



*FEDEX AIRBILL 8075 8657 1940  
RETURN RECEIPT REQUESTED*

June 23, 2016

Mr. Terry O'Clair,  
North Dakota Department of Health  
Division of Air Quality  
918 East Divide Avenue, 2<sup>nd</sup> Floor  
Bismarck, ND 58501-1947



**GRASSLANDS GAS PLANT  
PERMIT NO. T5-O83005  
TITLE V OPERATING PERMIT RENEWAL APPLICATION**

Dear Mr. O'Clair:

ONEOK Rockies Midstream, L.L.C. (ORM) operates the Grasslands Gas Plant (Facility) in McKenzie County, North Dakota. The Facility currently operates under Permit No. T5-O83005, which was issued on May 20, 2015 by the North Dakota Department of Health (NDDH) and will expire on December 26, 2016. In accordance with North Dakota Administrative Code Chapter 33-15-14-06.4.a(1)(c), ORM submits this permit application to renew the Title V operating permit.

All applicable Title V Permit to Operate Renewal Application forms are enclosed, as well as the current Title V operating permit with requested edits and associated comments included. ORM is not proposing any changes to emission rates or facility throughputs at this time.

If you need additional information or have any questions, please email me at [Kale.Hanner@oneok.com](mailto:Kale.Hanner@oneok.com) or call me at 918-732-1477.

Sincerely,

Kale Hanner  
Environmental Engineer

Enclosure

cc: B. Skaley/T. Schwarz/L. Reed/K. Reedy/G. Lafitte/C. Fonck/C. Forsander/R. Brown (.pdf)  
Tulsa Environmental Files – Grasslands Gas Plant – Permit Actions  
EIMS



The National Council on Education for the Handicapped (NCEH) is a federal agency that provides leadership, information, and assistance to state, local, and tribal education agencies in the development and implementation of policies and programs for children with disabilities. NCEH is part of the U.S. Department of Education.

NCEH's primary focus is on the education of children with disabilities, from birth to age 21. The Council works to ensure that all children with disabilities have the opportunity to receive a free, appropriate public education (FAPE) in the least restrictive environment (LRE).

NCEH also provides technical assistance and training to state and local education agencies. The Council's work is guided by the Individuals with Disabilities Education Act (IDEA), which is the primary federal law that governs the education of children with disabilities.

NCEH's efforts are aimed at improving the quality of education for children with disabilities and ensuring that they have the same opportunities as their non-disabled peers. The Council's work is essential to the success of the IDEA and the achievement of the goals of the Department of Education.

**ONEOK ROCKIES MIDSTREAM, L.L.C.**

**GRASSLANDS GAS PLANT**

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**TITLE V OPERATING PERMIT RENEWAL APPLICATION**

**SUBMITTED TO NORTH DAKOTA DEPARTMENT OF HEALTH  
JUNE 2016**

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## **Introduction**

ONEOK Rockies Midstream, L.L.C. (ORM) owns and operates the Grasslands Gas Plant in McKenzie County, North Dakota. The facility currently operates under Permit to Operate T5-O83005 which will expire on December 26, 2016. In accordance with North Dakota Administrative Code (NDAC) Chapter 33-15-14-06.4.a(1)(c), ORM submits this permit application to the North Dakota Department of Health (NDDH) to renew the Title V operating permit.

This permit application package includes the NDDH Title V Permit to Operate Renewal Application forms, a copy of the existing Title V operating permit with requested edits and comments provided, and a copy of Request to Discontinue Ambient Sulfur Dioxide Monitoring which was submitted to the NDDH on May 12, 2016.

ORM is in full compliance with the most recent Annual Compliance Certification provided on February 12, 2016. Additionally, ORM does not request any changes to process throughput rates or emission levels from what was previously provided to the NDDH in past submittals. ORM will operate the facility in compliance with all applicable federal and state air quality regulations.

## **APPENDIX A**

### **NDDH Title V Permit Renewal Application Forms**



**NORTH DAKOTA DEPARTMENT OF HEALTH  
TITLE V PERMIT TO OPERATE - RENEWAL APPLICATION**

Division of Air Quality  
SFN52824 (5-11)

In accordance with 33-15-14-04.c. of the North Dakota Air Pollution Control Rules, a Title V permit renewal application must be submitted to the Department at least six months, but no more than eighteen months, prior to the expiration date. Permit renewal applications are incomplete unless all information requested herein is supplied. The current Title V permit will be the baseline reference for this renewal. The requirements (40 CFR 70.5(c) & NDAC 33-15-14-06.4.c) to include a citation and description of all applicable requirements and a description of or reference to any applicable test method for determining compliance with each applicable requirement may be met by accomplishing either or both of the following: 1) enclose an annotated (red-lined) copy of the current permit indicating all changes needed to reflect the current facility configuration, applicable requirements and test methods; 2) enclose a narrative that conveys all changes needed to the current permit to reflect the current facility configuration, all applicable requirements and test methods.

FOR ACID RAIN UNITS ONLY – Submit with the Title V permit renewal application all Acid Rain renewal applications (the Acid Rain Permit Application, the Phase II NO<sub>x</sub> Compliance Plan, and if applicable, the Phase II NO<sub>x</sub> Averaging Plan).

**PART 1. GENERAL APPLICATION INFORMATION**

Owner's Name <u>ONEOK Rockies Midstream, L.L.C.</u>	
Facility Name <u>Grasslands Gas Plant</u>	
Name of Person Completing Application <u>Kale Hanner</u>	Phone <u>918-732-1477</u>
Title <u>Environmental Engineer</u>	Email <u>kale.hanner@oneok.com</u>
Current Operating Permit Number <u>T5-O83005</u>	
Expiration Date of Current Operating Permit <u>12 / 26 / 2016</u>	

**PART 2. COMPLIANCE CERTIFICATION**

**A. Schedule for Submission of Compliance Certifications During the Term of the Permit**

Frequency of Submittal Annual	Date Beginning (month/day/year) February 14, 2017
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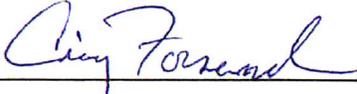
**B. Statement of Compliance with Compliance Assurance Monitoring (CAM) and Compliance Certification Requirements**

The facility identified in this application is in compliance with applicable monitoring and compliance certification requirements.	
<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No - Describe below which requirements are not being met:
<input type="checkbox"/>	CAM not applicable

C. Certification of Compliance with all Applicable Requirements

This certification must be signed by a "responsible official" as defined in NDAC 33-15-14-06.1. Forms without a signed certification will be returned as incomplete.

Except for requirements identified in Compliance Schedule and Plan (Section G) of Title V Permit to Operate application forms for which compliance is not achieved, I hereby certify that, based on information and belief formed after reasonable inquiry, the air contaminant source identified in this form is in compliance with all applicable requirements.

Signed 	Date <u>6.23.16</u>
G/ Typed Name Craig Forsander, Vice President – ORM Operations	

**PART 3. STATUS OF SOURCE**

Has there been any change to the source since the most recent initial or renewal permit application, minor permit modification, significant modification or administrative permit amendment?

No       Yes

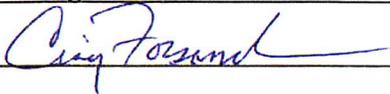
If yes, complete and submit appropriate sections of Title V Permit to Operate application forms.

**PART 4. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

Note: This certification must be signed by a "responsible official" as defined in NDAC 33-15-14-06.1. Applications without a signed certification will be returned as incomplete.

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.

