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Air Title V Operating Permit (AOP) - New

version 2.5

(Submission #: HPX-VFC5-KPGE4, version 4)

Details

Submission ID HPX-VFC5-KPGE4

Status In Process

CORRECTION REQUEST (APPROVED)

Forms for TK-7 & TK-8

The attached forms provided for TK-7 and TK-8 appear to have some kind of upload/saving issue and parts are not readable or don't make sense in areas.

Please review and provide updated forms for Beavertail_4_TK-7_SFN61006_Print.pdf and Beavertail_4_TK-8_SFN61006_Print.pdf. Feel free to reach out with any questions.

Created on 10/19/2023 10:02 AM by **Schneider, K.**

1 COMMENT

Schneider, Kyla K. (kkschneider@nd.gov) (11/3/2023 7:38 AM)

Resubmittal of forms look good; thank you.

Form Input

Form Instructions

Section A - Applicant Information

Owner

Company Name

ONEOK Rockies Midstream, L.L.C.

Address

100 W. Fifth St.

Oklahoma, OK 74103

United States

Responsible Official**Prefix**

NONE PROVIDED

First Name

Dick

Last Name

Vande Bossche

Title

Vice President - ONEOK Rockies and Midstream Operations

Phone Type

Business

Number

406-489-1544

Extension**Email**

dick.vandebossche@oneok.com

Address

100 W. Fifth St.

Tulsa, OK 74103

United States

Contact Person for Air Pollution Matters**Prefix**

NONE PROVIDED

First Name

Kale

Last Name

Hanner

Title

Supervisor - Environmental Compliance

Phone Type

Mobile

Number

918-845-5033

Extension**Email**

Kale.Hanner@oneok.com

Address

100 W. Fifth St.

Tulsa, OK 74103

United States

Section B (Part 1) - Facility Information**Facility Name**

ONEOK Rockies Midstream, L.L.C. - Beavertail Compressor Station

Is this a portable source?

No

Facility Location

S25 T105N 97W

Watford City, ND 58854

United States

County

McKenzie

Facility Location:

47.78586,-103.04027

Please download the form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document

Upload/File Upload section, only fill out the required (asterisked) sections of the online application.
[PERMIT APPLICATION FOR TITLE V PERMIT TO OPERATE \(SFN52858\)](#)

Attach completed form here

SFN52858_signed.pdf - 09/29/2023 11:39 AM

Comment

NONE PROVIDED

Is this source subject to Title IV Acid Rain regulations?

No

Section B (Part 2) - Additional Location Information

Legal Description of Facility Site

Qtr Qtr	Qtr	Section	Township	Range
SENW	NW	25	150N	97W

Land area at facility site (in sq. ft.)

566280.00

Mean sea level (MSL) elevation at facility (in feet)

2285.0

Section C - Nature of Business

General Nature of Business

Describe Nature of Business	NAICS Code	SIC Code
Natural Gas Compression	211130-Natural Gas Extraction	1311-Crude Petroleum and Natural Gas

Actual Start of Construction Date

03/16/2018

Actual End of Construction Date

08/03/2022

Facility Startup Date

08/03/2022

Section D - Process Equipment Information (1 of 10)

Emission Unit - C-1 - C-6

Emission Unit ID

C-1 - C-6

Emission Unit Description

Compressor Engine

Emission Point ID

C-1 - C-6

Emission Point Description

Compressor Engine

Emission Process Description

Compressor Engine

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
ACP-018131

Applicable Federal Air Programs

Program Code
New Source Performance Standards
New Source Review Permit Requirements
40 CFR Part 63 Area Sources

NSPS Air Program Subparts

Subpart
Subpart JJJJ - STATIONARY SPARK IGNITION INTERNAL COMBUSTION ENGINES

Area Source MACT Air Program Subparts

Subpart
Subpart ZZZZ - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)

Applicable State Regulations

Regulation
33.1-15-03-03. Visible Emissions. Restrictions applicable to fugitive emissions.
33.1-15-08. Control of Air Pollution from Vehicles and Other Internal Combustion Engines.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

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Beavertail_2_C-2_SF61006_Print.pdf - 09/29/2023 10:49 AM
Beavertail_2_C-6_SF61006_Print.pdf - 09/29/2023 10:49 AM
Beavertail_2_C-3_SF61006_Print.pdf - 09/29/2023 10:49 AM
Beavertail_2_C-5_SF61006_Print.pdf - 09/29/2023 10:49 AM
Beavertail_2_C-4_SF61006_Print.pdf - 09/29/2023 10:49 AM
Comment
NONE PROVIDED

Section D - Process Equipment Information (2 of 10)**Emission Unit - C-8 - C-9****Emission Unit ID**

C-8 - C-9

Emission Unit Description

Compressor Engine

Emission Point ID

C-8 - C-9

Emission Point Description

Compressor Engine

Emission Process Description

Compressor Engine

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
ACP-018131

Applicable Federal Air Programs

Program Code
New Source Performance Standards
New Source Review Permit Requirements
40 CFR Part 63 Area Sources

NSPS Air Program Subparts

Subpart
Subpart JJJJ - STATIONARY SPARK IGNITION INTERNAL COMBUSTION ENGINES

Area Source MACT Air Program Subparts

Subpart
Subpart ZZZZ - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)

Applicable State Regulations

Regulation
33.1-15-03-03. Visible Emissions. Restrictions applicable to fugitive emissions.
33.1-15-18. Stack Heights.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

[Beavertail_2_C-9_SF61006_Print.pdf - 09/29/2023 10:53 AM](#)

[Beavertail_2_C-8_SF61006_Print.pdf - 09/29/2023 10:53 AM](#)

Comment

NONE PROVIDED

Section D - Process Equipment Information (3 of 10)**Emission Unit - FL-1****Emission Unit ID**

FL-1

Emission Unit Description

Plant Flare

Emission Point ID

FL-1

Emission Point Description

Plant Flare

Emission Process Description

Plant Flare

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code
New Source Performance Standards

NSPS Air Program Subparts

Subpart
Subpart A - GENERAL PROVISIONS

Applicable State Regulations

Regulation
33.1-15-03-03. Visible Emissions. Restrictions applicable to fugitive emissions.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

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[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

Beavertail_3_FL-1_SF61006_Print.pdf - 09/29/2023 10:56 AM
Comment
NONE PROVIDED

Section D - Process Equipment Information (4 of 10)**Emission Unit - LTK-1****Emission Unit ID**

LTK-1

Emission Unit Description

Storage Tank

Emission Point ID

LTK-1

Emission Point Description

Storage Tank

Emission Process Description

Storage Tank

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation
33.1-15-07-01.3. Requirements for construction of organic compounds facilities. Submerged fill pipes required.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

Beavertail_4_LTK-1_SF61006_Print.pdf - 09/29/2023 10:58 AM

Comment

NONE PROVIDED

Section D - Process Equipment Information (5 of 10)**Emission Unit - MTK-1****Emission Unit ID**

MTK-1

Emission Unit Description

Storage Tank

Emission Point ID

MTK-1

Emission Point Description

Methanol Storage Tank

Emission Process Description

Methanol Storage Tank

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation
33.1-15-07-01.3. Requirements for construction of organic compounds facilities. Submerged fill pipes required.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

Beavertail_4_MTK-1_SF61006_Print.pdf - 09/29/2023 10:59 AM
Comment
NONE PROVIDED

Section D - Process Equipment Information (6 of 10)

Emission Unit - TK-1 - TK-10

Emission Unit ID

TK-1 - TK-10

Emission Unit Description

Storage Tank

Emission Point ID

TK-1 - TK-10

Emission Point Description

Condensate Storage Tank

Emission Process Description

Condensate Storage Tank

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation
33.1-15-07-01.3. Requirements for construction of organic compounds facilities. Submerged fill pipes required.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

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[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

- [Beavertail_4_TK-1_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-3_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-4_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-6_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-2_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-10_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-5_SFN61006_Print.pdf - 09/29/2023 11:02 AM](#)
- [Beavertail_4_TK-9_SFN61006_Print.pdf - 10/19/2023 10:07 AM](#)
- [Beavertail_4_TK-7_SFN61006_Print.pdf - 10/19/2023 10:09 AM](#)
- [Beavertail_4_TK-8_SFN61006_Print.pdf - 10/19/2023 10:09 AM](#)

Comment

NONE PROVIDED

Section D - Process Equipment Information (7 of 10)

Emission Unit - WTK-1 - WTK-2

Emission Unit ID

WTK-1 - WTK-2

Emission Unit Description

Storage Tank

Emission Point ID

WTK-1 - WTK-2

Emission Point Description

Produced Water Storage Tank

Emission Process Description

Produced Water Storage Tank

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation
33.1-15-07-01.3. Requirements for construction of organic compounds facilities. Submerged fill pipes required.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

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[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

- [Beavertail_4_WTK-2_SFN61006_Print.pdf - 09/29/2023 11:04 AM](#)
- [Beavertail_4_WTK-1_SFN61006_Print.pdf - 09/29/2023 11:04 AM](#)

Comment

NONE PROVIDED

Section D - Process Equipment Information (8 of 10)

Emission Unit - TL-1

Emission Unit ID

TL-1

Emission Unit Description

Truck Loading

Emission Point ID

TL-1

Emission Point Description

Condensate Truck Loading

Emission Process Description

Condensate Truck Loading

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

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[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

Beavertail_5_TL-1_SF61006_Print.pdf - 09/29/2023 11:05 AM

Comment

NONE PROVIDED

Section D - Process Equipment Information (9 of 10)

Emission Unit - FUG

Emission Unit ID

FUG

Emission Unit Description

Fugitive Components

Emission Point ID

FUG

Emission Point Description

Fugitive Components

Emission Process Description

Fugitive Components

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code
New Source Performance Standards

NSPS Air Program Subparts

Subpart
Subpart OOOOa - CRUDE OIL/NATURAL GAS PRODUCTION/TRANSMISSION & DISTRIBUTION (post 9/18/15)

Applicable State Regulations

Regulation

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

[Beavertail_6_FUG_SF61006_Print.pdf - 09/29/2023 11:06 AM](#)

Comment

NONE PROVIDED

Section D - Process Equipment Information (10 of 10)**Emission Unit - BD****Emission Unit ID**

BD

Emission Unit Description

Vents and Blowdowns

Emission Point ID

BD

Emission Point Description

Vents and Blowdowns

Emission Process Description

Vents and Blowdowns

Emission Unit Status

Existing, no change

Applicable PTCs

PTC Number
PTC18044

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation
33.1-15-07-02. Requirements for organic compounds gas disposal.

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[EMISSION UNIT FOR TITLE V PERMIT TO OPERATE \(SFN61006\)](#)

Attach Emission Unit Form

Beavertail_7_BD_SF61006_Print.pdf - 09/29/2023 11:08 AM
Comment
NONE PROVIDED

Section E - Control Equipment (1 of 3)

Emission Unit: `EU_ID` - `EU_DESC`

Control Equipment ID

Vapor Recovery Unit

Control Equipment Description

Vapor Recovery Unit

Control equipment form

Download the form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[Control equipment form - SFN8532](#)

Attach Control Equipment Form

Beavertail_SF8532 (VRU).pdf - 09/29/2023 11:13 AM
Comment
NONE PROVIDED

Section E - Control Equipment (2 of 3)

Emission Unit: `EU_ID` - `EU_DESC`

Control Equipment ID

C-1 - C-6

Control Equipment Description

Oxidation Catalyst

Control equipment form

Download the form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[Control equipment form - SFN8532](#)

Attach Control Equipment Form

Beavertail_C-1-C-6-Catalyst (SFN8532).pdf - 09/29/2023 11:14 AM

Comment
NONE PROVIDED

Section E - Control Equipment (3 of 3)

Emission Unit: `EU_ID` - `EU_DESC`

Control Equipment ID

C-8 - C-9

Control Equipment Description

Oxidation Catalyst

Control equipment form

Download the form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[Control equipment form - SFN8532](#)

Attach Control Equipment Form

Beavertail_C-8-C-9-Catalyst (SFN8532).pdf - 09/29/2023 11:14 AM

Comment
NONE PROVIDED

Section F - Facility-Wide Applicable Regulations and Potential to Emit (PTE)

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation

Potential to Emit (PTE)

Pollutant	Tons Per Year Without Fugitives	Tons Per Year With Fugitives
NOx	112.92	112.92
CO	89.60	89.60
VOCs	164.38	175.41
SO2	0.28	0.28
PM	5.35	5.35
PM10	5.35	5.35
PM2.5	5.35	5.35
Total HAPs	11.99	13.21

Emission Calculations Document Upload

Using the attachment control below, upload emission calculations documents.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attach Emission Calculations Documents

[2021-05_Beavertail_EmEst_Planned.pdf - 09/29/2023 11:17 AM](#)

Comment

NONE PROVIDED

Section G - Compliance Schedule

Download the form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE \(SFN61008\)](#)

Attach completed form here

[Beavertail_8b_FL-1 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-6 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8c_FUG Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-3 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-5 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-9 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-2 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-4 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-1 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

[Beavertail_8a_C-8 Compliance Plan_SF61008_Print.pdf - 09/29/2023 11:24 AM](#)

Comment

NONE PROVIDED

Section H - Flexible Permits

Are you requesting a flexible permit?

No

Section I - Compliance Assurance Monitoring (CAM)

To determine if your facility is subject to CAM, review the information provided at the link. Please provide new or modified CAM Plans here.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

[Compliance Assurance Monitoring \(CAM\) Guidance](#)

Attach completed form

NONE PROVIDED

Comment

NONE PROVIDED

Section K - General Document Upload

General Document Upload

Use the attachment control below to upload any other information necessary for application review, such as plot plans, process diagrams, maps, etc.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attachments

[Beavertail_PTO CvrLtr.pdf - 09/29/2023 11:26 AM](#)
[2021-06_Beavertail_PFD.pdf - 09/29/2023 11:26 AM](#)
[Beavertail_TOC.pdf - 09/29/2023 11:26 AM](#)
[2021-06_Beavertail_PlotPlan.pdf - 09/29/2023 11:26 AM](#)
Comment
 NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
10/19/2023 10:09 AM	Beavertail_4_TK-7_SFN61006_Print.pdf	Attachment	Joshua Hills
10/19/2023 10:09 AM	Beavertail_4_TK-8_SFN61006_Print.pdf	Attachment	Joshua Hills
10/19/2023 10:07 AM	Beavertail_4_TK-9_SFN61006_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:39 AM	SFN52858_signed.pdf	Attachment	Joshua Hills
9/29/2023 11:26 AM	2021-06_Beavertail_PlotPlan.pdf	Attachment	Joshua Hills
9/29/2023 11:26 AM	Beavertail_PTO CvrLtr.pdf	Attachment	Joshua Hills
9/29/2023 11:26 AM	2021-06_Beavertail_PFD.pdf	Attachment	Joshua Hills
9/29/2023 11:26 AM	Beavertail_TOC.pdf	Attachment	Joshua Hills
9/29/2023 11:24 AM	Beavertail_8b_FL-1 Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:24 AM	Beavertail_8a_C-6 Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:24 AM	Beavertail_8c_FUG Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:24 AM	Beavertail_8a_C-3 Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
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9/29/2023 11:24 AM	Beavertail_8a_C-2 Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
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9/29/2023 11:24 AM	Beavertail_8a_C-8 Compliance Plan_SFN61008_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:17 AM	2021-05_Beavertail_EmEst_Planned.pdf	Attachment	Joshua Hills
9/29/2023 11:14 AM	Beavertail_C-8-C-9-Catalyst (SFN8532).pdf	Attachment	Joshua Hills
9/29/2023 11:14 AM	Beavertail_C-1-C-6-Catalyst (SFN8532).pdf	Attachment	Joshua Hills
9/29/2023 11:13 AM	Beavertail_SFN8532 (VRU).pdf	Attachment	Joshua Hills
9/29/2023 11:08 AM	Beavertail_7_BD_SFN61006_Print.pdf	Attachment	Joshua Hills
9/29/2023 11:06 AM	Beavertail_6_FUG_SFN61006_Print.pdf	Attachment	Joshua Hills
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9/29/2023 10:58 AM	Beavertail_4_LTK-1_SFN61006_Print.pdf	Attachment	Joshua Hills

Date	Attachment Name	Context	User
9/29/2023 10:56 AM	Beavertail_3_FL-1_SFN61006_Print.pdf	Attachment	Joshua Hills
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Status History

