



Mullins, Robert A <robert.a.mullins@wv.gov>

RE: [EXTERNAL] Orma Station Title V Renewal Pre-Draft

1 message

Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com>
To: "Mullins, Robert A" <robert.a.mullins@wv.gov>

Thu, Feb 24, 2022 at 9:00 AM

Hello Robert,

Thank you for giving us the opportunity to review these draft documents.

I like the way you rephrased the permit shield language for CAM; I think your way is even more clear that CAM does not apply to these units at this facility.

Thank you for removing the inapplicable sulfur and H2S requirements (old 4.1.6 and 4.1.7 and their associated monitoring conditions).

I did not see anything else.

Andy Gates
Environmental Consultant
BHE GT&S, LLC

6603 West Broad Street
Richmond, Virginia 23230
804-389-1340

www.bhegts.com

andy.gates@bhegts.com

(Please note new email address)



From: Mullins, Robert A <robert.a.mullins@wv.gov>
Sent: Wednesday, February 9, 2022 7:26 AM
To: Gates, Andy (BHE GT&S) <andy.gates@bhegts.com>
Subject: [EXTERNAL] Orma Station Title V Renewal Pre-Draft

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Andy,

Attached are the Pre-Draft Title V Permit (R30-01300002-2022) and Factsheet for Eastern Gas Transmission & Storage, Inc.'s Orma Compressor Station. Please review the documents and respond with any questions/comments by February 24, 2022 so that I can address any question/comments before sending the Permit out to Notice.

--

Robert Mullins

WV Department of Environmental Protection

Division of Air Quality

[601 57th Street, SE](#)

[Charleston, WV 25304](#)

Phone: (304)926-0499 ext. 41286

**Mullins, Robert A** <robert.a.mullins@wv.gov>

R30-01300002-2022

1 message

Mullins, Robert A <robert.a.mullins@wv.gov>
To: Stephanie R Mink <stephanie.r.mink@wv.gov>

Thu, Feb 24, 2022 at 9:34 AM

The Title V permit renewal for Eastern Gas Transmission & Storage, Inc.'s Orma Compressor Station is ready to Notice. I've included the Drive links to the files and the up to date IPR folder.

Thanks
R.A.

[!\[\]\(870f5d5e9c0d57485634be3ecf52f3ca_img.jpg\) notice -Concurrent_R30-01300002-2022.docx](#)[!\[\]\(4fe57c3593bf1b21d272ae7ac8dfaf77_img.jpg\) DPFactSheet_R30-01300002-2022.docx](#)[!\[\]\(0d5ec72f61334709c3fc9450209b754f_img.jpg\) DPPermit_R30-01300002-2022.docx](#)[!\[\]\(b792654f2cef9719eabeb6c5be00811e_img.jpg\) T5_Info_Table_R30-01300002-2022.doc](#)[!\[\]\(7d1d6890825e83a6a4a51febe2dcc7f3_img.jpg\) R30-01300002-2022](#)[!\[\]\(2bae76de5ebbd5c4d7d47162f1673734_img.jpg\) 013-00002_PERM_13-2945A.pdf](#)

**Mullins, Robert A** <robert.a.mullins@wv.gov>

Orma Station Title V Renewal Pre-Draft

1 message

Mullins, Robert A <robert.a.mullins@wv.gov>
To: "Gates, Andy (BHE GT&S)" <andy.gates@bhegts.com>

Wed, Feb 9, 2022 at 7:25 AM

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2 attachments**Pre-DPPermit_R30-01300002-2022.docx**
288K**Pre-DPFactSheet_R30-01300002-2022.docx**
89K



Mullins, Robert A <robert.a.mullins@wv.gov>

Requested SLEIS Correction - 2020 - EGTS - Orma Compressor Station (54-013-00002) - Benzene1 message

Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com>

Wed, Jan 26, 2022 at 4:25 PM

To: "Porter, David J" <david.j.porter@wv.gov>

Cc: "Mullins, Robert A" <robert.a.mullins@wv.gov>

Hello Dave,

I'm emailing to request your help in correcting two emissions factors and the resultant emissions for benzene for 2020 for both Engines 1 and 2 at our Orma Compressor Station (54-013-00002). The emissions that are currently in SLEIS for 2020 are overstated due to the carryover usage of an old emissions factor. We believe that benzene emissions from both Engines 1 and 2 should be calculated using the July 2000 AP-42 factor of 1.94×10^{-3} lbs benzene/mmBtu heat input. Using 1,000 Btu/cf, this equates to 1.94 lbs benzene/mmcf, which is far lower than the 45.9 lbs/mmcf used in SLEIS. Using the correct AP-42 emissions factor, the benzene emissions for Engines 1 and 2 should be as follows:

Engine 1: 4.8 mmcf burned X 1.94 lbs benzene/mmcf = 9.312 lbs/year = 0.004656 tons benzene/year

Engine 2: 14.77 mmcf burned X 1.94 lbs benzene/mmcf = 28.6538 lbs/year = 0.0143269 tons benzene/year

This discrepancy was brought to our attention during the Title V renewal process, as our calculated potential to emit for the facility for benzene used the AP-42 factors for these two engines.

Please let me know if you need me to do anything on my end to help get these two numbers (and the total actual benzene emissions) corrected.

Thank you,

Andy Gates

Environmental Consultant

BHE GT&S, LLC

[6603 West Broad Street](#)

Richmond, Virginia 23230

804-389-1340

www.bhegts.comandy.gates@bhegts.com

(Please note new email address)



Mullins, Robert A <robert.a.mullins@wv.gov>**Re: [EXTERNAL] R30-01300002-2022?**

1 message

McCumbers, Carrie <carrie.mccumbers@wv.gov>
To: "Mullins, Robert A" <robert.a.mullins@wv.gov>

Mon, Jan 24, 2022 at 8:32 AM

Since they aren't underpaying, if they get this corrected for CY2020 and going forward, that should be fine.

On Mon, Jan 24, 2022 at 7:40 AM Mullins, Robert A <robert.a.mullins@wv.gov> wrote:
I would like your opinion on whether they should fix SLEIS and if so how much of it.

Thanks,

R.A.

----- Forwarded message -----

From: **Gates, Andy (BHE GT&S)** <Andy.Gates@bhegts.com>
Date: Fri, Jan 21, 2022 at 3:20 PM
Subject: RE: [EXTERNAL] R30-01300002-2022?
To: Mullins, Robert A <robert.a.mullins@wv.gov>

Robert,

Yes, I think we have an answer for you on this. Sorry for the delay in getting back to you.

Our West Virginia Title V facilities and their permit applications have been through many hands on our side, and I think this is part of what happened. I think you are correct that these discrepancies originate with Engines 1 and 2. The earliest Title V applications and renewals used emissions factors that are no longer accessible to us; I am not sure where they came from. In the 2016 renewal for Orma, the person who prepared the application recognized this and changed the emissions factors to the July 2000 version of AP-42 for all of the HAPs for these types of existing RICE units. The intention was that our SLEIS calculations would have been updated after that, but in this case (and I believe probably in others), there was a disconnect between the permitting and the emissions inventory personnel at what was then Dominion. I see from Orma that we're still using the old factor (of uncertain origin) of 45.9 lbs benzene/mmcf gas burned for both Engines 1 and 2. This is equivalent to 4.59×10^{-2} lbs benzene/mmBtu @1,000 Btu/cf gas heat content. The PTE calculations that were included in both the 2016 renewal submitted by Dominion and the 2020 submitted by EGTS used the AP-42 factor of 1.94×10^{-3} lbs benzene/mmBtu heat input, and also assumed a gas heat content of 1,000 Btu/cf. This factor is a lot lower than what appears in SLEIS. Therefore, the benzene emissions reported in SLEIS have been inadvertently overstated. We believe the facility-wide and Engines 1 and 2 PTEs for benzene as stated in the 2016 and 2021 renewal applications are correct.

Should we work with Dave Porter and get this corrected, at least for CY 2020? Have you seen any other discrepancies?

Thank you,

Andy Gates
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andy.gates@bhegts.com

(Please note new email address)



From: Mullins, Robert A <robert.a.mullins@wv.gov>
Sent: Friday, January 21, 2022 10:14 AM
To: Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com>
Subject: Re: [EXTERNAL] R30-01300002-2022?

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Andy,

Have you had a chance to figure out why Orma Compressor Station's actual benzene emissions are higher than the PTE for benzene in the renewal application?

On Mon, Jan 3, 2022 at 3:49 PM Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com> wrote:

Hello,

Unfortunately, I can't access SLEIS right now to better understand your concerns. I've got a message in to Dave Porter to see if I can get my access restored.