G/ Name (typed) Craig Forsander

(Signed)  Date 06 / 23 / 2016

Telephone Number 406-433-8749

Send original renewal application to:

ND Department of Health  
Division of Air Quality  
918 E. Divide, 2<sup>nd</sup> Floor  
Bismarck, ND 58501-1947

Send copy of renewal application to:

Air Program (8P-AR)  
Office of Partnerships & Regulatory  
Assistance  
US EPA Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129

## **APPENDIX B**

### **Title V Permit to Operate T5-O83005 with Requested Edits**

**AIR POLLUTION CONTROL  
TITLE V PERMIT TO OPERATE**

<b>Permittee:</b> <b>Name:</b> ONEOK Rockies Midstream, L.L.C.  <b>Address:</b> 100 West Fifth Street Tulsa, OK 74103-4298	<b>Permit Number:</b> T5-O83005
	<b>Source Name:</b> Grasslands Gas Plant
<b>Source Location:</b> SE¼, Sec. 36, T148N, R105W McKenzie County, North Dakota	<b>Source Type:</b> Natural Gas Processing
<b>Expiration Date:</b> December 26, 2016	

Pursuant to Chapter 23-25 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota, Article 33-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions unit(s) 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 Health 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 No. 3 (Sig. Mod.): 2/8/12  
Revision No. 1 (Sig. Mod.): 5/20/15

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Terry L. O'Clair, P.E.  
Director  
Division of Air Quality

Grasslands Gas Plant  
Title V Permit to Operate  
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1. **Emission Unit(s) Identification:**

The emission unit(s) regulated by this permit are as follows:

<b>Emission Unit Description</b>	<b>Emission Unit (EU)</b>	<b>Emission Point (EP)</b>	<b>Air Pollution Control Equipment</b>
Regeneration heater rated at $2.73 \times 10^6$ Btu/hr and fired on natural gas [H-101]	1 (Reg)	1	None
Regeneration heater rated at $2.73 \times 10^6$ Btu/hr and fired on natural gas [H-402]	2 (Reg)	2	None
Regeneration heater rated at $2.73 \times 10^6$ Btu/hr and fired on natural gas [H-404]	3 (Reg)	3	None
Regeneration heater rated at $5.14 \times 10^6$ Btu/hr and fired on natural gas [HE-15.07]	4 (Reg)	22	None
Hot oil heater rated at $43.75 \times 10^6$ Btu/hr and fired on natural gas [H-401]	1 (Hot oil)	4A, 4B	None
Hot oil heater rated at $43.75 \times 10^6$ Btu/hr and fired on natural gas [H-405]	2 (Hot oil)	5	None
Hot oil heater rated at $45.8 \times 10^6$ Btu/hr and fired on natural gas [HE-3800]	4 (Hot oil)	21	None
Auxiliary steam boiler rated at $21.0 \times 10^6$ Btu/hr and fired on natural gas [BO-402]	1 (Auxiliary)	7	None
Auxiliary steam boiler rated at $21.0 \times 10^6$ Btu/hr and fired on natural gas [BO-403]	2 (Auxiliary)	8	None
Inert gas generator (boiler) rated at $17.75 \times 10^6$ Btu/hr and fired on natural gas [BO-701]	1 (Inert)	9	None
Inert gas generator (boiler) rated at $17.75 \times 10^6$ Btu/hr and fired on natural gas [BO-702]	2 (Inert)	10	None
Caterpillar G-399NA (4SRB) emergency generator engine rated at 800 bhp and fired on natural gas (pre-2007) <sup>C</sup>	1 (Gen)	11	None
Amine gas sweetening unit	Amine gas sweetening unit	<sup>B</sup>	Acid gas injection well or flare
Acid gas/process/emergency flare (130 ft)	1 (Flare)	13	None
Bulk engine oil tank with a capacity of 300 barrels	1 (Oil) <sup>A</sup>	14	None
Amine (DEA) tank with a capacity of 250 barrels	1 (DEA) <sup>A</sup>	16	None
FUGOOOO	FUGOOOO (Subject to NSPS OOOO)	Fugitive VOC	LDAR Program

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
FUGKKK	FUGKKK (Subject to NSPS KKK)	Fugitive VOC	LDAR Program
FUG	FUG (exempt from NSPS KKK)	Fugitive VOC	None
TEG dehydrator: 1. Regenerator vent  2. Flash tank vent	2 (Dehy)	1. 4A & 4B  2. <sup>D</sup>	1. Heater (1 Hot Oil)  2. <sup>D</sup>
Glycol re-concentrator rated at 0.94 x 10 <sup>6</sup> Btu/hr and fired on natural gas/inlet gas [H-7801]	2 (Glycol)	17	None
Steam boiler 1 natural gas-fired 28.75 x 10 <sup>6</sup> Btu/hr [H-602]	1 (Boiler)	18	None
Methanol storage tank with a capacity of 200 barrels with 6 injection points	1 (Methanol) <sup>A</sup>	0	None
Truck loading of produced water at approximately 2.0 MM gallons/year <sup>A</sup>	PW (Loading)	Fugitive	None
Truck loading of purity products at approximately 81.0 MM gallons/year <sup>A</sup>	PP (Loading)	Fugitive	Pressurized Loading

- <sup>A</sup> Insignificant or fugitive emission source (no specific emission limit).
- <sup>B</sup> Acid gas from the amine gas sweetening unit is directed to the acid gas injection well. In the event of **maintenance or** a malfunction, the acid gas will be directed to the flare. EU 1 (Flare).
- <sup>C</sup> The potential-to-emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more than 100 hours per year for other than non-emergency uses. There is no limit on the use of emergency stationary RICE in emergency situations [40 CFR 63, Subpart ZZZZ, §63.6640(f)].
- <sup>D</sup> The flash tank vent EU 2 (Dehy) is routed to the plant inlet gas stream for reprocessing. Emissions are controlled through recirculation rather than a dedicated control device.

2. **Restrictions:**

- A. **Fuel Restriction:** All emission units except 1 (Flare), 1 (Hot oil) and 2 (Glycol) shall be operated using only gaseous fuel containing no more than 2.0 grains of sulfur per 100 standard cubic feet. This fuel restriction ensures compliance with NDAC 33-15-06-01.2.

Applicable Requirements: Permit to Construct (PTC) 07021/Rev. 1 & NDAC 33-15-14-06.5.b(1)

B. **Flaring Restrictions:**

- 1) Flaring may not be used to burn waste gas for the purpose of increasing or maintaining well production without prior approval from this Department. When it is necessary to operate the flare during an 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 33-15-02 and the opacity standard of 20% not to exceed 60% for more than one six-minute period per hour.
- 2) The stack height for the flare shall be at least 130 feet above ground level.
- 3) Processing equipment at the facility shall be operated in such a manner to minimize flaring as much as possible. Operations at the facility must be in accordance with the application for permit revision dated April 11, 2002, which specifies the following:
  - a) Acid gas injection replaces the sulfur recovery unit.
  - b) Operation of the CEM has ceased.
- 4) Flaring may also be used for maintenance and combustion of normal processes including:
  - a) Maintenance on the acid gas injection compressor and miscellaneous maintenance related blowdowns.
  - b) Combustion of the TEG flash gas and amine sump list gas.
  - c) Combustion of residue purge gas.
  - d) Daily backwashing of the amine filter into the backwash accumulator and then to the flare.
  - e) Potential equipment leaks from relief valves in the closed position that are ~~tired~~ **routed** into the flare.
  - f) Maintenance of the acid gas injection well is ~~anticipated to be~~ required approximately every two to three years. During such maintenance, the permittee will reduce the flow of high H<sub>2</sub>S gas to the plant if necessary to remain within the SO<sub>2</sub> lb/hr emission limit for the flare. To the extent practicable, this maintenance will be planned to occur during planned plant shutdowns, if any, to minimize emissions.
- 5) The backup acid gas compressor will be maintained to help ensure its reliability when needed. The permittee will maintain an inventory of spare parts for compressor maintenance to minimize emissions during compressor malfunctions.