	User	Processing Status
11/2/2023 3:51:51 PM	Joshua Hills	Draft
11/2/2023 3:56:31 PM	Kale Hanner	Submitting
11/2/2023 3:56:31 PM	Kale Hanner	Signing
11/2/2023 3:57:52 PM	Kale Hanner	Submitted
11/2/2023 3:58:02 PM	Kale Hanner	In Process
11/3/2023 7:40:22 AM	Kale Hanner	On Hold
11/6/2023 4:05:02 PM	Kale Hanner	In Process

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Schneider, Kyla K.	10/13/2023 3:33 PM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/13/2023 3:49 PM
Submission Locked	Submission Locked	Schneider, Kyla K.	10/19/2023 9:37 AM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/19/2023 9:57 AM
Submission Locked	Submission Locked	Schneider, Kyla K.	10/19/2023 10:02 AM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/19/2023 10:02 AM
Submission Locked	Submission Locked	Schneider, Kyla K.	10/30/2023 8:06 AM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/30/2023 8:09 AM
Submission Locked	Submission Locked	Schneider, Kyla K.	10/31/2023 2:31 PM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/31/2023 2:32 PM
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Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	10/31/2023 2:43 PM
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Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	11/2/2023 3:39 PM
Submission Locked	Submission Locked	Schneider, Kyla K.	11/3/2023 7:37 AM
Submission Unlocked	Submission Unlocked	Schneider, Kyla K.	11/3/2023 7:40 AM

Revisions

Revision	Revision Date	Revision By
Revision 1	9/22/2023 9:48 AM	Joshua Hills
Revision 2	10/16/2023 1:03 PM	Joshua Hills
Revision 3	10/19/2023 10:05 AM	Joshua Hills
Revision 4	11/2/2023 3:51 PM	Joshua Hills

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- I am the owner of the account used to perform the electronic submission and signature.
- I have the authority to submit the data on behalf of the facility I am representing.
- I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

I certify under penalty of law that the enclosed documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also certify that the source(s) identified in this application is/are in compliance with all applicable requirements except those requirements for which a compliance schedule has been submitted in the Compliance Schedule Form or Compliance Schedule Section of the application. I understand that failure to comply with any term of a compliance schedule is considered to be a violation of regulation NDAC 33.1-15-14-06.1.e. The source will continue to comply with the current applicable requirements with which it is in compliance. The source will meet, on a timely basis, any applicable requirement, which becomes effective during the permit term. The source is properly implementing any required risk management plan in accordance with section 112(r) of the federal clean air act, if appropriate.

I certify, as the Responsible Official, that I have read and understood the above requirements and conditions applicable to my source/facility and that the information and attachments provided in this application are true, accurate, and complete to the best of my knowledge." Further, I agree to comply with the provisions of Chapter 23.1-06 of the North Dakota Century Code and all rules and regulations of the Department, or revisions thereof. I also understand a permit is nontransferable and, if granted a permit, I will promptly notify the Department upon sale or legal transfer of this permitted establishment.

Note: This certification must be signed by a "responsible official" as defined in NDAC 33.1-15-14-06.1.

Signed
By Kale Hanner on 11/02/2023 at 3:56 PM



SUBMITTED ELECTRONICALLY VIA CERIS

September 25, 2023

Mr. Jim Semerad
North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58501-1947

**ONEOK ROCKIES MIDSTREAM, L.L.C.
BEAVERTAIL COMPRESSOR STATION
TITLE V PERMIT TO OPERATE**

Dear Mr. Semerad,

ONEOK Rockies Midstream, L.L.C. (ORM) operates the Beavertail Compressor Station in McKenzie County, North Dakota pursuant to Permit No. PTC18044 and ACP-018131. ORM submits this application for a Title V Permit to Operate to reflect the additional equipment and updated emission levels at the existing engines from ACP-018131 and to incorporate the construction activities in PTC18044.

If you need additional information or have any questions, please call me at 918-732-1477 or Kale.Hanner@oneok.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kale Hanner".

Kale Hanner
Supervisor – Environmental Compliance

xc: V. Danzeisen/J. Chrobak/C. Northrop/R. Brown (.pdf)
Tulsa Environmental Files – Beavertail Compressor Station – Permit Actions

Title V Permit to Operate Application

Beavertail Compressor Station

ONEOK Rockies Midstream, L.L.C.



**Submitted to NDDEQ Air Quality Division
September 2023**

Introduction

ONEOK Rockies Midstream, L.L.C. (ORM) owns and operates the Beavertail Compressor Station, a facility in McKenzie County. ORM submits this application for a Title V Permit to Operate to reflect the additional equipment and updated emission levels at the existing engines from ACP-018131 and to incorporate the construction activities in PTC18044.

Facility Equipment

Beavertail Compressor Station consists of six (6) 2,370-hp Caterpillar G3608LE compressor engines, two (2) 840-hp Waukesha F3524GSI compressor engines, ten (10) 400-bbl condensate tanks, two (2) 400-bbl produced water tanks, one (1) LACT divert tank, one (1) 400-bbl methanol tank, and one (1) process flare for controlling emergency and process relief venting from all equipment. Associated emission sources include condensate truck loading, fugitive emissions and miscellaneous vents and blowdowns. A vapor recovery unit (VRU) controls emissions from the condensate tanks and LACT divert tank.

Process Description

A pipeline gathering system transports field natural gas from wells through an inlet separator where free liquids are removed and stored in the condensate tanks. Natural gas then passes through a suction header and is routed to the compressors, which boost gas pressure. The compressor units discharge natural gas into a pipeline for transmission. Condensate is transported off-site via tank truck for sales. Emissions from fugitive components and miscellaneous vents and blowdowns also occur at the facility. An emergency flare utilized is to combust compressor blowdowns and for emergency upsets.

Regulatory Applicability

The facility is a natural gas compressor station that falls under the North American Industrial Classification System (NAICS) code 211130 (formerly Standard Industrial Classification (SIC) 1311).

New Source Performance Standards 40 CFR Part 60 Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE) promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and various manufacture dates. The compressor engines were manufactured after July 1, 2010; therefore, are subject to the Stage 2 emissions limitations of this subpart.

New Source Performance Standards 40 CFR Part 60 Subpart OOOO, Crude Oil and Natural Gas Production, Transmission and Distribution, establishes emission standards for the following equipment that commences construction, modification, or reconstruction after August 23, 2011 and on or before September 18, 2015 at crude oil and natural gas production, transmission or distribution facilities:

1. Each single gas well;
2. Single centrifugal compressors using wet seals located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
3. Single reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;

4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant;
5. Single continuous bleed natural gas driven pneumatic controllers located at a natural gas processing plant;
6. Single storage vessels located in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment with the potential for VOC emissions equal to or greater than 6 tons per year;
7. All equipment, except compressors, within a process unit at an onshore natural gas processing plant;
8. Sweetening units located at onshore natural gas processing plants.

All potentially affected equipment at Beavertail Compressor Station was constructed after September 18, 2015 and is not subject to this subpart.

New Source Performance Standards 40 CFR Part 60 Subpart OOOOa, Crude Oil and Natural Gas Facilities, establishes emission standards for the following equipment that commences construction, modification or reconstruction after September 18, 2015 at crude oil and natural gas production, transmission or distribution facilities:

1. Each single oil or gas well that conducts a completion following hydraulic fracturing or refracturing;
2. Single centrifugal compressors using wet seals that are not located at a well site;
3. Single reciprocating compressors not located at a well site;
4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, not located at a natural gas processing plant;
5. Single continuous bleed natural gas driven pneumatic controllers located at a natural gas processing plant;
6. Single storage vessels with the potential for VOC emissions equal to or greater than 6 tons per year;
7. The group of all equipment within a process unit;
8. The group of fugitive emissions equipment at a compressor station;
9. The group of fugitive emissions equipment at a well site;
10. Sweetening units located at onshore natural gas processing plants;
11. Pneumatic pumps at natural gas processing plants and well sites.

Affected equipment includes the reciprocating compressors associated with each of the compressor engines. ORM currently complies and will continue to comply with the requirements for rod packing replacement, as required. Any continuous bleed pneumatic controllers at the facility have a bleed rate less than 6 SCFH; therefore, they are not be subject to this subpart. The condensate tanks were constructed after September 18, 2015 but are controlled so their emissions are less than 6 tons per year. The produced water tanks were also constructed after September 18, 2015, but the emissions are less than 6 tons per year uncontrolled. ORM requests a federally enforceable emission limitation of 5.99 tons per year for each tank so that they are not subject to this subpart. The facility is subject to the leak detection requirements of this subpart.

National Emission Standards for Hazardous Air Pollutants 40 CFR Part 63 Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE), affects any existing, new or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of new or reconstructed engines at area sources must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines). Based on emission calculations, this facility is a minor source of HAP. Since the compressor engines are subject to 40 CFR Part 60 Subpart JJJJ, they automatically satisfy the requirements of Subpart ZZZZ by complying with NSPS Subpart JJJJ. There are no further requirements under Subpart ZZZZ for these engines.

State Requirements

Applicability of regulations within Article 15 - Air Pollution Control Rules under the North Dakota Administrative Code were evaluated for the facility.

33.1-15-03 Restriction of Emission of Visible Air Contaminants

The facility will operate in a manner to not discharge into the ambient air from any single source of emission whatsoever any air contaminant which exhibits an opacity greater than twenty percent except that a maximum of forty percent opacity which is permissible for not more than one six-minute period per hour (33.1-15-03-02). Additionally, the facility will not discharge into the ambient air from any source of fugitive emissions any air contaminant which exhibits an opacity greater than forty percent for more than one six-minute period per hour (33.1-15-03-03).

33.1-15-05 Emissions of Particulate Matter Restricted

The facility is an insignificant source of particulate matter emissions and does not fall within the source categorizations listed in this subpart.

33.1-15-06 Emissions of Sulfur Compounds Restricted

The facility combusts pipeline quality natural gas and is therefore exempt from this subpart (33.1-15-06-01.e).

33.1-15-07 Control of Organic Compounds Emissions

Storage tanks at the facility will be equipped with submerged fill pipes (33.1-15-07-01.2). Any loading of volatile organic compounds will not exceed 20,000 gallons per day (33.1-15-07-01.4). With the exception of emergency vapor blowdowns or safety relief valves, emissions of organic compounds will be routed to flare or an equally effective control device (33.1-15-07-02.1). Any flares located at the facility will be equipped with an automatic igniter or a continuous burning pilot (33.1-15-07-02.3). The storage tanks at the facility will be controlled and therefore meets the requirements of the May 27, 2015 NDDH guidance memorandum for storage vessels at oil and gas non-production facilities.

33.1-15-08 Control of Air Pollution From Vehicles and Other Internal Combustion Engines

Any internal combustion engines located at the facility will not emit any unreasonable and excessive smoke, obnoxious or noxious gases, fumes or vapor (33.1-15-08-01). The facility will not intentionally remove, alter, or otherwise render inoperative, exhaust emission control, crankcase ventilation, or any other air pollution control device which has been installed as a requirement of federal law or regulation (33.1-15-08-02.1).

33.1-15-11 Prevention of Air Pollution Emergency Episodes

The facility is not a source category listed in Table 7 of this subpart. The facility will comply with any requirements that are instituted during an air pollution emergency issued by the Department.

33.1-15-12 Standards of Performance for New Stationary Sources

33.1-15-13 Emission Standards for Hazardous Air Pollutants

33.1-15-22 Emission Standards for Hazardous Air Pollutants for Source Categories

NSPS and NESHAP applicability is addressed above in the Federal Requirements.

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

Through submittal of this application for a permit, the facility is complying with this subpart.

33.1-15-15 Prevention of Significant Deterioration of Air Quality

The facility is a minor source of emissions and is therefore not subject to this subpart.

33.1-15-16 Restriction of Odorous Air Contaminants

The facility will comply with the general provisions of the Department's odor restrictions (33.1.15-16-01) and will not exceed the maximum hydrogen sulfide concentrations to be considered a violation (33.1-15-16-02.1).

33.1-15-17 Restriction of Fugitive Emissions

The facility will take reasonable precautions to prevent fugitive emissions as defined under 33.1-15-17-01.2 in regards to ambient air quality standards and opacity limitations.

33.1-15-18 Stack Heights

Stack heights at the facility will not exceed good engineering practice (GEP) stack heights as defined under 33.1-15-18-01.2.d.

33.1-15-19 Visibility Protection

The visibility protection standards are only applicable to major sources and therefore not applicable to the facility.

33.1-15-21 Acid Rain Program

The acid rain provisions of the Air Pollution Control Rules are not applicable to the facility.

33.1-15-24 Standards for Lead-Based Paint Activities

There will be no lead-based paint utilized at the facility and therefore not applicable to the facility.

33.1-15-25 Regional Haze Requirements

The facility is currently not subject to regulation under a regional haze program. Therefore, this subpart is not applicable.

NDDEQ Application Forms

Form SFN52858 – Permit Application for Title V Permit to Operate

Form SFN61006 – Emission Unit for Title V Permit to Operate

Form SFN61008 – Compliance Schedule and Plan for Title V Permit to Operate

Appendix A - Maps and Drawings

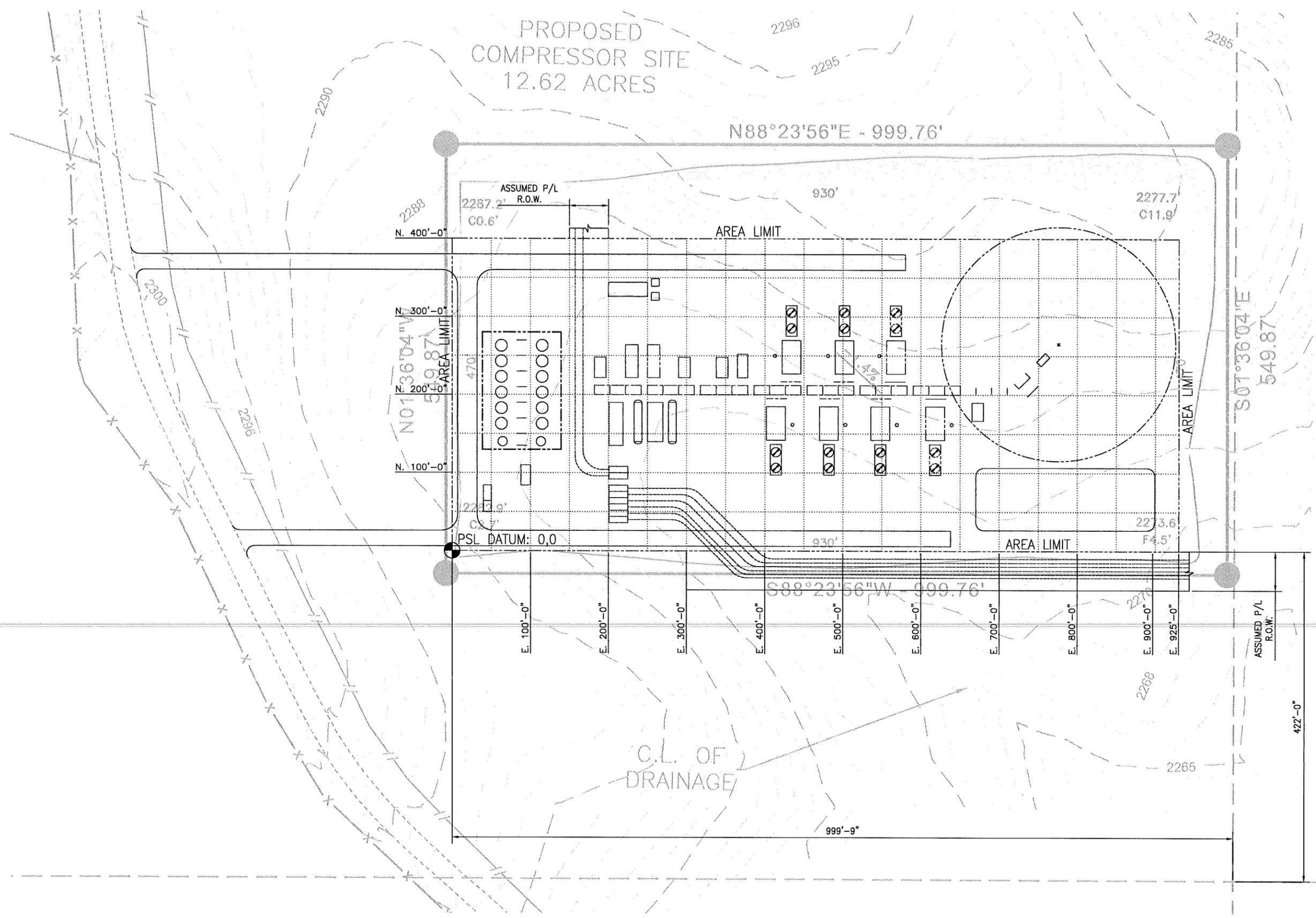
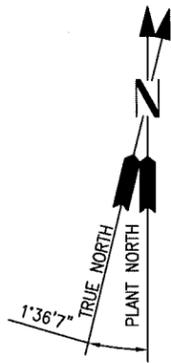
Figure 1 – Plot Plan

Figure 2 – Process Flow Diagram

Appendix B – Emissions Calculations

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
September 2023

THE DESIGN IT COVERS ARE CONFIDENTIAL AND THE PROPERTY OF PROPAK SYSTEMS LTD., AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN CONSENT OF PROPAK.