I will check with my colleague who prepares the SLEIS data for submittal to see if we can figure out what's going on. I reviewed the Title V PTE calculations and they appear to be correct. (1.94×10^{-3} lbs benzene/mmBtu heat input was the factor we have been using for both EN01 and EN02 for the PTE calculations.)

Let me know if you need anything else in the meantime.

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andy.gates@bhegts.com

(Please note new email address)



From: Mullins, Robert A <robert.a.mullins@wv.gov>
Sent: Wednesday, December 29, 2021 2:21 PM
To: Gates, Andy (BHE GT&S) <andy.gates@bhegts.com>
Subject: [EXTERNAL] R30-01300002-2022?

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I am currently working on the Title V Permit Renewal for Eastern Gas Transmission and Storage, Inc.'s Orma Compressor Station. While completing the Emission Summary for the Renewals Factsheet I noticed that the 2020, 2019, 2018, and 2017 Actual Emission for Benzene reported in SLEIS exceeds the Facility-Wide Potential Emissions given in both the 2017 and current Title V Renewal Application.

Can you please check the Potential Emission Calculations for this Facility. From what I can tell from the SLEIS data the Potential emissions given for EN01 and EN02 is where the discrepancy between PTE and Actual Emissions is.

--

Robert Mullins

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Mullins, Robert A <robert.a.mullins@wv.gov>

Re: [EXTERNAL] R30-01300002-2022?

1 message

Mullins, Robert A <robert.a.mullins@wv.gov>
To: "Gates, Andy (BHE GT&S)" <Andy.Gates@bhegts.com>

Mon, Jan 24, 2022 at 8:50 AM

Andy,

I checked with my supervisor. Correcting CY2020 and going forward should be fine. I have not seen any other discrepancies. If possible send me the corrected CY2020 actual emissions so I can proceed with the renewal while you get the SLEIS data corrected. If not possible let me know when you have the SLEIS corrected.

On Fri, Jan 21, 2022 at 3:20 PM Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com> wrote:

Robert,

Yes, I think we have an answer for you on this. Sorry for the delay in getting back to you.

Our West Virginia Title V facilities and their permit applications have been through many hands on our side, and I think this is part of what happened. I think you are correct that these discrepancies originate with Engines 1 and 2. The earliest Title V applications and renewals used emissions factors that are no longer accessible to us; I am not sure where they came from. In the 2016 renewal for Orma, the person who prepared the application recognized this and changed the emissions factors to the July 2000 version of AP-42 for all of the HAPs for these types of existing RICE units. The intention was that our SLEIS calculations would have been updated after that, but in this case (and I believe probably in others), there was a disconnect between the permitting and the emissions inventory personnel at what was then Dominion. I see from Orma that we're still using the old factor (of uncertain origin) of 45.9 lbs benzene/mmcf gas burned for both Engines 1 and 2. This is equivalent to 4.59×10^{-2} lbs benzene/mmBtu @1,000 Btu/cf gas heat content. The PTE calculations that were included in both the 2016 renewal submitted by Dominion and the 2020 submitted by EGTS used the AP-42 factor of 1.94×10^{-3} lbs benzene/mmBtu heat input, and also assumed a gas heat content of 1,000 Btu/cf. This factor is a lot lower than what appears in SLEIS. Therefore, the benzene emissions reported in SLEIS have been inadvertently overstated. We believe the facility-wide and Engines 1 and 2 PTEs for benzene as stated in the 2016 and 2021 renewal applications are correct.

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Sent: Friday, January 21, 2022 10:14 AM
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Mullins, Robert A <robert.a.mullins@wv.gov>

Completeness Determination, Orma Compressor Station, Application No.: R30-01300002-2021

1 message

Mullins, Robert A <robert.a.mullins@wv.gov>

Mon, Aug 30, 2021 at 9:22 AM

To: matt.lamb@bhegts.com, andy.gates@bhegts.com

Your Title V renewal application for a permit to operate the above referenced facility was received by this Division on July 9, 2021. After review of said application, it has been determined that the application is administratively complete as submitted. Therefore, the above referenced facility qualifies for an Application Shield.

The applicant has the duty to supplement or correct the application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

The submittal of a complete application shall not affect the requirement that any source have all **preconstruction permits** required under the rules of the Division.

If during the processing of this application it is determined that additional information is necessary to evaluate or take final action on this application, a request for such information will be made in writing with a reasonable deadline for a response. Until which time as your renewal permit is issued or denied, please continue to operate this facility in accordance with 45CSR30, section 6.3.c. which states: *If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.* This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph 6.1.d. of 45CSR30 and as required by paragraph 4.1.b., the applicant fails to submit by the deadline specified in writing any additional information identified as being needed to process the application.

Please remember, **failure of the applicant to timely submit information required or requested to process the application may cause the Application Shield to be revoked.** Should you have any questions regarding this determination, please contact me.

Sincerely,

--

Robert Mullins

WV Department of Environmental Protection

Division of Air Quality

601 57th Street, SE

Charleston, WV 25304

2/24/22, 9:20 AM

State of West Virginia Mail - Completeness Determination, Orma Compressor Station, Application No.: R30-01300002-2021

Phone: (304)926-0499 ext. 41286



Mullins, Robert A <robert.a.mullins@wv.gov>

**Read: [EXTERNAL] Completeness Determination, Orma Compressor Station,
Application No.: R30-01300002-2021**

1 message

Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com>
To: "robert.a.mullins@wv.gov" <robert.a.mullins@wv.gov>

Mon, Aug 30, 2021 at 10:23 AM

Your message

To: Gates, Andy (BHE GT&S)
Subject: [EXTERNAL] Completeness Determination, Orma Compressor Station, Application No.: R30-01300002-2021

Sent: Monday, August 30, 2021 9:22:53 AM (UTC-05:00) Eastern Time (US & Canada)

was read on Monday, August 30, 2021 10:22:24 AM (UTC-05:00) Eastern Time (US & Canada).



Mullins, Robert A <robert.a.mullins@wv.gov>

FW: [External] Eastern Gas Transmission and Storage, Inc. - Orma Station - Title V Renewal Application R30-01300002 - July 2021

1 message

DEP Air Quality Permitting <DEPAirQualityPermitting@wv.gov>

Fri, Jul 9, 2021 at 11:04 AM

To: "Mink, Stephanie R" <Stephanie.R.Mink@wv.gov>

Cc: "Mullins, Robert A" <Robert.A.Mullins@wv.gov>

Stephanie,

Please assign this renewal to R.A. as R30-01300002-2021.

Thanks,

Carrie

From: Gates, Andy (BHE GT&S) <Andy.Gates@bhegts.com>**Sent:** Friday, July 9, 2021 10:01 AM**To:** DEP Air Quality Permitting <DEPAirQualityPermitting@wv.gov>**Subject:** [External] Eastern Gas Transmission and Storage, Inc. - Orma Station - Title V Renewal Application R30-01300002 - July 2021

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Please let me know if you have any questions regarding the attached Title V renewal application.

Andy Gates

Environmental Consultant

BHE GT&S, LLC

[6603 West Broad Street](http://www.bhegts.com)

Richmond, Virginia 23230

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www.bhegts.comandy.gates@bhegts.com*(Please note new email address)*

2 attachments



DEP Email Cover - Orma TV Renewal.pdf
571K



Eastern Gas Transmission and Storage, Inc. - Orma - R30-01300002 Renewal - July 2021.pdf
2408K



Mullins, Robert A <robert.a.mullins@wv.gov>

Eastern - Orma application

1 message

Mink, Stephanie R <Stephanie.R.Mink@wv.gov>
To: "Mullins, Robert A" <Robert.A.Mullins@wv.gov>

Fri, Jul 9, 2021 at 1:41 PM

Here's the application and info sheet, I'll be sending the confirmation email in a few minutes.

Stephanie Mink

Secretary 2

West Virginia Department of Environmental Protection

Division of Air Quality, Title V Permitting


601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

2 attachments

 **Eastern-Orma Renewal -R30-01300002-2021.pdf**
2872K

 **R30-01300002-2021 info sheet.pdf**
67K



Mullins, Robert A <robert.a.mullins@wv.gov>

WV DAQ Title V Permit Application Status for Eastern Gas Transmission and Storage, Inc.; Orma Compressor Station

1 message

Mink, Stephanie R <Stephanie.R.Mink@wv.gov>

Fri, Jul 9, 2021 at 1:44 PM

To: "Matt.Lamb@bhegts.com" <Matt.Lamb@bhegts.com>, "andy.gates@bhegts.com" <andy.gates@bhegts.com>

Cc: "Mullins, Robert A" <Robert.A.Mullins@wv.gov>, "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

RE: Application Status**Eastern Gas Transmission and Storage, Inc.****Orma Compressor Station****Facility ID No. 01300002****Application No. R30-01300002-2021**

Dear Mr. Lamb,

Your application for a Title V Permit Renewal for Eastern Gas Transmission and Storage, Inc.'s Orma Compressor Station was received by this Division on July 9, 2021, and was assigned to Robert "R.A." Mullins.