Applicable Requirements: NDAC 33-15-14-06.5.b(1) & PTC07021/Rev. 1

- C. The TEG dehydration unit [2 (Dehy)] still vent vapors are routed to EU 1 (Hot oil) to be used as fuel and the flash tank vapors shall be routed to the plant inlet gas stream for reprocessing.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a) & NDAC 33-15-14-06.5.b(1)

3. **Standards and Miscellaneous Requirements:** The permittee shall comply with all applicable requirements of the following as incorporated into NDAC 33-15-12-02 (New Source Performance Standards) and NDAC 33-15-22-03 (National Emission Standards for Hazardous Air Pollutants):

- A. 40 CFR 60, Subpart A – General Provisions is applicable to any source unit subject to another 40 CFR 60 subpart.

Applicable Requirement: NDAC 33-15-12-02, Subpart A

- B. 40 CFR 63, Subpart A – General Provisions is applicable to any source unit subject to another 40 CFR 63 subpart.

Applicable Requirement: NDAC 33-15-22-03, Subpart A

- C. 40 CFR 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants applies to EU FUGKKK.

Applicable Requirement: NDAC 33-15-12, Subpart KKK

- D. 40 CFR 60.18, General Control Device Requirements applies to EU 1 (Flare) due to FUGKKK component potential leak emissions that are directed to EU 1 (flare).

Applicable Requirement: NDAC 33-15-12-02, Subpart KKK

- E. 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units recordkeeping and reporting requirements apply to EU 2 (Hot Oil), EU 4 (Reg) and EU 4 (Hot Oil).

Applicable Requirement: NDAC 33-15-12-02, Subpart Dc

- F. 40 CFR 60, Subpart OOOO **and Subpart OOOOa** – Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (**NSPS Subpart OOOO**) applies to the Bakken Pipeline Transfer and may apply to the flare conveyance process unit (single continuous bleed natural gas-driven pneumatic controller) upstream of EU 1 (Flare) which was replaced by construction beginning September 9, 2011. Other process units may become subject to NSPS Subpart OOOO in the future if they are constructed, reconstructed or modified. For this subpart EPA Region 8, not the North Dakota Department of Health, is the implementing and enforcing authority. 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

Applicable Requirement: 40 CFR 60, Subpart OOOO **and Subpart OOOOa**

- G. 40 CFR 63, Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities applies to EU 2 (Dehy).

Applicable Requirement: NDAC 33-15-22-03, Subpart HH

- H. 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines applies to EU (1 Gen). This engine is categorized as an emergency engine as defined in 40 CFR 63.6675

Note: For engines to be considered emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, engine operations must comply with applicable hour limits (50 and 100 hours per calendar year) as specified in 40 CFR §63.6640(f). There is no time limit on the use of emergency stationary RICE in emergency situations.

Applicable Requirement: NDAC 33-15-22-03, Subpart ZZZZ

- I. 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 and start up of the engine.
- 2) The replacement engine shall operate in the same manner, provide no significant increase in throughput and have equal or less emissions than the engine it is replacing.
- 3) 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.
- 4) Emission testing shall be conducted within 180 days after start-up of the new engine to determine the emission rates of NO<sub>x</sub> and CO from the engine.

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

**4. Emission Unit(s) Limits:**

<b>Emission Unit Description</b>	<b>EU</b>	<b>EP</b>	<b>Pollutant/ Parameter</b>	<b>Emission Limit</b>	<b>NDAC Applicable Requirement</b>
Regeneration heater	1 (Reg)	1	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Regeneration heater	2 (Reg)	2	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Regeneration heater	3 (Reg)	3	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Regeneration heater	4 (Reg)	22	Opacity	20% (40% <sup>A</sup> )	33-15-03-02 & 33-15-12, Subpart Dc
Hot oil heater	1 (Hot oil)	4A, 4B	Opacity	20% (40% <sup>A</sup> )	33-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission Limit	NDAC Applicable Requirement
Hot oil heater	2 (Hot oil)	5	Opacity	20% (40% <sup>A</sup> )	33-15-03-02 & 33-15-12, Subpart Dc
Hot oil heater	4 (Hot oil)	21	Opacity	20% (40% <sup>A</sup> )	33-15-03-02 & 33-15-12, Subpart Dc
Auxiliary steam boiler	1 (Auxiliary)	7	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Auxiliary steam boiler	2 (Auxiliary)	8	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Inert gas generator (boiler)	1 (Inert)	9	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Inert gas generator (boiler)	2 (Inert)	10	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Caterpillar emergency generator engine	1 (Gen)	11	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Acid gas/process/emergency flare	1 (Flare)	13	SO <sub>2</sub>  Opacity	14,730 lb/hr <sup>B</sup> (1-hr average) 20% (60% <sup>A</sup> )	33-15-06-01.2  33-15-03-02.1
FUGOOOO	FUGOOO (Subject to OOOO)	Fugitive VOC	Equipment Leaks of VOC	See Cond. 3	40 CFR 60, Subpart OOOO
FUGKKK	FUGKKK (Subject to KKK)	Fugitive VOC	Equipment Leaks of VOC	See Cond. 3	33-15-12 Subpart KKK
TEG dehydrator: 1. Regenerator vent 2. Flash tank vent	2 (Dehy)	1. 4A & 4B 2. Plant inlet	Benzene	<0.99 tpy [total for all 2 Dehy emission points]	33-15-14-06.5 & 33-15-22, Subpart HH
Glycol re-concentrator	2 (Glycol)	17	Opacity	20% (40% <sup>A</sup> )	33-15-03-02
Steam boiler 1	1 (Boiler)	18	Opacity	20% (40% <sup>A</sup> )	33-15-03-02

<sup>A</sup> Permissible for not more than one six-minute period per hour.

<sup>B</sup> The amount of sweet (residue) gas to be added when flaring acid gas is 5.0 times the acid gas volume.

5. **Monitoring Requirements and Conditions:**

A. Requirements

1) Source unit(s) monitoring requirements:

<b>Emission Unit Description EU</b>	<b>Pollutant/ Parameter</b>	<b>Monitoring Requirement (Method)</b>	<b>Condition Number</b>	<b>NDAC Applicable Requirement</b>
Regeneration heater 1 (Reg)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Regeneration heater 2 (Reg)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Regeneration heater 3 (Reg)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Regeneration heater 4 (Reg)	Opacity	Recordkeeping	5.B.1	33-14-14-06.5.a(3)(a) & 33-15-12, Subpart Dc
Hot oil heater 1 (Hot Oil)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Hot oil heater 2 (Hot Oil)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a) & 33-15-12, Subpart Dc
Hot oil heater 4 (Hot oil)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a) & 33-15-12, Subpart Dc
Auxiliary steam boiler 1 (Auxiliary)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Auxiliary steam boiler 2 (Auxiliary)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Inert gas generator (boiler) 1 (Inert)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Inert gas generator (boiler) 2 (Inert)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Caterpillar emergency generator engine 1 (Gen)	Opacity  Hours	Recordkeeping  Recordkeeping	5.B.1  5.B.5 & 5.B.6	33-15-14-06.5.a(3)(a)  33-15-22-03, Subpart ZZZZ & 33-15-14-06.5.a(3)(a)
Acid gas/process/emergency flare 1 (Flare)	SO <sub>2</sub>  Opacity	H <sub>2</sub> S Content and Amount of Gas Flared  Visible Emissions Evaluation	5.B.2  5.B.2	33-15-14-06.5.a(3)(a)  33-15-14-06.5.a(3)(a)