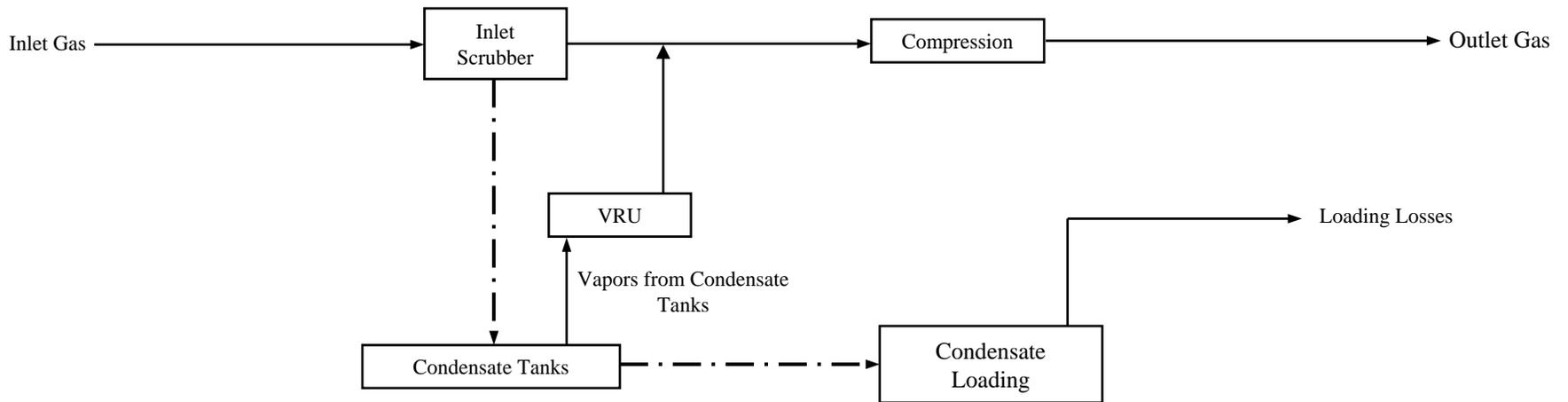
GENERAL NOTES		GENERAL NOTES	
No.	DESCRIPTION	REVISION	
C	ISSUED FOR CLIENT APPROVAL		
B	REVISED TO CLIENT COMMENTS		
A	ISSUED FOR APPROVAL		

BY	DATE	CKD	ENG	APR
CAD	18/05/22	GH	AI	RT
GHA	18/05/04	GH	AI	RT
CAD	18/05/01	GH	AI	RT

APPROVED		DRAWN	
MECH./STRUCT.	-	BY	C.DEVITT
DATE	-	DATE	18/04/30
ELECTRICAL	-	CHECKED	-
DATE	-	BY	G.HOUCHEM
PROJECT	ANDREW IC	DATE	18/05/02
DATE	18/05/02	SCALE	1/64"=1'-0"

ONEOK	
BEAVERTAIL GAS PROCESSING FACILITY	
OVERALL AREA	
SITE LOCATION PLAN	
DWG. No.:	D-CIV-185741-5001
SHEET	1
REV.	C

PROPAK
 440 East Lake Road,
 Airdrie, Alberta
 Canada T4A 2J8



—————→ Gas/Vapor
 - - - - - → Condensate/Water

ORM Beavertail Compressor Station

Figure 2: Process Flow Diagram
McKenzie County, North Dakota



ONEOK
ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS

**Air Emissions Calculations
prepared for
ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station**

Regulatory Applicability	
Minor Source	NO
Major Source Criteria Pollutant	YES
Major Source Single Hazardous Air Pollutant	NO
Major Source Combined Hazardous Air Pollutants	NO
Major Source PSD	NO

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Facility Emissions Summary - Annual

Unit ID	Description	NOx	CO	VOC	SO ₂	PM	HCHO	HAP	CO ₂ e
		TPY	TPY	TPY	TPY	TPY	TPY	TPY	TPY
C-1	2,370-hp Caterpillar G3608 LE Engine (Edit)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-2	2,370-hp Caterpillar G3608 LE Engine (Edit)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-3	2,370-hp Caterpillar G3608 LE Engine (Edit)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-4	2,370-hp Caterpillar G3608 LE Engine (Edit)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-5	2,370-hp Caterpillar G3608 LE Engine (Edit)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-6	2,370-hp Caterpillar G3608 LE Engine (Add)	16.02	11.44	16.02	0.04	0.68	1.19	1.47	10,155.38
C-8	840-hp Waukesha F3524GSI Engine (Add)	8.11	10.14	5.68	0.02	0.60	0.21	0.28	3,600.18
C-9	840-hp Waukesha F3524GSI Engine (Add)	8.11	10.14	5.68	0.02	0.60	0.21	0.28	3,600.18
FL-1	Emergency Flare	0.58	0.67	0.27	<0.01	0.04	<0.01	0.01	726.24
TK-1	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-2	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-3	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-4	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-5	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-6	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-7	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-8	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-9	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
TK-10	400-bbl Condensate Tank	--	--	2.94	--	--	--	0.12	5.33
WTK-1	400-bbl Produced Water Tank	--	--	0.81	--	--	--	0.03	1.45
WTK-2	400-bbl Produced Water Tank	--	--	0.81	--	--	--	0.03	1.45
LTK-1	400-bbl LACT Divert Tank	--	--	0.24	--	--	--	0.01	0.00
TL-1	Condensate Truck Loading	--	--	20.00	--	--	--	0.84	0.06
MTK-1	400-bbl Methanol Tank	--	--	0.34	--	--	--	0.34	--
FUG	Fugitive Emissions	--	--	11.02	--	--	--	1.22	210.26
BD	Miscellaneous Venting and Blowdowns to Atmosphere	--	--	5.06	--	--	--	0.10	158.04
Total =		112.92	89.60	175.41	0.28	5.35	7.56	13.21	69,283.48

Notes:

1) Miscellaneous venting and blowdowns to atmosphere include, but are not limited to, miscellaneous planned and unplanned venting to atmosphere from pressure relief valves, startup, shut-down, maintenance, compressor blowdowns, pigging actions, and/or pneumatic controllers.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Facility Emissions Summary - Hourly**

Unit ID	Description	NOx	CO	VOC	SO ₂	PM	HCHO	HAP	CO ₂ e
		lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
C-1	2,370-hp Caterpillar G3608 LE Engine (Edit)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-2	2,370-hp Caterpillar G3608 LE Engine (Edit)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-3	2,370-hp Caterpillar G3608 LE Engine (Edit)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-4	2,370-hp Caterpillar G3608 LE Engine (Edit)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-5	2,370-hp Caterpillar G3608 LE Engine (Edit)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-6	2,370-hp Caterpillar G3608 LE Engine (Add)	3.66	2.61	3.66	0.01	0.16	0.27	0.34	2,318.58
C-8	840-hp Waukesha F3524GSI Engine (Add)	1.85	2.31	1.30	<0.01	0.14	0.05	0.06	821.96
C-9	840-hp Waukesha F3524GSI Engine (Add)	1.85	2.31	1.30	<0.01	0.14	0.05	0.06	821.96
FL-1	Emergency Flare	0.29	0.86	0.82	<0.01	0.01	<0.01	0.02	460.08
TK-1	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-2	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-3	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-4	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-5	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-6	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-7	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-8	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-9	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
TK-10	400-bbl Condensate Tank	--	--	0.67	--	--	--	0.03	1.22
WTK-1	400-bbl Produced Water Tank	--	--	0.18	--	--	--	0.01	0.33
WTK-2	400-bbl Produced Water Tank	--	--	0.18	--	--	--	0.01	0.33
TL-1	Condensate Truck Loading	--	--	4.57	--	--	--	0.19	0.01
MTK-1	400-bbl Methanol Tank	--	--	0.08	--	--	--	0.08	--
FUG	Fugitive Emissions	--	--	2.52	--	--	--	0.28	48.00
BD	Miscellaneous Venting and Blowdowns to Atmosphere	--	--	--	--	--	--	--	--
Total =		25.94	21.17	39.60	0.06	1.22	1.73	3.01	16,076.33

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Facility Analyses**

Component	Molecular Weight	Stream 1				Stream 2				Stream 3			
		Inlet Gas				Condensate				Flash Gas			
		Mole %	Equiv. Wt. Basis	Weight %	HC Weight %	Mole %	Equiv. Wt. Basis	Weight %	HC Weight %	Mole %	Equiv. Wt. Basis	Weight %	HC Weight %
Hydrogen Sulfide	34.081	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Carbon Dioxide	44.010	0.8424%	0.37	1.50%	-	0.0070%	0.00	0.00%	-	0.4160%	0.18	0.42%	-
Nitrogen	28.013	1.6861%	0.47	1.91%	-	0.0005%	0.00	0.00%	-	0.3742%	0.10	0.24%	-
Helium	4.003	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Oxygen	31.999	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Methane	16.043	63.7967%	10.23	41.30%	42.76%	0.0892%	0.01	0.02%	0.02%	16.3120%	2.62	6.06%	6.10%
Ethane	30.069	18.2815%	5.50	22.18%	22.97%	1.0024%	0.30	0.36%	0.36%	24.3710%	7.33	16.96%	17.08%
Propane	44.096	8.7139%	3.84	15.51%	16.05%	3.9429%	1.74	2.09%	2.09%	24.5100%	10.81	25.02%	25.19%
i-Butane	58.122	1.1296%	0.66	2.65%	2.74%	2.1446%	1.25	1.50%	1.50%	4.6733%	2.72	6.29%	6.33%
n-Butane	58.122	3.1436%	1.83	7.37%	7.63%	11.2900%	6.56	7.87%	7.88%	15.4880%	9.00	20.84%	20.98%
i-Pentane	72.149	0.6622%	0.48	1.93%	2.00%	8.9459%	6.45	7.75%	7.75%	4.6371%	3.35	7.74%	7.80%
n-Pentane	72.149	0.9649%	0.70	2.81%	2.91%	17.9170%	12.93	15.51%	15.51%	6.6093%	4.77	11.04%	11.11%
n-Hexane	86.175	0.1473%	0.13	0.51%	0.53%	21.0830%	18.17	21.80%	21.80%	1.9609%	1.69	3.91%	3.94%
Other Hexanes	86.175	0.4096%	0.35	1.42%	1.47%	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%
Heptanes	100.202	0.0772%	0.08	0.31%	0.32%	17.6410%	17.68	21.21%	21.21%	0.4483%	0.45	1.04%	1.05%
Benzene	78.114	0.0158%	0.01	0.05%	0.05%	1.0238%	0.80	0.96%	0.96%	0.0985%	0.08	0.18%	0.18%
Toluene	92.141	0.0122%	0.01	0.05%	0.05%	1.1045%	1.02	1.22%	1.22%	0.0273%	0.03	0.06%	0.06%
Ethylbenzene	106.167	0.0008%	0.00	0.00%	0.00%	0.1192%	0.13	0.15%	0.15%	0.0008%	0.00	0.00%	0.00%
Xylenes	106.167	0.0035%	0.00	0.02%	0.02%	0.7551%	0.80	0.96%	0.96%	0.0042%	0.00	0.01%	0.01%
Octanes	114.229	0.0956%	0.11	0.44%	0.46%	9.2477%	10.56	12.68%	12.68%	0.0637%	0.07	0.17%	0.17%
2,2,4-Trimethylpentane	114.231	0.0079%	0.01	0.04%	0.04%	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%
Nonanes	128.255	0.0000%	0.00	0.00%	0.00%	2.2625%	2.90	3.48%	3.48%	0.0041%	0.01	0.01%	0.01%
Decanes	142.282	0.0000%	0.00	0.00%	0.00%	1.4236%	2.03	2.43%	2.43%	0.0012%	0.00	0.00%	0.00%
Totals =		99.9908%	24.78	100.00%	100.00%	100.0000%	83.33	100.00%	100.00%	100.0000%	43.20	100.00%	100.00%
Total HC =			23.94	Total VOC =	34.27%	Total HC =	83.33	Total VOC =	99.62%	Total HC =	42.91	Total VOC =	76.82%
			Total HAP =	0.69%			Total HAP =	25.10%			Total HAP =	4.19%	

Notes:

1) Representative inlet gas analysis with C6+ estimated per GLYCalc. Condensate and flash gas compositions calculated with ProMax process simulation using representative analysis. (Banks CS, located 16.8 miles away)

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Estimated Extended Gas Analysis**

Component	Production	
	GRI Fraction	Estimated Mole %
Other Hexanes	0.5319	0.4096
n-Hexane	0.1913	0.1473
Heptane	0.1002	0.0772
2,2,4-Trimethylpentane	0.0103	0.0079
Octanes+	0.1241	0.0956
Benzene	0.0205	0.0158
Toluene	0.0159	0.0122
Ethylbenzene	0.0011	0.0008
Xylenes	0.0046	0.0035
Total=		0.7699

C6+ Value From Gas Analysis = 0.77 mole %

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Information and Manufacturer Emission Factors

Equipment Information								
	C-1	C-2	C-3	C-4	C-5	C-6	C-8	C-9
Make	Caterpillar	Caterpillar	Caterpillar	Caterpillar	Caterpillar	Caterpillar	Waukesha	Waukesha
Model	G3608 LE	F3524GSI	F3524GSI					
Design Rating (hp)	2,370	2,370	2,370	2,370	2,370	2,370	840	840
Fuel Consumption (Btu/hp-hr)	6,600	6,600	6,600	6,600	6,600	6,600	8,403	8,403
Fuel Consumption (scfh)	15,246	15,246	15,246	15,246	15,246	15,246	6,880	6,880
Fuel Consumption (mmBtu/hr)	15.64	15.64	15.64	15.64	15.64	15.64	7.06	7.06
Fuel Consumption (scf/yr)	133,551,579	133,551,579	133,551,579	133,551,579	133,551,579	133,551,579	60,265,726	60,265,726
Fuel Heating Value (Btu/scf)	1,026	1,026	1,026	1,026	1,026	1,026	1,026	1,026
Design Class	4S-LB	4S-LB	4S-LB	4S-LB	4S-LB	4S-LB	4S-RB	4S-RB
Controls	Oxidation Catalyst							
Operating Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760
Stack Height (ft)	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
Stack Diameter (ft)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Exhaust Temperature (°F)	878	878	878	878	878	878	878	878
Exhaust Flow (acfm)	15,955	15,955	15,955	15,955	15,955	15,955	15,955	15,955
Exhaust Flow (scfh)	377,769	377,769	377,769	377,769	377,769	377,769	377,769	377,769
Exit Velocity (ft/s)	104.50	104.50	104.50	104.50	104.50	104.50	104.50	104.50

Uncontrolled Emission Factors								
	C-1	C-2	C-3	C-4	C-5	C-6	C-8	C-9
NOx (g/hp-hr)	0.70	0.70	0.70	0.70	0.70	0.70	1.00	1.00
CO (g/hp-hr)	2.50	2.50	2.50	2.50	2.50	2.50	12.50	12.50
VOC (g/hp-hr)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Formaldehyde (g/hp-hr)	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
CO₂ (g/hp-hr)	439.00	439.00	439.00	439.00	439.00	439.00	439.00	439.00