Should you have any questions, please contact the assigned permit writer, Robert "R.A." Mullins, at 304-926-0499, extension 41286, or Robert.A.Mullins@wv.gov.

Stephanie Mink

Secretary 2

West Virginia Department of Environmental Protection

Division of Air Quality, Title V Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
 - Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):
 - Type of NSR Application (check all that apply):
 - ☐ Construction
 - ☐ Modification
 - ☐ Class I Administrative Update
 - ☐ Class II Administrative Update
 - ☐ Relocation
 - ☐ Temporary
 - ☐ Permit Determination
 - Type of 45CSR30 (TITLE V) Application:
 - ☐ Title V Initial
 - ☐ Title V Renewal
 - ☐ Administrative Amendment**
 - ☐ Minor Modification**
 - ☐ Significant Modification**
 - ☐ Off Permit Change
- **If the box above is checked, include the Title V revision information as ATTACHMENT S to the combined NSR/Title V application.**
- Payment Type:
 - ☐ Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
 - ☐ Check (Make checks payable to: WVDEP – Division of Air Quality)
Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304
- If the permit writer has any questions, please contact (all that apply):
 - ☐ Responsible Official/Authorized Representative
 - Name:
 - Email:
 - Phone Number:
 - ☐ Company Contact
 - Name:
 - Email:
 - Phone Number:
 - ☐ Consultant
 - Name:
 - Email:
 - Phone Number:

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.



BHE GT&S, LLC
6603 West Broad Street
Richmond, VA 23230

July 9, 2021

Received
July 9, 2021
WV DEP/Div of Air Quality

BY ELECTRONIC DELIVERY
DEPAirQualityPermitting@wv.gov

Laura M. Crowder
Director, Division of Air Quality
WVDEP
601 57th Street, SE
Charleston, WV 25304

RE: Eastern Gas Transmission and Storage, Inc. – Title V Renewal Application
Orma Compressor Station – R30-01300002

Dear Ms. Crowder:

The renewal application for the Title V permit for Eastern Gas Transmission and Storage, Inc.'s Orma Compressor Station is attached. In accordance with instructions on the WVDEP website, only this electronic submittal will be made unless otherwise requested.

If you need any additional information, please contact Andy Gates at (804) 389-1340 or andy.gates@bhegts.com.

Sincerely,

Stephen M. Hall
Manager, Environmental Services

Attachment: Orma Station Title V Renewal Application Package

**ORMA COMPRESSOR STATION
EASTERN GAS TRANSMISSION AND STORAGE, INC.
APPLICATION FOR TITLE V OPERATING PERMIT RENEWAL
TITLE V OPERATING PERMIT NO: R30-01300002-2017**

Eastern Gas Transmission and Storage, Inc.
Orma Compressor Station
Crooked Run Road
Orma, WV 25268

JULY 2021

**EASTERN GAS TRANSMISSION AND STORAGE, INC.
ORMA COMPRESSOR STATION**

TITLE V PERMIT RENEWAL APPLICATION

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Attachment A: Area Map

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Attachment D: Title V Equipment Table

Attachment E: Emission Unit Forms

Attachment G: Air Pollution Control Device Form

Note: Attachments F and G are not included in this application.

SECTION 1

Introduction

INTRODUCTION:

Orma Station is a natural gas compressor station used to compress natural gas for Eastern Gas Transmission and Storage, Inc.'s transmission pipeline system in West Virginia. Orma Station is located in Orma, WV.

Orma Station has the potential to emit in excess of 100 tons per year of nitrogen oxides (NO_x). The station is classified as a major stationary source under the West Virginia Department of Environmental Protection (WVDEP) Regulation (45 CSR Part 30) and is subject to the Title V Operating Permit provisions of Part 30. Orma Station is also an area source of hazardous air pollutants (HAPs) since the potential to emit is less than 10 tons per year for individual HAPs and less than 25 tons per year of combined HAPs.

Orma Station's Title V Operating Permit (Permit No: R30-01300002-2017) was renewed in 2017 with an expiration date of January 10, 2022. Orma Station is also subject to the underlying State Operating Permit (Rule 13 Permit No: R13-2945A). The Title V operating permit is for the operation of two (2) 660 hp natural gas fired reciprocating engines (EN01 and EN02), one (1) 9 MMscf/day glycol dehydrator system (DEHY02) with flare (F1), one (1) 0.567 MMBtu/hr dehydration unit reboiler (RBR02), one (1) 112.2 hp natural gas fired emergency generator (EG01), and eight (8) above ground storage tanks of various sizes (TK01, TK03, TK07-TK09, TK11-TK13).

PROCESS DESCRIPTION

Orma Station is a compressor facility that services a natural gas pipeline system. The compressor engines (EN01 and EN02) at the facility receive natural gas flowing through a valve on the pipeline and recompresses the natural gas to further transport the natural gas through the pipeline system. Prior to exiting the facility through the pipeline, the compressed natural gas is processed by the dehydration unit (DEHY02). The dehydration unit removes moisture and impurities from the gas stream.

The dehydration process begins with the compressed natural gas entering the unit and then being passed through a triethylene glycol dehydration system consisting of a contactor bed, a reboiler (RBR02), and associated equipment. As a result of this process, the natural gas is stripped of moisture and impurities, along with a small amount of hydrocarbons. The wet gas enters the contactor where moisture and some hydrocarbons are absorbed into the lean glycol. The glycol, which has become rich with absorbed moisture and hydrocarbons, is regenerated in the still column (DEHY02) using the heat generated from the natural gas-fired reboiler (RBR02) to liberate the moisture and hydrocarbon vapors. The regenerator vapors are vented to the enclosed flare (F1) to combust the hydrocarbons; thereby, reducing overall emissions and odor. The flare is permitted with a destruction efficiency of 95% for VOCs and volatile HAPs. The compressed, dehydrated gas then enters the pipeline.

Listed below is a description of the equipment located at the Orma Station:

Two (2) 660 hp Cooper GMXE-8 natural gas-fired reciprocating engines/integral compressors

- Emission unit ID: EN01 and EN02
- Emission point ID: EN01 and EN02

One (1) 112.2 hp natural gas-fired emergency generator

- Emission unit ID: EG01
- Emission point ID: EG01

One (1) 0.567 MMBtu/hr natural gas-fired dehydration unit reboiler

- Emission unit ID: RBR02
- Emission point ID: RBR02

One (1) 9 MMscf/day dehydration unit/still column

- Emission unit ID: DEHY02
- Emission point ID: DEHY02

One (1) 4.0 MMBtu/hr dehydration unit flare

- Emission unit ID: F1
- Emission point ID: F1

One (1) 1,000 gallon horizontal aboveground triethylene glycol storage tank

- Emission unit ID: TK01
- Emission point ID: TK01

One (1) 2,100 gallon vertical aboveground ethylene glycol storage tank

- Emission unit ID: TK03
- Emission point ID: TK03

One (1) 500 gallon vertical aboveground wastewater storage tank

- Emission unit ID: TK07
- Emission point ID: TK07

One (1) 4,000 gallon horizontal aboveground produced fluids storage tank

- Emission unit ID: TK08
- Emission point ID: TK08

One (1) 1,000 gallon vertical aboveground used oil storage tank

- Emission unit ID: TK09
- Emission point ID: TK09

One (1) 6,000 gallon vertical aboveground lube oil storage tank

- Emission unit ID: TK11
- Emission point ID: TK11

One (1) 1,000 gallon vertical aboveground triethylene glycol storage tank

- Emission unit ID: TK12
- Emission point ID: TK12

One (1) 230 gallon horizontal aboveground ice chek storage tank

- Emission unit ID: TK13
- Emission point ID: TK13

SECTION 2

Title V Renewal Permit Application -
General Forms



**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL
PROTECTION**

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

Received
July 9, 2021
WV DEP/Div of Air Quality

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. Name of Applicant (As registered with the WV Secretary of State's Office): Eastern Gas Transmission and Storage, Inc.	2. Facility Name or Location: Orma Station
3. DAQ Plant ID No.: 0 1 3 — 0 0 0 0 2	4. Federal Employer ID No. (FEIN): 5 5 0 6 2 9 2 0 3
5. Permit Application Type: <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal <input type="checkbox"/> Update to Initial/Renewal Permit Application When did operations commence? 1965 What is the expiration date of the existing permit? 01/10/2022	
6. Type of Business Entity: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Governmental Agency <input type="checkbox"/> Limited Partnership <input type="checkbox"/> LLC	7. Is the Applicant the: <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both If the Applicant is not both the owner and operator, please provide the name and address of the other party. _____ _____ _____
8. Number of onsite employees: Normally unmanned	
9. Governmental Code: <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> District government owned and operated; 5	
10. Business Confidentiality Claims Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

11. Mailing Address**Street or P.O. Box:** 925 White Oaks Blvd.**City:** Bridgeport**State:** WV**Zip:** 26330**Telephone Number:** (681) 842-3000**Fax Number:** (681) 842-3323**12. Facility Location****Street:** Crooked Run Road**City:** Orma**County:** Calhoun County**UTM Easting:** 492.68 km**UTM Northing:** 4288.86 km**Zone:** ☒ 17 or ☐ 18

Directions: From intersection of Rt. 33/Rt. 119 West & Rt. 16 South at Arnoldsburg take Rt. 16 South 4.7 miles to Orma, turn left onto Euclid/Nicut Road and travel 1.0 mile, turn left onto Crooked Run Road and go 0.1 mile, station is on left.

