



April 12, 2017

Mr. William Durham
Director, Division of Air Quality
West Virginia Department of Environmental Protection
601 57th Street
Charleston, West Virginia 25304

Via FedEx Tracking ID 7788 8437 3016

**Subject: Rule 13 Air Permit Application
Conley Station
Blue Racer Midstream, LLC
Bethany, Brooke County, WV**

Dear Mr. Durham:

On behalf of Blue Racer Midstream, LLC (BRM), Apex TITAN Inc. (Apex), a Subsidiary of Apex Companies, LLC, is pleased to submit to the West Virginia Department of Environmental Protection (WV DEP) the enclosed Rule 13 Air Permit Application to authorize the installation of equipment (the Project) at the Conley Station (the Station), located near Bethany, Brooke County, West Virginia. The Station is a minor source of air contaminants and will not trigger major source permitting for any criteria pollutants.

Enclosed please find one (1) hard copy and two (2) electronic copies of the Rule 13 Air Permit application.

BRM requests that a copy of the working draft permit for the Station be provided for review and comment prior to issuance of the permit. BRM and Apex truly appreciate the WV DEP's review and approval of the enclosed application. If you have any questions or require additional information, please do not hesitate to contact Ms. Jill Thornberry of BRM at (740) 421-9255 or at jthornberry@blueracermidstream.com or myself at 469-365-1121 or at odeleon@apexc.com.

Sincerely,
Apex TITAN, Inc.

A handwritten signature in blue ink, appearing to read 'Osman De Leon'.

Osman De Leon, P.E.
Project Manager

cc: Ms. Jill Thornberry, Blue Racer Midstream, LLC
Mr. Sean Wilson, Blue Racer Midstream, LLC
Mr. Steven Green, Blue Racer Midstream, LLC

RULE 13 AIR PERMIT APPLICATION

Prepared for:



Conley Station

Bethany, Brooke County, West Virginia

April 2017

Apex TITAN Job No: 725010646032

Prepared by:

Apex TITAN, Inc., a subsidiary of Apex Companies, LLC

12100 Ford Road, Suite 401

Dallas, TX 75234

T 469.365.1100 · F 469.365.1199

apexcos.com



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INTRODUCTION

Blue Racer Midstream, LLC (BRM) is submitting this Rule 13 Air Permit Application to authorize emissions from the installation of equipment at the Conley Station (the Station) located near Bethany, West Virginia, in Brooke County. The Station is a minor source of air contaminants and will not trigger major source permitting for any criteria pollutants.

The Station will consist of the following equipment:

- Three (3) 30,000 gallon pressurized storage vessels and associated loading operations;
- One (1) flare; and,
- Fugitive components.

The Station emits carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter (PM), including PM with aerodynamic diameters of 10 and 2.5 microns or less (PM₁₀ and PM_{2.5}, respectively), sulfur dioxide (SO₂), volatile organic compounds (VOC), hazardous air pollutants (HAPs), and Greenhouse Gases (GHG).



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

- CONSTRUCTION** **MODIFICATION** **RELOCATION**
 CLASS I ADMINISTRATIVE UPDATE **TEMPORARY**
 CLASS II ADMINISTRATIVE UPDATE **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT** **MINOR MODIFICATION**
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office):

Blue Racer Midstream, LLC

2. Federal Employer ID No. (FEIN):

46-1520107

3. Name of facility (if different from above):

Conley Station

4. The applicant is the:

- OWNER** **OPERATOR** **BOTH**

5A. Applicant's mailing address:

5949 Sherry Lane, Suite 1300

Dallas, TX 75225

5B. Facility's present physical address:

Latitude: 40.236833

Longitude: -80.544219

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? **YES** **NO**

- If **YES**, provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A**.
- If **NO**, provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A**.

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site*? **YES** **NO**

- If **YES**, please explain: Applicant is the owner of the site.
- If **NO**, you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Pipeline propane/butane pumping facility with associated storage

10. North American Industry Classification System (NAICS) code for the facility:

SIC Code: 4613 NAICS Code: 486910

11A. DAQ Plant ID No. (for existing facilities only):

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates or Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction or Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP as Attachment B**.

From Bethany, drive approximately 4.0 miles north on Highway 88. Turn left on MacAdoo Ridge Road, then left on Whitetail Ridge Road, site is on the left side of the road.

12.B. New site address (if applicable): 625 Whitetail Ridge Rd. Wellsburg, WV 26070	12C. Nearest city or town: Bethany	12D. County: Brooke
12.E. UTM Northing (KM): 4454.1	12F. UTM Easting (KM): 538.8	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:
Installation of a pipeline propane/butane pumping facility with associated storage.

14A. Provide the date of anticipated installation or change: 6/01/2017 If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: 11/01/2017
---	---

14C. Provide a **Schedule** of the planned **Installation of/Change to and Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? **YES** **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to **Plot Plan Guidance**) .
- Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.
- Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.
- For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the Emission Points Data Summary Sheet (Table 1 and Table 2) and provide it as Attachment J .												
27. Fill out the Fugitive Emissions Data Summary Sheet and provide it as Attachment K .												
28. Check all applicable Emissions Unit Data Sheets listed below: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input checked="" type="checkbox"/> Bulk Liquid Transfer Operations</td> <td style="width: 33%;"><input checked="" type="checkbox"/> Haul Road Emissions</td> <td style="width: 33%;"><input type="checkbox"/> Quarry</td> </tr> <tr> <td><input checked="" type="checkbox"/> Chemical Processes</td> <td><input type="checkbox"/> Hot Mix Asphalt Plant</td> <td><input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities</td> </tr> <tr> <td><input type="checkbox"/> Concrete Batch Plant</td> <td><input type="checkbox"/> Incinerator</td> <td><input checked="" type="checkbox"/> Storage Tanks</td> </tr> <tr> <td><input type="checkbox"/> Grey Iron and Steel Foundry</td> <td><input type="checkbox"/> Indirect Heat Exchanger</td> <td></td> </tr> </table> <input checked="" type="checkbox"/> General Emission Unit, specify: Flare	<input checked="" type="checkbox"/> Bulk Liquid Transfer Operations	<input checked="" type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry	<input checked="" type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities	<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input checked="" type="checkbox"/> Storage Tanks	<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
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<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger											
Fill out and provide the Emissions Unit Data Sheet(s) as Attachment L .												
29. Check all applicable Air Pollution Control Device Sheets listed below: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Absorption Systems</td> <td style="width: 33%;"><input type="checkbox"/> Baghouse</td> <td style="width: 33%;"><input checked="" type="checkbox"/> Flare</td> </tr> <tr> <td><input type="checkbox"/> Adsorption Systems</td> <td><input type="checkbox"/> Condenser</td> <td><input type="checkbox"/> Mechanical Collector</td> </tr> <tr> <td><input type="checkbox"/> Afterburner</td> <td><input type="checkbox"/> Electrostatic Precipitator</td> <td><input type="checkbox"/> Wet Collecting System</td> </tr> </table> <input type="checkbox"/> Other Collectors, specify:	<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input checked="" type="checkbox"/> Flare	<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector	<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System			
<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input checked="" type="checkbox"/> Flare										
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector										
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System										
Fill out and provide the Air Pollution Control Device Sheet(s) as Attachment M .												
30. Provide all Supporting Emissions Calculations as Attachment N , or attach the calculations directly to the forms listed in Items 28 through 31.												
31. Monitoring, Recordkeeping, Reporting and Testing Plans. Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as Attachment O . ➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.												
32. Public Notice. At the time that the application is submitted, place a Class I Legal Advertisement in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and Example Legal Advertisement for details). Please submit the Affidavit of Publication as Attachment P immediately upon receipt.												
33. Business Confidentiality Claims. Does this application include confidential information (per 45CSR31)? <div style="text-align: center;"> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO </div> ➤ 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 found in the General Instructions as Attachment Q .												

Section III. Certification of Information

34. Authority/Delegation of Authority. Only required when someone other than the responsible official signs the application. Check applicable Authority Form below: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Authority of Corporation or Other Business Entity</td> <td style="width: 50%;"><input type="checkbox"/> Authority of Partnership</td> </tr> <tr> <td><input type="checkbox"/> Authority of Governmental Agency</td> <td><input type="checkbox"/> Authority of Limited Partnership</td> </tr> </table> Submit completed and signed Authority Form as Attachment R .	<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership	<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership
<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership			
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership			
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.				

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

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.

SIGNATURE Steven J. Green DATE: 4-12-2017
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Steven Green		35C. Title: Sr. Vice President Engineering and Operations
35D. E-mail: sgreen@caimanenergy.com	36E. Phone: 214-580-3700	36F. FAX: 214-580-3750
36A. Printed name of contact person (if different from above): Jill Thornberry		36B. Title: Senior Environmental Specialist
36C. E-mail: jthornberry@blueracermidstream.com	36D. Phone: 740-421-9255	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input checked="" type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Attachment Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A

BUSINESS CERTIFICATE

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

State of West Virginia



Certificate

Emily

I, Natalie E. Tennant, Secretary of State of the State of West Virginia, hereby certify that

BLUE RACER MIDSTREAM, LLC

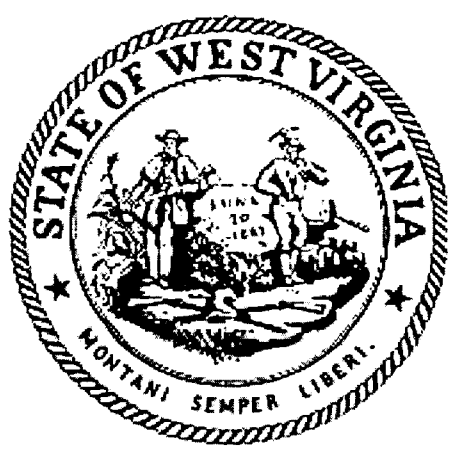
Control Number: 99Y8J

a limited liability company, organized under the laws of the State of Delaware has filed its "Application for Certificate of Authority" in my office according to the provisions of West Virginia Code §31B-10-1002. I hereby declare the organization to be registered as a foreign limited liability company from its effective date of December 20, 2012, until a certificate of cancellation is filed with our office.

Therefore, I hereby issue this

CERTIFICATE OF AUTHORITY OF A FOREIGN LIMITED LIABILITY COMPANY

to the limited liability company authorizing it to transact business in West Virginia



Given under my hand and the Great Seal of the State of West Virginia on this day of December 20, 2012

Natalie E. Tennant

Secretary of State

S

FILED

DEC 20 2012

Natalie E. Tennant
Secretary of State
1900 Kanawha Blvd E.
Bldg 1, Suite 157-K
Charleston, WV 25305



Penney Barker, Manager
IN THE OFFICE OF Corporations Division
SECRETARY OF STATE

Tel: (304)558-8000
Fax: (304)558-8381
www.wvsos.com

Hrs: 8:30 a.m. - 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed
stamped copy returned to you)
FEE: \$150

WV APPLICATION FOR
CERTIFICATE OF AUTHORITY OF
LIMITED LIABILITY COMPANY

Control # 9948J

****A CERTIFICATE OF EXISTENCE dated during the current tax year, from your home state****
of original organization is required to accompany this filing.

1. The name of the company as registered in its home state is: Blue Racer Midstream, LLC
and the state or country of organization is: State of Delaware

2. The name to be used in West Virginia will be:
[The name must contain one of the required terms such as "limited liability company" or abbreviations such as "LLC" or "PLLC". See instructions for complete list of acceptable terms and requirements for use of trade name.]
 Home State name as listed above, if available in WV
 DBA name _____
(ONLY if home state name is unavailable in WV)

3. The company will be a: [See instructions for limitations on professions which may form P.L.L.C. in WV. All members must have WV professional license. In most cases, a Letter of Authorization/Approval from the appropriate State Licensing Board is required to process the application.]
 regular L.L.C.
 Professional L.L.C. for the profession of _____

4. The address of the designated office of the company in WV, if any, will be:
No. & Street: _____
City/State/Zip: _____

5. The street address of the principal office is:
No. & Street: 120 Tredegar Street
City/State/Zip: Richmond, VA 23219
and the mailing address (if different) is:
Street/Box: _____
City/State/Zip: _____

6. Agent of Process:
Properly designated person to whom notice of process may be sent, if any:
Name: C T Corporation System
Address: 5400 D Big Tyler Road,
City/State/Zip: Charleston, West Virginia 25313

7. E-mail address where business correspondence can be received: _____

8. Website address of the business, if any: _____

9. The company is: an at-will company, for an indefinite period
 a term company, for the term of _____ years, which will expire on _____.

10. The company is: member-managed. [List the names and addresses of all members.]
 manager-managed. [List the names and addresses of all managers.]

List the name(s) of the members/managers of the company (attach additional pages if necessary).

<u>Name</u>	<u>Street Address</u>	<u>City, State, Zip</u>
Dominion Natrium Holdings, Inc.	120 Tredegar Street	
	Richmond, VA 23219	

11. All or specified members of a limited liability company are liable in their capacity as members for all or specified debts, obligations or liabilities of the company. No--All debts, obligations and liabilities are those of the company
 Yes--Those persons who are liable in their capacity as members for all debts, obligations or liability of the company have consented in writing to the adoption of the provision or to be bound by the provision

12. The purpose for which this limited liability company is formed are as follows:
 (Describe the type(s) of business activity which will be conducted, for example, "real estate," "construction of residential and commercial buildings," "commercial printing," "professional practice of architecture.")
 The purpose of the company is to engage in any lawful activity, including without limitation, the development of gas processing and fractionation and NGL transportation and any and all related activities.

13. Is the business a Scrap Metal Dealer?
 Yes [If "Yes," you must complete the Scrap Metal Dealer Registration Form (Form SMD-1) and proceed to question 14.].
 No [Proceed to question 14.]

14. The number of pages attached and included in this application is: 6

1. The requested effective date is: the date & time of filing
 the following date _____ and time _____
 [Requested date may not be earlier than filing nor later than 90 days after filing.]