Control Efficiency								
	C-1	C-2	C-3	C-4	C-5	C-6	C-8	C-9
NOx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
CO	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	90.00%	90.00%
VOC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Formaldehyde	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	90.00%	90.00%

Post-Control Emission Factors								
	C-1	C-2	C-3	C-4	C-5	C-6	C-8	C-9
NOx (g/hp-hr)	0.70	0.70	0.70	0.70	0.70	0.70	1.00	1.00
CO (g/hp-hr)	0.50	0.50	0.50	0.50	0.50	0.50	1.25	1.25
VOC (g/hp-hr)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Formaldehyde (g/hp-hr)	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.03
CO₂ (g/hp-hr)	443.39	443.39	443.39	443.39	443.39	443.39	443.39	443.39

Notes:

- 1) NOx and VOC emission factors based of NSPS JJJJ limits.
- 2) CO and Formaldehyde emission factors based of manufacture's specifications.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine AP-42/EPA Emission Factors**

Emission Factors		
	4S-LB	4S-RB
SO₂ (lb/mmBtu)	5.88E-04	5.88E-04
PM_{10/2.5} (lb/mmBtu)	7.71E-05	9.50E-03
PM_{COND} (lb/mmBtu)	9.91E-03	9.91E-03
PM_{TOT} (lb/mmBtu)	9.99E-03	1.94E-02
Acetaldehyde (lb/mmBtu)	8.36E-03	2.79E-03
Acrolein (lb/mmBtu)	5.14E-03	2.63E-03
Benzene (lb/mmBtu)	4.40E-04	1.58E-03
Ethylbenzene (lb/mmBtu)	3.97E-05	2.48E-05
Methanol (lb/mmBtu)	2.50E-03	3.06E-03
n-Hexane (lb/mmBtu)	1.11E-03	NA
Toluene (lb/mmBtu)	4.08E-04	5.58E-04
Xylenes (lb/mmBtu)	1.84E-04	1.95E-04
Other HAP (lb/mmBtu)	2.32E-03	1.08E-03
Carbon Dioxide (CO₂) (kg/mmBtu)	5.31E+01	5.31E+01
Methane (CH₄) (kg/mmBtu)	1.00E-03	1.00E-03
Nitrous Oxide (N₂O) (kg/mmBtu)	1.00E-04	1.00E-04
Post-Control Emission Factors		
	4S-LB	4S-RB
Acetaldehyde (lb/mmBtu)	1.67E-03	5.58E-04
Acrolein (lb/mmBtu)	1.03E-03	5.26E-04
Benzene (lb/mmBtu)	8.80E-05	3.16E-04
Ethylbenzene (lb/mmBtu)	7.94E-06	4.96E-06
Methanol (lb/mmBtu)	5.00E-04	6.12E-04
n-Hexane (lb/mmBtu)	2.22E-04	0.00E+00
Toluene (lb/mmBtu)	8.16E-05	1.12E-04
Xylenes (lb/mmBtu)	3.68E-05	3.90E-05
Other HAP (lb/mmBtu)	4.65E-04	2.16E-04

Notes:

1) Criteria pollutant and hazardous air pollutant emission factors are from AP-42 Table 3.2-2 (7/00). Greenhouse gas emission factors are from 40 CFR Tables C-1 and C-2.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-1**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2.61 lb/hr	X 8,760 X	0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
SO₂	5.88E-04 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
PM_{10/2.5}	7.71E-05 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
PM_{TOT}	9.99E-03 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 0.27 lb/hr	X 8,760 X	0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu X	15.64 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu X	15.64 mmBtu/hr X	- -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
CO₂	4.43E+02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760 X	0.0005 ton/lb	= 10,147.10 TPY
CH₄	1.00E-03 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.15 TPY
N₂O	1.00E-04 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: C-2

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr	X 2,370 hp	X 0.00220462 lb/gr	= 3.66 lb/hr	X 8,760	X 0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr	X 2,370 hp	X 0.00220462 lb/gr	= 2.61 lb/hr	X 8,760	X 0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr	X 2,370 hp	X 0.00220462 lb/gr	= 3.66 lb/hr	X 8,760	X 0.0005 ton/lb	= 16.02 TPY
SO ₂	5.88E-04 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.04 TPY
PM _{10/2.5}	7.71E-05 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.01 TPY
PM _{COND}	9.91E-03 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.16 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.68 TPY
PM _{TOT}	9.99E-03 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.16 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.03 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.02 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr	X 2,370 hp	X 0.00220462 lb/gr	= 0.27 lb/hr	X 8,760	X 0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu	X 15.64 mmBtu/hr	X -	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu	X 15.64 mmBtu/hr	X -	= 0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.03 TPY
CO ₂	4.43E+02 g/hp-hr	X 2,370 hp	X 0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760	X 0.0005 ton/lb	= 10,147.10 TPY
CH ₄	1.00E-03 kg/mmBtu	X 15.64 mmBtu/hr	X 2.20462 lb/kg	= 0.03 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.15 TPY
N ₂ O	1.00E-04 kg/mmBtu	X 15.64 mmBtu/hr	X 2.20462 lb/kg	= <0.01 lb/hr	X 8,760	X 0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-3**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2.61 lb/hr	X 8,760 X	0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
SO₂	5.88E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
PM_{10/2.5}	7.71E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
PM_{TOT}	9.99E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 0.27 lb/hr	X 8,760 X	0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
CO₂	4.43E+02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760 X	0.0005 ton/lb	= 10,147.10 TPY
CH₄	1.00E-03 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.15 TPY
N₂O	1.00E-04 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-4**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2.61 lb/hr	X 8,760 X	0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
SO₂	5.88E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
PM_{10/2.5}	7.71E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
PM_{TOT}	9.99E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 0.27 lb/hr	X 8,760 X	0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
CO₂	4.43E+02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760 X	0.0005 ton/lb	= 10,147.10 TPY
CH₄	1.00E-03 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.15 TPY
N₂O	1.00E-04 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-5**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2.61 lb/hr	X 8,760 X	0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
SO₂	5.88E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
PM_{10/2.5}	7.71E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
PM_{TOT}	9.99E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 0.27 lb/hr	X 8,760 X	0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
CO₂	4.43E+02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760 X	0.0005 ton/lb	= 10,147.10 TPY
CH₄	1.00E-03 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.15 TPY
N₂O	1.00E-04 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-6**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
CO	5.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2.61 lb/hr	X 8,760 X	0.0005 ton/lb	= 11.44 TPY
VOC	7.00E-01 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 3.66 lb/hr	X 8,760 X	0.0005 ton/lb	= 16.02 TPY
SO₂	5.88E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
PM_{10/2.5}	7.71E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
PM_{TOT}	9.99E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.16 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.68 TPY
Acetaldehyde	1.67E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.11 TPY
Acrolein	1.03E-03 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
Benzene	8.80E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	7.94E-06 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	5.20E-02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 0.27 lb/hr	X 8,760 X	0.0005 ton/lb	= 1.19 TPY
Methanol	5.00E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
n-Hexane	2.22E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Toluene	8.16E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Xylenes	3.68E-05 lb/mmBtu X	15.64 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	4.65E-04 lb/mmBtu X	15.64 mmBtu/hr X	-	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
CO₂	4.43E+02 g/hp-hr X	2,370 hp X	0.00220462 lb/gr	= 2,316.69 lb/hr	X 8,760 X	0.0005 ton/lb	= 10,147.10 TPY
CH₄	1.00E-03 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= 0.03 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.15 TPY
N₂O	1.00E-04 kg/mmBtu X	15.64 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-8**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	1.00E+00 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 1.85 lb/hr	X 8,760 X	0.0005 ton/lb	= 8.11 TPY
CO	1.25E+00 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 2.31 lb/hr	X 8,760 X	0.0005 ton/lb	= 10.14 TPY
VOC	7.00E-01 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 1.30 lb/hr	X 8,760 X	0.0005 ton/lb	= 5.68 TPY
SO₂	5.88E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
PM_{10/2.5}	9.50E-03 lb/mmBtu X	7.06 mmBtu/hr X	- -	= 0.07 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.29 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	7.06 mmBtu/hr X	- -	= 0.07 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.31 TPY
PM_{TOT}	1.94E-02 lb/mmBtu X	7.06 mmBtu/hr X	- -	= 0.14 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.60 TPY
Acetaldehyde	5.58E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Acrolein	5.26E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Benzene	3.16E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	4.96E-06 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	2.60E-02 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 0.05 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.21 TPY
Methanol	6.12E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
n-Hexane	0.00E+00 lb/mmBtu X	7.06 mmBtu/hr X	- -	= 0.00 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.00 TPY
Toluene	1.12E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Xylenes	3.90E-05 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	2.16E-04 lb/mmBtu X	7.06 mmBtu/hr X	- -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
CO₂	4.43E+02 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 821.11 lb/hr	X 8,760 X	0.0005 ton/lb	= 3,596.44 TPY
CH₄	1.00E-03 kg/mmBtu X	7.06 mmBtu/hr X	2.20462 lb/kg	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
N₂O	1.00E-04 kg/mmBtu X	7.06 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Engine Emissions Calculations**

Unit ID: **C-9**

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	1.00E+00 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 1.85 lb/hr	X 8,760 X	0.0005 ton/lb	= 8.11 TPY
CO	1.25E+00 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 2.31 lb/hr	X 8,760 X	0.0005 ton/lb	= 10.14 TPY
VOC	7.00E-01 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 1.30 lb/hr	X 8,760 X	0.0005 ton/lb	= 5.68 TPY
SO₂	5.88E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
PM_{10/2.5}	9.50E-03 lb/mmBtu X	7.06 mmBtu/hr X	-	= 0.07 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.29 TPY
PM_{COND}	9.91E-03 lb/mmBtu X	7.06 mmBtu/hr X	-	= 0.07 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.31 TPY
PM_{TOT}	1.94E-02 lb/mmBtu X	7.06 mmBtu/hr X	-	= 0.14 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.60 TPY
Acetaldehyde	5.58E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Acrolein	5.26E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
Benzene	3.16E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Ethylbenzene	4.96E-06 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Formaldehyde	2.60E-02 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 0.05 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.21 TPY
Methanol	6.12E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.02 TPY
n-Hexane	0.00E+00 lb/mmBtu X	7.06 mmBtu/hr X	-	= 0.00 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.00 TPY
Toluene	1.12E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Xylenes	3.90E-05 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	2.16E-04 lb/mmBtu X	7.06 mmBtu/hr X	-	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
CO₂	4.43E+02 g/hp-hr X	840 hp X	0.00220462 lb/gr	= 821.11 lb/hr	X 8,760 X	0.0005 ton/lb	= 3,596.44 TPY
CH₄	1.00E-03 kg/mmBtu X	7.06 mmBtu/hr X	2.20462 lb/kg	= 0.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.07 TPY
N₂O	1.00E-04 kg/mmBtu X	7.06 mmBtu/hr X	2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Flare Information and Emission Factors

Equipment Information	
FL-1	
Description	Emergency Flare
VOC to Flare (lb/hr)	40.91
Stream Heat Content (Btu/scf)	1,302
Stream Net Btu Value (Btu/hr)	2,464,090
Operating Hours	600
Control Efficiency	98%
Pilot Stream Heat Content (Btu/scf)	1,026
Pilot Gas Flow Rate (scfh)	1,200.00
Pilot Gas Capacity (mmBtu/hr)	1.231
Pilot Operating Hours	8,760

AP-42/EPA Emission Factors			
	Flare Stream		Pilot Gas
NOx (lb/mmBtu)	0.068	NOx (lb/mmscf)	100.0
CO (lb/mmBtu)	0.31	CO (lb/mmscf)	84.0
VOC	Mass Balance	VOC (lb/mmscf)	5.5
SO ₂	Stoichiometric	SO ₂ (lb/mmscf)	0.6
PM _{10/2.5}	--	PM _{10/2.5} (lb/mmscf)	1.9
PM _{COND}	--	PM _{COND} (lb/mmscf)	5.7
PM _{TOT}	--	PM _{TOT} (lb/mmscf)	7.6
Formaldehyde	--	Formaldehyde (lb/mmscf)	7.50E-02
n-Hexane	Mass Balance	n-Hexane (lb/mmscf)	1.80E+00
Benzene	Mass Balance	Benzene (lb/mmscf)	2.10E-03
Toluene	Mass Balance	Toluene (lb/mmscf)	3.40E-03
Ethylbenzene	Mass Balance	Ethylbenzene	--
Xylenes	Mass Balance	Xylenes	--
Other HAP	Mass Balance	Other HAP (lb/mmscf)	1.90E-03
Carbon Dioxide (CO ₂) (kg/mmBtu)	53.06/Mass Balance	Carbon Dioxide (CO ₂) (kg/mmBtu)	53.06
Methane (CH ₄) (kg/mmBtu)	0.001/Mass Balance	Methane (CH ₄) (kg/mmBtu)	1.00E-03
Nitrous Oxide (N ₂ O) (kg/mmBtu)	1.00E-04	Nitrous Oxide (N ₂ O) (kg/mmBtu)	1.00E-04

Notes:

1) NOx and CO emission factors (lb/mmBtu), flare stream: AP-42, Table 13.5-1 (12/2016). Pilot criteria and HAP emission factors (lb/mmscf): AP-42, Table 1.4-1, -2 (7/98). GHG emission factors (kg/mmBtu): 40 CFR 98.

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Flare Emissions Calculations

Unit ID: **FL-1**

Total: Stream + Pilot

Pollutant	Hourly Emissions	Annual Emissions
NOx	0.29 lb/hr	0.58 TPY
CO	0.86 lb/hr	0.67 TPY
VOC	0.82 lb/hr	0.27 TPY
SO ₂	<0.01 lb/hr	<0.01 TPY
PM _{10/2.5}	<0.01 lb/hr	0.01 TPY
PM _{COND}	0.01 lb/hr	0.03 TPY
PM _{TOT}	0.01 lb/hr	0.04 TPY
Formaldehyde	<0.01 lb/hr	<0.01 TPY
n-Hexane	0.01 lb/hr	0.01 TPY
Benzene	<0.01 lb/hr	<0.01 TPY
Toluene	<0.01 lb/hr	<0.01 TPY
Ethylbenzene	<0.01 lb/hr	<0.01 TPY
Xylenes	<0.01 lb/hr	<0.01 TPY
Other HAP	<0.01 lb/hr	<0.01 TPY
CO ₂	434.11 lb/hr	717.84 TPY
CH ₄	1.03 lb/hr	0.32 TPY
N ₂ O	<0.01 lb/hr	<0.01 TPY

Stream Emissions

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	6.80E-02 lb/mmBtu	X 2.46E+00 mmBtu/hr	X - -	= 0.17 lb/hr	X 600 X	0.0005 ton/lb	= 0.05 TPY
CO	3.10E-01 lb/mmBtu	X 2.46E+00 mmBtu/hr	X - -	= 0.76 lb/hr	X 600 X	0.0005 ton/lb	= 0.23 TPY
VOC	- - -	- - -	- - -	= 0.82 lb/hr	X 600 X	0.0005 ton/lb	= 0.25 TPY
SO ₂	- - -	- - -	- - -	= 0.00 lb/hr	X 600 X	0.0005 ton/lb	= 0.00 TPY
n-Hexane	- - -	- - -	- - -	= 0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
Benzene	- - -	- - -	- - -	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
Toluene	- - -	- - -	- - -	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
Ethylbenzene	- - -	- - -	- - -	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
Xylenes	- - -	- - -	- - -	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	- - -	- - -	- - -	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
CO ₂	5.31E+01 kg/mmBtu	X 2.46E+00 mmBtu/hr	X 2.20462 lb/kg	= 288.24 lb/hr	X 600 X	0.0005 ton/lb	= 86.47 TPY
CO ₂	- - -	- - -	- - -	= 1.85 lb/hr	X 600 X	0.0005 ton/lb	= 0.55 TPY
CH ₄	1.00E-03 kg/mmBtu	X 2.46E+00 mmBtu/hr	X 2.20462 lb/kg	= 0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY
CH ₄	- - -	- - -	- - -	= 1.02 lb/hr	X 600 X	0.0005 ton/lb	= 0.31 TPY
N ₂ O	1.00E-04 kg/mmBtu	X 2.46E+00 mmBtu/hr	X 2.20462 lb/kg	= <0.01 lb/hr	X 600 X	0.0005 ton/lb	= <0.01 TPY