Portable Source? ☐ Yes ☒ No**Is facility located within a nonattainment area?** ☐ Yes ☒ No**If yes, for what air pollutants?****Is facility located within 50 miles of another state?** ☒ Yes ☐ No**If yes, name the affected state(s).**
Ohio**Is facility located within 100 km of a Class I Area¹?** ☐ Yes ☒ No**If yes, name the area(s).****If no, do emissions impact a Class I Area¹?** ☐ Yes ☒ No

¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.

13. Contact Information		
Responsible Official: John M. Lamb		Title: Vice President, Pipeline Operations
Street or P.O. Box: 925 White Oaks Blvd.		
City: Bridgeport	State: WV	Zip: 26330
Telephone Number: (681) 842-3550	Fax Number: NA	
E-mail address: matt.lamb@bhegts.com		
Environmental Contact: Andy Gates		Title: Environmental Consultant
Street or P.O. Box: 6603 W. Broad St.		
City: Richmond	State: VA	Zip: 23230
Telephone Number: (804) 389-1340	Fax Number: NA	
E-mail address: andy.gates@bhegts.com		
Application Preparer: Andy Gates		Title: Environmental Consultant
Company: Eastern Gas Transmission and Storage, Inc.		
Street or P.O. Box: 6603 W. Broad St.		
City: Richmond	State: VA	Zip: 23230
Telephone Number: (804) 389-1340	Fax Number: NA	
E-mail address: andy.gates@bhegts.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Natural Gas Compressor Station	N/A	486120	4922

Provide a general description of operations.

Orma Station is a compressor facility that services a natural gas pipeline system. The purpose of the facility is to recompress natural gas flowing through a pipeline for transportation. The reciprocating engines (EN01 and EN02) at the facility receives natural gas from a valve on a pipeline and compress it to enable further transportation in the pipeline.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	
19. Non Applicability Determinations	
<p>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</p> <p>40 CFR Subpart JJJJ – The compressor engines (EN01 and EN02) are not subject to this subpart since they were manufactured in 1965, before the applicability date.</p> <p>40 CFR 60 Subpart OOOO – This subpart does not apply to the facility since the facility is a gathering facility that does not have gas wells, centrifugal compressors, reciprocating compressors, and/or pneumatic controllers constructed, modified, or reconstructed after August 23, 2011. None of the newly installed tanks onsite meet the applicability requirements in 40 CFR 60.5365(e).</p> <p>40 CFR 60, Subpart OOOOa – This facility has no equipment with applicable requirements under Subpart OOOOa. This subpart applies to equipment installed after September 18, 2015. The facility has no affected emissions units that have been installed after the applicable Subpart OOOOa effective date.</p> <p>40 CFR 63 Subpart HHH – This subpart does not apply to the facility since the facility is not a transmission or storage station and is not a major source of HAPs.</p> <p>40 CFR 63 Subpart DDDDD – The reboiler (RBR02) is not subject to this subpart since it is exempt by §63.7491(h) and facility is not major source of HAPs.</p> <p>40 CFR 63 Subpart JJJJJ – The reboiler (RBR02) is not applicable to this subpart since it is considered a “process heater,” which is excluded from the definition of “boiler”.</p> <p>40 CFR 64 – The dehy unit (DEHY02) is not applicable to CAM since the unit is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990 (exemption per 64.2(b)(1)(i)). In addition, since the R13-2945A permit specifies a “continuous compliance determination method” condition (e.g. continuously monitoring the flare using a thermocouple to detect the presence of a flame) which was included in the Title V permit, CAM does not apply (exemption per 64.2(b)(1)(vi)).</p>	
<input checked="" type="checkbox"/> Permit Shield	

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

45 CSR 6-3.1 – Open Burning prohibited (TV 3.1.1)
45 CSR 6-3.2 – Open Burning exemption (TV 3.1.2)
40 CFR Part 61 and 45 CSR 34 – Asbestos inspection and removal (TV 3.1.3)
State Only: 45 CSR 4-3.1 – No objectionable odors (TV 3.1.4)
45 CSR 11-5.2 – Standby plans for emergency episodes (TV 3.1.5)
WV Code 22-5-4 (a) (14) – Annual emissions inventory (TV 3.1.6)
40 CFR Part 82 Subpart F – Ozone depleting substances (TV 3.1.7)
40 CFR Part 68 – Risk Management Plan (TV 3.1.8)
45 CSR 17-3.1 – Fugitive Particulate Matter (TV 3.1.11)

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 6-3.1 – The permittee shall prohibit open burning (TV 3.1.1)
45 CSR 6-3.2 – The permittee shall notify if open burning occurs (TV 3.1.2)
40 CFR Part 61 and 45 CSR 34 – Prior to demolition/construction buildings will be inspected for asbestos (TV 3.1.3)
45 CSR 4 – Permittee shall maintain records of all odor complaints received (TV 3.1.4)
45 CSR 11 – Upon request by the Secretary, the permittee shall prepare a standby plan (TV 3.1.5)
WV 22-5-4 – The permittee shall submit annual emission inventory reports (TV 3.1.6)
40 CFR Part 82 Subpart F – The permittee will prohibit maintenance, service, or repair of appliances containing Ozone depleting substances (TV 3.1.7)
40 CFR Part 68 – Should the permittee become subject to 40 CFR Part 68, a RMP shall be submitted (TV 3.1.8)
45 CSR 17-3 – The permittee will limit fugitive emissions from the facility by burning only pipeline quality natural gas (TV 3.1.11)
45 CSR 13 – Compliance with all annual limits shall be based on a rolling 12-month total (TV 3.2.3; R13-2945A 3. 45 CSR 13 and WV Code 22-5-4(a)(14 - 15) – Testing requirements (TV 3.3.1 and 3.3.2)
45 CSR 30 – Recordkeeping Requirements (TV 3.4)
45 CSR 30 – Reporting Requirements (TV 3.5)
45 CSR 30 - The permittee shall submit a certified emissions statement and pay fees annually (TV 3.5.4)
45 CSR 30 - The permittee shall submit semi-annual monitoring reports (TV 3.5.6)

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R13-2945A	10/17/2012	N/A

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
N/A		

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	42.46
Nitrogen Oxides (NO _x)	259.69
Lead (Pb)	N/A
Particulate Matter (PM _{2.5}) ¹	1.83
Particulate Matter (PM ₁₀) ¹	1.83
Total Particulate Matter (TSP)	2.31
Sulfur Dioxide (SO ₂)	0.03
Volatile Organic Compounds (VOC)	42.08
Hazardous Air Pollutants ²	Potential Emissions
Acetaldehyde	0.37
Acrolein	0.37
Benzene	0.21
Ethylbenzene	0.09
Formaldehyde	2.62
Hexane	0.07
Toluene	0.44
Xylene	1.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Potentials-to-emit are based on currently operating equipment and permit limits as applicable and include fugitive VOC (including pigging and blowdowns).

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO₂, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

Note: This Certification must be signed by a responsible official. The original, signed in blue ink, must be submitted with the application. Applications without an original signed certification will be considered as incomplete.

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification


Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: John M. Lamb

Title: Vice President - Eastern Pipeline Operations

Responsible official's signature:

Signature: 
(Must be signed and dated in blue ink)

Signature Date: 7/8/2021

Received
July 9, 2021
WV DEP/Div of Air Quality

Note: Please check all applicable attachments included with this permit application:

☒ ATTACHMENT A: Area Map

☒ ATTACHMENT B: Plot Plan(s)

☒ ATTACHMENT C: Process Flow Diagram(s)

☒ ATTACHMENT D: Equipment Table

☒ ATTACHMENT E: Emission Unit Form(s)

☐ ATTACHMENT F: Schedule of Compliance Form(s)

☒ ATTACHMENT G: Air Pollution Control Device Form(s)

☐ ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Attachment A
Area Map

Eastern Gas Transmission and Storage, Inc.