15. Contact and Signature Information:

a.	_____	_____
	Contact Name	Phone Number
b.	<u>Gary L. Syzolt</u>	<u>President, Dominion Natrium Holdings, Inc. as sole Member</u>
	Print or type name of signer	Title / Capacity of Signer
c.	<u><i>Gary L. Syzolt</i></u>	<u>12/18/12</u>
	Signature	Date

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "BLUE RACER MIDSTREAM, LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE NINETEENTH DAY OF DECEMBER, A.D. 2012.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE NOT BEEN ASSESSED TO DATE.

5245987 8300

121362169

You may verify this certificate online
at corp.delaware.gov/authver.shtml




Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 0082629

DATE: 12-19-12

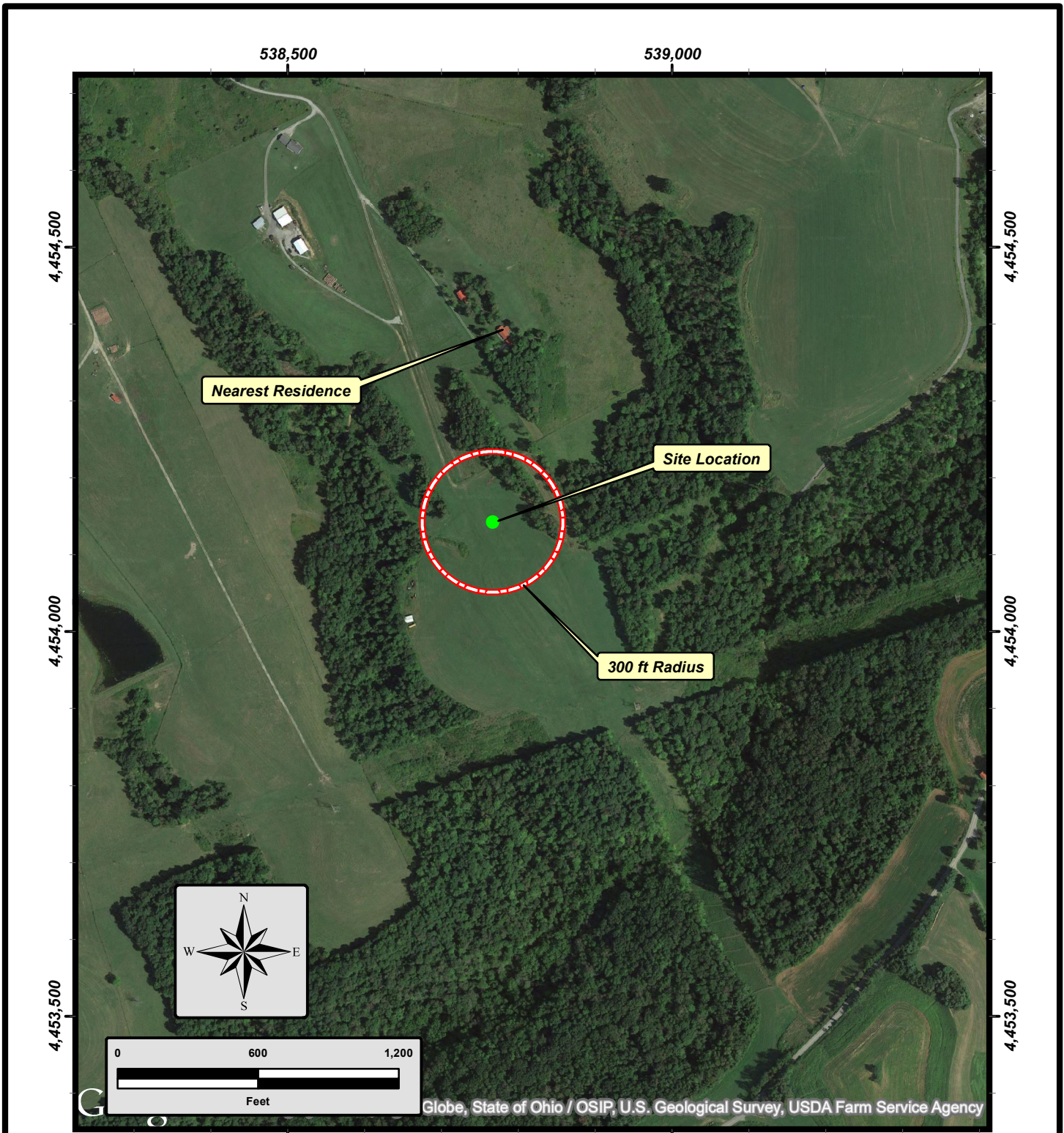
ATTACHMENT B

MAPS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC



Grid Presented is UTM Zone 17, NAD 1983

Attachment B - Area Map

**Blue Racer Midstream, LLC
Rule 13 Air Permit Application
Conley Station**

**Apex-TITAN Project No. 725010646032
April 2017**

*from USGS Quadrangle Bethany, West Virginia
Ground Condition Depicted 8/21/2015
Digital Data Courtesy of Google Earth*



Apex TITAN, Inc.

12100 Ford Road, Suite 401
Dallas, TX 75234
Phone: (469) 365-1128 • Fax: (469) 365-1199
www.apexcos.com
A Subsidiary of Apex Companies, LLC



ATTACHMENT C
INSTALLATION AND START-UP SCHEDULE
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

Upon permit submittal, BRM intends to commence construction on those activities allowed by WV DEP, at the sole risk of BRM, with a tentative start date on June 1, 2017. BRM anticipates startup of operations of the equipment to commence on November 1, 2017.

ATTACHMENT D

REGULATORY DISCUSSION

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

ATTACHMENT D: REGULATORY DISCUSSION

This attachment discusses the federal and state regulations that apply to the Station.

D.1. 45 CSR 4: Discharge of Air Pollutants that Cause Objectionable Odors

This rule prohibits the discharge of air contaminants that cause or contribute to an objectionable odor. This rule applies to the Station, and BRM will comply with this rule.

D.2. 45 CSR 6: Control of Air Pollution from Combustion of Refuse

This rule establishes emission standards for PM and requirements for activities involving incineration of refuse which are not subject to, or are exempted from, regulation under a federal counterpart for specific combustion sources. This rule also prohibits (with limited exception) open burning and sets forth the registration, permitting, reporting, testing, emergency, natural disaster and exemption provisions for activities involving the combustion of refuse and land clearing debris. This rule applies to the Station. BRM will comply with the open burning provisions of this rule.

This rule limits the Flare's visible emissions to 20% opacity, except during periods aggregating to no more than eight (8) minutes in any sixty (60) minute period, during which opacity is limited to 40%. This rule also requires that the Flare be permitted and tested upon agency request. BRM will operate the flare (Emission Unit ID 3S) in accordance with this rule.

D.3. 45 CSR 10: To Prevent and Control Air Pollution from the Emission of Sulfur Oxides

This rule establishes weight-based emission standards for SO₂ from fuel burning units. The Station does not operate fuel-burning heaters. Therefore, this rule does not apply.

No other requirements of this rule apply to the Station.

D.4. 45 CSR 13: Permits for Construction, Modification, Relocation and Operation of Stationary Sources, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation

This rule establishes permitting requirements for minor sources. The Station is a minor source related to Prevention of Significant Deterioration (PSD) permitting thresholds. Detailed emission rate calculations are included in Attachment N to this application.

D.5. 45 CSR 14: Permits for Construction and Major Modification of Major Stationary Sources for the Prevention of Significant Deterioration of Air Quality

The Station is a minor source related to PSD. Therefore, this rule is not applicable.

D.6. 45 CSR 16: Standards of Performance for New Stationary Sources

This rule incorporates by reference the New Source Performance Standards (NSPS) codified in 40 Code of Federal Registrations (CFR) Part 60. The Station does not have any equipment subject to an NSPS standard.

D.7. 45 CSR 17: To Prevent and Control PM Air Pollution from Materials Handling, Preparation, Storage, and Other Sources of Fugitive PM

BRM will utilize dust control measures to prevent fugitive PM from being emitted beyond the property line during the construction of the Station. BRM will also maintain the Station roads in a manner consistent with this rule.

D.8. 45 CSR 22: Air Quality Management Fee Program

This rule contains fee structure information for permits to construct and operate. In accordance with 45CSR§22-3, BRM is submitting an application fee of \$1,000 in accordance with this rule.

D.9. 45 CSR 34: Emission Standards for Hazardous Air Pollutants

This rule incorporates by reference the National Emissions Standards for Hazardous Air Pollutants codified in 40 CFR Part 61 (NESHAPs) and in 40 CFR Part 63 (MACTs).

40 CFR Part 61 contains standards for various materials, including radon, beryllium, mercury, vinyl chloride, radionuclides, benzene, asbestos, and inorganic arsenic emissions from various types of sources. The Station is not subject to any NESHAPs listed in 40 CFR Part 61.

40 CFR Part 63 contains Maximum Available Control Technology (MACT) standards for various source categories and/or industries. The Station is an area source of hazardous air pollutants (HAPs). The Station does not include equipment subject to a MACT standard listed in 40 CFR Part 63.

ATTACHMENT E

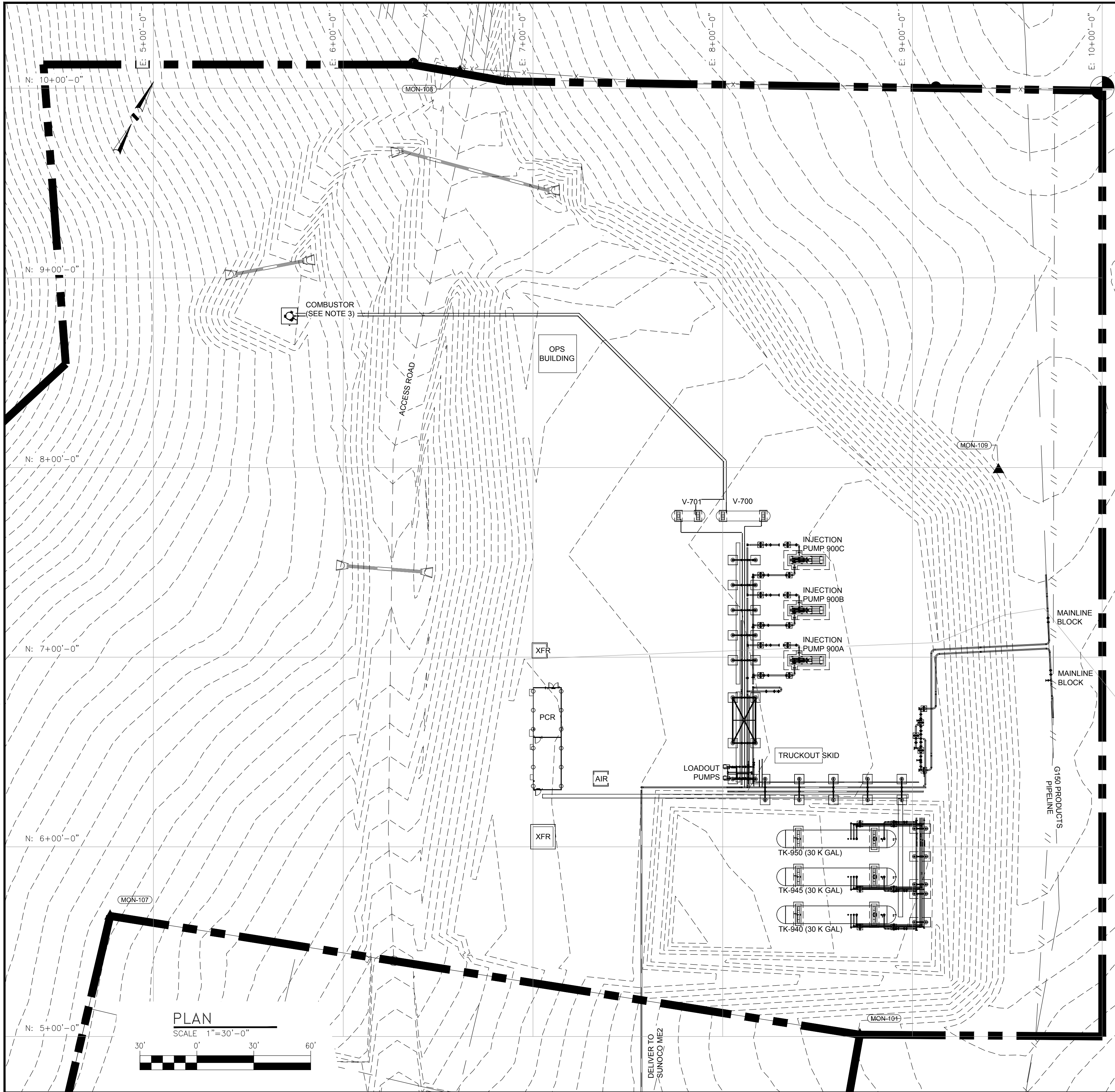
PLOT PLANS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND REMAIN THE PROPERTY OF BLUE RACER MIDSTREAM, LLC, AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.