Emission Unit Description EU	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
TEG dehydrator: 1. Regenerator vent 2. Flash tank vent 2 (Dehy)	Benzene	Recordkeeping	2.C 5.B.3	33-15-14-06.5.a(3)(a) & 33-15-22, Subpart HH
Glycol re-concentrator 2 (Glycol)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a) & 33-15-22, Subpart HH
FUGOOOO	VOC	LDAR Program	3.A & F	40 CFR 60, Subpart OOOO
FUGKKK	VOC	LDAR Program	3.A & C	33-15-12, Subpart KKK
Steam boiler 1 1 (Boiler)	Opacity	Recordkeeping	5.B.1	33-15-14-06.5.a(3)(a)
Facility-wide annual emissions	SO <sub>2</sub>	Recordkeeping	5.B.4	PTC07021

~~2) Ambient Air Monitoring Requirements: An ambient air quality and meteorological monitoring program shall be operated and maintained in accordance with provisions specified by this Department and the May 10, 1979 Federal Register (40 CFR 58) as amended. The program shall be used to determine the ambient concentrations of designated pollutants in the vicinity of the plant site and to verify compliance with the North Dakota Ambient Air Quality Standards. The Department, at its discretion, may from time to time audit the performance of ambient air and meteorological monitoring equipment.~~

~~Applicable Requirement: NDAC 33-15-14-06.5.a(3)(a)~~

**Comment [KH1]:** ORM requests that this condition be removed from the Title V operating permit. As outlined in ORM's May 12, 2016 submittal to the NDDH (included in Appendix C of this permit application), there has been a significant decrease in SO<sub>2</sub> emission rates at the Grasslands Gas Plant. This is primarily due to the installation and operation of an acid gas injection system. However, the plant has also seen a decrease in the amount of H<sub>2</sub>S entering the plant over the course of the last 10 years. ORM believes that based on the consistent low ambient SO<sub>2</sub> concentrations at the surrounding monitors, compliance with the National Ambient Air Quality Standards (NAAQS) has been verified.

B. Monitoring Conditions

- 1) For purposes of compliance monitoring, burning of gaseous fuel as outlined in Condition 2, shall be considered credible evidence of compliance with any applicable opacity, particulate and SO<sub>2</sub> emission limit. However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over burning of gaseous fuel as outlined in Condition 2, for evidence of compliance or noncompliance with any applicable opacity, particulate and SO<sub>2</sub> emission limit, in the event of enforcement action.
- 2) Flaring
  - a) The presence of a flame shall be monitored using a thermocouple or any other equivalent device approved by the Department.
  - b) During each occurrence of flaring, the permittee shall calculate and record the SO<sub>2</sub> emission rate (lb/hr) based on the H<sub>2</sub>S content and amount of gas flared, and record the amount of fuel gas added. Emissions from emergency flaring will be

differentiated from other flaring (process, scheduled maintenance, etc.) when reported on the Annual Emission Inventory Report.

- c) If the flaring lasts 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 and conducted by a certified visible emissions reader.
- 3) Benzene emissions from the TEG dehydration unit [2 (Dehy)] still vent and flash tank shall be determined at least annually using average glycol circulation rate, average gas process rate, and GRI-GLYCalc emissions model, Version 3.0 or higher. In accordance with 40 CFR Part 63 for area sources of HAP, records of benzene emissions shall be kept to demonstrate exemption from MACT control requirements.
- 4) The permittee shall calculate and record for each calendar year annual emissions of SO<sub>2</sub> from the facility for a period of 10 years (2008-2017). Beginning with calendar year 2008, if annual emissions of SO<sub>2</sub> in tons/year exceed the baseline actual emissions by more than 40 tons/year, then the permittee shall submit a report to the Department within 60 days after the end of the calendar year. The report shall contain the following: a) the name, address and telephone number of the facility; b) the calculated annual SO<sub>2</sub> emissions; and c) any other information that the permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection, exclusion of demand growth, etc.).
- 5) A non-resettable hours meter shall be installed on the emergency engine to ensure maintenance requirements are being performed as required per 40 CFR 63, Subpart ZZZZ. Maintenance requirements include but may not be limited to: change oil and filter or analyze oil every 500 hours of operation or annually; inspect spark plugs every 1,000 hours of operation or annually; and inspect hoses and belts every 500 hours of operation or annually whichever comes first, and replace as necessary.
- 6) A log shall be kept of the hours of and reason (emergency vs. non-emergency) for operation.

**6. Recordkeeping Requirements:**

- A. The permittee shall maintain compliance monitoring records as outlined in Table 1 (Monitoring Records), 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 as existing at the time of the sampling or measurement.

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

Table 1  
 Monitoring Records

<b>Emission Unit Description EU</b>	<b>Pollutant/ Parameter</b>	<b>Compliance Monitoring Record</b>
Regeneration heater 1 (Reg)	Opacity	Type of Fuel Usage
Regeneration heater 2 (Reg)	Opacity	Type of Fuel Usage
Regeneration heater 3 (Reg)	Opacity	Type of Fuel Usage
Regeneration heat 4 (Reg)	Opacity	Type of Fuel Usage and rating of heater per NDAC 33-15-12, Subpart Dc
Hot oil heater 1 (Hot Oil)	Opacity	Type of Fuel Usage
Hot oil heater 2 (Hot Oil)	Opacity	Type of Fuel Usage and rating of heater per NDAC 33-15-12, Subpart Dc
Hot oil heater 4 (Hot oil)	Opacity	Type of Fuel Usage and rating of heater per NDAC 33-15-12, Subpart Dc
Auxiliary steam boiler 1 (Auxiliary)	Opacity	Type of Fuel Usage
Auxiliary steam boiler 2 (Auxiliary)	Opacity	Type of Fuel Usage
Inert gas generator (boiler) 1 (Inert)	Opacity	Type of Fuel Usage
Inert gas generator (boiler) 2 (Inert)	Opacity	Type of Fuel Usage
Caterpillar emergency generator engine 1 (Gen)	Opacity Hours	Type of Fuel Usage Hours Record

<b>Emission Unit Description EU</b>	<b>Pollutant/ Parameter</b>	<b>Compliance Monitoring Record</b>
Acid gas/process/emergency flare 1 (Flare)	SO <sub>2</sub>	H <sub>2</sub> S Content and Amount of Gas Flared
	Opacity	Visible Emissions Evaluation Readings
TEG dehydrator: 2 (Dehy) 1. Regenerator vent 2. Flash tank vent	Benzene	Benzene Emissions and Calculations
Glycol re-concentrator 2 (Glycol)	Opacity	Type of Fuel Usage
FUGOOOO	LDAR Records	LDAR Records
FUGKKK	LDAR Records	LDAR Records
Steam boiler 1 1 (Boiler)	Opacity	Type of Fuel Usage
Facility-wide annual emissions	SO <sub>2</sub>	SO <sub>2</sub> Emissions and Calculations

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

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

**7. Reporting:**

- A. The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 6 on forms supplied 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.

The semi-annual monitoring report shall also include the following information regarding each flaring incident:

- 1) Reason for flaring.
- 2) Date and length of time that flaring occurred.
- 3) Amount of gas flared (ft<sup>3</sup>) and H<sub>2</sub>S content.
- 4) Calculated average SO<sub>2</sub> lb/hr.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(c)[1] and [2]

- B. The permittee shall submit an annual compliance certification report within 45 days after December 31 of each year on forms supplied or approved by the Department.