Orma Compressor Station, Orma, WV



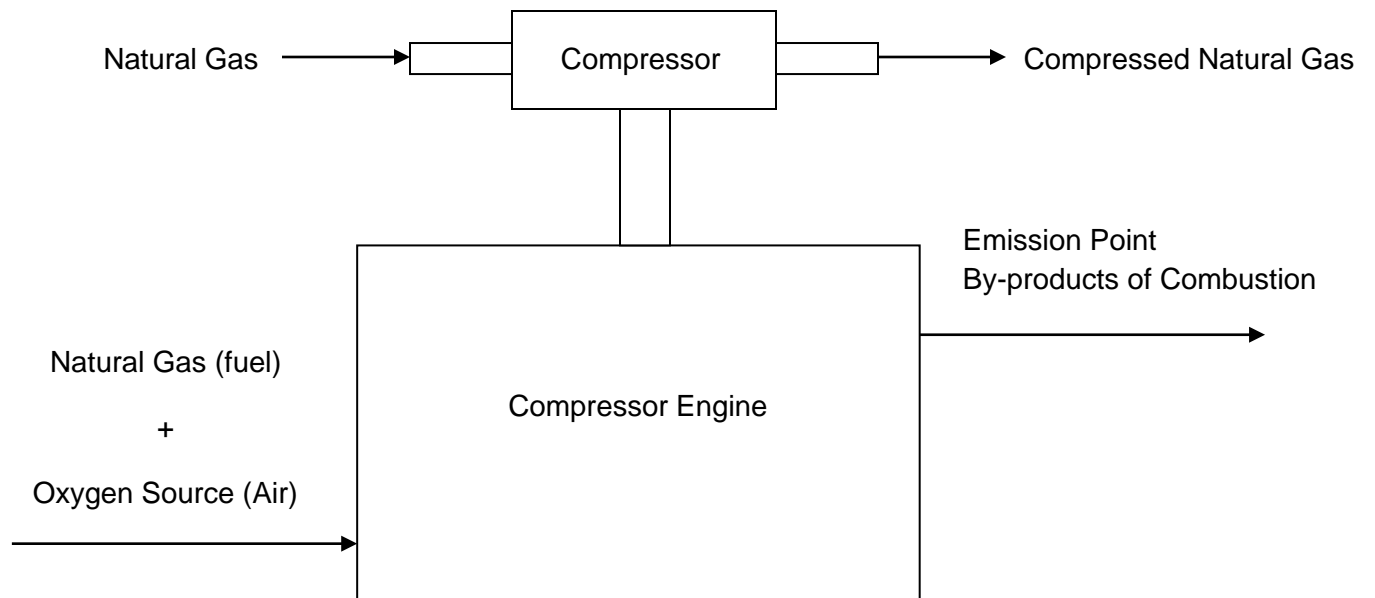
Attachment B
Plot Plan

Attachment C
Process Flow Diagrams

Eastern Gas Transmission and Storage, Inc.

Orma Compressor Station

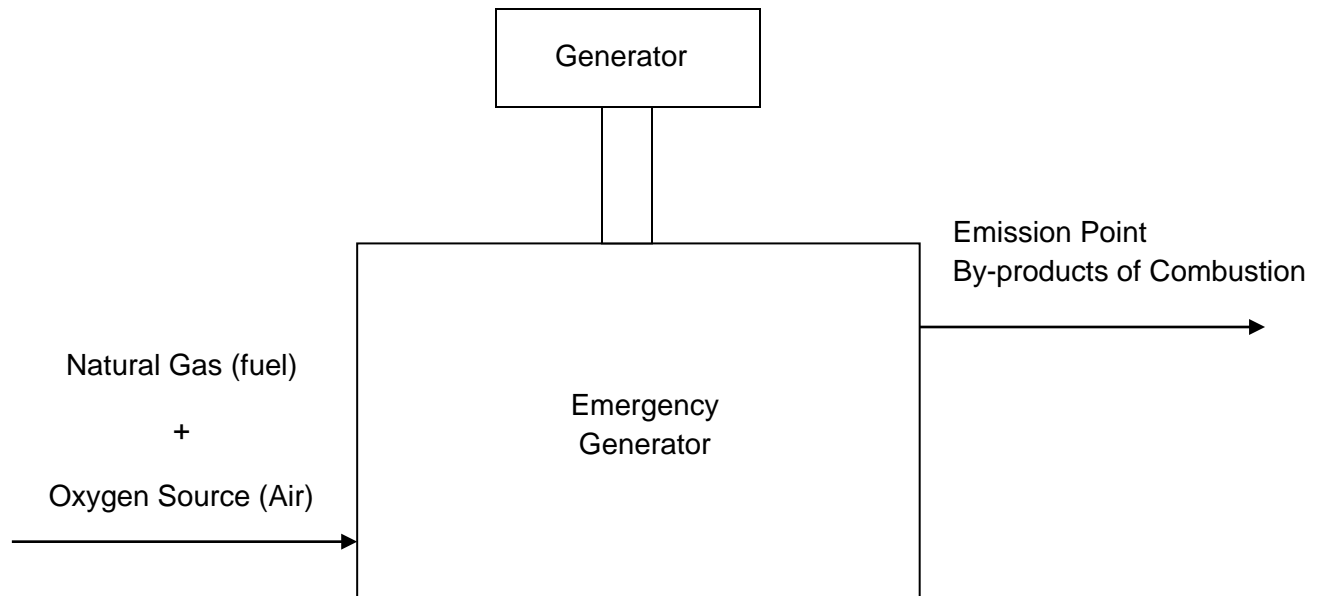
Compressor Engines (EN01 and EN02) Process Flow Diagram



Eastern Gas Transmission and Storage, Inc.

Orma Compressor Station

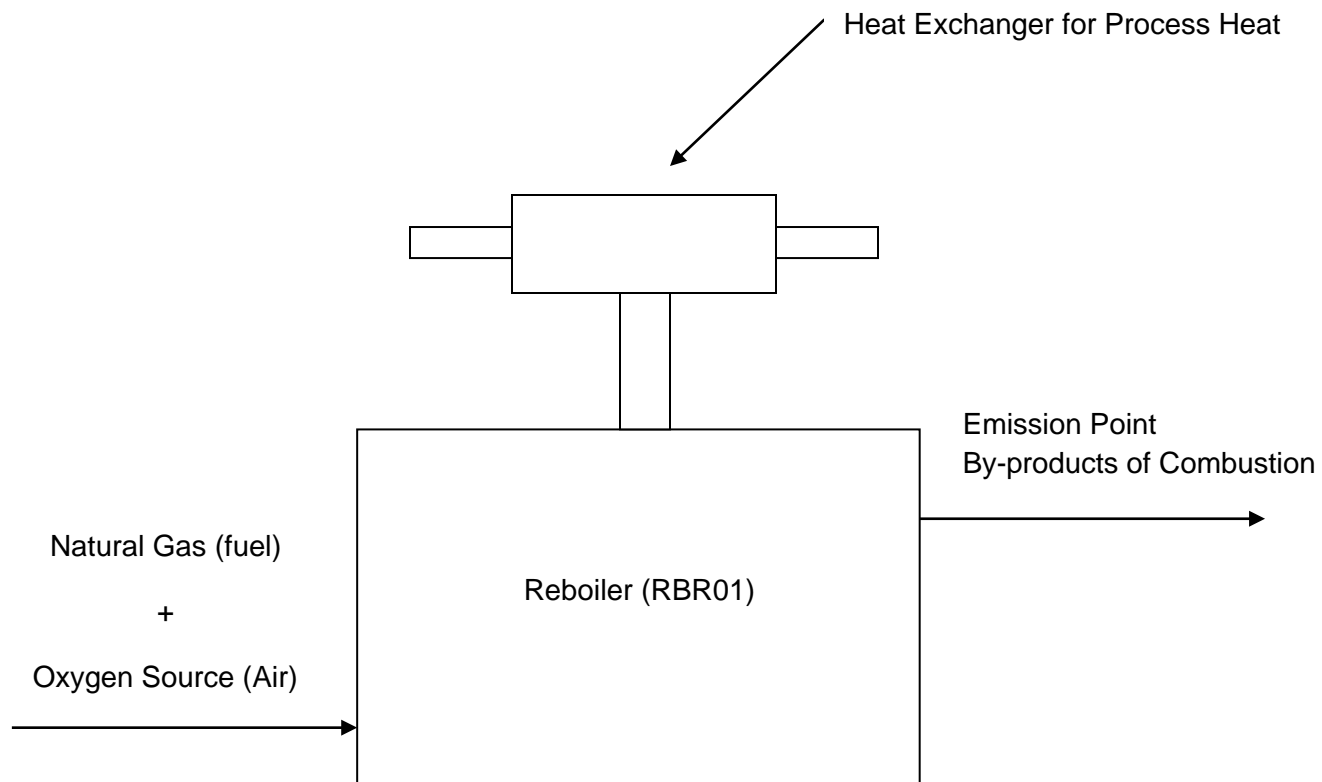
Emergency Generator (EG01) Process Flow Diagram



Eastern Gas Transmission and Storage, Inc.