MONUMENT	ELEVATION	NORTHING	EASTING	GRID NORTH	GRID EAST	LONGITUDE	LATITUDE
101	1159.98'	341293.34'	1188814.28'	5+00.86'	8+72.25'	W84° 41' 26.76"	N39° 07' 20.47"
107	1131.33'	341165.26'	1188435.32'	5+63.43'	4+77.06'	W84° 41' 31.82"	N39° 07' 20.78"
108	1149.00'	341645.22'	1188391.84'	10+08.79'	6+61.47'	W84° 41' 29.93"	N39° 07' 25.31"
109	1164.26'	341591.02'	1188740.67'	7+98.75'	9+45.31'	W84° 41' 26.13"	N39° 07' 23.46"

NOTES:

- FOR SYSTEM PFD, REFER TO 3065-CON-F-00010
- P&ID DRAWINGS 3065-CON-F-10010 THRU 3065-CON-F-10110
- **LAYOUT DESIGN CONSIDERATIONS PER API 2510**

DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE	CHK.	DATE	APPR.	DATE
			ISSUED FOR DESIGN	PAJ	04/06/17	JLG	04/06/17	AJM	04/06/17
			REISSUED FOR LAYOUT APPROVAL PER COMMENTS	PAJ	03/28/17	JAH	03/28/17	AJM	03/28/17
			ISSUED FOR APPROVAL, HIDDEN TRUCK PATHS	PAJ	05/22/17	JLG	05/22/17	AJM	05/22/17
			REVISED PER COMMENTS, ISSUED FOR APPROVAL	PAJ	03/17/17	CCN	03/17/17	AJM	03/17/17

CREATED BY: 03165

 115 INVERNESS DRIVE EAST
 ENGLEWOOD, CO 80112

BLUERACER
 MIDSTREAM
 CONLEY CONNECTION FACILITY

MECHANICAL PLANT PLOT PLAN LAYOUT LOCATIONS & DRIVE PATH		
DRAWN BY: PAJ	CHECKED: J.GEER	APPROVED: A.MEDCALF
CREATION DATE: 20170316	CHECK DATE: 20170316	APPR. DATE: 20170316
SCALE: 1"=30'-0"	DWG. No.: 62167-CON-P-00011	

FILE LOCATION: C:\PWORKING\REV\NMS2212\62167-CON-P-00011.DWG LAST SAVED: 04/06/17 BY: Johnston, Pete PLOT TIME/DATE: April 6, 2017

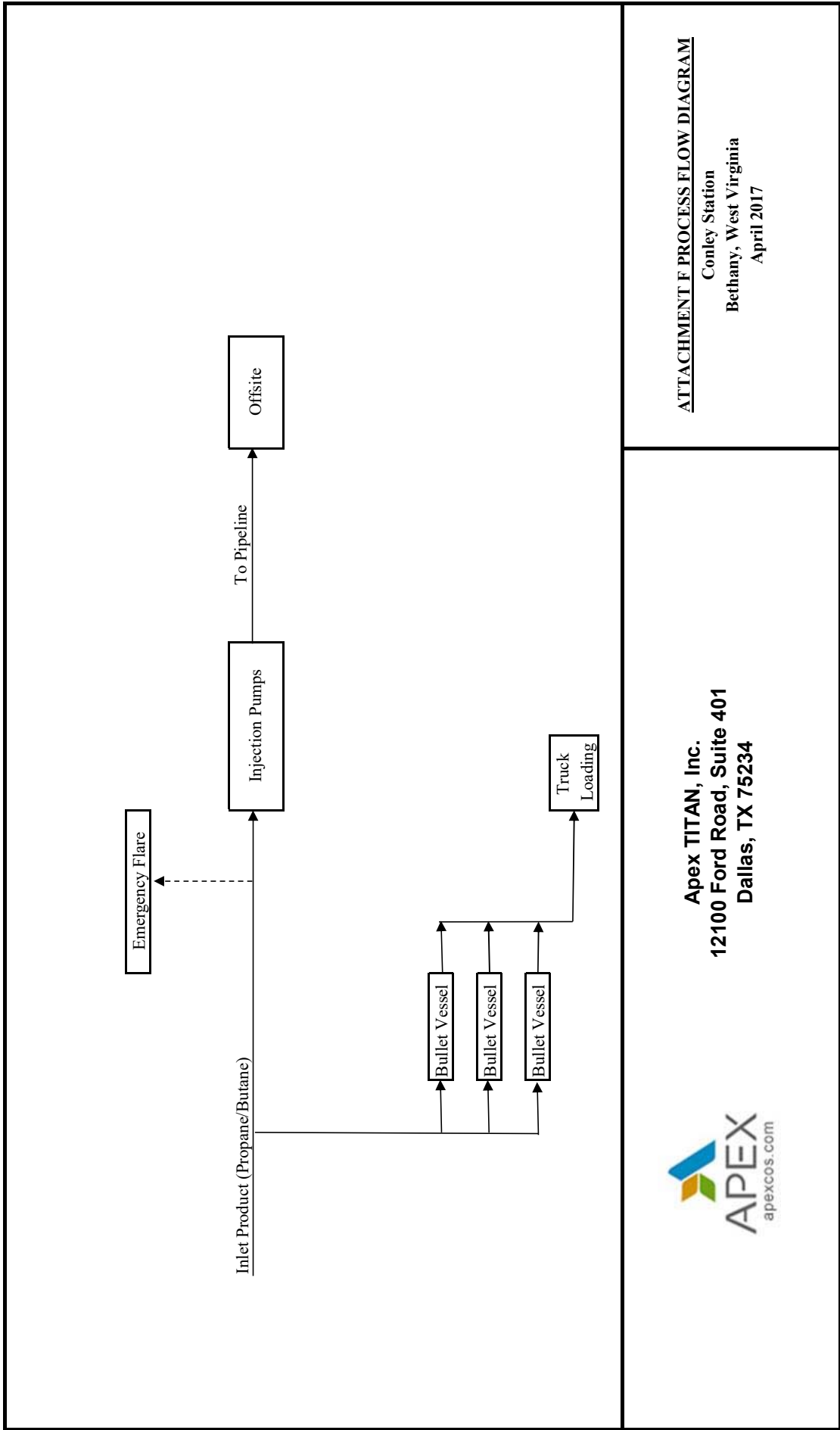
ATTACHMENT F

DETAILED PROCESS FLOW DIAGRAM

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC



Apex TITAN, Inc.
12100 Ford Road, Suite 401
Dallas, TX 75234

ATTACHMENT F PROCESS FLOW DIAGRAM
 Conley Station
 Bethany, West Virginia
 April 2017

ATTACHMENT G

PROCESS DESCRIPTION

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

**ATTACHMENT G
PROCESS DESCRIPTION**

The Conley Station (the Station) receives propane and butane products and routes them to injection pumps for offsite transportation through pipeline.

Off-spec product received at the Station is routed to storage vessels for off-site transportation via truck loading. A flare is used for emergency purposes and control of upset emissions.

Attachment N contains emission rate calculations for each emission source located at the Station.

ATTACHMENT H

MATERIAL SAFETY DATA SHEETS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

1. Identification

Product identifier	MIXED BUTANE
Other means of identification	N-Butane, Butyl Hydride, C₄H₁₀, Normal Butane, Liquefied Petroleum Gas
CAS No	
Recommended restrictions	Raw material for fuel production
Manufacturer / Importer / Supplier / Distributor information	
Company Name / Address	Blueracer Midstream, LLC 5949 Sherry Lane, Suite 1300, Dallas, TX 75225
Telephone	214-580-3700
Email	www.blueracermidstream.com
Contact Person	Safety Department
Emergency phone number	214-580-3700

2. Hazard(s) Identification

Physical hazards	Flammable Gas - Category 1 Gases under pressure – Liquefied gas
Specific Target Organ Toxicity	Single Exposure, Category 3 (central nervous system)
Health hazards	Asphyxiation hazard Skin and eye frostbite hazard Specific target organ systemic toxicity (Respiratory and Central Nervous Systems) – single exposure - Category 2

GHS Label Elements

Hazard symbol



Signal word

Danger

Hazard statement

Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
May cause frostbite, and freeze burns to skin and eyes
May cause damage to the central nervous and respiratory systems.

Precautionary statement

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flame, and hot surfaces – No Smoking.
Keep container tightly closed. Avoid breathing gas.
Use only outdoors or in a well-ventilated area.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.

Response	<p>Wash hands and contaminated skin thoroughly after handling.</p> <p>Leaking gas fire: Do not extinguish, unless leak can be stopped safely with foam, carbon dioxide, dry powder, or water fog.</p> <p>Eliminate all ignition sources if safe to do so.</p> <p>If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>If exposed or concerned: Get medical advice/attention.</p> <p>If on skin (or hair): Wash with plenty of water. Rinse skin with water/shower.</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <p>Take off contaminated clothing and wash before reuse.</p> <p>If swallowed: Immediately call a poison center/doctor.</p> <p>Do NOT induce vomiting.</p>
Storage	Store locked up. Store in well-ventilated place. Keep cool. Keep container tightly closed.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	May cause frostbite upon sudden release of liquefied gas. Gas accumulation in confined or low areas can displace oxygen and lead to asphyxiation.

3. Composition / Information on Ingredients

Substance

<u>Hazardous Components Chemical Name</u>	<u>Common name and synonyms</u>	<u>CAS Number</u>	<u>%</u>
n-Butane		106-97-8	54-100
Propane		74-98-6	0-28
n-Pentane		109-66-0	0-10
Isobutane		75-28-5	0-43.5

Composition comments All concentrations are in percentage by weight.

4. First-Aid Measures

Inhalation	Move victim to uncontaminated fresh air. Keep victim warm and rested. For respiratory distress give air, oxygen, or administer cardiopulmonary resuscitation if needed. Seek medical attention – call 911 or Emergency Medical Services.
Skin contact	If frostbite effects occur, remove to uncontaminated area. Immediately flush skin with water for 15 minutes. Clothing frozen to the skin should be thawed before removal. Do not use hot water! Cryogenic burns may occur as evidenced by blistering. Protect affected area with dry gauze and get prompt medical attention. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel.
Eye contact	Flush eyes gently with water for at least 15 minutes. If illness or adverse symptoms develop, seek medical attention.
Ingestion	Seek immediate medical attention.
Most important symptoms/ effects, acute and delayed	Acute: Headache, drowsiness, dizziness, loss of coordination, disorientation, and fatigue. Delayed: Dry skin and irritation after repeated or prolonged exposure.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	First aid personnel must be aware of own risk during rescue.

5. Firefighting Measures

Fire Hazard	EXTREMELY FLAMMABLE GAS. SEVERE EXPLOSION HAZARD. Vapor/air mixtures are explosive. The vapor is heavier than air. Vapor or gases may ignite at distant ignition and flash back.
Suitable extinguishing media	Extinguish with dry chemical foam, carbon dioxide dry powder, or water fog.

Unsuitable extinguishing media	Do not use water jet as an extinguisher as this will spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.
Specific hazards arising from the chemical	The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Liquid propane will vaporize rapidly at well below ambient temperatures and readily forms flammable mixtures with air. Flames impinging on product storage vessels above the liquid level will cause sudden vessel failure, resulting in a BLEVE (Boiling Liquid Expanding Vapor Explosion), unless the vessel surfaces are kept cooled with water. If this cannot be done, evacuate the area. Gasoline portion may continue to pool after propane and butane vaporize.
Special protective equipment and precautions for firefighters	Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode for protection against possible exposure. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) Use approved gas detectors in confined space.
Firefighting equipment/instructions	Evacuate area of all unnecessary personnel. Remove pressurized cylinders from the immediate vicinity. Cool containers exposed to flames with water until well after the fire is out. Close the valve if no risk is involved. Do not extinguish a leaking gas fire unless leak can be stopped. If leak cannot be stopped and no danger to surrounding area allow the fire to burn out. Fight fire from a protected location. Prevent buildup of vapors or gases to explosive concentrations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	All non-essential personnel should be evacuated. Stay upwind. Ventilate enclosed areas to prevent formation of flammable or oxygen-deficient atmospheres. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Liquid spills will vaporize rapidly and produce vapor cloud. Be alert for latent pooling of gasoline portion. Because vapors are heavier than air they will not readily disperse. Avoid vapor cloud even with proper respiratory equipment. Wear personal protective clothing and equipment.
Methods and materials for containment and cleaning up	<p>Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed space before entering. Avoid contact with skin. Wear suitable protective clothing, gloves and eye/face protection. For personal protection, see section 8 of the SDS.</p> <p>In the event of a large spill, self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.</p> <p>Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Remove sources of ignition. Beware of the explosion danger.</p> <p>Small Spills: Absorb spillage with non-combustible, absorbent material.</p> <p>Large Spills: Remove with vacuum trucks or pump to storage/salvage vessels. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labeled container. Wash area with soap and water. If necessary dike the product with dry earth, sand or similar non-combustible materials.</p>
Environmental precautions	Avoid release to the environment. Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not contaminate water. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and Storage

Precautions for safe handling	<p>Keep away from heat, hot surfaces, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment. Store only where temperature will not exceed 125 °F (52 °C).</p> <p>Access to work area should be restricted to people handling the product only. Should be handled in closed systems, if possible. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor. Use self-contained breathing apparatus (SCBA) in situations where exposure potential is unknown or when exposure is known to exceed applicable occupational exposure limits.</p> <p>Use explosion-proof equipment and non-sparking tools in areas where explosive vapors may form. Electrostatic charge may accumulate and create a hazardous condition when handling or processing. Electrically ground and bond shipping container, transfer line</p>
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and receiving container. Refer to NFPA-70 and/or API RP2003 for specific bonding/grounding requirements. Material may be at elevated temperatures and/or pressures. Exercise care when opening tank hatches, sampling ports and/or bleeder valves.

Extremely flammable. May vaporize easily at ambient temperatures. Vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open containers slowly to relieve pressure. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29 CFR 1910.146 (OSHA Confined Space Entry Standard). Do not wear contaminated clothing or shoes. Keep contaminated clothing away from ignition sources.

Conditions for safe storage, including any incompatibilities

Store and handle in accordance with all current regulations and standards. Store in well-ventilated place. Protect from sunlight. Keep container tightly closed. Store locked up. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.110. U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances. No Smoking. Keep away from oxidizers, e.g. chlorine, bleaches, fertilizers.

8. Exposure Controls / Personal Protection

Occupational Exposure Limits

<u>Components</u>	<u>ACGIH: (2016 Edition)</u>	<u>OSHA</u>
Butane n- (106-97-8); & Isobutane (75-28-5)	TWA: 1000 ppm (2370 mg/m ³)	--
Propane (74-98-6)	Asphyxiation hazard (Re: Appendix F)	TWA: 1000 ppm (1800 mg/m ³)
n-Pentane (109-66-0)	TWA: 1000 ppm (2950 mg/m ³)	TWA: 1000 ppm (2950 mg/m ³)
Biological limit values:	None	
Exposure guidelines:	No exposure standards allocated.	
Appropriate engineering controls	Observe occupational exposure limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities. Use explosion-proof equipment.	