Applicable Requirement: NDAC 33-15-14-06.5.c(5)

- C. For emission units where the method of compliance monitoring is demonstrated by either 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 33-15-14-06.5.a(6)(e)

- D. The permittee shall submit an annual emission inventory report on forms supplied or approved by the Department. This report shall be submitted by March 15 of each calendar year. Insignificant units/activities listed in this permit do not need to be included in the report. Include the facility-wide annual SO<sub>2</sub> emissions and calculations.

Applicable Requirements: NDAC 33-15-14-06.5.a(7), NDAC 33-15-23-04 and PTC07021

- E. For FUGKKK the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart KKK, Section 60.636, Recordkeeping and the applicable requirements of 40 CFR 60, Subpart A, Section 60.7, Notification and Recordkeeping.

Applicable Requirement: NDAC 33-15-12 and 40 CFR 60, Subpart KKK

- ~~F. The ambient air quality monitoring data and quality assurance reports must be submitted to the Department in an electronic format within 45 days of the end of the calendar quarter and must contain the following information either in the body of the report or the cover letter:~~

- ~~1) A list of the highest and second highest concentrations for each parameter and a list of all values exceeding State and Federal ambient air quality standards. The lists shall contain the date, time, wind speed and wind direction for each of the above entries for each site.~~
- ~~2) An explanation for each exceedance of the air quality standard. If there are no exceedances, a statement should be made to that effect.~~
- ~~3) A brief discussion of instrument malfunctions or significant problems that occurred during the quarter, and a summary of the corrective actions taken (to include locations and times).~~
- ~~4) A summary of the calibrations and zero/span checks conducted for each parameter at each site. For the calibrations, include the slopes, intercepts, and correlation coefficients of the least-squares linear regressions.~~
- ~~5) A computation of data recovery for each parameter at each site on a monthly basis for the quarter expressed in percentages (actual versus possible). Each parameter at each site is expected to~~

**Comment [KH2]:** As stated above in Section 5.A.2 of this document, ORM requests that the requirement to monitor ambient SO<sub>2</sub> concentrations be removed from the Title V operating permit. ORM believes that based on the consistent low ambient SO<sub>2</sub> concentrations at the surrounding monitors, compliance with the National Ambient Air Quality Standards (NAAQS) has been verified. ORM has proposed that the ambient monitoring cease on June 30, 2016 with the final report due to the NDDH on August 14, 2016, however ORM will continue to comply with the monitoring and reporting requirements until such time that a decision is reached.

~~maintain a minimum monthly data recovery rate of 80%. The reasons for failing to meet this requirement must be clearly explained.~~

- ~~6) A list of precision checks conducted during the quarter including dates, known concentrations, measured concentrations, individual percentage differences, quarterly average percentage differences, standard deviation and 95% probability limits (Reference: 40 CFR 58).~~
- ~~7) A report of the performance audits conducted during the quarter including known and measured concentrations and individual percentage differences. Also include slope, intercept, and the correlation coefficient of the audit line and the percent difference (full scale).~~
- ~~8) A hard copy tabular printout of the data is not required as a part of the quarterly data report. However, a copy should be available to verify the electronically submitted data.~~
- ~~9) The quarterly data for each parameter and each site must accompany the report and must be in the format specified by the Department.~~

~~Applicable Requirement: NDAC 33-15-14-06.5.a(3)(a)~~

8. **Facility Wide Operating Conditions:**

A. **Ambient Air Quality Standards:**

- 1) 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 33-15-02 at any place beyond the premises on which the source is located.
- 2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33-10.
- 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 Requirement: NDAC 33-15-02-04

B. **Fugitive Emissions:** The release of fugitive emissions shall comply with the applicable requirements in NDAC 33-15-17.

Applicable Requirement: NDAC 33-15-17

- 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 33-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33-15-04

- D. **Asbestos Renovation or Demolition:** Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33-15-13.

Applicable Requirement: NDAC 33-15-13-02

- E. **Requirements for Organic Compounds Gas Disposal:**

- 1) The owner/operator shall incinerate, flare or treat in an equally effective manner any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining, or process operations and which contain hydrogen sulfide before being released to the ambient air.
- 2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33-15-07-02

- 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 33-15-07-01.5

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

- 1) **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 twenty-four 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 shutdown 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 33-15-01-13.1

2) Malfunctions.

- a) When a malfunction in any installation occurs that can be expected to last longer than twenty-four 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 twenty-four-hour state radio emergency number 1-800-472-2121. If calling from out of state, the twenty-four-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:
  - [1] 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 thirty days of the end of the calendar quarter in which the malfunction occurred or within thirty 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 33-15-01-13.2

- 3) 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 33-15-21 (40 CFR 75, Acid Rain Program).

Applicable Requirement: NDAC 33-15-01-13.3

H. **Noncompliance Due to an Emergency:** The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- 2) The permitted facility was at the time being properly operated;

- 3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- 4) The permittee submitted notice of the emergency to the Department within one working day of the time when emission limitations were exceeded longer than 24-hours due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Those emergencies not reported within one working day, as well as those that were, will be included in the semi-annual report.
- 5) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - a) Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a New Source Performance Standard) rather than those established to attain a health based air quality standard.
  - b) An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Applicable Requirement: NDAC 33-15-14-06.5.g

- I. **Air Pollution from Internal Combustion Engines:** The permittee shall comply with all applicable requirements of NDAC 33-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33-15-08-01

- J. **Prohibition of Air Pollution:**

- 1) The permittee shall not permit or cause air pollution, as defined in NDAC 33-15-01-04.
- 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 33-15-01-15

**K. Performance Tests:**

- 1) 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 23-25. 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 Health 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.
- 2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary holes in 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 33-15-01-12

- 3) 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. 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 33-15-14-06.5.a(3)(a), NDAC 33-15-12-02 Subpart A (40 CFR 60.8), NDAC 33-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33-15-22-03 Subpart A (40 CFR 63.7)

- L. 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 33-15-10.

Applicable Requirements: NDAC 33-15-10-01 and NDAC 33-15-10-02

- M. Air Pollution Emergency Episodes:** When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33-15-11.

Applicable Requirements: NDAC 33-15-11-01 through NDAC 33-15-11-04

N. **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.
- 3) 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

O. **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:

- 1) 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

P. **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 33-15-14-06.5.b(1)

Q. **Prevention of Significant Deterioration of Air Quality (40 CFR 52.21 as incorporated by NDAC Chapter 33-15-15):** 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 33-15-15-01.2

9. **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 sixty 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 33-15-14-06.5.a(7) and NDAC 33-15-23-04

- B. **Permit Renewal and Expiration:** This permit shall be effective from the date of its issuance for a fixed period of 5 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 eighteen months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within sixty 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 33-15-14-06.4 and NDAC 33-15-14-06.6

- C. **Transfer of Ownership or Operation:** This permit may not be transferred except by procedures allowed in Chapter 33-15-14 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 33-15-14-06.6.d

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

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(d)

- E. **Submissions:**

- 1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

North Dakota Department of Health  
Division of Air Quality  
918 E Divide Avenue, 2<sup>nd</sup> Floor  
Bismarck, ND 58501-1947

- 2) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33-15-14-06.4.d

- F. **Right of Entry:** Any duly authorized officer, employee or agent of the North Dakota Department of Health 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 33-15-14-06.5.c(2) and NDAC 33-15-01-06

- 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 23-25 and NDAC 33-15. 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 23-25. 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 33-15-14-06.5.a(6)(a) and NDAC 33-15-14-06.5.a(6)(b)

- H. **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 33-15-14-06.5.a(6)(e), NDAC 33-15-14-06.6.b(3) and NDAC 33-15-14-06.4.b

I. **Reopening for Cause:** The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

- 1) 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 not later than eighteen 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.
- 2) 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.