Orma Compressor Station

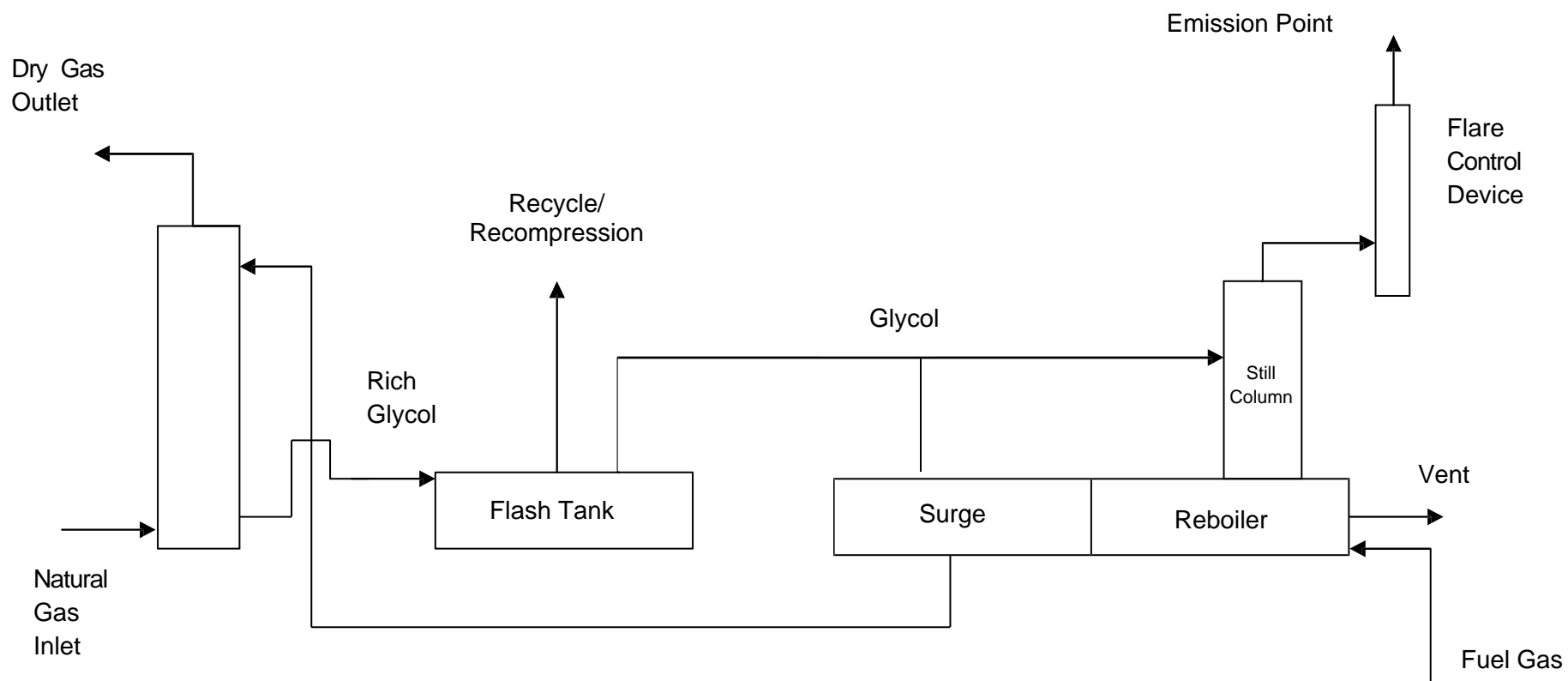
Reboiler (RBR02) Process Flow Diagram



Eastern Gas Transmission and Storage, Inc.

Orma Compressor Station

Dehydration Unit (DEHY02, F1, and RBR02) Process Flow Diagram



Attachment D
Title V Equipment Table

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
EN01	N/A	EN01	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	660 hp	1965
EN02	N/A	EN02	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	660 hp	1965
EG01	N/A	EG01	4-Stroke, Rich-Burn Natural Gas-Fired Cummins 75GGHF Auxiliary Generator	112.2 hp	2012
DEHY02	F1	DEHY02	Cameron Model 210/350 Glycol Dehydrator Regeneration Still Column	9 MMscf/day	2012
RBR02	none	RBR02	Cameron Model 210/350 Glycol Dehydrator Regeneration Reboiler	0.567 MMBtu/hr	2012
F1	N/A	F1	Dehydration Unit Flare	4.0 MMBtu/hr	2012
TK01	N/A	TK01	Horizontal Aboveground Tank Containing Tri- Ethylene Glycol	1,000 Gallons	1983
TK03	N/A	TK03	Vertical Aboveground Tank Containing Ethylene Glycol	2,100 Gallons	1990
TK07	N/A	TK07	Vertical Aboveground Tank Containing Wastewater	500 Gallons	2003
TK08	N/A	TK08	Horizontal Aboveground Tank Containing Produced Fluids	4,000 Gallons	2015
TK09	N/A	TK09	Vertical Aboveground Tank Containing Used Oil	1,000 Gallons	2013
TK11	N/A	TK11	Vertical Aboveground Tank Containing Lube Oil	6,000 Gallons	2015
TK12	N/A	TK12	Vertical Aboveground Tank Containing Triethylene Glycol	1,000 Gallons	2013
TK13	N/A	TK13	Horizontal Aboveground Tank Containing Ice Chek	230 Gallons	2009

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

Attachment E
Emission Unit Forms

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN01	Emission unit name: EN01 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
-----------------------------------------	--------------------------------------------------------------------------------	----------------------------------------------------------------------------

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Natural gas-fired reciprocating engine/integral compressor

Manufacturer: Cooper	Model number: GMXE-8	Serial number: 46322
--------------------------------	--------------------------------	--------------------------------

Construction date:	Installation date: 1965	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

660 hp

Maximum Hourly Throughput: 0.0054 MMscf/hr	Maximum Annual Throughput: 47.4 MMscf/yr	Maximum Operating Schedule: 8,760 hrs/yr
------------------------------------------------------	----------------------------------------------------	----------------------------------------------------

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating: 660 hp	Type and Btu/hr rating of burners: 8,200 Btu/hp-hr 0.0054 MMscf/hr
------------------------------------------------------------------------------	---------------------------------------------------------------------------------

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline quality natural gas
 - Maximum hourly fuel usage = 0.0054 MMscf/hr
 - Maximum annual fuel usage = 47.4 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline quality natural gas	< 20 gr sulfur/100 cf	N/A	1,000 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.37	19.12
Nitrogen Oxides (NO _x)	29.54	129.37
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.21	0.91
Particulate Matter (PM ₁₀)	0.21	0.91
Total Particulate Matter (TSP)	0.26	1.15
Sulfur Dioxide (SO ₂)	< 0.01	0.01
Volatile Organic Compounds (VOC)	3.35	14.66
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.04	0.18
Acrolein	0.04	0.18
Benzene	0.01	0.05
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.30	1.31
Hexane	< 0.01	0.01
Toluene	0.01	0.02
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). <ul style="list-style-type: none"> - CO, NO_x, and VOC emission rates based on manufacturer specifications. - PM₁₀, PM_{2.5}, SO₂, and HAP emission factors from AP-42 Section 3.2, Table 3.2-1. 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 5.1.1)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 5.1.2, 5.1.3)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 5.1.4)

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 5.1.1 and 5.2.1.c)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 5.1.2, 5.1.3)

40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer's instructions OR develop and follow your own maintenance plan (TV 5.1.4)

40 CFR Part 63 Subpart ZZZZ – Minimize the engine's time spent at idle during startup (TV 5.2.1.b)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable recordkeeping and reporting requirements (TV 5.4.1, 5.4.3)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE (TV 5.4.2)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EN02	Emission unit name: EN02 Reciprocating Engine/Integral Compressor	List any control devices associated with this emission unit: N/A
-----------------------------------------	--------------------------------------------------------------------------------	----------------------------------------------------------------------------

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Natural gas-fired reciprocating engine/integral compressor

Manufacturer: Cooper	Model number: GMXE-8	Serial number: 46321
--------------------------------	--------------------------------	--------------------------------