Individual protection measures, such as personal protective equipment

Eye/face protection	For the gas: Wear goggles/face shield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin protection/ Hand protection	Wear protective gloves. Nitrile gloves are recommended but be aware that the liquid may penetrate the gloves. Frequent change is advisable. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Suitable gloves can be recommended by the glove supplier.
Other	Protective suit should be worn. Anti-static and flame-retardant protective clothing is recommended.
Respiratory protection	In case of inadequate ventilation where exposure concentrations are known, use air-supplied full-mask. In situations where concentrations are unknown, use SCBA. Seek advice from local supervisor.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary. Wear cold insulating gloves when transfilling or breaking transfer connections.
General hygiene considerations	When using, do not eat, drink or smoke. Wash hands after handling. Launder contaminated clothing before reuse. Private clothes and working clothes should be kept separately. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Appearance	Colorless gas
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Physical state	Liquefied Gas
Odor	Petroleum
Odor threshold	No data
pH	Not applicable
Vapor Pressure	2600 mm Hg @ 77°F / 25°C
Vapor Density (air=1)	2
Initial Boiling Point/ Range	11°F / -12°C -47 °F
Melting/Freezing Point	No data
Solubility in Water	Negligible
Partition Coefficient (n-octanol/water) (Kow):	No Data
Specific Gravity (water=1)	0.55-0.60 @ 77°F / 25°C (estimated)
Evaporation Rate (nBuAc=1)	>1
Flash Point	< -60°F / < -51°C
Test Method	(estimate)
Lower Exposure Limits (vol % in air)	1.9
Upper Exposure Limits (vol % in air)	8.5
Auto-ignition Temperature	752 °F / 400 °C

10: Stability and Reactivity

Stability: Stable under normal ambient and anticipated conditions of use.

Conditions to Avoid: Avoid all possible sources of ignition. Heat will increase pressure in the storage tank.

Materials to Avoid (Incompatible Materials): Avoid contact with acids, aluminum chloride, chlorine, chlorine dioxide, halogens and other oxidizing agents.

Hazardous Decomposition Products: Not anticipated under normal conditions of use.

Hazardous Polymerization: Not known to occur.

11: Toxicological Information

Information on Toxicological Effects of Substance/Mixture

Acute Toxicity

Butane n- (106-97-8)

LC₅₀ inhalation

Rat

658 g/m³ (exposure time: 4h)

Propane (CAS 74-98-6)

Acute

LC₅₀ Inhalation

Rat

>1442.847 mg/l, 15 minutes

Aspiration Hazard: Not applicable

Skin Corrosion/Irritation: Not expected to be irritating. Contact with the liquefied or pressurized gas may cause frostbite ("cold" burn). Repeated exposure may cause skin dryness or cracking.

Serious Eye Damage/Irritation: Not expected to be irritating. Contact with the liquefied or pressurized gas may cause momentary freezing followed by swelling and eye damage.

Signs and Symptoms: Light hydrocarbon gases are simple asphyxiants and can cause anesthetic effects at high concentrations. Symptoms of overexposure, which are reversible if exposure is stopped, can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting. Continued exposure can lead to hypoxia (inadequate oxygen), rapid breathing, cyanosis (bluish discoloration of the skin), numbness of the extremities, unconsciousness and death.

Skin Sensitization: Not expected to be a skin sensitizer.

Respiratory Sensitization: Not expected to be a respiratory sensitizer.

Specific Target Organ Toxicity (Single Exposure): Central Nervous System

Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure.

Carcinogenicity: Not expected to cause cancer. This substance is not listed as a carcinogen by IARC, NTP or OSHA.

Germ Cell Mutagenicity: Not expected to cause genetic effects.

Reproductive Toxicity: Not expected to cause reproductive effects.

Other Comments: High concentrations may reduce the amount of oxygen available for breathing, especially in confined spaces. Hypoxia (inadequate oxygen) during pregnancy may have adverse effects on the developing fetus.

Information on Toxicological Effects of Components

n-Butane

Target Organs: No systemic or neurotoxic effects were noted in rats exposed to concentrations of butane as high as 9,000 ppm for 28 days.

Reproductive Toxicity: No adverse reproductive or developmental effects were observed in rats exposed to butane; no observed adverse effect level = 12,000 ppm.

Propane

Target Organs: No systemic or neurotoxic effects were noted in rats exposed to concentrations of propane as high as 12,000 ppm for 28 days.

Reproductive Toxicity: No adverse reproductive or developmental effects were observed in rats exposed to propane; no observed adverse effect level = 12,000 ppm.

Isobutane

Target Organs: No systemic or neurotoxic effects were noted in rats exposed to concentrations of isobutane as high as 9,000 ppm for 28 days.

Reproductive Toxicity: No adverse developmental effects were observed in rats exposed to concentrations of isobutane as high as 9000 ppm. Fertility and mating indices may have been affected at 9000 ppm but no effects were observed at 3000 ppm (NOAEL).

12: Ecological Information

Toxicity: Petroleum gases will readily evaporate from the surface and would not be expected to have significant adverse effects in the aquatic environment. Classification: No classified hazards.

Persistence and Degradability: The hydrocarbons in this material are expected to be inherently biodegradable. In practice, hydrocarbon gases are not likely to remain in solution long enough for biodegradation to be a significant loss process. Hydrogen sulfide, if present in refinery gas streams, will be rapidly oxidized in water and insoluble sulfides precipitated from water when metallic radicals are present.

Bioaccumulative Potential: Since the log Kow values measured for refinery gas constituents are below 3, they are not regarded as having the potential to bioaccumulate.

Mobility in Soil: Due to the extreme volatility of petroleum gases, air is the only environmental compartment in which they will be found. In air, these hydrocarbons undergo photodegradation by reaction with hydroxyl radicals with half-lives ranging from 3.2 days for n-butane to 7 days for propane.

Other Adverse Effects: None anticipated.

13: Disposal Considerations

This material is a gas and would not typically be managed as a waste.

14: Transport Information

U.S. Department of Transportation (DOT)

UN number	UN1075
UN proper shipping name	Liquified Petroleum Gases
Commodity Description / Technical Name	Mixed Butane, Non Odorized
Hazard class	2.1
Subsidiary class	
Packing group	None
Special precautions for user	Not available
Labels required	Flammable gas (2.1)
Special provision	19, T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314
ERG number	115

15: Regulatory Information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard

Categories)

Acute Health:	Yes
Chronic Health:	No
Fire Hazard:	Yes
Pressure Hazard:	Yes
Reactive Hazard:	No

CERCLA/SARA - Section 313 and 40 CFR 372:

This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372.

EPA (CERCLA) Reportable Quantity (in pounds):

EPA's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

California Proposition 65:

This material does not contain any chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the warning requirements of California Proposition 65.

National Chemical Inventories

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA All components are either on the DSL, or are exempt from DSL listing

requirements

U.S. Export Control Classification Number: EAR99

16. Other information, including date of preparation or last version

NFPA Ratings

NFPA health hazard : 3 – Can cause serious or permanent injury

NFPA fire hazard : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions. and are not reactive with water.

HMIS III Rating:

Health : **3** - Major injury likely unless prompt action is taken and medical treatment is given.

Flammability : **4** - Flammable gases, or very volatile flammable liquids with flash points below 73 °F (23 °C), and boiling points below 100 °F (38 °C). Materials may ignite spontaneously with air.

Physical : **0** - Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

References

IARC Monographs. Overall Evaluation of Carcinogenicity (Volumes 1-102)

Registry of Toxic Effects of Chemical Substances (RTECS)

National Library of Medicine, Wisser Database

ECHA Registered Substances

ACGIH TLVs & BEIs, 2016 Edition

NIOSH Pocket Guide to Chemical Hazards

EU Regulation 1272/2008

29 CFR 1910.1200

SDS Version History

Most recent version date: February 16, 2017

Previous version date: September 24, 2013

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SAFETY DATA SHEET

1. Identification

Product identifier PROPANE
Other means of identification Not Available
Recommended restrictions None
Manufacturer / Importer / Supplier / Distributor information
Company Name / Address Blueracer Midstream, LLC
 5949 Sherry Lane, Suite 1300, Dallas, TX 75225
Telephone 214-580-3700
Email www.blueracermidstream.com
Contact Person Safety Department
Emergency phone number 214-580-3700

2. Hazard(s) identification

Physical hazards Flammable gases: Category 1
 Gases under pressure. Liquefied Gas.
Health hazards Not Classified

Label Elements

Hazard symbol



Signal word

Danger

Hazard statement

Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

Precautionary statement

Keep away from heat, sparks, open flames, hot surfaces. No smoking.

Prevention Response

Leaking gas fire; Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known

3. Composition / Information on Ingredients

Substance

<u>Hazardous components</u>	<u>Chemical Name</u>	<u>Common name and synonyms</u>	<u>CAS Number</u>	<u>%</u>
	Propane		74-98-6	>90
	Ethane		74-84-0	>7
	C4 Hydrocarbons		- -	<5

Composition comments

All concentrations are in percentage by weight.

4. First-aid measures

Inhalation

Move victim to area of fresh air. For respiratory distress give air, oxygen or administer cardiopulmonary resuscitation if needed. Seek medical attention -- call 911 or emergency medical services.

Skin contact

Immediately flush skin with water for 15 minutes. Frozen tissue should be gradually warmed using warm water. Clothing frozen to the skin should be thawed before removal. Do not use hot water! Cryogenic burns may occur as evidenced by blistering. Protect affected area with dry gauze and get prompt medical attention.

Eye contact	Flush eyes gently with water for at least 15 minutes. If illness or adverse symptoms develop, seek medical attention.
Ingestion	Seek immediate medical attention.
Most important symptoms/ effects, acute and delayed	Narcosis. Behavioral changes. Decrease in motor functions.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	First aid personnel must be aware of own risk during rescue.

5. Firefighting measures

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	None
Specific hazards arising from the chemical	Cylinders can burst violently when heated, due to excess pressure build-up. Gas may travel considerable distance to a source of ignition and flash back. Gases may form explosive mixtures with air. Fire or high temperatures create carbon monoxide. Carbon oxides.
Special protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode. Use approved gas detectors in confined space.
Firefighting equipment/instructions	Evacuate area. Remove pressurized cylinders from the immediate vicinity. Cool containers exposed to flames with water until well after the fire is out. Close the valve if no risk is involved. Do not extinguish a leaking gas fire unless leak can be stopped. If leak cannot be stopped and no danger to surrounding area allow the fire to burn out. Fight fire from a protected location. Prevent buildup of vapors or gases to explosive concentrations.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Evacuate area of all unnecessary personnel. Shut off product source and allow fire to burn itself out. Use water fog or spray to cool exposed containers and equipment to prevent overheating, flashbacks or explosions. Firefighters directly addressing the fire must use proper protective equipment including breathing apparatus to protect against hazardous combustion products and/or oxygen deficiencies.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	All non-essential personnel should be evacuated. Stay upwind. Ventilate enclosed areas to prevent formation of flammable or oxygen-deficient atmospheres. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Liquid spills will vaporize rapidly and produce vapor cloud. Be alert for latent pooling of gasoline portion. Because vapors are heavier than air they will not readily disperse. Avoid vapor cloud even with proper respiratory equipment.
Methods and materials for containment and cleaning up	Avoid contact with skin. Wear suitable protective clothing, gloves and eye/face protection. For personal protection, see section 8 of the SDS. In the event of a large spill, self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Remove sources of ignition. Beware of the explosion danger. Small Spills: Absorb spillage with non-combustible, absorbent material. Large Spills: Remove with vacuum trucks or pump to storage/salvage vessels. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labeled container. Wash area with soap and water. If necessary dike the product with dry earth, sand or similar non-combustible materials.
Environmental precautions	Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not contaminate water. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling

Access to work area should be restricted to people handling the product only. Should be handled in closed systems, if possible. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor. Use self-contained breathing apparatus (SCBA) if appropriate.

Use explosion-proof equipment and non-sparking tools in areas where explosive vapors may form. Electrically ground and bond shipping container, transfer line and receiving container. Material may be at elevated temperatures and/or pressures. Exercise care when opening tank hatches, sampling ports and/or bleeder valves.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed. Keep away from heat, open flames, or other sources of ignition. No smoking or open lighting. Outside or detached storage is preferred. Keep away from oxidizers, e.g. chlorine, oxygen, bleaches, fertilizers.

8. Exposure controls / personal protection

Occupational exposure limits

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<u>Components</u>	<u>Type</u>	<u>Value</u>
Propane 74-98-6	PEL	1800 mg/m ³

U.S. ACGIH Threshold Limit Values

C4 Hydrocarbons	TWA	1000 ppm
Ethane 74-84-0	TWA	1000 ppm
Propane 74-98-6	TWA	1000 ppm

U.S. NIOSH: Pocket Guide to Chemical Hazards

C4 Hydrocarbons	REL	1900 mg/me 800 ppm
Propane 74-98-6	REL	1800 mg/me 1000 ppm

Biological limit values:

None

Exposure guidelines:

No exposure standards allocated.

Appropriate engineering controls

Observe occupational exposure limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities. Use explosion-proof equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear goggles / face shield.

Skin protection

Hand protection

Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Suitable gloves can be recommended by the glove supplier.

Other

Protection suit must be worn. Anti-static and flame-retardant protective clothing is recommended.