Applicable Requirement: NDAC 33-15-14-06.6.f(1)(c)

- 3) 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 33-15-14-06.6.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 33-15-14-06.5.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.
- 3) 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 33-15-14-02 has been issued, if required.
- 5) Before the permit change is made, the permittee must provide written 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, except for changes that qualify as insignificant activities in Section 33-15-14-06. 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.
- 6) 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 33-15-14-06.6.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:

- 1) 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.
- 5) 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 33-15-14-06.6.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.
- 4) 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 112(i)(5) of the Federal Clean Air Act.
- 5) Are not modifications under NDAC 33-15-12, 33-15-13, and 33-15-15 or any provision of Title I of the Federal Clean Air Act.
- 6) Are not required to be processed as a significant modification.

Applicable Requirement: NDAC 33-15-14-06.6.e(1)

N. **Significant Modifications:**

- 1) 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.
- 2) 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 33-15-14-06.6.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 33-15-14-06.6.b(2)

- P. **Relationship to Other Requirements:** Nothing in this permit shall alter or affect the following:
- 1) 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.
  - 3) 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 33-15-14-06.3 and NDAC 33-15-14-06.5.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 33-15-14-06.5.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 33-15-01-08

10. **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 33-15-16.

Applicable Requirement: NDAC 33-15-16

- B. **Hydrogen Sulfide Restriction:** The permittee shall not discharge into the ambient air hydrogen sulfide (H<sub>2</sub>S) 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 33-15-16-04 constitute a violation.

Applicable Requirement: NDAC 33-15-16-04

## **APPENDIX C**

### **Request to Discontinue SO<sub>2</sub> Ambient Monitoring (Submitted 5/12/2016)**



*CERTIFIED MAIL 7015 3010 0001 0423 1910  
RETURN RECEIPT REQUESTED*

May 12, 2016

Mr. Terry O'Clair,  
North Dakota Department of Health  
Division of Air Quality  
918 East Divide Avenue, 2<sup>nd</sup> Floor  
Bismarck, ND 58501-1947

**GRASSLANDS GAS PLANT  
PERMIT NO. T5-O83005  
REQUEST TO DISCONTINUE AMBIENT SULFUR DIOXIDE MONITORING**

Dear Mr. O'Clair:

ONEOK Rockies Midstream, L.L.C. (ORM) operates the Grasslands Gas Plant (Facility) pursuant to Permit No. T5-O83005, which was issued on May 20, 2015 by the North Dakota Department of Health (NDDH). In accordance with permit condition number 5(A)(2), ORM operates an ambient air quality and meteorological monitoring program consisting of two ambient Sulfur dioxide (SO<sub>2</sub>) monitors each located approximately 2.5 kilometers from the facility. As set forth in detail below, based on the data collected through the monitors to date, ORM does not believe the required monitoring remains necessary. Accordingly, ORM respectfully requests that NDDH no longer require the monitoring beginning on June 30, 2016. ORM also plans to request the removal of the respective permit conditions during the upcoming operating permit renewal which ORM will submit in June 2016.

NDDH required the monitors to evaluate SO<sub>2</sub> emissions from the Facility due to the Facility's process for removing hydrogen sulfide (H<sub>2</sub>S) from the inlet feed stream. Previously, when the Facility's inlet received H<sub>2</sub>S content in stream, the Facility separated the H<sub>2</sub>S and routed the vapors to the acid gas flare for combustion, which resulted in SO<sub>2</sub> emissions. Due to potential for elevated SO<sub>2</sub> levels, NDDH required ORM to monitor the ambient air concentrations to ensure that they remained below the National Ambient Air Quality Standards (NAAQS). Over the course of approximately the last ten years, these daily average inlet H<sub>2</sub>S levels have reduced from over 2% down to a range of 0.05% to 0.5% which has resulted in sustained low SO<sub>2</sub> emissions from the Facility's acid gas flare. In addition, the Facility also decreased SO<sub>2</sub> emissions through the installation and operation of an acid gas injection well, through which combined H<sub>2</sub>S and CO<sub>2</sub> are removed from the inlet gas stream and injected into the well. Based on these and other related process changes at the Facility, the H<sub>2</sub>S sent to the flare has been greatly reduced and is only necessary now during an emergency plant or disposal well outage. Additionally, the available facility data indicates a continued trend of decreased H<sub>2</sub>S entering the facility. These reductions in SO<sub>2</sub> emissions are confirmed by a consistent decrease in ambient SO<sub>2</sub> concentrations monitored around the facility.

As stipulated in permit condition number 7(F), ORM submits quarterly updates of the monitoring data received at each of the stations to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS). Specifically, this data was used to compare to the original annual, 24-hour, and 3-hour averaging periods, and beginning in 2010, the 1-hour standard evaluated over a 3-year average (the annual and 24-hour standards were revoked by the U.S. Environmental Protection Agency in 2010 but remained as standards until attainment status was determined within the state). For each of the four averaging periods, ambient SO<sub>2</sub> concentrations have steadily decreased around the Facility and have remained consistently at or below approximately 10% of the applicable NAAQS. For the recently implemented 1-hour standard, each of the monitoring sites have consistently provided maximum 1-hour values of 6 to 8 ppb for each of the last three 3-year averaging periods, compared to the NAAQS limit of 75 ppb. For comparison, the U.S. Environmental Protection Agency (EPA) compiles "Design Values" from Department-operated stations across the country for use in determination of attainment areas and is commonly used as background concentrations for ambient air quality modeling analyses. The current EPA design value covering 2012 through 2014 for McKenzie County is 8 ppb. The concentrations for the Facility's two monitoring stations over that same period were 7 ppb and 6 ppb. This demonstrates that the ORM monitors are providing data that is consistent with the EPA station at Theodore Roosevelt National Park (TRNP) in McKenzie County. Enclosed, please find a chart of the monitoring data for each of the averaging periods along with a map showing the location of the monitoring stations.

The continued reduced SO<sub>2</sub> concentrations around the Facility demonstrate a negligible impact by the Grasslands Gas Plant on the NAAQS, which was confirmed with the data provided by the EPA monitor at the TRNP. Therefore, ORM formally requests that the requirement to conduct ambient monitoring be removed. ORM will continue to calculate and record the SO<sub>2</sub> emission rate during flaring as required by permit condition number 5(B)(2) and report these values as required by condition number 7(A). The Quarterly Data Report for the 1<sup>st</sup> quarter of 2016 will be due on May 15, 2016 and monitoring for the 2<sup>nd</sup> quarter has now commenced. Therefore, ORM requests that the monitoring cease on June 30, 2016 to allow for a final full quarter of data to be compiled and submitted to the NDDH.

If you need additional information or have any questions, please email me or call me at 918-732-1477.