Pilot Emissions

Pollutant	Emission Factor	Capacity	Conversion	Hourly Emissions	Operating Hours	Conversion	Annual Emissions
NOx	1.00E+02 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= 0.12 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.53 TPY
CO	8.40E+01 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= 0.10 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.44 TPY
VOC	5.50E+00 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
SO ₂	6.00E-01 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
PM _{10/2.5}	1.90E+00 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
PM _{COND}	5.70E+00 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.03 TPY
PM _{TOT}	7.60E+00 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= 0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.04 TPY
Formaldehyde	7.50E-02 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
n-Hexane	1.80E+00 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
Benzene	2.10E-03 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Toluene	3.40E-03 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
Other HAP	1.90E-03 lb/mmscf	X 1.20E-03 mmscf/hr	X - -	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY
CO ₂	5.31E+01 kg/mmBtu	X 1.23E+00 mmBtu/hr	X 2.20462 lb/kg	= 144.02 lb/hr	X 8,760 X	0.0005 ton/lb	= 630.82 TPY
CH ₄	1.00E-03 kg/mmBtu	X 1.23E+00 mmBtu/hr	X 2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= 0.01 TPY
N ₂ O	1.00E-04 kg/mmBtu	X 1.23E+00 mmBtu/hr	X 2.20462 lb/kg	= <0.01 lb/hr	X 8,760 X	0.0005 ton/lb	= <0.01 TPY

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Flare Emissions Calculations - Flare Stream Analysis

Unit ID: FL-1

Component	Molecular Weight	Stream 1		Total Streams Burned in Flare					Net Heating Value	Net Btu Rate
		Miscellaneous Vents and Blowdowns		Uncontrolled		scfd	Controlled			
		1.89E+03	scfh	lb/hr	TPY		lb/hr	TPY		
		Mole %	lb/hr	lb/hr	TPY	lb/hr	TPY			
Water	18.0153	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Hydrogen Sulfide	34.081	0.000%	0.00	0.00	0.00	0	0.00	0.00	586.80	0
Carbon Dioxide	44.010	0.842%	1.85	1.85	0.55	383	1.85	0.55	0.00	0
Nitrogen	28.013	1.686%	2.36	2.36	0.71	766	2.36	0.71	0.00	0
Helium	4.003	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Oxygen	31.999	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Methane	16.043	63.797%	51.04	51.04	15.31	28,969	1.02	0.31	909.40	1,097,676
Ethane	30.069	18.282%	27.41	27.41	8.22	8,301	0.55	0.16	1,618.70	559,886
Propane	44.096	8.714%	19.16	19.16	5.75	3,957	0.38	0.11	2,314.90	381,651
i-Butane	58.122	1.130%	3.27	3.27	0.98	513	0.07	0.02	3,000.40	64,125
n-Butane	58.122	3.144%	9.11	9.11	2.73	1,427	0.18	0.05	3,010.80	179,073
i-Pentane	72.149	0.662%	2.38	2.38	0.71	301	0.05	0.01	3,699.00	46,344
n-Pentane	72.149	0.965%	3.47	3.47	1.04	438	0.07	0.02	3,706.90	67,673
n-Hexane	86.175	0.147%	0.63	0.63	0.19	67	0.01	0.00	4,403.80	12,273
Other Hexanes	86.175	0.410%	1.76	1.76	0.53	186	0.04	0.01	4,403.80	34,125
Heptanes	100.202	0.077%	0.39	0.39	0.12	35	0.01	0.00	5,100.00	7,445
Benzene	78.114	0.016%	0.06	0.06	0.02	7	0.00	0.00	3,590.90	1,072
Toluene	92.141	0.012%	0.06	0.06	0.02	6	0.00	0.00	4,273.60	990
Ethylbenzene	106.167	0.001%	0.00	0.00	0.00	0	0.00	0.00	4,970.50	80
Xylenes	106.167	0.004%	0.02	0.02	0.01	2	0.00	0.00	4,957.10	332
Octanes	114.229	0.096%	0.54	0.54	0.16	43	0.01	0.00	5,796.00	10,479
2,2,4-Trimethylpentane	114.231	0.008%	0.05	0.05	0.01	4	0.00	0.00	5,778.80	867
Nonanes	128.255	0.000%	0.00	0.00	0.00	0	0.00	0.00	6,493.20	0
Decanes	142.282	0.000%	0.00	0.00	0.00	0	0.00	0.00	7,189.60	0
Totals =		99.9908%	123.57	123.57	37.07	45,404	--	--	--	2,464,090
Total VOC =		15.384%	40.91	40.91	12.27	--	0.82	0.25		
				Total HAP =	0.82	0.25	--	0.02	0.00	Heat Value
				Total H₂S=	0.00	0.00	--	0.00	0.00	(Btu/scf)
				MW of Stream =	24.78					1,302

Notes:
1) Representative inlet gas analysis with C6+ estimated per GLYCalc. Estimated 600 vents or blowdowns at 1.889 MCF and one hour each.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Tank Information**

Equipment Information				
	TK-1 - TK-4	TK-5 - TK-8	LTK-1	WTK-1 - WTK-2
Contents¹	Condensate	Condensate	Condensate/Water	Produced Water
Number of Tanks	5	5	1	2
Capacity (bbl)	400	400	400	400
Capacity (gal)	16,800	16,800	16,800	16,800
Total Throughput (bbl/yr)	159,235	159,235	34,750	69,500
Total Throughput (gal/yr)	6,687,870	6,687,870	1,459,500	2,919,000
Per Tank Throughput (bbl/yr)	31,847	31,847	34,750	34,750
Per Tank Throughput (gal/yr)	1,337,574	1,337,574	1,459,500	1,459,500
TANKS 4.0.9d Working Losses (lb/yr)²	9,102.50	9,102.50	8,806.86	110.09
TANKS 4.0.9d Breathing Losses (lb/yr)²	3,782.58	3,782.58	3,026.06	37.83
Flash Calculation Method	Process Simulation	Process Simulation	N/A	Process Simulation
VOC Tank Flashing Emission Factor (lb VOC/bbl)²	4.21	4.21	N/A	0.04210
CO₂ Tank Flashing Emission Factor (lb CO₂/bbl)²	0.023	0.023	0.01840	0.00023
CH₄ Tank Flashing Emission Factor (lb CH₄/bbl)²	0.334	0.334	0.26720	0.00334
Control Type	Vapor Recovery Unit	Vapor Recovery Unit	Vapor Recovery Unit	None
Capture/Control Efficiency³	96%	96%	96%	0%

Notes:

- 1) Produced water tanks are assumed to contain 99% produced water and 1% condensate. Therefore, produced water emissions are assumed to be 1% of those calculated for condensate. The LACT Divert Tank (LTK-1) is assumed to contain 80% condensate and 20% water. Liquids from LTK-1 are routed back to the inlet separator.
- 2) Working and breathing calculated using EPA TANKS 4.0.9d. Flashing calculated with representative ProMax process simulation. See attached reports and following tables.
- 3) Capture/control efficiency is based on the VRU controlling 100% of captured vapors when operating, plus 5% uncontrolled.
- 4) Per-tank emissions are shown on following table. ORM requests a federally enforceable limit of 5.99 tons per year per tank.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Condensate Tank Emissions Calculations**

Unit ID: **TK-1 - TK-5 (EACH)**

Uncontrolled Emissions

Pollutant	Working Losses		Breathing Losses		Flashing Losses		Annual Emissions	Operating Hours	Conversion	Hourly Emissions ¹							
VOC ²	4.55	TPY	+	1.89	TPY	+	67.04	TPY	=	73.48 TPY	/	8,760	X	2,000	lb/ton	=	16.78 lb/hr
n-Hexane	0.18	TPY	+	0.07	TPY	+	2.64	TPY	=	2.89 TPY	/	8,760	X	2,000	lb/ton	=	0.66 lb/hr
Benzene	0.01	TPY	+	<0.01	TPY	+	0.12	TPY	=	0.13 TPY	/	8,760	X	2,000	lb/ton	=	0.03 lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	0.04	TPY	=	0.04 TPY	/	8,760	X	2,000	lb/ton	=	0.01 lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	0.01	TPY	=	0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00 TPY	/	8,760	X	2,000	lb/ton	=	0.00 lb/hr
CO ₂ ³	-	TPY	+	-	TPY	+	0.37	TPY	=	0.37 TPY	/	8,760	X	2,000	lb/ton	=	0.08 lb/hr
CH ₄ ³	-	TPY	+	-	TPY	+	5.32	TPY	=	5.32 TPY	/	8,760	X	2,000	lb/ton	=	1.21 lb/hr

Controlled Emissions⁴

Pollutant	Working Losses		Breathing Losses		Flashing Losses		Annual Emissions	Operating Hours	Conversion	Hourly Emissions							
VOC	0.18	TPY	+	0.08	TPY	+	2.68	TPY	=	2.94 TPY	/	8,760	X	2,000	lb/ton	=	0.67 lb/hr
n-Hexane	0.01	TPY	+	<0.01	TPY	+	0.11	TPY	=	0.12 TPY	/	8,760	X	2,000	lb/ton	=	0.03 lb/hr
Benzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00 TPY	/	8,760	X	2,000	lb/ton	=	0.00 lb/hr
CO ₂	-	TPY	+	-	TPY	+	0.01	TPY	=	0.01 TPY	/	8,760	X	2,000	lb/ton	=	<0.01 lb/hr
CH ₄	-	TPY	+	-	TPY	+	0.21	TPY	=	0.21 TPY	/	8,760	X	2,000	lb/ton	=	0.05 lb/hr

Estimated HAP Composition (% by Weight)⁵

Pollutant	Wt%
n-Hexane	3.938%
Benzene	0.179%
Toluene	0.059%
Ethylbenzene	0.002%
Xylenes	0.010%
Other HAP	0.000%
Total HAP =	4.188%

Notes:

- 1) Due to variable short-term emission rates, average lb/hr based on annual emissions shown for reference only.
- 2) VOC TPY working and breathing losses calculated from lb/yr TANKS 4.0.9d results as follows: lb/yr * 1/2000 = TPY. VOC, CO₂ and CH₄ TPY flashing losses calculated with ProMax flash emission factor as follows: lb/bbl factor * annual bbl throughput * 1/2000 = TPY.
- 3) Per API Chapter 5: CH₄ and CO₂ emissions from crude storage tanks occur mainly as a result of flashing; working and breathing loss emissions of these gases are very small in production and virtually non-existent in downstream segments. Unless site-specific data indicate otherwise, working and breathing losses are presumed to contain no CH₄ or CO₂.
- 4) Capture/control efficiency is based on the VRU controlling 100% of captured vapors when operating, plus 5% downtime.
- 5) HAP composition of tank vapors calculated with site-specific ProMax process simulation.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Condensate Tank Emissions Calculations**

Unit ID: **TK-6 - TK-10 (EACH)**

Uncontrolled Emissions

Pollutant	Working Losses			Breathing Losses			Flashing Losses			Annual Emissions		Operating Hours		Conversion		Hourly Emissions ¹			
VOC ²	4.55	TPY	+	1.89	TPY	+	67.04	TPY	=	73.48	TPY	/	8,760	X	2,000	lb/ton	=	16.78	lb/hr
n-Hexane	0.18	TPY	+	0.07	TPY	+	2.64	TPY	=	2.89	TPY	/	8,760	X	2,000	lb/ton	=	0.66	lb/hr
Benzene	0.01	TPY	+	<0.01	TPY	+	0.12	TPY	=	0.13	TPY	/	8,760	X	2,000	lb/ton	=	0.03	lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	0.04	TPY	=	0.04	TPY	/	8,760	X	2,000	lb/ton	=	0.01	lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	0.01	TPY	=	0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2,000	lb/ton	=	0.00	lb/hr
CO ₂ ³	-	TPY	+	-	TPY	+	0.37	TPY	=	0.37	TPY	/	8,760	X	2,000	lb/ton	=	0.08	lb/hr
CH ₄ ³	-	TPY	+	-	TPY	+	5.32	TPY	=	5.32	TPY	/	8,760	X	2,000	lb/ton	=	1.21	lb/hr

Controlled Emissions⁴

Pollutant	Working Losses			Breathing Losses			Flashing Losses			Annual Emissions		Operating Hours		Conversion		Hourly Emissions			
VOC	0.18	TPY	+	0.08	TPY	+	2.68	TPY	=	2.94	TPY	/	8,760	X	2,000	lb/ton	=	0.67	lb/hr
n-Hexane	0.01	TPY	+	<0.01	TPY	+	0.11	TPY	=	0.12	TPY	/	8,760	X	2,000	lb/ton	=	0.03	lb/hr
Benzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2000	lb/ton	=	0.00	lb/hr
CO ₂	-	TPY	+	-	TPY	+	0.01	TPY	=	0.01	TPY	/	8,760	X	2000	lb/ton	=	<0.01	lb/hr
CH ₄	-	TPY	+	-	TPY	+	0.21	TPY	=	0.21	TPY	/	8,760	X	2000	lb/ton	=	0.05	lb/hr

Estimated HAP Composition (% by Weight)⁵

Pollutant	Wt%
n-Hexane	3.938%
Benzene	0.179%
Toluene	0.059%
Ethylbenzene	0.002%
Xylenes	0.010%
Other HAP	0.000%
Total HAP =	4.188%

Notes:

- 1) Due to variable short-term emission rates, average lb/hr based on annual emissions shown for reference only.
- 2) VOC TPY working and breathing losses calculated from lb/yr TANKS 4.0.9d results as follows: lb/yr * 1/2000 = TPY. VOC, CO₂ and CH₄ TPY flashing losses calculated with ProMax flash emission factor as follows: lb/bbl factor * annual bbl throughput * 1/2000 = TPY.
- 3) Per API Chapter 5: CH₄ and CO₂ emissions from crude storage tanks occur mainly as a result of flashing; working and breathing loss emissions of these gases are very small in production and virtually non-existent in downstream segments. Unless site-specific data indicate otherwise, working and breathing losses are presumed to contain no CH₄ or CO₂.
- 4) Capture/control efficiency is based on the VRU controlling 100% of captured vapors when operating, plus 5% downtime.
- 5) HAP composition of tank vapors calculated with site-specific ProMax process simulation.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Produced Water Tank Emissions Calculations**

Unit ID: **WTK-1 - WTK-2 (EACH)**

Uncontrolled Emissions

Pollutant	Working Losses			Breathing Losses			Flashing Losses			Annual Emissions		Operating Hours			Conversion		Hourly Emissions ¹		
VOC ²	0.06	TPY	+	0.02	TPY	+	0.73	TPY	=	0.81	TPY	/	8,760	X	2,000	lb/ton	=	0.18	lb/hr
n-Hexane	<0.01	TPY	+	<0.01	TPY	+	0.03	TPY	=	0.03	TPY	/	8,760	X	2,000	lb/ton	=	0.01	lb/hr
Benzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2,000	lb/ton	=	0.00	lb/hr
CO ₂ ³	-	TPY	+	-	TPY	+	<0.01	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
CH ₄ ³	-	TPY	+	-	TPY	+	0.06	TPY	=	0.06	TPY	/	8,760	X	2,000	lb/ton	=	0.01	lb/hr

Estimated HAP Composition (% by Weight)⁵

Pollutant	Wt%
n-Hexane	3.938%
Benzene	0.179%
Toluene	0.059%
Ethylbenzene	0.002%
Xylenes	0.010%
Other HAP	0.000%
Total HAP =	4.188%

- Notes:
- 1) Due to variable short-term emission rates, average lb/hr based on annual emissions shown for reference only.
 - 2) VOC TPY working and breathing losses calculated from lb/yr TANKS 4.0.9d results as follows: lb/yr * 1/2000 = TPY. VOC TPY flashing losses calculated with ProMax flash emission factor as follows: lb VOC/bbl * annual bbl throughput * 1/2000 = TPY.
 - 3) Per API Chapter 5: CH₄ and CO₂ emissions from crude storage tanks occur mainly as a result of flashing; working and breathing loss emissions of these gases are very small in production and virtually non-existent in downstream segments. Unless site-specific data indicate otherwise, working and breathing losses are presumed to contain no CH₄ or CO₂.
 - 4) HAP composition of tank vapors calculated with site-specific ProMax process simulation.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Condensate Tank Emissions Calculations**

Unit ID: LTK-1

Uncontrolled Emissions

Pollutant	Working Losses			Breathing Losses			Flashing Losses			Annual Emissions		Operating Hours			Conversion		Hourly Emissions ¹		
VOC ²	4.40	TPY	+	1.51	TPY	+	0.00	TPY	=	5.92	TPY	/	8,760	X	2,000	lb/ton	=	1.35	lb/hr
n-Hexane	0.17	TPY	+	0.06	TPY	+	0.00	TPY	=	0.23	TPY	/	8,760	X	2,000	lb/ton	=	0.05	lb/hr
Benzene	0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2,000	lb/ton	=	0.00	lb/hr
CO ₂ ³	-	TPY	+	-	TPY	+	0.37	TPY	=	0.37	TPY	/	8,760	X	2,000	lb/ton	=	0.08	lb/hr
CH ₄ ³	-	TPY	+	-	TPY	+	5.37	TPY	=	5.37	TPY	/	8,760	X	2,000	lb/ton	=	1.23	lb/hr

Controlled Emissions⁴

Pollutant	Working Losses			Breathing Losses			Flashing Losses			Annual Emissions		Operating Hours			Conversion		Hourly Emissions		
VOC	0.18	TPY	+	0.06	TPY	+	0.00	TPY	=	0.24	TPY	/	8,760	X	2,000	lb/ton	=	0.05	lb/hr
n-Hexane	0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Benzene	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Toluene	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Ethylbenzene	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	<0.01	TPY	+	<0.01	TPY	+	0.00	TPY	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	0.00	TPY	+	0.00	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2000	lb/ton	=	0.00	lb/hr
CO ₂	-	TPY	+	-	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2000	lb/ton	=	0.00	lb/hr
CH ₄	-	TPY	+	-	TPY	+	0.00	TPY	=	0.00	TPY	/	8,760	X	2000	lb/ton	=	0.00	lb/hr

Estimated HAP Composition (% by Weight)⁵

Pollutant	Wt%
n-Hexane	3.938%
Benzene	0.179%
Toluene	0.059%
Ethylbenzene	0.002%
Xylenes	0.010%
Other HAP	0.000%
Total HAP =	4.188%

Notes:

1) Due to variable short-term emission rates, average lb/hr based on annual emissions shown for reference only.