Respiratory protection

In case of inadequate ventilation, use air-supplied full-mask. Seek advice from local supervisor.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Wash hands after handling. Launder contaminated clothing before reuse. Private clothes and working clothes should be kept separately. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical properties

Appearance	Colorless gas
Physical state	Gas
Form	Compressed liquefied gas
Color	Colorless to straw colored
Odor	Petroleum
Odor threshold	Not available
PH	Not available
Melting point / freezing point	Not available
Initial boiling point and boiling range	-47 °F (-43.9 °C) 1 atm

Flash Point	-156 °F (-104.4 °C)
Evaporation rate	Not available
Flammability (solid, gas)	Flammable

Upper / lower flammability or explosive limits

Flammability limit – lower	>2%
Flammability – upper	10%
Vapor pressure	208 psi
Vapor density	1.8 (Air=1)
Relative density	0.5 @ -42.2 °F (Water =1)
Solubility (ies)	Not Available
Partition coefficient	(n-octanol/ water) Not available
Auto-ignition temperature	874 °F (467.78 °C) estimated
Decomposition temperature	Not available
Viscosity	Not available
Other Information	
Bulk density	Not applicable
Explosive properties	Not applicable
Oxidizing properties	Not applicable

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.
Incompatible materials	Oxygen. Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides and various hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not a likely route of exposure.
Inhalation	At high concentrations a simple asphyxiant. May produce nausea, diarrhea, loss of appetite, dizziness, disorientation, headache, excitation, rapid respiration, drowsiness, labored breathing, anesthesia and other central nervous system effects. May cause lung paralysis and asphyxiation. Extreme overexposure may cause unconsciousness and respiratory arrest.

Skin contact

May cause slight irritation. Extreme exposure may produce discoloration, muscle weakness, breathing difficulties and other central nervous system effects. Direct contact may cause freeze burns.

Eye contact**symptoms related to the physical, chemical and toxicological characteristics**

May cause irritation including pain, blurred vision, redness, tearing and superficial corneal turbidity.

Headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.

Dry skin and possible irritation with repeated or prolonged exposure.

Acute toxicity

Human evidence indicates that the product has very low acute oral, dermal or inhalation toxicity.

However, it can produce severe injury if taken into the lung as a liquid, and there may be profound central nervous system depression following prolonged exposure to high levels of vapor.

Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness,

Light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. Irritant effect on skin. May irritate and cause stomach pain, vomiting, diarrhea and nausea.

Components**Species****Test Results**

C4 Hydrocarbons

Acute

Inhalation

LC50

Rat

658 mg/l, 4 hours

Propane 74-98-6

Acute

Inhalation

LC5

Rat

>1442.847 mg/l, 15 minutes

Skin corrosion/irritation

Not classified.

Serious eye damage/eye irritation

Not classified.

Respiratory sensitization

Not classified.

Skin sensitization

Not a skin sensitizer

Germ cell mutagenicity

May cause genetic defects.

Chronic effects

Prolonged exposure may cause chronic effects.

IARC Monographs. Overall Evaluation of Carcinogenicity – No ingredients listed**NTP Report on Carcinogens**

No ingredients listed

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) - None**Reproductive toxicity**

Not classified.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

12. Ecological information**Exotoxicity**

This product causes substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Bioaccumulative potential

Has the potential to bioaccumulate.

Partition coefficient n-octanol / water (log Kow)

Ethane 1.81

Propane 2.36

C4 Hydrocarbons 2.89

Persistence and degradability

Not available.

Mobility in soil

Not relevant, due to the form of the product.

Mobility in general
Other adverse effects

This product is a volatile substance, which may spread in the atmosphere.
The product contains volatile organic compounds which have a photochemical ozone creation potential. Oil spills are generally hazardous to the environment.

13. Disposal considerations

Disposal instructions

Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.

Local disposal regulations

Dispose of in accordance with local regulations.

Hazardous waste code

Not regulated.

Waste from residues / unused products

Dispose of in accordance with local regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transportation

DOT

UN number	UN1978
UN proper shipping name	Propane
Hazard class	2.1
Subsidiary class	Not available.
Packing group	None
Special precautions for user	Not available.
Labels required	Flammable gas (2.1)
Special provision	19. T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314.315

IATA

UN number	UN1978
UN proper shipping name	Propane
Transport hazard class	2.1
Subsidiary class	
Packaging group	None
Environmental hazards	NA
Labels required	Flammable gas (2.1)
Special provision	Not available.
ERG Code	10L
Special precautions for user	Not available

IMDG

UN number	UN1978
UN proper shipping name	Propane
Transport hazard class	Flammable gas (2.1)
Subsidiary class	
Packaging group	None
Environmental hazards	NA
Marien pollutant labels required	None
EmS	F-D S-U
Special precautions for users	Not available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (OSHA). All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	None	
CERCLA Hazardous Substance List (40 CFR 302.4)	C4 Hydrocarbons	LISTED
	Ethane (CAS74-84-0)	LISTED
	Propane (CAS74-98-6)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard – Yes Delayed Hazard – No Fire Hazard – Yes Pressure Hazard – Yes Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes
SARA Section 313	This material contains the following chemical subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372: n-Hexane

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List – Not regulated

C4 Hydrocarbons
Ethane (CAS74-84-0)
Propane (CAS74-98-6)

Safe Drinking Water Act (SDWA) – No constituents on the List of Contaminants

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number – None

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)) – None

DEA Exempt Chemical Mixtures Code Number - None Food and Drug Administration. (FDA) Not regulated.

16. Other information, including date of preparation or last version

References

IARC Monographs. Overall Evaluation of Carcinogenicity (Volumes 1-102)
Registry of Toxic Effects of Chemical Substances (RTECS)
National Library of Medicine, Wiser Database
ECHA Registered Substances
NIOSH Pocket Guide to Chemical Hazards
EU Regulation 1272/2008
29 CFR 1910.1200

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

ATTACHMENT I

EMISSION UNITS TABLE

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

ATTACHMENT J

EMISSIONS POINTS DATA SUMMARY SHEET

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical/processes only)		All Regulated Pollutants - Chemical Name/CAS ³	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase <i>(At exit conditions, Solid, Liquid or Gas/Vapor)</i>	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	N/A	1S	Site Fugitives	N/A	N/A	C	N/A	VOC CO ₂ CH ₄ CO _{2e} HAPs	5.25 -- -- -- --	23.00 0.00 0.00 0.00 --	5.25 -- -- -- --	23.00 0.00 0.00 0.00 --	Gas Gas Gas Gas Gas	EE	N/A
2E	Vertical	2S	Pressurized Truck Loading	N/A	N/A	< 1 hour	N/A	VOC CO ₂ CH ₄ CO _{2e} HAPs	15.24 -- -- -- --	0.73 0.00 0.00 0.00 --	15.24 -- -- -- --	0.73 0.00 0.00 0.00 --	Gas Gas Gas Gas Gas	EE	N/A
3E	Vertical	3S	Flare	N/A	N/A	C	N/A	NO _x CO VOC PM SO ₂ CO _{2e} HAPs	2.43 1.40 15.38 -- 0.19 (1) --	0.48 0.28 2.81 -- 0.04 467.51 --	2.43 1.40 15.38 -- 0.19 (1) --	0.48 0.28 2.81 -- 0.04 467.51 --	Gas Gas Gas Gas Gas Gas Gas	EE	N/A
4E	N/A	4S	Unpaved Road Dust Emissions	N/A	N/A	Varies	N/A	PM PM ₁₀ PM _{2.5}	3.30 0.97 0.10	0.32 0.09 0.01	3.30 0.97 0.10	0.32 0.09 0.01	Gas Gas Gas	EE	N/A

Notes:
 (1) Hourly emissions could not be quantified. CO_{2e} emissions include CO₂, CH₄, and N₂O, taking into account the Global Warming Potential of each.
 The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.
¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (e.g., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

- 3 List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.
- 4 Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- 5 Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- 6 Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- 7 Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

ATTACHMENT K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS ¹	Maximum Potential Uncontrolled Emissions ²		Maximum Potential Controlled Emissions ³		Est. Method Used ⁴
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads	Not Applicable					
Unpaved Haul Roads	PM/PM ₁₀	3.30	0.32	3.30	0.32	EE
Storage Pile Emissions	Not Applicable					
Loading/Unloading Operations	VOC	15.24	0.73	15.24	0.73	EE
Wastewater Treatment Evaporation & Operations	Not Applicable					
Equipment Leaks	VOC	5.25	23.00	5.25	23.00	EE
General Clean-up VOC Emissions	Not Applicable					
Other	Not Applicable					

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT L

EMISSIONS UNIT DATA SHEETS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Attachment L
EMISSIONS UNIT DATA SHEET
CHEMICAL PROCESS

For chemical processes please fill out this sheet and all supplementary forms (see below) that apply. Please check all supplementary forms that have been completed.

- Emergency Vent Summary Sheet*
- Leak Sources Data Sheet*
- Toxicology Data Sheet*
- Reactor Data Sheet*
- Distillation Column Data Sheet*

1. Chemical process area name and equipment ID number (as shown in *Equipment List Form*)
 Site Fugitives

2. Standard Industrial Classification Codes (SICs) for process(es)
 4613

3. List raw materials and attach MSDSs
 Propane and butane products.

4. List Products and Maximum Production and attach MSDSs

Description and CAS Number	Maximum Hourly (lb/hr)	Maximum Annual (ton/year)

5. Complete the *Emergency Vent Summary Sheet* for all emergency relief devices.

6. Complete the *Leak Source Data Sheet* and describe below or attach to application the leak detection or maintenance program to minimize fugitive emissions. Include detection instruments, calibration gases or methods, planned inspection frequency, and record-keeping, and similar pertinent information. If subject to a rule requirement (e.g. 40CFR60, Subpart VV), please list those here.
 Not applicable.

7. Clearly describe below or attach to application Accident Procedures to be followed in the event of an accidental spill or release.

8A. Complete the *Toxicology Data Sheet* or attach to application a toxicology report (an up-to-date material safety data sheets (MSDS) may be used) outlining the currently known acute and chronic health effects of each compound or chemical entity emitted to the air. If these compounds have already been listed in Item 3, then a duplicate MSDS sheet is not required. Include data such as the OSHA time weighted average (TWA) or mutagenicity, teratogenicity, irritation, and other known or suspected effects should be addressed. Indicate where these are unknown, and provide references.

8B. Describe any health effects testing or epidemiological studies on these compounds that are being or may be conducted by the company or required under TSCA, RCRA or other federal regulations. Discuss the persistence in the environment of any emission (e.g. pesticides, etc.).

9. **Waste Products** - Waste products status: (If source is subject to RCRA or 45CSR25, please contact the Hazardous Waste Section of WVDEP, OAQ at (304) 926-3647.)

9A. Types and amounts of wastes to be disposed:

9B. Method of disposal and location of waste disposal facilities:
 Carrier: _____ Phone: _____

9C. Check here if approved USEPA/State Hazardous Waste Landfill will be used

10. Maximum and Projected Typical Operating Schedule for process or project as a whole (circle appropriate units).
 circle units: (hrs/day) (hr/batch) (days), (batches/day), (batches/week) (days/yr), (weeks/year)

10A. Maximum	24 hrs/day	7 days/week	365 days/year
--------------	------------	-------------	---------------

10B. Typical	24 hrs/day	7 days/week	365 days/year
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11. Complete a *Reactor Data Sheet* for each reactor in this chemical process.

12. Complete a *Distillation Column Data Sheet* for each distillation column in this chemical process.

13. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
------------	---------------

REPORTING	TESTING
-----------	---------

MONITORING. Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

RECORDKEEPING. Please describe the proposed recordkeeping that will accompany the monitoring.

REPORTING. Please describe the proposed frequency of reporting of the recordkeeping.

TESTING. Please describe any proposed emissions testing for this process equipment or air pollution control device.

14. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty
 N/A

INFORMATION REQUIRED FOR CHEMICAL PROCESSES

The notes listed below for chemical processes are intended to help the applicant submit a complete application to the OAQ; these notes are not intended to be all inclusive. The requirements for a complete application for a permit issued under 45CSR13 are designed to provide enough information for a permit reviewer to begin a technical review. Additional information beyond that identified may be required to complete the technical review of any individual application.

Process Description

Please keep these points in mind when completing your process description as part of this permit application.

1. Provide a general process overview. This brief, but complete, process description should include chemical or registered trademark names of chemical products, intermediates, and/or raw materials to be produced or consumed, and the ultimate use(s) of the product(s). A list of the various chemical compounds is helpful.
2. Describe each process step. Include the process chemistry and stoichiometrically balanced reaction equation or material mass balance on all components.
3. Describe the methods and equipment used to receive, store, handle, and charge raw materials.
4. Describe the methods and equipment used to handle, store, or package final products and intermediates.
5. Provide process flow diagrams or equipment layout drawings which clearly show the process flow relationships among all pieces of process and control equipment. Identify all air emission discharge points. Discuss instrumentation and controls for the process.
6. Discuss the possibilities of process upsets, the duration and frequency of upsets, and consequences (including air emissions) of these upsets. Include a description of rupture discs, pressure relief valves, and secondary containment systems.
7. Discuss any fugitive emissions and the methods used to minimize them.
8. Include the following plans for the process if available:
 - a. preventative maintenance and malfunction abatement plan (recommended for all control equipment).
 - b. continuous emissions (in-stack) monitoring plan
 - c. ambient monitoring plan
 - d. emergency response plan

Regulatory Discussion

The following state and federal air pollution control regulations may be applicable to your chemical process. You should review these regulations carefully to determine if they apply to your process. Please summarize the results of your review in your permit application along with any other regulations you believe are applicable.

- Title 45 Legislative Rule Division of Environmental Protection, Office of Air Quality contains West Virginia's air pollution control regulations, including the following promulgated rules which may require emissions reductions or control technologies for your chemical process:
 - a. 45CSR27 - Best Available Technology (BAT) for Toxic Air Pollutants (TAPs)
 - b. 45CSR21 - VOC emissions controls for ozone maintenance in Kanawha, Cabell, Putnam, Wayne, and Wood counties.
 - c. 45CSR13 (Table 45-13A) - plantwide emission thresholds for permitting for certain pollutants.
- Federal Guidelines for case-by-case MACT determinations under section 112(g) of the 1990 CAAA for individual and total HAPs greater than 10 and 25 tons per year, respectively.
- There are also subparts of the federal Standards of Performance for New Stationary Sources (NSPS), 40CFR60.60, and the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40CFR61 and 40CFR63, which apply to various chemical and nonchemical processes. These subparts are too numerous to list here, but these areas of the federal regulations should be consulted carefully to determine applicability to your process.