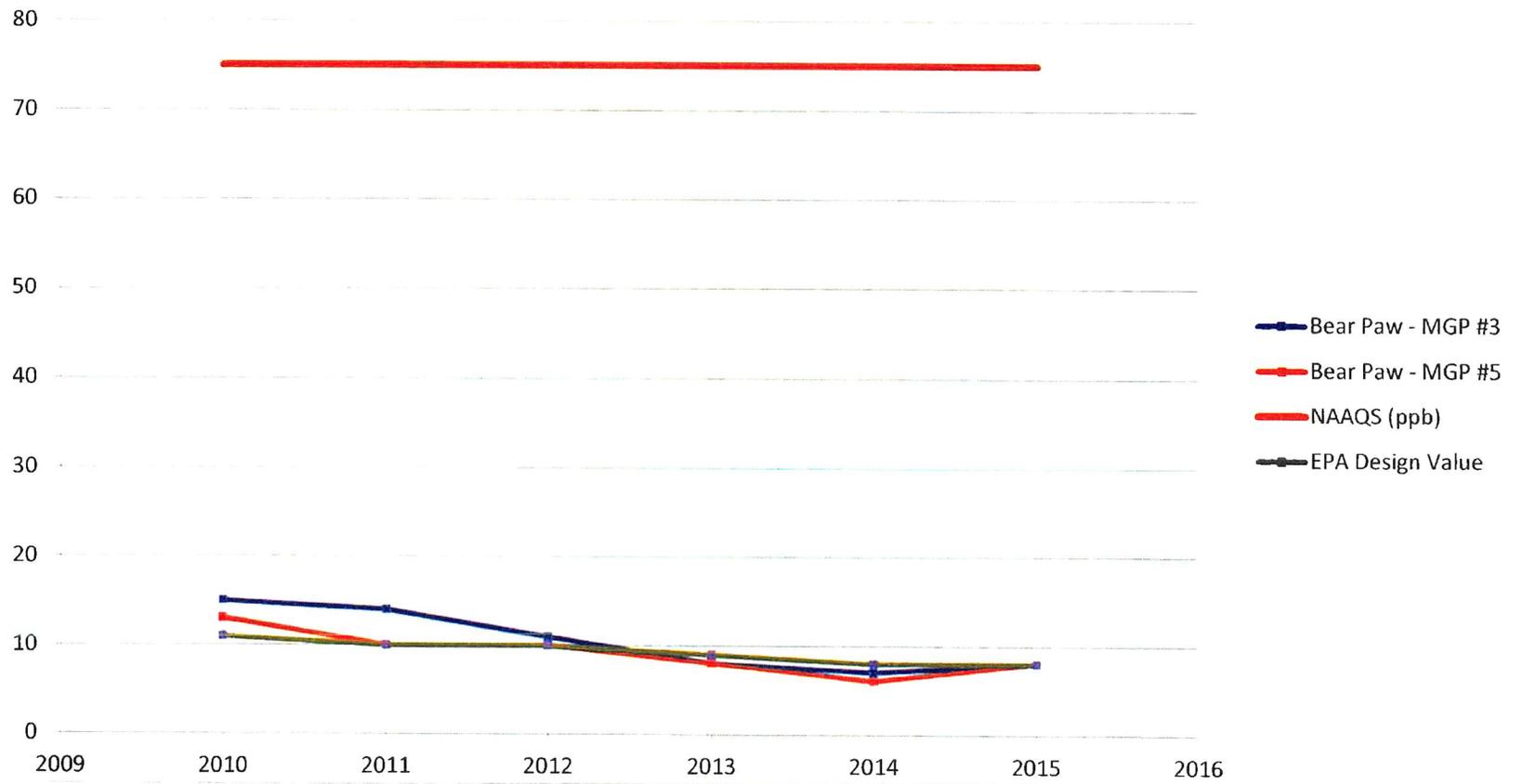
Sincerely,



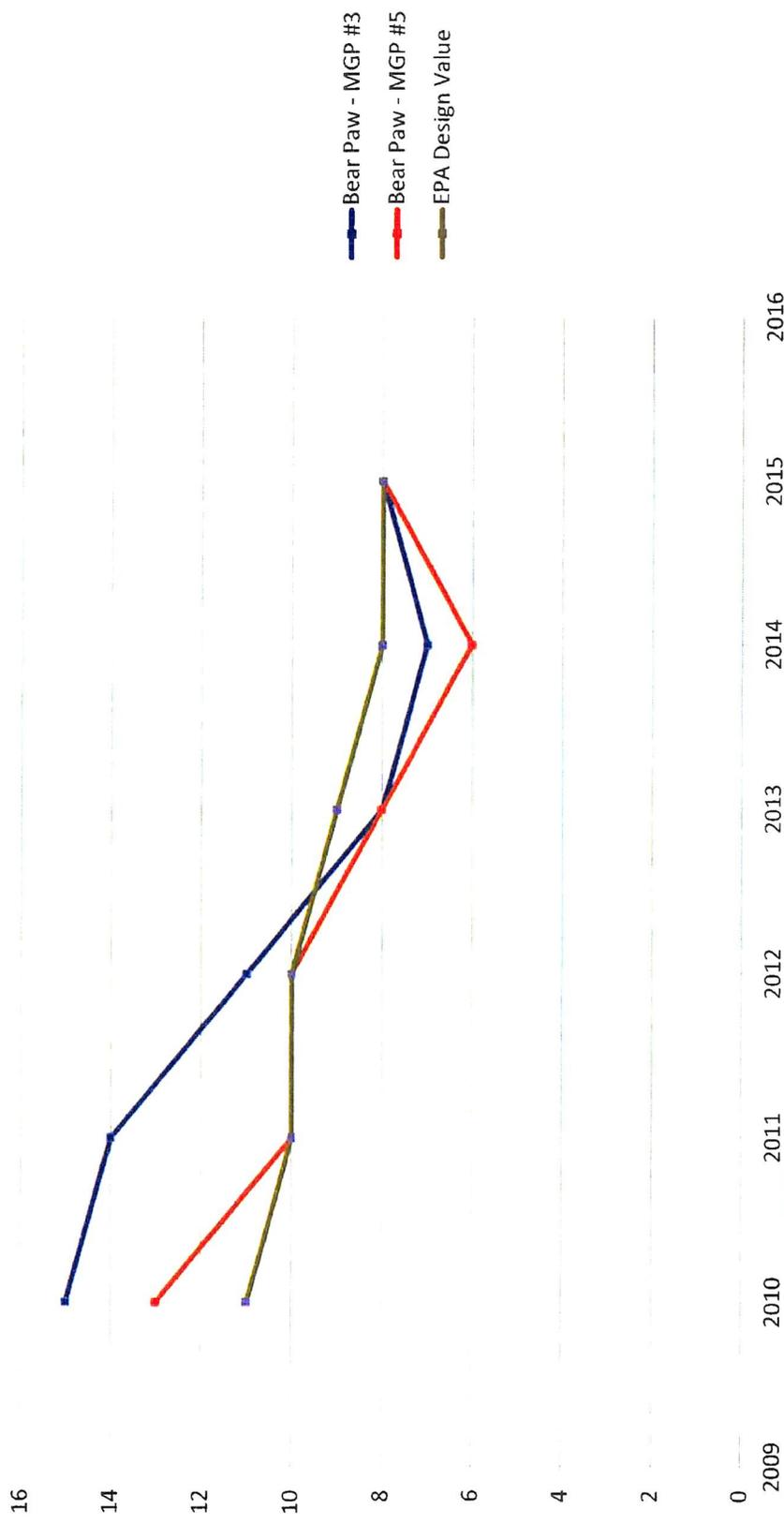
Kale Hanner  
Environmental Engineer

cc: K. Rudningen/B. Skaley/A. Stagl/C. Steffes/T. Schwarz/L. Reed/K. Reedy/G. Lafitte/C. Fonck/C. Forsander/L. Tillson (.pdf)  
L. Dendy (NDDH)/J. Mayer (NDDH)  
Tulsa Environmental Files – Grasslands Gas Plant – Permit Actions