2) VOC TPY working and breathing losses calculated from lb/yr TANKS 4.0.9d results as follows: lb/yr * 1/2000 = TPY. VOC, CO₂ and CH₄ TPY flashing losses calculated with ProMax flash emission factor as follows: lb/bbl factor * annual bbl throughput * 1/2000 = TPY.

3) Per API Chapter 5: CH₄ and CO₂ emissions from crude storage tanks occur mainly as a result of flashing; working and breathing loss emissions of these gases are very small in production and virtually non-existent in downstream segments. Unless site-specific data indicate otherwise, working and breathing losses are presumed to contain no CH₄ or CO₂.

4) Capture/control efficiency is based on the VRU controlling 100% of captured vapors when operating, plus 5% downtime.

5) HAP composition of tank vapors calculated with representative ProMax process simulation.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Truck Loading Information**

Equipment Information	
	TL-1
Contents Loaded	Condensate
Fill Method	Submerged
Type of Service	Dedicated
Mode of Operation	Normal
Saturation Factor	0.6
Throughput (1000 gal/yr)	13,376
Throughput (10⁶ gal/yr)	13.376
Maximum Loading Rate (gal/hr)	7,500
VOC Emission Factor (lb/bbl)¹	0.1256
TOC Emission Factor (tonne/10⁶ gal)³	0.91
TOC Emission Factor (ton/10⁶ gal)³	1.00
ProMax Flash Gas CH₄ wt%	0.017%
ProMax Flash Gas CO₂ wt%	0.004%
Control Type	None

Notes:

1) Properties based on EPA TANKS 4.0.9d.

2) AP-42 5.2-4 Eq.1: Loading Loss (lb/1000 gal) = 12.46 *S*P*M/T.

3) API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Gas Industry, Table 5-12. Emission factor converted as follows: tonne/10⁶ gal * 1.10231131 ton/tonne.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Condensate Truck Loading Emissions Calculations**

Unit ID: TL-1

Uncontrolled Emissions

Pollutant	Emission Factor			Throughput			Conversion		Annual Emissions		Operating Hours			Conversion		Average Hourly Emissions ¹			
VOC	0.1256	lb/bbl	X	318,470	bbl/yr	X	0.0005	ton/lb	=	20.00	TPY	/	8,760	X	2,000	lb/ton	=	4.57	lb/hr
n-Hexane	-	-	-	-	-	-	-	-	=	0.79	TPY	/	8,760	X	2,000	lb/ton	=	0.18	lb/hr
Benzene	-	-	-	-	-	-	-	-	=	0.04	TPY	/	8,760	X	2,000	lb/ton	=	0.01	lb/hr
Toluene	-	-	-	-	-	-	-	-	=	0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Ethylbenzene	-	-	-	-	-	-	-	-	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Xylenes	-	-	-	-	-	-	-	-	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
Other HAP	-	-	-	-	-	-	-	-	=	0.00	TPY	/	8,760	X	2,000	lb/ton	=	0.00	lb/hr
CO ₂	1.00	ton/10 ⁶ gal	X	13.376	10 ⁶ gal/yr	X	0.004%	Wt%	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr
CH ₄	1.00	ton/10 ⁶ gal	X	13.376	10 ⁶ gal/yr	X	0.017%	Wt%	=	<0.01	TPY	/	8,760	X	2,000	lb/ton	=	<0.01	lb/hr

Estimated HAP Composition (% by Weight)²

Pollutant	Wt%
n-Hexane	3.938%
Benzene	0.179%
Toluene	0.059%
Ethylbenzene	0.002%
Xylenes	0.010%
Other HAP	0.000%
Total HAP =	4.188%

Notes:

1) Due to variable short-term emission rates, average lb/hr rate shown for reference only.

2) See speciated liquids analysis on Facility Analyses page. HAP weight% calculated as % of total hydrocarbons in the sample. All HAP assumed to volatilize from liquids for most conservative emissions estimate.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Methanol Tank Information**

Equipment Information	
	MTK-1
Contents	Methanol
Number of Tanks	1
Capacity (bbl)	400
Capacity (gal)	16,800
Total Throughput (bbl/yr)	20,800
Total Throughput (gal/yr)	873,600
Per Tank Throughput (bbl/yr)	20,800
Per Tank Throughput (gal/yr)	873,600
TANKS 4.0.9d Working Losses (lb/yr)²	489.34
TANKS 4.0.9d Breathing Losses (lb/yr)²	182.76
Control Type	None

Notes:

1) Working and breathing calculated using EPA TANKS 4.0.9d. See attached reports and following table.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Methanol Tank Emissions Calculations**

Unit ID: MTK-1

Uncontrolled Emissions

Pollutant	Working Losses		Breathing Losses		Annual Emissions		Operating Hours			Conversion		Hourly Emissions¹				
VOC/Methanol²	0.24	TPY	+	0.09	TPY	=	0.34	TPY	/	8,760	X	2,000	lb/ton	=	0.08	lb/hr

Notes:

- 1) Due to variable short-term emission rates, average lb/hr based on annual emissions shown for reference only.
- 2) VOC TPY working and breathing losses calculated from lb/yr TANKS 4.0.9d results as follows: lb/yr * 1/2000 = TPY.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Fugitive Equipment Data and Emission Factors**

Equipment Information - Gas Service							TOC Emissions										
Component	Count ¹		Emission Factor ²		Control Efficiency		Hourly Emissions			Operating Hours		Conversion		Annual Emissions			
Valves - Gas	750	X	9.92E-03	lb/hr/source	X	75.00%	=	1.86	lb/hr	X	8,760	X	0.0005	ton/lb	=	8.15	TPY
Connectors - Gas	1900	X	4.41E-04	lb/hr/source	X	30.00%	=	0.59	lb/hr	X	8,761	X	0.0005	ton/lb	=	2.57	TPY
Flanges - Gas	1000	X	8.60E-04	lb/hr/source	X	30.00%	=	0.60	lb/hr	X	8,760	X	0.0005	ton/lb	=	2.64	TPY
Relief Valves - Gas	60	X	1.94E-02	lb/hr/source	X	0.00%	=	1.16	lb/hr	X	8,760	X	0.0005	ton/lb	=	5.10	TPY
Compressor Seals - Gas	16	X	1.94E-02	lb/hr/source	X	75.00%	=	0.08	lb/hr	X	8,760	X	0.0005	ton/lb	=	0.34	TPY
Other - Gas	10	X	1.94E-02	lb/hr/source	X	0.00%	=	0.19	lb/hr	X	8,760	X	0.0005	ton/lb	=	0.85	TPY

Equipment Information - Liquid Service							TOC Emissions										
Component	Count ¹		Emission Factor ²		Control Efficiency		Hourly Emissions			Operating Hours		Conversion		Annual Emissions			
Valves - Light Oil	380	X	5.51E-03	lb/hr/source	X	75.00%	=	0.52	lb/hr	X	8,760	X	0.0005	ton/lb	=	2.29	TPY
Flanges - Light Oil	40	X	2.43E-04	lb/hr/source	X	30.00%	=	0.01	lb/hr	X	8,760	X	0.0005	ton/lb	=	0.03	TPY
Connectors - Light Oil	1,100	X	4.63E-04	lb/hr/source	X	30.00%	=	0.36	lb/hr	X	8,760	X	0.0005	ton/lb	=	1.56	TPY
Pump Seals - Light Oil	2	X	2.87E-02	lb/hr/source	X	75.00%	=	0.01	lb/hr	X	8,760	X	0.0005	ton/lb	=	0.06	TPY
Other - Light Oil	5	X	1.65E-02	lb/hr/source	X	0.00%	=	0.08	lb/hr	X	8,760	X	0.0005	ton/lb	=	0.36	TPY

Notes:

1) Component counts estimated based on similar site.

2) Emission Factor Source: EPA-453/R-95-017. TOC multiplied by pollutant content of streams (weight %) to obtain pollutant emissions.

**ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Fugitive Emissions Calculations**

Component	VOC Emissions				CO ₂ Emissions				CH ₄ Emissions				H ₂ S Emissions			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY		
Valves - Gas	0.64	2.79	0.03	0.12	0.80	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Connectors - Gas	0.20	0.88	0.01	0.04	0.25	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Flanges - Gas	0.21	0.90	0.01	0.04	0.26	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Relief Valves - Gas	0.40	1.75	0.02	0.08	0.50	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Compressor Seals - Gas	0.03	0.12	<0.01	0.01	0.03	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other - Gas	0.07	0.29	<0.01	0.01	0.08	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Valves - Light Oil	0.52	2.28	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Flanges - Light Oil	0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Connectors - Light Oil	0.36	1.56	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pump Seals - Light Oil	0.01	0.06	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other - Light Oil	0.08	0.36	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total	2.52	11.02	0.07	0.29	1.92	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Component	n-Hexane Emissions				Benzene Emissions				Toluene Emissions				Ethylbenzene Emissions				Xylene Emissions				2,2,4-Trimethylpentane Emissions			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Valves - Gas	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Connectors - Gas	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Flanges - Gas	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Relief Valves - Gas	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Compressor Seals - Gas	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Other - Gas	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Valves - Light Oil	0.11	0.50	0.01	0.02	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flanges - Light Oil	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Connectors - Light Oil	0.08	0.34	<0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pump Seals - Light Oil	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other - Light Oil	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.24	1.04	0.01	0.05	0.01	0.06	<0.01	0.01	<0.01	0.01	<0.01	0.01	0.01	0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01

Notes:
1) TOC from previous table multiplied by pollutant content of streams (weight%) to obtain pollutant emissions. See attached analyses table.

ONEOK Rockies Midstream, L.L.C.
Beavertail Compressor Station
Miscellaneous Venting and Blowdown Emissions Calculations

Component	Molecular Weight	Stream 1	Emissions	
		Inlet Gas	scf/yr ¹	TPY ²
		Mole %		
Hydrogen Sulfide	34.081	0.000%	0	0.00
Carbon Dioxide	44.010	0.842%	3,942	0.23
Nitrogen	28.013	1.686%	7,891	0.29
Helium	4.003	0.000%	0	0.00
Oxygen	31.999	0.000%	0	0.00
Methane	16.043	63.797%	298,569	6.31
Ethane	30.069	18.282%	85,557	3.39
Propane	44.096	8.714%	40,781	2.37
i-Butane	58.122	1.130%	5,287	0.40
n-Butane	58.122	3.144%	14,712	1.13
i-Pentane	72.149	0.662%	3,099	0.29
n-Pentane	72.149	0.965%	4,516	0.43
n-Hexane	86.175	0.147%	689	0.08
Other Hexanes	86.175	0.410%	1,917	0.22
Heptanes	100.202	0.077%	361	0.05
Benzene	78.114	0.016%	74	0.01
Toluene	92.141	0.012%	57	0.01
Ethylbenzene	106.167	0.001%	4	<0.01
Xylenes	106.167	0.004%	17	<0.01
Octanes	114.229	0.096%	447	0.07
2,2,4-Trimethylpentane	114.231	0.008%	37	0.01
Nonanes	128.255	0.000%	0	0.00
Decanes	142.282	0.000%	0	0.00
Totals =		99.991%	467,957	15.28
		Total VOC =	71,998	5.06
		Total HAP =	878	0.10

Estimated Annual Volume
Molar volume conversion @60° F and 1 atm: 1 lb/mole =

468,000 scf/yr
379.4 scf

Notes:

- 1) Calculated as follows: Total Losses scf/yr * mol% of component.
- 2) Calculated as follows: component scf/yr / 379.4 molar volume conversion * MW component / 2000 lb/ton.



PERMIT APPLICATION FOR TITLE V PERMIT TO OPERATE
NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
 SFN 52858 (9-2021)

SECTION A - FACILITY INFORMATION

Name of Firm or Organization ONEOK Rockies Midstream, L.L.C.				
Responsible Person Dick Vande Bossche				
Title Vice President - ONEOK Rockies Midstream Operations		Telephone Number (406) 489-1544		E-mail Address dick.vandebossche@oneok.com
Mailing Address (Street & Number) 100 W. Fifth St.				
City Tulsa		State Oklahoma		ZIP Code 74103
Contact Person for Air Pollution Matters Kale Hanner				
Title Supervisor - Environmental Compliance		Telephone Number (918) 732-1477		E-mail Address kale.hanner@oneok.com
Mailing Address (Street & Number) 100 W. Fifth St.				
City Tulsa		State Oklahoma		ZIP Code 74103
Facility Name Beavertail Compressor Station				
Facility Address (Street & Number)				
City		State		ZIP Code
County McKenzie	Latitude (decimal degrees) 47.78586		Longitude (decimal degrees) -103.04027	
Legal Description of Facility Site				
Quarter	Quarter	Section 25	Township 105N	Range 97W
Land Area at Facility Site ¹³ Acres (or) Sq. Ft.		MSL Elevation at Facility 2285'		

SECTION B - GENERAL NATURE OF BUSINESS

Describe Nature of Business	North American Industry Classification System Code (NAICS)	Standard Industrial Classification Code (SIC)
Natural Gas Compression	211130	1311

SECTION C - GENERAL PERMIT INFORMATION

Type of Permit to Operate? <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Minor Modification <input type="checkbox"/> Significant Modification	
If application is for renewal or revision of an existing Title V permit, please provide the following data:	
Current Permit to Operate Number: _____ Renewal: _____ Revision: _____	Current Permit to Operate Expiration Date: _____

SECTION D – MINOR PERMIT MODIFICATION

Affected Emission Unit(s): Not Applicable	Description of Proposed Change:
Applicable Requirements (NSPS, PSD, etc.):	Net Effect on Source Emissions Emission Unit(s): Facility:
Are you requesting that minor permit modification procedures be used in accordance with NDAC 33.1-15-14-06.e(1)(a)? <input type="checkbox"/> Yes <input type="checkbox"/> No	