Emissions Summary and Calculations

Please keep these points in mind when submitting your emissions calculations as part of this permit application.

1. For each pollutant, provide the basis for the emissions estimate and for all emission reduction(s) or control efficiency(ies) claimed.
2. For all batch processes provide the following
 - a. Emissions of each pollutant in pound(s) per batch, from each process step
 - b. Annual emissions based on number of batches requested per year
 - c. The total time for each process step and the duration of the emissions during the process step
 - d. Total batch time, total emissions per batch (or per day), and annual emissions based on the number of batches requested per year.

LEAK SOURCE DATA SHEET

Source Category	Pollutant	Number of Source Components ¹	Number of Components Monitored by Frequency ²	Average Time to Repair (days) ³	Estimated Annual Emission Rate (lb/yr) ⁴
Pumps ⁵	light liquid VOC ^{6,7}	8	0	7	2008.49
	heavy liquid VOC ⁸				
	Non-VOC ⁹				
Valves ¹⁰	Gas VOC	101	0	7	8776.82
	Light Liquid VOC	581	0	7	27992.58
	Heavy Liquid VOC				
Safety Relief Valves ¹¹	Non-VOC				
	Gas VOC	21	0	7	3568.82
	Non VOC				
Open-ended Lines ¹²	VOC				
	Non-VOC				
Sampling Connections ¹³	VOC				
	Non-VOC				
Compressors	VOC				
	Non-VOC				
Flanges	VOC	86	0	7	420.88
	Non-VOC				
Other	VOC	85	0	7	205.10
	Non-VOC				

¹⁻¹³ See notes on the following page.

Notes for Leak Source Data Sheet

1. For VOC sources include components on streams and equipment that contain greater than 10% w/w VOC, including feed streams, reaction/separation facilities, and product/by-product delivery lines. Do not include certain leakless equipment as defined below by category.
2. By monitoring frequency, give the number of sources routinely monitored for leaks, using a portable detection device that measures concentration in ppm. Do not include monitoring by visual or soap-bubble leak detection methods. "M/Q(M)/Q/SA/A/O" means the time period between inspections as follows:

Monthly/Quarterly, with Monthly follow-up of repaired leakers/Quarterly/Semi-annual/Annually/Other (specify time period)

If source category is not monitored, a single zero in the space will suffice. For example, if 50 gas-service valves are monitored quarterly, with monthly follow-up of those repaired, 75 are monitored semi-annually, and 50 are checked bimonthly (alternate months), with non checked at any other frequency, you would put in the category "valves, gas service:" 0/50/0/75/0/50 (bimonthly).
3. Give the average number of days, after a leak is discovered, that an attempt will be made to repair the leak.
4. Note the method used: MB - material balance; EE - engineering estimate; EPA - emission factors established by EPA (cite document used); O - other method, such as in-house emission factor (specify).
5. Do not include in the equipment count sealless pumps (canned motor or diaphragm) or those with enclosed venting to a control device. (Emissions from vented equipment should be included in the estimates given in the Emission Points Data Sheet.)
6. Volatile organic compounds (VOC) means the term as defined in 40 CFR §51.100 (s).
7. A light liquid is defined as a fluid with vapor pressure equal to or greater than 0.04 psi (0.3 Kpa) at 20°C. For mixtures, if 20% w/w or more of the stream is composed of fluids with vapor pressures greater than 0.04 psi (0.3 Kpa) at 20 °C, then the fluid is defined as a light liquid.
8. A heavy liquid is defined as a fluid with a vapor pressure less than 0.04 psi (0.3 Kpa) at 20°C. For mixtures, if less than 20% w/w of the stream is composed of fluids with vapor pressures greater than 0.04 psi (0.3 Kpa) at 20 °C, then the fluid is defined as a heavy liquid.
9. LIST CO, H₂S, mineral acids, NO, NO₂, SO₃, etc. DO NOT LIST CO₂, H₂, H₂O, N₂, O₂, and Noble Gases.
10. Include all process valves whether in-line or on an open-ended line such as sample, drain and purge valves. Do not include safety-relief valves, or leakless valves such as check, diaphragm, and bellows seal valves.
11. Do not include a safety-relief valve if there is a rupture disk in place upstream of the valve, or if the valve vents to a control device.
12. Open-ended lines include purge, drain and vent lines. Do not include sampling connections, or lines sealed by plugs, caps, blinds or second valves.
13. Do not include closed-purge sampling connections.

REACTOR DATA SHEET

Provide the following information for each piece of equipment that is a potential or actual source of emissions as shown on the *Equipment List Form* and other parts of application.

Identification Number (as shown on <i>Equipment List Form</i>):							
1. Name and type of equipment (e.g. CSTR, plug flow, batch, etc.)							
2. Type of operation <input type="checkbox"/> Batch <input type="checkbox"/> Continuous <input type="checkbox"/> Semi-batch							
3. Projected Actual Equipment Operating Schedule (complete appropriate lines):							
hrs/day		days/week			weeks/year		
hrs/batch		batches/day, weeks (Circle one)			day, weeks/yr (Circle one)		
4. Feed Data Flow In = gal/hr, or gal/batch							
Material Name & CAS No.	Phase ^a	Specific Gravity	Vapor Pressure ^b	Charge Rate			Fill Time (min/batch, run) ^c
				Normal	Max	Units	
<p>a. S = Solid, L = Liquid, G = gas or vapor</p> <p>b. At feed conditions</p> <p>c. Total time that equipment is filling per batch or run (start-up), for tank or vessel-type equipment.</p>							
5. Provide all chemical reactions that will be involved (if applicable), including the residence time and any side reactions that may occur as well as gases that may be generated during these reactions. Indicate if the reaction(s) are exothermic or endothermic.							

6. Maximum Temperature	7A. Maximum Pressure	
°C	mmHg	mmHg
°F	psig	psig

8. Output Data		Flow Out =		gal/hr or gal/batch		
Material Name and CAS No.	Phase	Specific Gravity	Vapor Pressure	Hourly or Batch Output Rate		Units
				Normal	Maximum	

9. Complete the following emission data for equipment connected to a header exhaust system, giving emissions levels before entering header system (i.e. before control equipment).

Check here if not applicable

Emission Point ID (exhaust point of header system):

Material Name and CAS No.	Maximum Potential Emission Rate (lb/hr)	Method **

** MB - material balance; EE - Engineering Estimate; TM - Test Measurement (submit test data); O - other (Explain)

10. Provide the following information pertaining to each condenser that may be attached to this reactor. Attach additional pages as necessary if more than one condenser is used for this reactor. Complete the Condenser Air Pollution Control Device Sheet if necessary.

Check here if not applicable

- 10A. Cooling material
- 10B. Minimum and Maximum flowrate of cooling material (gal/hr)
- 10C. Inlet temperature of cooling material (°F)
- 10D. Outlet temperature of cooling material (°F)
- 10E. Pressure drop of gas to be condensed from inlet to outlet (psig)
- 10F. Inlet temperature of gas stream (°F)
- 10G. Outlet temperature of gas stream (°F)
- 10H. Number of passes
- 10I. Cooling surface area

11. Provide the following pertaining to auxiliary equipment that burns fuel (heaters, dryers, etc.):

Check here if not applicable

11A. Type of fuel and maximum fuel burn rate, per hour:

11B. Provide maximum percent sulfur (S), ash content of fuel, and the energy content using appropriate units:

%S	% Ash	BTU/lb, std. ft ³ /day, gal
		(circle one)

11C. Theoretical combustion air requirement in SCFD per unit of fuel (circle appropriate unit) @ 70°F and 14.7 PSIA:

SCFD/lb, SCFD, gal (circle one)

11D. Percent excess air: %

11E. Type, amount, and BTU rating of burners and all other firing equipment that are planned to be used:

11F. Total maximum design heat input: ×10⁶ BTU/hr.

12. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION OR AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT OR AIR POLLUTION CONTROL DEVICE.

13. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NOTE: An *AIR POLLUTION CONTROL DEVICE SHEET* must be completed for any air pollution device(s) (except emergency relief devices) used to control emissions from this reactor.

DISTILLATION COLUMN DATA SHEET

Identification Number (as assigned on <i>Equipment List Form</i>):		
1. Name and type of equipment		
#. Projected actual equipment operating schedule (complete appropriate lines):		
hrs/day	days/week	weeks/year
hrs/batch	batches/day, batches/week (circle one)	days/yr, weeks/yr (circle one)
2. Number of stages (plates), excluding condenser		
3. Number of feed plates and stage location		
4. Specify details of any reheating, recycling, or stage conditioning along with the stage locations		
5. Specify reflux ratio, R (where R is defined as the ratio of the reflux to the overhead product, given symbolically as $R=L/D$, where L = liquid down column, D = distillation product)		
6. Specify the fraction of feed which is vaporized, f (where f is the molal fraction of the feed that leaves the feed plate continuously as vapor).		
7A. Type of condenser used: <input type="checkbox"/> total <input type="checkbox"/> partial <input type="checkbox"/> multiple <input type="checkbox"/> other		
7B. For each condenser provide process operating details including all inlet and outlet temperatures, pressures, and compositions.		
8. Feed Characteristics		
A. Molar composition		
B. Individual vapor pressure of each component		
C. Total feed stage pressure		
D. Total feed stage temperature		
E. Total mass flow rate of each stream into the system		
9. Overhead Product		
A. Molar composition of components		
B. Vapor pressure of components		
C. Total mass flow rate of all streams leaving the system as overhead products		
10. Bottom Product		
A. Molar composition of all components		
B. Total mass flow rate of all streams leaving the system as bottom products		

11. General Information

- A. Distillation column diameter
- B. Distillation column height
- C. Type of plates
- D. Plate spacing
- E. Murphree plate efficiency
- F. Any other information necessary of describe the operation of this distillation column.

12. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION OR AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT OR AIR POLLUTION CONTROL DEVICE.

13. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NOTE: An *AIR POLLUTION CONTROL DEVICE SHEET* must be completed for any air pollution device(s) (except emergency relief devices) used to control emissions from this distillation column.

Attachment L FUGITIVE EMISSIONS FROM UNPAVED HAULROADS

UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

		PM	PM-10
k =	Particle size multiplier	4.9	1.5
s =	Silt content of road surface material (%)	10	10
p =	Number of days per year with precipitation >0.01 in.	135	135

Item Number	Description	Number of Wheels	Mean Vehicle Weight (tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1	Truck	18	40	5	0.4	8	192	N/A	N/A
2									
3									
4									
5									
6									
7	Note: the equation below has been superceded by latest version of AP-42. Newest equation has been used for calculations. See attached spreadsheet.								
8									

Source: AP-42 Fifth Edition – 13.2.2 Unpaved Roads

$$E = k \times 5.9 \times (s \div 12) \times (S \div 30) \times (W \div 3)^{0.7} \times (w \div 4)^{0.5} \times ((365 - p) \div 365) = \text{lb/Vehicle Mile Traveled (VMT)}$$

Where:

		PM	PM-10
k =	Particle size multiplier	4.9	1.5
s =	Silt content of road surface material (%)	10	10
S =	Mean vehicle speed (mph)	5	5
W =	Mean vehicle weight (tons)	40	40
w =	Mean number of wheels per vehicle	18	18
p =	Number of days per year with precipitation >0.01 in.	135	135

For lb/hr: $[\text{lb} \div \text{VMT}] \times [\text{VMT} \div \text{trip}] \times [\text{Trips} \div \text{Hour}] = \text{lb/hr}$

For TPY: $[\text{lb} \div \text{VMT}] \times [\text{VMT} \div \text{trip}] \times [\text{Trips} \div \text{Hour}] \times [\text{Ton} \div 2000 \text{ lb}] = \text{Tons/year}$

SUMMARY OF UNPAVED HAULROAD EMISSIONS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	--	0.32	--	0.32	--	0.09	--	0.09
2								
3								
4								
5								
6								
7								
8								
TOTALS		0.32		0.32		0.09		0.09

FUGITIVE EMISSIONS FROM PAVED HAULROADS

INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1							
2							
3							
4							
5							
6							
7							
8							

Source: AP-42 Fifth Edition – 11.2.6 Industrial Paved Roads

$$E = 0.077 \times I \times (4 \div n) \times (s \div 10) \times (L \div 1000) \times (W \div 3)^{0.7} = \text{lb/Vehicle Mile Traveled (VMT)}$$

Where:

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	
W =	Average vehicle weight (tons)	

For lb/hr: $[\text{lb} \div \text{VMT}] \times [\text{VMT} \div \text{trip}] \times [\text{Trips} \div \text{Hour}] = \text{lb/hr}$

For TPY: $[\text{lb} \div \text{VMT}] \times [\text{VMT} \div \text{trip}] \times [\text{Trips} \div \text{Hour}] \times [\text{Ton} \div 2000 \text{ lb}] = \text{Tons/year}$

SUMMARY OF PAVED HAULROAD EMISSIONS

Item No.	Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY
1				
2				
3				
4				
5				
6				
7				
8				
TOTALS				

Attachment L EMISSIONS UNIT DATA SHEET STORAGE TANKS

Provide the following information for each new or modified bulk liquid storage tank as shown on the *Equipment List Form* and other parts of this application. A tank is considered modified if the material to be stored in the tank is different from the existing stored liquid.

