is made using the following criteria:

1. Under common control; and
2. Located on continuous or adjacent property;

Both criteria must be met for the facilities to be considered a single source, if either one criterion is not met then the sources are not considered a single source.

1. Bear Creek Gas Plant and Killdeer Compressor Station are each owned by ONEOK Rockies Midstream, LLC; therefore, this criterion is met.

[3] See December 3, 1998 EPA Memorandum, Area Source Deferrals and Exemptions from Title V Permitting https://www.epa.gov/sites/production/files/2015-08/documents/deferrals.pdf

2. Bear Creek Gas Plant and Killdeer Compressor Station on adjacent property; therefore, this criterion is met.

Both criteria are met and therefore both facility's HAP emissions, including fugitive emissions, must be considered together for determining major source status.

40 CFR 63.2 Definitions:

"Fugitive emissions *means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source."*

"Major source *means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence."*

Table 17 - PTE Calculations (in tons per year)

Facility-wide Emissions	Emission Units	Total HAPs [A]	Major Source of HAPs
Bear Creek Gas Plant (Facility-wide)	ALL including Fugitive	7.71	No
Killdeer Compressor Station (Facility-wide)	ALL including Fugitive	3.50	No
Aggregate Emissions	**ALL including Fugitive**	**11.21**	**No**

[A] HAPs: hazardous air pollutants as defined in Section 112(b) of the Clean Air Act Amendments of 1990 (see 2)

CONCLUSION: source emissions are required to be aggregated for MACT applicability; and the resulting aggregate sources are determined to be an area source.

H. NDAC 33.1-15-15 - Prevention of Significant Deterioration of Air Quality

This Chapter prescribes requirements for permitting designated air contaminant sources, permits to construct, minor source permits to operate and Title V permits to operate.

Applicability and Expected Compliance Status

This source is not subject to PSD review, see discussion in Section VI.G.1(a).

I. **NDAC 33.1-15-16 - Restriction of Odorous Air Contaminants**

This chapter restricts the level of odorous air contaminants.

Applicability and Expected Compliance Status

Odors from natural gas compression operations are expected to be minimal, and not likely to result in a violation of this Chapter.

J. **NDAC 33.1-15-17 - Restriction of Fugitive Emissions**

This chapter requires the control of fugitive emissions.

Applicability and Expected Compliance Status

Fugitive dust and gaseous emissions are required to be mitigated as needed via watering or other methods of dust control and good maintenance practices.

K. **NDAC 33.1-15-22 - Emissions Standards for Hazardous Air Pollutants for Source Categories [40 Code of Federal Regulations Part 63 (40 CFR Part 63)]**

This Chapter contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to Section 112(b) of the Act.

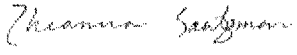
Applicability and Expected Compliance Status

This facility does not appear to have any requirements under this Chapter.

VII. **Summary:**

It is recommended that PTC for ONEOK's Bear Creek Gas Plant for the new gas processing train be issued.

VIII. **Reviewed By:**



Rheanna Kautzman
Environmental Scientist
Division of Air Quality

RMK:saj