SECTION E – SOURCE IDENTIFICATION AND CATEGORY OF EACH SOURCE INCLUDED ON THIS PERMIT APPLICATION

Your Emission Unit Number	Emission Unit Description	New Emission Unit? (check if yes)	PTC Number/ ACP Number	Initial Application	Minor Modification	Significant Modification	Other	Explain if Other
C-1	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-2	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-3	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-4	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-5	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-6	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-8	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C-9	Compressor Engine	<input type="checkbox"/>	ACP-018131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TK-1-10	Condensate Tanks	<input type="checkbox"/>	PRC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WTK-1	Produced Water Tank	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WTK-2	Produced Water Tank	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MTK-1	Methanol Tank	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TL-1	Vents and blowdowns	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FUG	Fugitives	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FL-1	Flare	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BD	Blowdowns	<input type="checkbox"/>	PTC18044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Add additional pages if necessary

SECTION F1 – IDENTIFICATION OF AIR CONTAMINANTS

Check all which are emitted in measurable quantities into the atmosphere from any operation at facility

<input type="checkbox"/> Arsenic	<input type="checkbox"/> Chlorine Compounds	<input checked="" type="checkbox"/> Sulfur Compounds	<input type="checkbox"/> Radioisotopes
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Chromium Compounds	<input type="checkbox"/> Hydrogen Sulfide	<input type="checkbox"/> Visible Emissions
<input type="checkbox"/> Beryllium	<input type="checkbox"/> Fluoride Compounds	<input type="checkbox"/> Odors	<input checked="" type="checkbox"/> Particulates (specify)
<input type="checkbox"/> Cadmium	<input checked="" type="checkbox"/> Volatile Organic Compounds	<input checked="" type="checkbox"/> Carbon Monoxide	<input type="checkbox"/> Dust
<input type="checkbox"/> Lead	<input type="checkbox"/> Other Organic Compounds	<input checked="" type="checkbox"/> Nitrogen Compounds	<input type="checkbox"/> Silica
<input type="checkbox"/> Mercury	<input checked="" type="checkbox"/> Greenhouse Gases (CO ₂ e)	<input type="checkbox"/> Pesticides	<input type="checkbox"/> Other (specify)

List Specific Compounds:

SECTION F2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? Yes No

Emission Unit No.	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C 1-6	10/05/2022	Every 8,760 operating hours or 3 years	NSPS JJJJ
C 8-9	03/30/2022	Every 8,760 operating hours or 3 years	NSPS JJJJ
FUG	08/23/2023	Quarterly	NSPS OOOOa

Add additional pages if necessary

SECTION G1 – ADDITIONAL FORMS

Indicate which of the following forms are attached and made part of the application	
<input checked="" type="checkbox"/> Emission Unit Information (SFN 61006)	<input type="checkbox"/> Flexible Permits (SFN 61007)
<input checked="" type="checkbox"/> Compliance Schedule and Plan (SFN 61008)	<input type="checkbox"/> Potential To Emit Table

SECTION G2 – OTHER ATTACHMENTS INCLUDED AS PART OF THIS APPLICATION

1.	Facility Emission Calculations	4.	Supporting Documentation
2.	Plot Plan	5.	
3.	Process Flow Diagram	6.	

I, the undersigned applicant, am fully aware that statements made in this application and the attached exhibits and statements constitute the application for Permit to Operate Air Contaminant sources from the North Dakota Department of Environmental Quality and certify that the information in this application is true, correct and complete to the best of my knowledge and belief. Further, I agree to comply with the provisions of Chapter 23.1-06 of the North Dakota Century Code and all rules and regulations of the Department, or revisions thereof. I also understand the permit is nontransferable and, if granted a permit, I will promptly notify the Department upon sale or legal transfer of this permitted establishment.

Signature of Applicant	DocuSigned by: <i>Dick Vande Bossche</i> 67B797C4193640F...	Date 9/28/2023
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INSTRUCTIONS

These instructions are intended to assist permit applicants in the completion of the enclosed forms with the degree of accuracy and detail necessary to allow the determination of whether to grant or deny a permit to operate an air contaminant source or modification.

All information included in the application, including maximum estimated emission rates, will be used to make the above determination. The information that is supplied in the application may be used to establish permit conditions. The emission rates provided should be based on the most credible data available. Although AP-42 provides general information, it should not be solely relied on to develop emission rates. Other sources of information that accurately represent the actual conditions that the emission unit will be operated under, such as actual test data or manufacturer's data, may be preferable.

For any air contaminant source or modification described in SFN 52858, SFN 61006 must also be completed and attached for each emission unit. For the facility's compliance schedule, SFN 61008 must be completed and submitted. If the facility requests a flexible permit SFN 61007, must be completed and submitted.

Those existing sources of air contaminants which are proven by the applicant to be designed or controlled so as to operate without emitting air contaminants in violation of air pollution rules and regulations will be granted a permit to operate.

Certain sizes and types of existing or new sources are exempted from the requirement to obtain a permit to continue operating or to construct. These sizes are specified in the instruction sheets for the relevant permit application forms or can be obtained by contacting the Department.

Any information included on the forms, other than emission data, that would divulge production or sales figures or methods, processes or production unique to such person or would otherwise tend to affect adversely the competitive position of such person by revealing trade secrets should be noted by inserting the word "confidential" in the margin next to the appropriate item. Any information, other than production figures, that is requested to be kept in confidence must be justified by a written statement setting forth the reasons for the request. All information not marked confidential will be available for public inspection.

These forms are intended to inform permit applicants of the type of information required in order that a permit to operate or construct be granted. It is not possible to design forms which are ideally suited to every conceivable operation. Permit applicants are encouraged to submit additional supplementary material when it is felt that the completion of these forms does not provide an adequate explanation of the operation.

It will be necessary to refer to the North Dakota Air Pollution Control Rules (Article 33.1-15 NDAC; online at www.legis.nd.gov/information/acdata/html/33.1-15.html), especially those parts which deal with the permit system and those chapters which specify emission limitations for each air contaminant, in order to satisfactorily complete a permit application. Electronic copies of air pollution control permit application forms are available online at www.deq.nd.gov/AQ/forms.aspx. Paper copies of all forms, as well as the rules, are available on request. To cover the costs of printing and postage, the charge for a copy of the North Dakota Air Pollution Control Rules is \$15.00.

Applicants should contact the Department prior to preparation and submittal of an application to determine what additional information will be required for a particular source or modification and the method to be used in performing the analyses.

SEND COMPLETED APPLICATION AND ALL ATTACHMENTS TO:

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324
(701) 328-5188



EMISSION UNIT FOR TITLE V PERMIT TO OPERATE
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 61006 (3-2019)

SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-1	Emission Point Number: C-1
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-1	10/05/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646853.50			Stack Base UTM Coordinate Y: 5294319.24		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer	Model Number	Date to Be Installed	
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



EMISSION UNIT FOR TITLE V PERMIT TO OPERATE
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 61006 (3-2019)

SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-2	Emission Point Number: C-2
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-2	10/05/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551	LP Gas (Gal/Yr)		Other (Specify)		

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646855.71			Stack Base UTM Coordinate Y: 5294319.55		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer	Model Number	Date to Be Installed	
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



EMISSION UNIT FOR TITLE V PERMIT TO OPERATE
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 61006 (3-2019)

SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-3	Emission Point Number: C-3
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-3	10/05/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646895.44			Stack Base UTM Coordinate Y: 5294320.30		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer		Model Number	Date to Be Installed
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-4	Emission Point Number: C-4
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-4	10/04/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646854.83			Stack Base UTM Coordinate Y: 5294210.62		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer	Model Number	Date to Be Installed	
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-5	Emission Point Number: C-5
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-5	10/04/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646885.76			Stack Base UTM Coordinate Y: 5294211.41		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer		Model Number	Date to Be Installed
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-6	Emission Point Number: C-6
Make Caterpillar	Model G3608 LE	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 2,370-hp	Operating Capacity (specific units) 2,370-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	15246	2,568,299	133,551,579	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-6	10/06/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 133,551	LP Gas (Gal/Yr)		Other (Specify)		

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646901.49			Stack Base UTM Coordinate Y: 5294211.81		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	3.66	16.02	Manufacturer's Specifications
CO	2.61	11.44	Manufacturer's Specifications
VOC	3.66	16.02	NSPS JJJJ Limits
Particulate Matter	0.16	0.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.27	1.19	Manufacturer Data
SO2	0.01	0.04	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.37	1.61	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer		Model Number	Date to Be Installed
Miratech			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	80	80	

Operating Efficiency (%)	80	80		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	15,955			
Gas Temperature (°F)	878			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	104.50			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-8	Emission Point Number: C-8
Make Waukesha	Model F3524GSI	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 840-hp	Operating Capacity (specific units) 840-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	6,879.6	1,158,956	60,265,726	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-8	3/30/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 60,265	LP Gas (Gal/Yr)		Other (Specify)		

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646931.45			Stack Base UTM Coordinate Y: 5294212.57		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	1.85	8.11	Manufacturer's Specifications
CO	2.31	10.14	Manufacturer's Specifications
VOC	1.30	5.68	NSPS JJJJ Limits
Particulate Matter	0.14	5.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.05	0.21	Manufacturer Data
SO2	0.01	0.02	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.09	0.40	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer	Model Number	Date to Be Installed	
Name of Manufacturer: EMIT			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	90	90	

Operating Efficiency (%)	90	90		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	4,472			
Gas Temperature (°F)	1,228			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	42			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Engine	Emission Unit Number: C-9	Emission Point Number: C-9
Make Waukesha	Model F3524GSI	Installation or manufacture date After 07/01/2010
Capacity (manufacturer's or designer's guaranteed maximum) 840-hp	Operating Capacity (specific units) 840-hp	
Brief description of operation of unit or process: Compressor Engine		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (usage)	6,879.6	1,158,956	60,265,726	scf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS JJJJ	Stack testing	Engine maintenance	Initial notification w/in 30 days	Initial within 180 days	1.0 g/hp-hr NOx
NSPS JJJJ	-	Test results	Test notification 30 days prior	Then every 8760 hours/3yrs	2.0 g/hp-hr CO
NSPS JJJJ	-	Notifications	Submit test report w/in 60 days	-	0.7 g/hp-hr VOC
NSPS JJJJ	-	Operating Hours	-	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%
33.1-15-08 (Air pollution from ICE)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
C-9	3/30/2022	Every 8,760 hours or 3 years	NSPS JJJJ

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) 60,265	LP Gas (Gal/Yr)		Other (Specify)		

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	34.5	1.8	15955	878	104.50
Stack Base UTM Coordinate X: 646931.45			Stack Base UTM Coordinate Y: 5294212.57		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	1.85	8.11	Manufacturer's Specifications
CO	2.31	10.14	Manufacturer's Specifications
VOC	1.30	5.68	NSPS JJJJ Limits
Particulate Matter	0.14	5.68	AP-42 Table 3.2-2 (7/00)
Formaldehyde	0.05	0.21	Manufacturer Data
SO2	0.01	0.02	AP-42 Table 3.2-2 (7/00)
Total HAPS	0.09	0.40	

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Oxidation Catalyst</u>			
Name of Manufacturer	Model Number	Date to Be Installed	
Name of Manufacturer: EMIT			
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed	CO	Formaldehyde	
Design Efficiency (%)	90	90	

Operating Efficiency (%)	90	90		
Describe method used to determine operating efficiency: Manufacturer specifications				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	4,472			
Gas Temperature (°F)	1,228			
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)	42			
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Plant Flare	Emission Unit Number: FL-1	Emission Point Number: FL-1
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 70 MMSCF/yr	
Brief description of operation of unit or process: The flare system is used for safety, maintenance, emergencies, upsets and process flaring as needed. Any gas vented from the condensate tanks is also routed to the flare.		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Natural gas (flared)	0.008	1.34	70	MMscf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
40 CFR 60.18	Presence of pilot flame	Periods of pilot outage	Initial Notification	Method 22	No visible emissions
40 CFR 60.18	-	Notifications and test reports	Start-up Notification	-	-
40 CFR 60.18	-	-	Test notification and results	-	-
33.1-15-03 (Opacity)	Periodic observations	Presence of Visible Emissions	With each semiannual report	-	20%

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
FL-1	3/27/2020	N/A	NSPS 60.18

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr) Pilot - 3,268		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
All, see Section I.	100	1.5		250	
Stack Base UTM Coordinate X: 646989.93			Stack Base UTM Coordinate Y: 5294226.51		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
NOx	0.29	0.58	AP-42
CO	0.86	0.67	AP-42
VOC	0.82	0.27	Flare Stream: Mass Balance; Pilot: AP-42
SO2	0.01	0.01	Flare Stream: Stoichiometric; Pilot: AP-42
n-Hexane	0.01	0.01	Flare Stream: Mass Balance; Pilot: AP-42
Total HAPS	0.02	0.01	Flare Stream: Mass Balance; Pilot: AP-42

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input checked="" type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)			
Describe method used to determine operating efficiency:			

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	N/A			
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: LTK-1	Emission Point Number: LTK-1
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.97	668	34750	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.

Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.

Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.05	0.24	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.01	0.01	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: Cyclone Multiclone Baghouse Electrostatic Precipitator

Wet Scrubber Spray Dryer None

Other – Specify: Vapor Recovery Unit

Name of Manufacturer: _____ Model Number: _____ Date to Be Installed: _____

Application: Boiler Kiln Engine

Other – Specify: Condensate Storage Tanks

Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: MTK-1	Emission Point Number: MTK-1
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Methanol storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Methanol	2.37	400	20,800	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.08	0.34	AP-42

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input checked="" type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)			
Describe method used to determine operating efficiency:			

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-1	Emission Point Number: TK-1
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-2	Emission Point Number: TK-2
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-3	Emission Point Number: TK-3
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-4	Emission Point Number: TK-4
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-5	Emission Point Number: TK-5
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>			
Name of Manufacturer		Model Number	Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>			
Pollutants Removed	VOCs		
Design Efficiency (%)	100		

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-6	Emission Point Number: TK-6
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>			
Name of Manufacturer		Model Number	Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>			
Pollutants Removed	VOCs		
Design Efficiency (%)	100		

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-7	Emission Point Number: TK-7
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-8	Emission Point Number: TK-8
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-9	Emission Point Number: TK-9
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: TK-10	Emission Point Number: TK-10
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Condensate storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	3.64	612	31,847	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.67	2.94	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.03	0.12	ProMax Process Simulation
CO2e	1.22	5.33	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input checked="" type="checkbox"/> Other – Specify: <u>Vapor Recovery Unit</u>				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input checked="" type="checkbox"/> Other – Specify: <u>Condensate Storage Tanks</u>				
Pollutants Removed	VOCs			
Design Efficiency (%)	100			

Operating Efficiency (%)	95*			
Describe method used to determine operating efficiency: Manufacturer specifications. *Operating efficiency is based on the VRU being 100% efficient when operating and a 5% downtime for maintenance.				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: WTK-1	Emission Point Number: WTK-1
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Produced Water storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Produced Water	3.97	668	34,750	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.18	0.81	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.01	0.03	ProMax Process Simulation
CO2e	0.33	1.45	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)			
Describe method used to determine operating efficiency:			

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Storage Tank	Emission Unit Number: WTK-2	Emission Point Number: WTK-2
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) 400-bbl	
Brief description of operation of unit or process: Produced Water storage tank		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Produced Water	3.97	668	34,750	bbl

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
33-15-07-01.3 (Submerged Fill)	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	0.18	0.81	ProMax Process Simulation + TANKS 4.0.9d
n-Hexane	0.01	0.03	ProMax Process Simulation
CO2e	0.33	1.45	ProMax Process Simulation

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)				
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



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SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Truck Loading	Emission Unit Number: TL-1	Emission Point Number: TL-1
Make -	Model -	Installation or manufacture date -
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) -	
Brief description of operation of unit or process: Condensate Truck Loading		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None		Alternative Emission Point: None

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS)

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	
Condensate	36.4	6,125	318,476	bbf

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
-	-	-	-	-	-

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	4.57	20.00	Promax

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	N/A			
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



EMISSION UNIT FOR TITLE V PERMIT TO OPERATE
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 61006 (3-2019)

SECTION A – EQUIPMENT INFORMATION

Type of Unit or Process (rotary dryer, cupola furnace, crusher, pelletizer, engine, etc.) Fugitive Components	Emission Unit Number: FUG	Emission Point Number: FUG
Make -	Model -	Installation or manufacture date 2019
Capacity (manufacturer's or designer's guaranteed maximum)	Operating Capacity (specific units) -	
Brief description of operation of unit or process: Fugitive components subject to OOOOa		
Brief description of alternative operating scenario (see Section M1 & M2 to elaborate): None	Alternative Emission Point: None	