IF USING US EPA'S TANKS EMISSION ESTIMATION PROGRAM (AVAILABLE AT www.epa.gov/tnn/tanks.html), APPLICANT MAY ATTACH THE SUMMARY SHEETS IN LIEU OF COMPLETING SECTIONS III, IV, & V OF THIS FORM. HOWEVER, SECTIONS I, II, AND VI OF THIS FORM MUST BE COMPLETED. US EPA'S AP-42, SECTION 7.1, "ORGANIC LIQUID STORAGE TANKS," MAY ALSO BE USED TO ESTIMATE VOC AND HAP EMISSIONS (<http://www.epa.gov/tnn/chief/>).

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name	2. Tank Name Pressurized Storage Tank
3. Tank Equipment Identification No. (as assigned on <i>Equipment List Form</i>) N/A	4. Emission Point Identification No. (as assigned on <i>Equipment List Form</i>) N/A
5. Date of Commencement of Construction (for existing tanks) 2017	
6. Type of change <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> New Stored Material <input type="checkbox"/> Other Tank Modification	
7. Description of Tank Modification (if applicable)	
7A. Does the tank have more than one mode of operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (e.g. Is there more than one product stored in the tank?)	
7B. If YES, explain and identify which mode is covered by this application (Note: A separate form must be completed for each mode).	
7C. Provide any limitations on source operation affecting emissions, any work practice standards (e.g. production variation, etc.):	

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-sectional area multiplied by internal height. <div style="text-align: right; margin-right: 100px;">30,000 gal</div>	
9A. Tank Internal Diameter (ft) <div style="text-align: center;">11</div>	9B. Tank Internal Height (or Length) (ft)
10A. Maximum Liquid Height (ft) <div style="text-align: center;">11</div>	10B. Average Liquid Height (ft) <div style="text-align: center;">0</div>
11A. Maximum Vapor Space Height (ft) <div style="text-align: center;">5.5</div>	11B. Average Vapor Space Height (ft) <div style="text-align: center;">11</div>
12. Nominal Capacity (specify barrels or gallons). This is also known as "working volume" and considers design liquid levels and overflow valve heights. <div style="text-align: right; margin-right: 100px;">19,500 gal</div>	

13A. Maximum annual throughput (gal/yr) 768,000	13B. Maximum daily throughput (gal/day) 64,000
14. Number of Turnovers per year (annual net throughput/maximum tank liquid volume) 72	
15. Maximum tank fill rate (gal/min) 1,050	
16. Tank fill method <input type="checkbox"/> Submerged <input checked="" type="checkbox"/> Splash <input type="checkbox"/> Bottom Loading	
17. Complete 17A and 17B for Variable Vapor Space Tank Systems <input checked="" type="checkbox"/> Does Not Apply	
17A. Volume Expansion Capacity of System (gal)	17B. Number of transfers into system per year
18. Type of tank (check all that apply): <input type="checkbox"/> Fixed Roof ___ vertical x horizontal ___ flat roof ___ cone roof ___ dome roof ___ other (describe) <input type="checkbox"/> External Floating Roof ___ pontoon roof ___ double deck roof <input type="checkbox"/> Domed External (or Covered) Floating Roof <input type="checkbox"/> Internal Floating Roof ___ vertical column support ___ self-supporting <input type="checkbox"/> Variable Vapor Space ___ lifter roof ___ diaphragm <input checked="" type="checkbox"/> Pressurized ___ spherical x cylindrical <input type="checkbox"/> Underground <input type="checkbox"/> Other (describe)	

III. TANK CONSTRUCTION & OPERATION INFORMATION (optional if providing TANKS Summary Sheets)

19. Tank Shell Construction: <input type="checkbox"/> Riveted <input type="checkbox"/> Gunitite lined <input type="checkbox"/> Epoxy-coated rivets <input checked="" type="checkbox"/> Other (describe) Welded		
20A. Shell Color White	20B. Roof Color White	20C. Year Last Painted
21. Shell Condition (if metal and unlined): <input type="checkbox"/> No Rust <input type="checkbox"/> Light Rust <input type="checkbox"/> Dense Rust <input checked="" type="checkbox"/> Not applicable		
22A. Is the tank heated? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
22B. If YES, provide the operating temperature (°F)		
22C. If YES, please describe how heat is provided to tank.		
23. Operating Pressure Range (psig): 200 to 225		
24. Complete the following section for Vertical Fixed Roof Tanks <input checked="" type="checkbox"/> Does Not Apply		
24A. For dome roof, provide roof radius (ft)		
24B. For cone roof, provide slope (ft/ft)		
25. Complete the following section for Floating Roof Tanks <input checked="" type="checkbox"/> Does Not Apply		
25A. Year Internal Floaters Installed:		
25B. Primary Seal Type: <input type="checkbox"/> Metallic (Mechanical) Shoe Seal <input type="checkbox"/> Liquid Mounted Resilient Seal (check one) <input type="checkbox"/> Vapor Mounted Resilient Seal <input type="checkbox"/> Other (describe):		
25C. Is the Floating Roof equipped with a Secondary Seal? <input type="checkbox"/> YES <input type="checkbox"/> NO		
25D. If YES, how is the secondary seal mounted? (check one) <input type="checkbox"/> Shoe <input type="checkbox"/> Rim <input type="checkbox"/> Other (describe):		
25E. Is the Floating Roof equipped with a weather shield? <input type="checkbox"/> YES <input type="checkbox"/> NO		

25F. Describe deck fittings; indicate the number of each type of fitting:		
ACCESS HATCH		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
AUTOMATIC GAUGE FLOAT WELL		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
COLUMN WELL		
BUILT-UP COLUMN – SLIDING COVER, GASKETED:	BUILT-UP COLUMN – SLIDING COVER, UNGASKETED:	PIPE COLUMN – FLEXIBLE FABRIC SLEEVE SEAL:
LADDER WELL		
PIP COLUMN – SLIDING COVER, GASKETED:	PIPE COLUMN – SLIDING COVER, UNGASKETED:	
GAUGE-HATCH/SAMPLE PORT		
SLIDING COVER, GASKETED:	SLIDING COVER, UNGASKETED:	
ROOF LEG OR HANGER WELL		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	SAMPLE WELL-SLIT FABRIC SEAL (10% OPEN AREA)
VACUUM BREAKER		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
RIM VENT		
WEIGHTED MECHANICAL ACTUATION GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
DECK DRAIN (3-INCH DIAMETER)		
OPEN:	90% CLOSED:	
STUB DRAIN		
1-INCH DIAMETER:		
OTHER (DESCRIBE, ATTACH ADDITIONAL PAGES IF NECESSARY)		

26. Complete the following section for Internal Floating Roof Tanks		<input checked="" type="checkbox"/> Does Not Apply
26A. Deck Type: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded		
26B. For Bolted decks, provide deck construction:		
26C. Deck seam:		
<input type="checkbox"/> Continuous sheet construction 5 feet wide <input type="checkbox"/> Continuous sheet construction 6 feet wide <input type="checkbox"/> Continuous sheet construction 7 feet wide <input type="checkbox"/> Continuous sheet construction 5 × 7.5 feet wide <input type="checkbox"/> Continuous sheet construction 5 × 12 feet wide <input type="checkbox"/> Other (describe)		
26D. Deck seam length (ft)	26E. Area of deck (ft ²)	
For column supported tanks:	26G. Diameter of each column:	
26F. Number of columns:		

IV. SITE INFORMATION (optional if providing TANKS Summary Sheets)

27. Provide the city and state on which the data in this section are based. Columbus, OH	
28. Daily Average Ambient Temperature (°F)	
29. Annual Average Maximum Temperature (°F)	61.5
30. Annual Average Minimum Temperature (°F)	41.8
31. Average Wind Speed (miles/hr)	
32. Annual Average Solar Insulation Factor (BTU/(ft ² ·day))	1123
33. Atmospheric Pressure (psia)	14.7

V. LIQUID INFORMATION (optional if providing TANKS Summary Sheets)

34. Average daily temperature range of bulk liquid:			
34A. Minimum (°F)	34B. Maximum (°F)		
35. Average operating pressure range of tank:			
35A. Minimum (psig)	35B. Maximum (psig)		
36A. Minimum Liquid Surface Temperature (°F)	36B. Corresponding Vapor Pressure (psia)		
37A. Average Liquid Surface Temperature (°F)	37B. Corresponding Vapor Pressure (psia)		
38A. Maximum Liquid Surface Temperature (°F)	38B. Corresponding Vapor Pressure (psia)		
39. Provide the following for <u>each</u> liquid or gas to be stored in tank. Add additional pages if necessary.			
39A. Material Name or Composition	Propane	Butane	
39B. CAS Number			
39C. Liquid Density (lb/gal)			
39D. Liquid Molecular Weight (lb/lb-mole)			
39E. Vapor Molecular Weight (lb/lb-mole)	44.10	58.12	

Maximum Vapor Pressure 39F. True (psia)			
39G. Reid (psia)			
Months Storage per Year 39H. From			
39I. To			

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

40. Emission Control Devices (check as many as apply): Does Not Apply

- Carbon Adsorption¹
- Condenser¹
- Conservation Vent (psig)

Vacuum Setting	Pressure Setting
----------------	------------------
- Emergency Relief Valve (psig)
- Inert Gas Blanket of
- Insulation of Tank with
- Liquid Absorption (scrubber)¹
- Refrigeration of Tank
- Rupture Disc (psig)
- Vent to Incinerator¹
- Other¹ (describe): Pressure relief events routed to flare.

¹ Complete appropriate Air Pollution Control Device Sheet.

41. Expected Emission Rate (submit Test Data or Calculations here or elsewhere in the application).

Material Name & CAS No.	Breathing Loss (lb/hr)	Working Loss		Annual Loss (lb/yr)	Estimation Method ¹
		Amount	Units		

¹ EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify)

Remember to attach emissions calculations, including TANKS Summary Sheets if applicable.

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 3S

<p>1. Name or type and model of proposed affected source:</p> <p>The flare will control VOC emissions from blowdowns and upset emissions.</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>N/A</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>N/A</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>Combustion of propane and butane product during blowdowns or upset events.</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
22 scf/hr propane			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
Propane: assume maximum sulfur content of 10 grain / 100 ft ³			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@		°F and psia.	
(d) Percent excess air: %			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
1 pilot at 22 scf/hr.			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
N/A			
(g) Proposed maximum design heat input:		22	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24 (flare pilot)	Days/Week	7 (flare pilot)
		Weeks/Year	52 (flare pilot)

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia
a. NO _x	lb/hr	grains/ACF
b. SO ₂	lb/hr	grains/ACF
c. CO	lb/hr	grains/ACF
d. PM ₁₀	lb/hr	grains/ACF
e. Hydrocarbons	lb/hr	grains/ACF
f. VOCs	lb/hr	grains/ACF
g. Pb	lb/hr	grains/ACF
h. Specify other(s)		
	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

* Represents the worst case for an entire hour, which is for plant wide emergency, which is not expected.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

Flare is subject to 45CSR6. Blue Racer will comply with these requirements.

RECORDKEEPING

Flare is subject to 45CSR6. Blue Racer will comply with these requirements.

REPORTING

Flare is subject to 45CSR6. Blue Racer will comply with these requirements.

TESTING

Flare is subject to 45CSR6. Blue Racer will comply with these requirements.

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty
 N/A

Attachment L
EMISSIONS UNIT DATA SHEET
BULK LIQUID TRANSFER OPERATIONS

Furnish the following information for each new or modified bulk liquid transfer area or loading rack, as shown on the *Equipment List Form* and other parts of this application. This form is to be used for bulk liquid transfer operations such as to and from drums, marine vessels, rail tank cars, and tank trucks.

Identification Number (as assigned on <i>Equipment List Form</i>):2S				
1. Loading Area Name:				
2. Type of cargo vessels accommodated at this rack or transfer point (check as many as apply):				
Drums	Marine Vessels	Rail Tank Cars	<input checked="" type="checkbox"/> Tank Trucks	
3. Loading Rack or Transfer Point Data:				
Number of pumps	TBD			
Number of liquids loaded	2 – Propane/Butane			
Maximum number of marine vessels, tank trucks, tank cars, and/or drums loading at one time	TBD			
4. Does ballasting of marine vessels occur at this loading area?				
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> Does not apply
5. Describe cleaning location, compounds and procedure for cargo vessels using this transfer point:				
6. Are cargo vessels pressure tested for leaks at this or any other location?				
<input type="checkbox"/> Yes		<input type="checkbox"/> No		
If YES, describe:				
7. Projected Maximum Operating Schedule (for rack or transfer point as a whole):				
Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day	Varies	Varies	Varies	Varies
days/week	Varies	Varies	Varies	Varies
weeks/quarter	Varies	Varies	Varies	Varies

8. Bulk Liquid Data (add pages as necessary):						
Pump ID No.	TBD	TBD				
Liquid Name	Propane	Butane				
Max. daily throughput (1000 gal/day)	64	64				
Max. annual throughput (1000 gal/yr)	768	768				
Loading Method ¹	BF	BF				
Max. Fill Rate (gal/min)	270	270				
Average Fill Time (min/loading)	45	45				
Max. Bulk Liquid Temperature (°F)	70	70				
True Vapor Pressure ²	124.7	31.7				
Cargo Vessel Condition ³	U	U				
Control Equipment or Method ⁴						
Minimum control efficiency (%)						
Maximum Emission Rate	Loading (lb/hr)	11.80	3.44			
	Annual (lb/yr)	0.57	0.16			
Estimation Method ⁵	O	O				
¹ BF = Bottom Fill SP = Splash Fill SUB = Submerged Fill						
² At maximum bulk liquid temperature						
³ B = Ballasted Vessel, C = Cleaned, U = Uncleaned (dedicated service), O = other (describe)						
⁴ List as many as apply (complete and submit appropriate <i>Air Pollution Control Device Sheets</i>): CA = Carbon Adsorption LOA = Lean Oil Adsorption CO = Condensation SC = Scrubber (Absorption) CRA = Compressor-Refrigeration-Absorption TO = Thermal Oxidation or Incineration CRC = Compression-Refrigeration-Condensation VB = Dedicated Vapor Balance (closed system) O = other (describe)						
⁵ EPA = EPA Emission Factor as stated in AP-42 MB = Material Balance TM = Test Measurement based upon test data submittal O = other (describe)						

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

<p>MONITORING</p> <p>BRM will monitor loading volume to ensure emissions do not exceed those listed in this application</p>	<p>RECORDKEEPING</p> <p>BRM will keep records of loading volume to ensure emissions do not exceed those listed in this application.</p>
<p>REPORTING</p> <p>BRM will submit reports as required.</p>	<p>TESTING</p> <p>N/A</p>
<p>MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p>	
<p>RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.</p>	
<p>REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.</p>	
<p>TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty</p> <p>N/A</p>	

ATTACHMENT M

AIR POLLUTION CONTROL DEVICE SHEETS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

44. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING:

RECORDKEEPING:

REPORTING:

TESTING:

MONITORING: Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

REPORTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

TESTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

45. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.