Construction date:	Installation date: 1965	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

660 hp

Maximum Hourly Throughput: 0.0054 MMscf/hr	Maximum Annual Throughput: 47.4 MMscf/yr	Maximum Operating Schedule: 8,760 hrs/yr
------------------------------------------------------	----------------------------------------------------	----------------------------------------------------

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating: 660 hp	Type and Btu/hr rating of burners: 8,200 Btu/hp-hr 0.0054 MMscf/hr
------------------------------------------------------------------------------	---------------------------------------------------------------------------------

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Pipeline quality natural gas
 - Maximum hourly fuel usage = 0.0054 MMscf/hr
 - Maximum annual fuel usage = 47.4 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline quality natural gas	< 20 gr sulfur/100 cf	N/A	1,000 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.37	19.12
Nitrogen Oxides (NO _x)	29.54	129.37
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.21	0.91
Particulate Matter (PM ₁₀)	0.21	0.91
Total Particulate Matter (TSP)	0.26	1.15
Sulfur Dioxide (SO ₂)	< 0.01	0.01
Volatile Organic Compounds (VOC)	3.35	14.66
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	0.04	0.18
Acrolein	0.04	0.18
Benzene	0.01	0.05
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.30	1.31
Hexane	< 0.01	0.01
Toluene	0.01	0.02
Xylene	< 0.01	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). <ul style="list-style-type: none"> - CO, NO_x, and VOC emission rates based on manufacturer specifications. - PM₁₀, PM_{2.5}, SO₂, and HAP emission factors from AP-42 Section 3.2, Table 3.2-1. 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 CFR Part 63 Subpart ZZZZ – NESHAP maintenance requirements (TV 5.1.1)

40 CFR Part 63 Subpart ZZZZ – NESHAP general requirements/provisions (TV 5.1.2, 5.1.3)

40 CFR Part 63 Subpart ZZZZ – NESHAP continuous compliance requirements (TV 5.1.4)

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 CFR Part 63 Subpart ZZZZ – Change oil and filter, inspect spark plugs, and inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program (TV 5.1.1 and 5.2.1.c)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable general requirements/provisions (TV 5.1.2, 5.1.3)

40 CFR Part 63 Subpart ZZZZ – Operate and maintain the RICE according to the manufacturer's instructions OR develop and follow your own maintenance plan (TV 5.1.4)

40 CFR Part 63 Subpart ZZZZ – Minimize the engine's time spent at idle during startup (TV 5.2.1.b)

40 CFR Part 63 Subpart ZZZZ – Comply with all applicable recordkeeping and reporting requirements (TV 5.4.1, 5.4.3)

40 CFR Part 63 Subpart ZZZZ – Keep records of maintenance conducted on the RICE (TV 5.4.2)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: EG01	Emission unit name: EG01 Emergency Generator	List any control devices associated with this emission unit: N/A
-----------------------------------------	-----------------------------------------------------------	----------------------------------------------------------------------------

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Natural gas-fired emergency auxiliary generator

Manufacturer: Cummins	Model number: 75GGHF	Serial number: F120356938
Construction date: 6/2012	Installation date: 2013	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
112.2 hp

Maximum Hourly Throughput: 987 scf/hr	Maximum Annual Throughput: 0.49 MMscf/yr	Maximum Operating Schedule: 500 hrs/yr
-------------------------------------------------	----------------------------------------------------	--------------------------------------------------

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating: 112.2 hp	Type and Btu/hr rating of burners: 0.99 MMBtu/hr
--------------------------------------------------------------------------------	------------------------------------------------------------

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas
 - Maximum hourly fuel usage = 987 scf/hr
 - Maximum annual fuel usage = 0.49 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	11.47	2.87
Nitrogen Oxides (NO _x)	1.53	0.38
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	0.01	< 0.01
Particulate Matter (PM ₁₀)	0.01	< 0.01
Total Particulate Matter (TSP)	0.02	0.01
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.30	0.07
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acetaldehyde	< 0.01	< 0.01
Acrolein	< 0.01	< 0.01
Benzene	< 0.01	< 0.01
Ethylbenzene	< 0.01	< 0.01
Formaldehyde	0.02	0.01
Toluene	< 0.01	< 0.01
Xylene	< 0.01	< 0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO, NO_x, and VOC emission rates were based on manufacturer's specifications. - PM₁₀, PM_{2.5}, SO₂, and HAP emission factors from AP-42 Section 3.2, Table 3.2-3. 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR 13 – The emergency generator shall be 112.2 hp and not operate in excess of 500 hrs/yr (TV 6.1.1; R13-2945A 4.1.1.a)

45 CSR 13 – Emission limits (TV 6.1.2; R13-2945A 4.1.1.b)

40 CFR Part 60 Subpart JJJJ – NSPS emission limits (TV 6.1.3; R13-2945A 4.1.1.c)

40 CFR Part 60 Subpart JJJJ – NSPS emergency definition; limitation on maintenance and readiness testing to 100 hrs/yr (TV 6.1.4 and 6.2.2; R13-2945A 4.1.1.d and 4.2.2)

40 CFR Part 60 Subpart JJJJ – NSPS general requirements/provisions (TV 6.1.5)

40 CFR Part 63 Subpart ZZZZ – RICE NESHAP as a new, emergency, spark ignition engine at an area source.

Compliance with NSPS Subpart JJJJ shows compliance with NESHAP Subpart ZZZZ (TV 6.1.6)

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 13 – Record hours of operation on a monthly and rolling 12 month basis (TV 6.2.1; R13-2945A 4.2.1)

40 CFR Part 60 Subpart JJJJ – Purchase a certified engine and operate according to manufacturer's written instructions to meet NSPS emission limits. Keep records of conducted maintenance (TV 6.2.2; R13-2945A 4.2.2)

40 CFR Part 60 Subpart JJJJ – Install non-resettable hour meter to demonstrate compliance (TV 6.2.3)

40 CFR Part 60 Subpart JJJJ – Comply with all applicable testing requirements (TV 6.3.2; R13-2945A 4.3.5)

40 CFR Part 60 Subpart JJJJ – Comply with all applicable recordkeeping requirements (TV 6.4.1 and 6.4.2; R13-2945A 4.4.9)

40 CFR Part 60 Subpart JJJJ – Comply with all applicable reporting requirements (TV 6.5.1; R13-2945A 4.5.4)

Are you in compliance with all applicable requirements for this emission unit? X Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: DEHY02	Emission unit name: DEHY02 Dehydration Unit	List any control devices associated with this emission unit: F1
-------------------------------------------	----------------------------------------------------------	---------------------------------------------------------------------------

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Dehydration unit regeneration still column

Manufacturer: Cameron	Model number: 210/350	Serial number:
Construction date: 2012	Installation date: 2012	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

9 MMscf /day

Maximum Hourly Throughput: 9 MMscf /day	Maximum Annual Throughput: 3,285 MMscf/yr	Maximum Operating Schedule: 8760 hrs/yr
---------------------------------------------------	-----------------------------------------------------	---------------------------------------------------

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--------------------------------------------------------------------	-------------------------------------------

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas

- Maximum hourly wet gas usage = 9 MMscf/day
- Maximum annual wet gas usage = 3,285 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	1.78	7.81
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.03	0.12
Ethylbenzene	0.02	0.08
n-Hexane	0.01	0.05
Toluene	0.09	0.39
Xylenes	0.24	1.04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). <ul style="list-style-type: none"> - Emission point is F1, but emissions provided include only dehydration process emissions, DEHY01. (Flare pilot fuel combustion emissions are in Attachment E – F1) - VOC and HAP emission rates estimated from GRI-GLYCalc v4.0, with a 95% destruction efficiency of the flare. 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

63.10(b)(3) – Shall be an area source of HAPs (below 10/25 tons/yr) (TV 4.1.8)

63.760(f) – NESHAP Subpart HH applicability (TV 4.1.9)

63.764(e) – NESHAP Subpart HH benzene exemption requirements (TV 4.1.10 and 4.1.11)

45 CSR 13 – The maximum wet natural gas throughput shall not exceed 9 MMscf/day or 3,285 MMscf/yr (TV 4.1.12; R13-2945A 4.1.2)

45 CSR 13 – Maximum emission limits (TV 4.1.10; R13-2945A 4.1.13)

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 30-5.1.c – Compliance with area source status and benzene exemption will be demonstrated by using GLYCalc, using and recording actual operating parameters; maintain records (TV 4.2.1 and 4.48)

45 CSR 13 – Monitor and maintain monthly and rolling 12-month records of the wet gas throughput (TV 4.2.3 and 4.4.8; R13-2945A 4.2.3)

45 CSR 30-5.1.c – Within the last 2 years of the permit term, take a wet gas sample (TV 4.3.1)

63.772(b)(2)(i) – NESHAP Subpart HH determination of benzene emissions by using GLYCalc (TV 4.3.2)

45 CSR 30-5-1.c and 63.774(d)(1)(ii) – Calculate and maintain a record of actual uncontrolled emissions based on the daily annual average throughput processed by the dehydration unit (TV 4.4.2)

45 CSR 30-5-1 – By March 31st of the following year of the wet gas sample, submit an emission summary for the dehydration unit using the new wet gas sample (TV 4.5.2)

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: RBR02	Emission unit name: RBR02 Dehydration Unit Reboiler	List any control devices associated with this emission unit: N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

A natural gas fired boiler used to reheat glycol within the dehydration unit.