SECTION B – OPERATING SCHEDULE

Are you agreeing to a limit on the operating schedule for this unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	Peak Production Season (if any) N/A	Dates of Annual Shutdown N/A

SECTION C – PRODUCTION RATES (THROUGHPUT LIMITS) *Not Applicable*

Are you agreeing to a limit on the production for this unit? <input type="checkbox"/> Yes <input type="checkbox"/> No (If No, show normal operating schedule.)				
Material	Process Time Frame			Specify Units (tons, Btu, Gal., etc)
	Hour	Week	Year	

SECTION D1 – APPLICABLE REQUIREMENTS

Generally describe all applicable requirements.					
Regulations (i.e. SIP, NESHAP, PSD, NSPS, etc)	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements	Testing Requirements	Applicable Emission Standards (include units)
NSPS OOOOa	Leak monitoring	Date and location of leak	Initial notification	OGI Monitoring	N/A
		Date and method of leak repair	Startup notification		
		Reports and notifications	Semiannual reports		

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)
FUG	8/23/2023	Quarterly, reports submitted annual	NSPS 0000a

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)	LP Gas (Gal/Yr)		Other (Specify)		

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	2.52	11.02	EPA-435/R-95-017
n-Hexane	0.24	1.04	EPA-435/R-95-017

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input checked="" type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____				
Name of Manufacturer		Model Number		Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____				
Pollutants Removed				
Design Efficiency (%)				

Operating Efficiency (%)			
Describe method used to determine operating efficiency:			

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	N/A			
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				

SECTION D2 – IDENTIFICATION OF AIR CONTAMINANTS

Has emission unit testing been done at the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Emission Unit ID	Last Date when a Testing Program was Completed	If Program is Continuous, Give Approximate Testing Frequency	Regulation requiring frequency (NSPS, MACT, Permit Requirement-list permit number)

Add additional pages if necessary

SECTION E – PRODUCTS OF UNIT OR PROCESS

Include all, even those not usable because they do not meet specifications					
Material	Hourly Process Weight (Pounds Per Hour)			Average Annual (Specify Units)	Intermittent Operation Only (Average Hours Per Week)
	Average	Maximum	Minimum		
N/A					

SECTION F – FUELS USED *Not Applicable*

Coal (Tons/Yr)	% Sulfur	% Ash	Oil (Gal/Yr)	% Sulfur	Grade No.
Natural Gas (Thousand CF/Yr)		LP Gas (Gal/Yr)		Other (Specify)	

SECTION G – STACK PARAMETERS *Not Applicable - fugitive source*

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION H – ALTERNATIVE STACK PARAMETERS

List each pollutant separately.					
Pollutant (use CAS for HAPs)	Stack Height (ft)	Stack Diameter (ft at top)	Gas Volume (ACFM)	Exit Temp (°F)	Gas Velocity (fps)
N/A					
Stack Base UTM Coordinate X:			Stack Base UTM Coordinate Y:		

SECTION I – AIR CONTAMINANTS EMITTED

Known or Suspected - Use emission rates after control equipment.			
Pollutant (use CAS for HAPs)	Amount		Basis of Estimate (AP-42, testing, engineering estimate, etc)
	Pounds/Hr	Tons/Yr	
VOC	-	5.06	Mass Balance

SECTION J1 – AIR POLLUTION CONTROL EQUIPMENT

Type: <input type="checkbox"/> Cyclone <input type="checkbox"/> Multiclone <input type="checkbox"/> Baghouse <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Spray Dryer <input checked="" type="checkbox"/> None <input type="checkbox"/> Other – Specify: _____			
Name of Manufacturer		Model Number	Date to Be Installed
Application: <input type="checkbox"/> Boiler <input type="checkbox"/> Kiln <input type="checkbox"/> Engine <input type="checkbox"/> Other – Specify: _____			
Pollutants Removed			
Design Efficiency (%)			

Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION J2 – GAS CONDITIONS

Gas Conditions	Inlet		Outlet	
Gas Volume (SCFM; 68°F; 14.7 psia)	N/A			
Gas Temperature (°F)				
Gas Pressure (in. H ₂ O)				
Gas Velocity (ft/sec)				
Pollutant Concentration (Specify pollutant and unit of concentration)	Pollutant	Unit of Concentration	Inlet	Outlet
Pressure drop through gas cleaning device (in. H ₂ O)				



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-1 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected

Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports
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SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Recordkeeping	Compliance Method is Based On: <input type="checkbox"/> Compliance Assurance Monitoring (CAM) <input checked="" type="checkbox"/> Applicable Requirement <input type="checkbox"/> Gap-Filling Requirement
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SECTION A4 –METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:
Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:
40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-2 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NO_x, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-3 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):		Starting Date of Progress Reports

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 –METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-4 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NO_x, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-5 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-6 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):		Starting Date of Progress Reports

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-8 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected

Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports
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SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Recordkeeping	Compliance Method is Based On: <input type="checkbox"/> Compliance Assurance Monitoring (CAM) <input checked="" type="checkbox"/> Applicable Requirement <input type="checkbox"/> Gap-Filling Requirement
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SECTION A4 –METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:
Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:
40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

C-9 - Compressor Engine

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Recordkeeping	Compliance Method is Based On: <input type="checkbox"/> Compliance Assurance Monitoring (CAM) <input checked="" type="checkbox"/> Applicable Requirement <input type="checkbox"/> Gap-Filling Requirement
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SECTION A4 –METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 1, Method 320, and/or ASTM D 6348-03 for NOx, CO and VOC; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.4244; NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
NOx, CO, VOC	Every 8,760 operating hours or 3 years
Opacity/Visible Emissions	Periodic observations for 60 minute periods

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Records of engine maintenance	Report deviations with each semiannual monitoring report
Records of NSPS JJJJ test results	Submit test report within 60 days
Records of notifications made	Initial within 30 days, test notification 30 days prior
Records of operating hours	Report deviations with each semiannual monitoring report
Presence of visible emissions	With each semiannual monitoring report

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Maintenance records	Upon maintenance activity	Report deviations with each semiannual monitoring report
NSPS JJJJ test results	Within 180 days of startup	Submit test report within 60 days
Initial JJJJ notification/JJJJ test notification	Within 30 days of construction commencement/30 days prior	One time/Every 8,760 operating hours or 3 years
Operating hours	Upon startup	Report deviations with each semiannual monitoring report
Frequency of visible emissions	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

FL-1 - Plant Flare

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

Method 22 for Opacity; Method 9 for Opacity

Reference Test Method Citation:

40 CFR 60.18(f)(1); NDAC 33.1-15-03-05

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input checked="" type="checkbox"/> Stack Test <input checked="" type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Stack Outlet
Regulated Air Pollutant(s) Monitored:	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.)
Opacity/Visible Emissions	Per Method 22, one time, 2 hour observation period
Opacity/Visible Emissions	Per Method 9, periodic observations for 60 minute periods
Presence of pilot flame	Continuous

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Presence of visible emissions	Per Method 22, one time, within 60 days of test
Presence of visible emissions	Per Method 9, with each semiannual monitoring report
Periods of pilot outages	With each semiannual monitoring report
Records of notifications made	Initial within 30 days, test notification 30 days prior

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Presence of visible emissions	Within 180 days of startup	One time, within 60 days of test
Frequency of visible emissions	Upon startup	With each semiannual monitoring report
Periods of pilot outages	Upon startup	With each semiannual monitoring report

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



COMPLIANCE SCHEDULE AND PLAN FOR TITLE V PERMIT TO OPERATE

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

SFN 61008 (3-2019)

FUG - Fugitives Subject to NSPS 0000a

SECTION A1 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance is not achieved:

If No, provide a narrative description of how compliance will be achieved with this applicable requirement:

If No, provide a detailed schedule of compliance:

Regulation/Condition not in compliance with	Action	Date Expected
Frequency for submittal of progress reports (6-month minimum):	Starting Date of Progress Reports	

SECTION A2 – COMPLIANCE SCHEDULE AND PLAN

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes No

If No, identify applicable requirement for which compliance will not be compiled with:

If No, provide a detailed schedule leading to compliance:

Regulation/Condition not in compliance with	Action	Date Expected

SECTION A3 – COMPLIANCE CERTIFICATION (METHOD OF COMPLIANCE)

Compliance Method Type

- Monitoring
- Recordkeeping

Compliance Method is Based On:

- Compliance Assurance Monitoring (CAM)
- Applicable Requirement
- Gap-Filling Requirement

SECTION A4 – METHOD OF COMPLIANCE REFERENCE TEST METHOD

Reference Test Method:

OGI - Monitoring

Reference Test Method Citation:

NSPS 0000a 60.5397a

SECTION A5 –METHOD OF COMPLIANCE MONITORING

Monitoring Device Type: <input type="checkbox"/> Stack Test <input checked="" type="checkbox"/> Parameter Monitoring <input type="checkbox"/> CEM <input type="checkbox"/> Ambient Monitoring	Monitor Location Description: Facility wide
Regulated Air Pollutant(s) Monitored: VOC	Monitoring frequency and duration of sampling: (Example: every 15 min, 1 min instantaneous readings are taken to produce an hourly average.) Quarterly

SECTION B1 –METHOD OF COMPLIANCE RECORDKEEPING

Data (Parameter) Being Recorded	Frequency of Reporting (6 mo, quarterly, etc.)
Date and location of leak detected	Quarterly record keeping and Annual Reporting
Date and method of leak repair	Quarterly record keeping and Annual Reporting

SECTION B2 –METHOD OF COMPLIANCE REPORTING

Data (Parameter) Being Recorded	Beginning Date (month/day/year)	Frequency of Reporting (6 mo, quarterly, etc.)
Date and location of leak detected	Within 180 days of startup	Annual
Date and method of leak repair	Within 180 days of startup	Annual

SECTION B3 –COMPLIANCE CERTIFICATION

Certification Parameter	Beginning Date (month/day/year)	Frequency of Submittal (6 mo, quarterly, etc.)
All applicable requirements	With this submittal and 45 days after 12/31 of the year permit issued	Annual

The air contaminant source identified in this application is in compliance with applicable monitoring and compliance certification requirements? Yes Not Applicable No--Describe Below:



PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 8532 (3-2019)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

- **Must also include forms SFN 8516 or SFN 52858**

SECTION A – GENERAL INFORMATION

Name of Firm or Organization	Facility Name
Source ID No. of Equipment being Controlled	

SECTION B – EQUIPMENT

Type:	<input type="checkbox"/> Cyclone	<input type="checkbox"/> Multiclone	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Electrostatic Precipitator
	<input type="checkbox"/> Wet Scrubber	<input type="checkbox"/> Spray Dryer	<input type="checkbox"/> Flare/Combustor	
	<input type="checkbox"/> Other – Specify:			
Name of Manufacturer	Model Number	Date to Be Installed		
Application:				
<input type="checkbox"/> Boiler				
<input type="checkbox"/> Kiln				
<input type="checkbox"/> Engine				
<input type="checkbox"/> Other – Specify:				
Pollutants Removed				
Design Efficiency (%)				
Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION CD – GAS CONDITIONS

Gas Conditions		Inlet	Outlet
Gas Volume (SCFM; 68°F; 14.7 psia)			
Gas Temperature (°F)			
Gas Pressure (in. H ₂ O)			
Gas Velocity (ft/sec)			
Pollutant Concentration (Specify Pollutant and Unit of Concentration)	Pollutant	Unit of Concentration	
Pressure Drop Through Gas Cleaning Device (in. H ₂ O)			



PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF AIR QUALITY
 SFN 8532 (3-2019)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

- **Must also include forms SFN 8516 or SFN 52858**

SECTION A – GENERAL INFORMATION

Name of Firm or Organization	Facility Name
Source ID No. of Equipment being Controlled	

SECTION B – EQUIPMENT

Type:	<input type="checkbox"/> Cyclone	<input type="checkbox"/> Multiclone	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Electrostatic Precipitator
	<input type="checkbox"/> Wet Scrubber	<input type="checkbox"/> Spray Dryer	<input type="checkbox"/> Flare/Combustor	
	<input type="checkbox"/> Other – Specify:			
Name of Manufacturer	Model Number	Date to Be Installed		
Application:				
<input type="checkbox"/> Boiler				
<input type="checkbox"/> Kiln				
<input type="checkbox"/> Engine				
<input type="checkbox"/> Other – Specify:				
Pollutants Removed				
Design Efficiency (%)				
Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION CD – GAS CONDITIONS

Gas Conditions		Inlet	Outlet
Gas Volume (SCFM; 68°F; 14.7 psia)			
Gas Temperature (°F)			
Gas Pressure (in. H ₂ O)			
Gas Velocity (ft/sec)			
Pollutant Concentration (Specify Pollutant and Unit of Concentration)	Pollutant	Unit of Concentration	
Pressure Drop Through Gas Cleaning Device (in. H ₂ O)			



**PERMIT APPLICATION FOR
AIR POLLUTION CONTROL EQUIPMENT**
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF AIR QUALITY
SFN 8532 (09-12)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

SECTION A – GENERAL INFORMATION

Name of Firm or Organization		
Applicant's Name		
Title	Telephone Number	E-mail Address
Mailing Address (Street & No.)		
City	State	ZIP Code

SECTION B – FACILITY INFORMATION

Facility Name		
Contact Person for Air Pollution Matters		
Title	Telephone Number	E-mail Address
Facility Location		Source ID No.

SECTION C – EQUIPMENT

Type:	<input type="checkbox"/> Cyclone	<input type="checkbox"/> Multiclone	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Electrostatic Precipitator
	<input type="checkbox"/> Wet Scrubber	<input type="checkbox"/> Spray Dryer	<input type="checkbox"/> Other – Specify:	
Name of Manufacturer	Model Number		Date to Be Installed	
Application:	<input type="checkbox"/> Boiler	<input type="checkbox"/> Kiln	<input type="checkbox"/> Engine	<input type="checkbox"/> Other – Specify:
Pollutants Removed				
Design Efficiency (%)				
Operating Efficiency (%)				
Describe method used to determine operating efficiency:				

SECTION D – GAS CONDITIONS

Gas Conditions		Inlet	Outlet
Gas Volume (SCFM; 68°F; 14.7 psia)			
Gas Temperature (°F)			
Gas Pressure (in. H ₂ O)			
Gas Velocity (ft/sec)			
Pollutant Concentration (Specify Pollutant and Unit of Concentration)	Pollutant	Unit of Concentration	
Pressure Drop Through Gas Cleaning Device (in. H ₂ O)			

Signature of Applicant	Date
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INSTRUCTIONS FOR PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT

1. Complete this form for each piece of equipment or process, which has air pollution control equipment installed, described in the following Permit Applications: Hazardous Air Pollutant (HAP) Sources (SFN 8329), Fuel Burning Equipment for Indirect Heating (SFN 8518); Manufacturing or Processing Equipment (SFN 8520); Incinerators/Crematories (SFN 8522); Internal Combustion Engines and Turbines (SFN 8891); and Glycol Dehydration Units (SFN 58923). Print or type all information. If an item does not apply, place NA in the appropriate space.
2. Type of Equipment - If the type is not one of those listed; provide enough information so the operating principal of the equipment can be determined.
3. List each pollutant which the device is intended to control, the efficiency of removal intended by the designer, and the actual efficiency under operating conditions.
4. Please attach the following:
 - A brief description and sketch of the air pollution control device if it is of unusual design, or used in conjunction with other control devices. Show any bypass of the device and specify the conditions under which the bypass is used.
 - A description of what is done with collected air contaminants from the time they are collected until they reach the final disposal point. Include a description of the transportation methods used.
 - If a stack test has been conducted, attach a copy of the results, date of the test, a description of the techniques used, and the name and address of the organization which performed the test.
5. If the control device is a combustor (e.g.: thermal oxidizer, vapor combustion unit, etc.), include an estimate of potential greenhouse gas emissions (CO₂e).

SUBMIT YOUR APPLICATION WITH ALL SUPPORTING DOCUMENTS, ALONG WITH THE FORMS SPECIFIED IN THE FIRST PARAGRAPH ABOVE, TO:

North Dakota Department of Health
Division of Air Quality
918 E Divide Ave., 2nd Floor
Bismarck, ND 58501-1947
(701) 328-5188