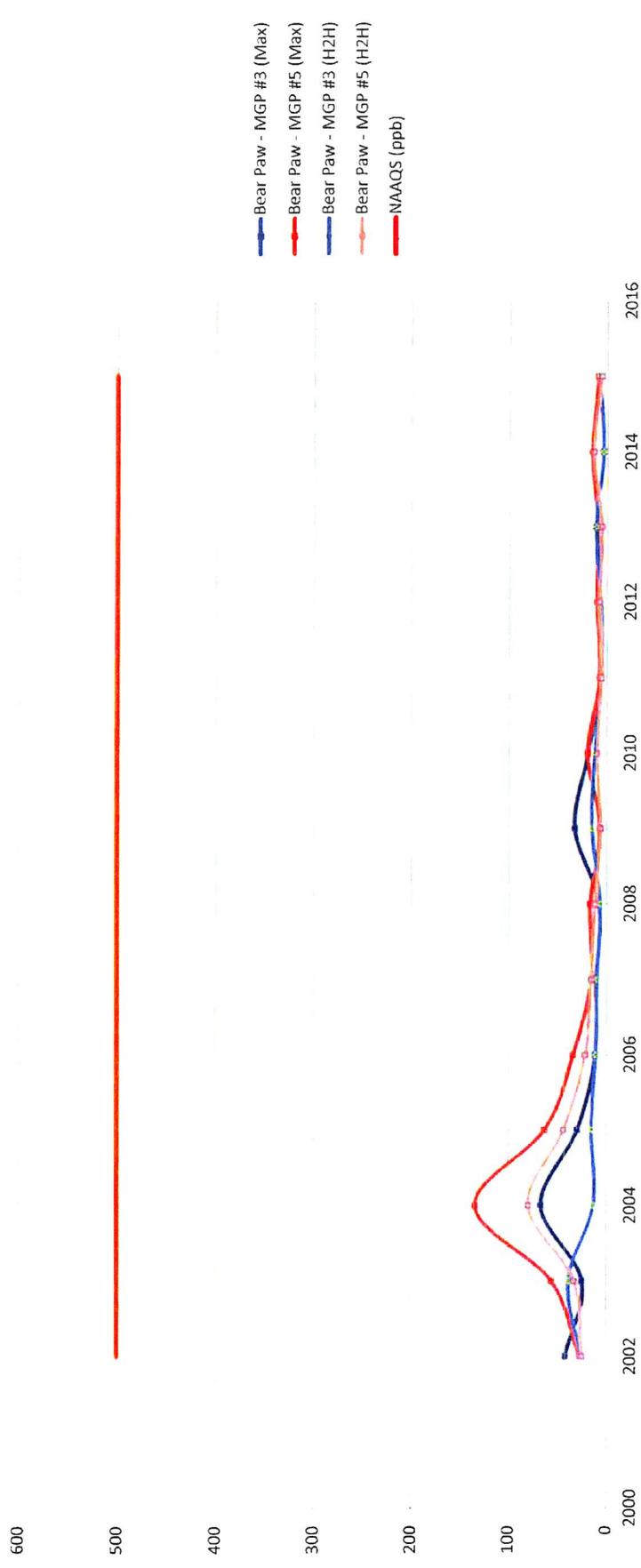
# 1-Hour, 3-Year Average SO<sub>2</sub> Concentrations



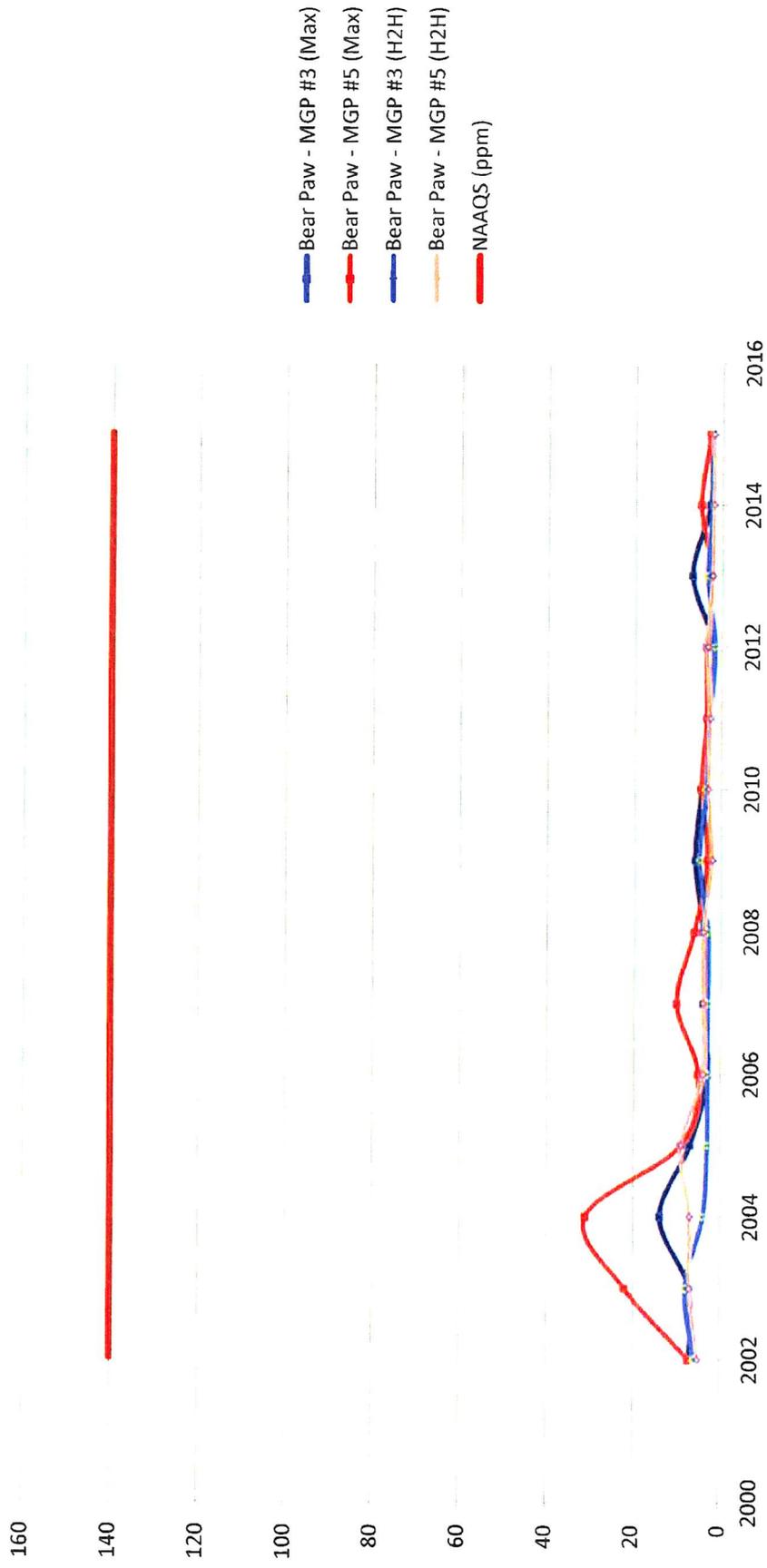
# 1-Hour, 3-Year Average SO<sub>2</sub> Concentrations (Zoom)



### 3-Hour SO<sub>2</sub> Concentrations



# 24-Hour SO<sub>2</sub> Concentrations



# Annual SO<sub>2</sub> Concentrations





Google earth

miles  
km

2 4