Manufacturer: Cameron	Model number: 210/350	Serial number: A14312001383801
Construction date: 2012	Installation date: 2012	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.567 MMBtu/hr

Maximum Hourly Throughput: 435 scf/hr	Maximum Annual Throughput: 3.81 MMscf/yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating: 0.567 MMBtu/hr	Type and Btu/hr rating of burners:
--------------------------------------------------------------------------------------	-------------------------------------------

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas
 - Maximum hourly fuel usage = 435 scf/hr
 - Maximum annual fuel usage = 3.81 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.04	0.18
Nitrogen Oxides (NO _x)	0.05	0.22
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	< 0.01	< 0.01
Particulate Matter (PM ₁₀)	< 0.01	< 0.01
Total Particulate Matter (TSP)	< 0.01	0.01
Sulfur Dioxide (SO ₂)	< 0.01	< 0.01
Volatile Organic Compounds (VOC)	0.04	0.17
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	< 0.01	< 0.01
Formaldehyde	< 0.01	< 0.01
n-Hexane	< 0.01	< 0.01
Toluene	< 0.01	< 0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). <ul style="list-style-type: none"> - NO_x, CO, and VOC emission factors from Dominion Spec Sheet, 2/20/12 - PM, PM₁₀, PM_{2.5}, and SO₂ emission factors from AP-42, Section 1.4, Natural Gas Combustion, Table 1.4-2, 7/98 - HAP emission factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 4, 7/98 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR 13 and 45 CSR 2-3.1 – Opacity limit of 10% (TV 4.1.1; R13-2945A 4.1.4.d)

45 CSR 13 – The reboiler shall be rated at 0.567 MMBtu/hr and shall only be fired by natural gas and emission limits (TV 4.1.14; R13-2945 A 4.1.4)

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR 2-3.1 – Compliance with TV 4.1.1 and TV 4.1.11. is demonstrated by combusting natural gas.

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: F1	Emission unit name: F1 Dehydration Unit Flare	List any control devices associated with this emission unit: N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Dehydration Unit Flare

Manufacturer: Questor (QTI)	Model number: E/35	Serial number: Q1001096
Construction date: 2012	Installation date: 2013	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Combustor rating = 4.0 MMBtu/hr

Pilot rating = 0.60 MMBtu/hr

Maximum Hourly Throughput: Supplemental and pilot natural gas 338 scf/hr	Maximum Annual Throughput: Supplemental and pilot natural gas 2.96 MMscf/yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------

Maximum design heat input and/or maximum horsepower rating: Combustor rating = 4.0 MMBtu/hr Pilot rating = 0.60 MMBtu/hr	Type and Btu/hr rating of burners: Combustor rating = 4.0 MMBtu/hr Pilot rating = 0.60 MMBtu/hr
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas

- Maximum hourly fuel throughput (supplemental and pilot natural gas) = 338 scf/hr
- Maximum annual fuel throughput (supplemental and pilot natural gas) = 2.96 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	20 gr sulfur/100 cf	N/A	1,000 Btu/cf

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.27	1.17
Nitrogen Oxides (NO _x)	0.07	0.34
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	< 0.01	0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	N/A	N/A
Formaldehyde	N/A	N/A
n-Hexane	N/A	N/A
Toluene	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <ul style="list-style-type: none"> - CO emission factor from Dominion Spec Sheet, 2/20/12 - NO_x emission factors from AP-42 Section 13.5 for Waste Gas (9/91) and Section 1.4 for Natural Gas (7/98) - VOC emission factor from AP-42 Section 1.4 (7/98) 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Requirements are listed under Attachment G – Air Pollution Control Device Form.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Requirements are listed under Attachment G – Air Pollution Control Device Form.

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Attachment G
Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
F1

List all emission units associated with this control device.
DEHY02

Manufacturer:
Questor (QTI)

Model number:
E/35

Installation date:
2013

Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input checked="" type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC		95%
Benzene		95%
Ethylbenzene		95%
n-Hexane		95%
Toluene		95%
Xylene		95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Questor E/35 dehydration unit flare
4.0 MMBtu/hr burner

Is this device subject to the CAM requirements of 40 C.F.R. 64? ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** The dehy unit (DEHY02) is not subject to CAM since it is subject to NESHAP Subpart HH, which has provisions for compliance monitoring established after 1990. Per 64.2(b)(1)(i), “*emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act*” are exempt from CAM. CAM was established to build in provisions for how compliance would be demonstrated for emission limits if not adequately covered by a NSPS or NESHAP rule.

In addition, for VOC purposes, the dehy unit is not subject to CAM per 64.2(b)(1)(vi), which states “*emission limitations or standards for which a part 70 or 71 permit specified a continuous compliance determination method, as defined in 64.1*” is exempt from CAM. Since the R13 permit for the facility (R13-2945A) specifies a “continuous compliance determination method” condition (e.g. continuously monitoring the flare using a thermocouple to detect the presence of a flame) and that R13 condition was rolled into the Title V permit, CAM does not apply.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

45 CSR 6-4.1 – Particulate Matter emission limit (TV 4.1.2; R13-2945A 4.1.5.f)
45 CSR 6-4.3 and 45 CSR 6-4.5 – Opacity Emissions Limit (TV 4.1.3 and 4.1.4)
45 CSR 6-4.6 – Prevention of objectionable odors (TV 4.1.5) (State-only)
45 CSR 13 – Maximum capacity shall not exceed 4.0 MMBtu/hr (TV 4.1.15.a; R13-2945A 4.1.5)
45 CSR 13 – Flare shall be in operations when the dehydration unit is processing natural gas (TV 4.1.15.b; R13-2945A 4.1.5)
45 CSR 13 – Flare destruction efficiency limit of 95% (TV 4.1.15.c; R13-2945A 4.1.5)
45 CSR 13 – Flare design evaluation (TV 4.1.15.d; R13-2945A 4.1.5)
45 CSR 13 and 63.11(b)(4) – No visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours (TV 4.1.15.e; R13-2945A 4.1.5)
45 CSR 13 and 63.11(b)(5) – Flare shall be operated with a flame present at all times (TV 4.1.15.e; R13-2945A 4.1.5)
45 CSR 13 and 45CSR §13-5.11 – Operation and Maintenance of air pollution control equipment (TV 4.1.16; R13-2945A 4.1.6)

Monitoring

45 CSR 13 and 63.11(b)(5) – Pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame (TV 4.1.15.e; R13-2945A 4.1.5)
45 CSR 13 – Initial Method 22 (TV 4.2.2; R13-2945A 4.3.2)
45 CSR 30 – Monthly VE checks (TV 4.2.6)

Testing

45 CSR 13 – Upon request, conduct a flare compliance assessment (TV 4.3.3; R13-2945A 4.3.3)
45 CSR 13 – Upon request, demonstrate compliance with HAP emissions using GLYCalc and a wet gas sample (TV 4.3.4; R13-2945A 4.3.4)

Recordkeeping

45 CSR 30-5.1.c – Keep records of all monitoring data and VE checks (TV 4.4.1)
45 CSR 13 – Records of maintenance performed on air pollution control equipment (TV 4.4.4; R13-2945A 4.4.2)
45 CSR 13 – Records of malfunctions of air pollution control equipment (TV 4.4.5; R13-2945A 4.4.3)
45 CSR 13 – Keep records of flame presence (TV 4.4.6; R13-2945A 4.4.4)
45 CSR 13 – Keep a record of the flare design evaluation (TV 4.4.7; R13-2945A 4.4.5)
45 CSR 13 – Keep a record of the initial Method 22 (TV 4.4.10; R13-2945A 4.4.8)

Reporting

45 CSR 13 – Report any deviations of the visible emission requirement (TV 4.5.1; R13-2945A 4.5.2)
45 CSR 13 – If required to meet Condition 4.3.3, submit a protocol and notification (TV 4.5.3; R13-2945A 4.5.1)
45 CSR 13 – Report any deviation of the flare design evaluation (TV 4.5.4; R13-2945A 4.5.3)