46. Manufacturer's Guaranteed Control Efficiency for each air pollutant.
98% or greater hydrocarbon destruction efficiency will be achieved.

47. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

ATTACHMENT N
SUPPORTING EMISSIONS CALCULATIONS
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

TABLE N-1
SUMMARY OF PROPOSED ALLOWABLE EMISSION RATES
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

Emission Unit ID	Emission Point ID	Description	VOC		NO _x		CO		PM		PM ₁₀		PM _{2.5}		SO ₂		CO ₂ e		
			Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)
1S	1E	Site Fugitives	5.25	23.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00
2S	2E	Pressurized Truck Loading	15.24	0.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00
3S	3E	Flare	15.38	2.81	2.43	0.48	1.40	0.28	--	--	--	--	--	0.19	0.04	--	--	467.51	
4S	4E	Unpaved Road Dust Emissions	--	--	--	--	--	--	3.30	0.97	0.09	0.01	0.10	0.01	--	--	--	--	--
Totals:			35.87	26.55	2.43	0.48	1.40	0.28	3.30	0.97	0.09	0.01	0.10	0.01	0.19	0.04	--	--	467.51

TABLE N-2
SUMMARY OF POTENTIAL HAP EMISSION RATES
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

Emissions Unit ID	Emission Point ID	Description	Potential to Emit																			
			CH ₄ O		Acetaldehyde		Acrolein		Benzene		Toluene		Ethylbenzene		Xylene		N-Hexane		Other HAPs		Total HAPs	
			Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)
1S	1E	Site Fugitives	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
2S	2E	Pressurized Truck Loading	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
3S	3E	Flare	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
4S	4E	Unpaved Road/Dust Emissions	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00
Totals:			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CALCULATION OF SITE FUGITIVES POTENTIAL TO EMIT

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Component	Number of Components (lb/hr-component)	Emission Factors ^a	Annual Operating Hours (hr/yr)	Maximum VOC (wt%)	Maximum Methane (wt%)	Maximum CO ₂ (wt%)	Reduction Credit ^a (%)	Potential To Emit				
								VOC		Methane		CO ₂
								Hourly ^b (lb/hr)	Annual ^c (T/yr)	Annual ^c (T/yr)	Annual ^c (T/yr)	Annual ^c (T/yr)
<u>Valves</u>												
Gas Streams	101	0.00992	8,760	100.00%	0.00%	0.00%	0%	1.00	4.39	0.00	0.00	
Light Oil Streams	581	0.0055	8,760	100.00%	0.00%	0.00%	0%	3.20	14.00	0.00	0.00	
<u>Relief Valves</u>												
Gas Streams	21	0.0194	8,760	100.00%	0.00%	0.00%	0%	0.41	1.78	0.00	0.00	
Light Oil Streams	21	0.0165	8,760	100.00%	0.00%	0.00%	0%	0.35	1.52	0.00	0.00	
<u>Pump Seals</u>												
Light Oil Streams	8	0.02866	8,760	100.00%	0.00%	0.00%	0%	0.23	1.00	0.00	0.00	
<u>Flanges</u>												
Gas Streams	44	0.00086	8,760	100.00%	0.00%	0.00%	0%	0.04	0.17	0.00	0.00	
Light Oil Streams	42	0.000243	8,760	100.00%	0.00%	0.00%	0%	0.01	0.04	0.00	0.00	
<u>Connectors</u>												
Gas Streams	14	0.00044	8,760	100.00%	0.00%	0.00%	0%	0.01	0.03	0.00	0.00	
Light Oil Streams	71	0.000243	8,760	100.00%	0.00%	0.00%	0%	0.02	0.08	0.00	0.00	
Total:								5.25	23.00	0.00	0.00	

^a Fugitive Emission Factors taken from EPA Protocol for Equipment Leak Emission Estimates Table 2-4 for oil and gas production operations, and converted to lb/hr-component. The emission factors are for total hydrocarbon.

^b Hourly VOC emission rates are calculated as follows:

$$(101 \text{ components}) * (0.00992 \text{ lb/hr-component}) * (100.00\% \text{ VOC}) * (100\% - 0\% \text{ reduction credit}) = 1.00 \text{ lb/hr}$$

^c Annual VOC emission rates are calculated as follows:

$$(101 \text{ components}) * (0.00992 \text{ lb/hr-component}) * (8,760 \text{ hr/yr}) * (100.00\% \text{ VOC}) * (100\% - 0\% \text{ reduction credit}) / (2,000 \text{ lb/T}) = 4.39 \text{ T/yr}$$

**CALCULATION OF PRESSURIZED TRUCK LOADING POTENTIAL TO EMIT
RULE 13 AIR PERMIT APPLICATION**

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Emissions from Disconnecting Loading Lines from Pressurized Vessels: Volume in Line (propane) 12.2 ft ³ Volume in Line (butane) 10.6 ft ³																	
Sample Calculations:																	
Hourly PTE = (Pressure, psia) * (Volume, ft ³) * (Molecular Weight, lb/lbmol) * (Number of Disconnects per Hour) * (% VOC) / ((Temperature, deg R) * (Gas Constant, ft ³ *psia/lb-mol*deg R)) * (1 - % Control, %)																	
Hourly PTE = (124.7 psia) * (12.20 cubic ft) * (44.10 lb/lbmol) * (1 disconnect/hr) * (1.00) / ((529.7 deg R) * (10.73 cubic ft*psia/lb-mol*deg R)) * (1 - 0.00) = 11.80 lb/hr																	
Annual PTE = (Pressure, psia) * (Volume, ft ³) * (Molecular Weight, lb/lbmol) * (Number of Disconnects per Year) * (% VOC) / ((Temperature, deg R) * (Gas Constant, ft ³ *psia/lb-mol*deg R)) * (1 - % Control, %)																	
Annual PTE = (124.7 psia) * (12.20 cubic ft) * (44.10 lb/lbmol) * (96 disconnects/yr) * (1.00) / ((529.7 deg R) * (10.73 cubic ft*psia/lb-mol*deg R)) * (1 - 0.00) = 0.57 T/yr																	
Emission Unit ID	Emission Point ID	Facility Name	Hourly Number of Disconnects (disconnects/hr)	Annual Number of Disconnects (disconnects/yr)	Vapor Pressure (psia)	Molecular Weight (lb/lbmol)	Temp. (deg R)	Gas Constant (ft ³ *psia/lb-mol*deg R)	Volume (ft ³)	% VOC	% Methane	% Carbon Dioxide	% Control	Hourly PTE VOC (lb/hr)	Annual PTE VOC (T/yr)	Annual PTE Methane (T/yr)	Annual PTE Carbon Dioxide (T/yr)
2S	2E	Pressurized Loading (Propane)	1	96	124.7	44.10	529.7	10.73	12.20	100%	0.00%	0.00%	0%	11.80	0.57	0.00	0.00
2S	2E	Pressurized Loading (Butane)	1	96	31.7	58.12	529.7	10.73	10.60	100%	0.00%	0.00%	0%	3.44	0.16	0.00	0.00

1. Propane and butane products are loaded into pressurized tanker trucks, no methane or carbon dioxide is expected in the composition.

FLARE COMBUSTION POTENTIAL TO EMIT
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

Emission Unit ID	Emission Point ID	Description	Fuel Gas Flow Rate (scf/hr)	Propane Heating Value (Btu/10 ³ gal)	Annual Operating Hours (hr/yr)	Pollutant	Emission Factors ^a	Units	Potential to Emit	
									Hourly ^a (lb/hr)	Annual ^b (T/yr)
3S	3E	Flare (Pilot)	22	91,500,000	8,760	CO	7.5	lb/10 ³ gallon	0.005	0.02
						NO _x	13	lb/10 ³ gallon	0.01	0.04
						PM	-- ^c	--	--	--
						SO ₂	1.0	lb/10 ³ gallon	0.001	0.003
						VOC	1.0	lb/10 ³ gallon	0.001	0.003
3S	3E	Flare (Blowdowns)	6,629	91,500,000	365	CO	7.5	lb/10 ³ gallon	1.40	0.26
						NO _x	13	lb/10 ³ gallon	2.42	0.44
						PM	-- ^c	--	--	--
						SO ₂	1.0	lb/10 ³ gallon	0.19	0.03
						VOC		Material Balance ^e	15.38	2.81

^a Unless otherwise noted, emission factors are from AP-42 Tables 1.5-1 (dated 7/08). Emission factors were normalized based on liquid propane heating value. An example calculation for hourly CO emissions for Emission Unit ID 3S follows:

$$\begin{aligned} \text{CO (lb/hr)} &= (\text{Fuel Flow Rate, scf/hr}) * (2572 \text{ Btu/scf propane gas}) * (\text{Emission Factor, lb/1000 gal}) / (\text{Fuel Heating Value, Btu/1000 gal}) \\ \text{CO (lb/hr)} &= (22 \text{ scf/hr}) * (2572 \text{ Btu/scf propane gas}) * (7.5 \text{ lb/1000 gal}) / (91,500,000 \text{ Btu/1000 gal}) \\ &= 0.005 \text{ lb/hr CO} \end{aligned}$$

^b An example calculation for annual CO emissions for Emission Unit ID 3S follows:

$$\begin{aligned} \text{CO (T/yr)} &= (\text{Hourly Emissions, lb/hr}) * (\text{Annual Operating Hours, hr/yr}) * (1 \text{ T}/2,000 \text{ lb}) \\ \text{CO (T/yr)} &= (0.005 \text{ lb/hr}) * (8,760 \text{ hr/yr}) * (1 \text{ T}/2,000 \text{ lb}) \\ &= 0.02 \text{ T/yr CO} \end{aligned}$$

^c The process flare is smokeless per 40 CFR §60.18 requirements; therefore, PM emissions are negligible.

^d 10 grain/ 100 ft³ was assumed as the maximum sulfur content in propane fuel.

HAP emissions from pilot gas combustion are negligible.

^e Blowdown emissions assume 100% propane gas is routed to flare for combustion.

FUGITIVE QUARRY UNPAVED ROAD EMISSIONS
RULE 13 AIR PERMIT APPLICATION
CONLEY STATION
BLUE RACER MIDSTREAM, LLC

EPA METHOD: AP-42 Section 13.2.2.2 (Miscellaneous Sources: November 2006)

Emission Source ID: 4S		<u>UNPAVED QUARRY ROADS</u>
		40-ton Trucks
ID	CALCULATION PARAMETERS	QUARRY ROADS
k _{PM}	AP-42 Constant for PM ₃₀ (lb/VMT)	4.9
k _{PM10}	AP-42 Constant for PM ₁₀ (lb/VMT)	1.5
k _{PM2.5}	AP-42 Constant for PM _{2.5} (lb/VMT)	0.15
s	Surface Material Silt Content, %	10
W	Mean Vehicle Weight (tons)	40.0
a	AP-42 Constant for PM ₃₀	0.7
a _{PM10} AND a _{PM 2.5}	AP-42 Constant for PM ₁₀ and PM _{2.5}	0.9
b	AP-42 Constant for PM ₃₀	0.45
b _{PM10} AND b _{PM 2.5}	AP-42 Constant for PM ₁₀ and PM _{2.5}	0.45
E _{PM}	Calculated Emission Factor	13.84
E _{PM10}	Calculated Emission Factor	4.08
E _{PM2.5}	Calculated Emission Factor	0.41
P	Avg. Number Days of Rainfall	135
E _{PM-EXT}	Calculated Extended EF	8.72
E _{PM10-EXT}	Calculated Extended EF	2.57
E _{PM2.5-EXT}	Calculated Extended EF	0.26
VMT	Vehicle Miles Traveled (per hour)	0.38
	Annual Number of Trucks	192
VMT	Vehicle Miles Traveled (per year)	73
CF	Control Efficiency (%)	0%
	PM Emission Rate (lb/hr)	3.30
	PM ₁₀ Emission Rate (lb/hr)	0.97
	PM _{2.5} Emission Rate (lb/hr)	0.10
	PM Emission Rate (T/yr)	0.32
	PM ₁₀ Emission Rate (T/yr)	0.09
	PM _{2.5} Emission Rate (T/yr)	0.01

Notes:

E = size specific emission factor (lb/VMT)

where:

$$E \text{ (lb/VMT)} = k * (s/12)^a * (W/3)^b$$

s = surface material silt content, from AP-42 Table 13.2.2-1 for Stone Quarrying and Processing

W = mean vehicle weight (tons)

$$E_{EXT} = \text{Annual site specific emission factors extrapolated for natural mitigation, where } E_{EXT} = E [(365 - P) / 365]$$

P = Number of days of year with at least 0.01 in of precipitation

VMT = Vehicle Miles Traveled - conservatively calculated based on the maximum expected daily throughput.

CF = Control Efficiency. Estimated at 50% for periodic watering of unpaved roads.

$$\text{PM Emission Rate (lb/hr)} = E_{EXT} * \text{VMT (per hour)} * (1 - \text{Control Eff.})$$

$$\text{PM Emission Rate (T/yr)} = E_{EXT} * \text{VMT (per year)} * (1 - \text{Control Eff.}) * 1 \text{ ton} / 2,000 \text{ lb}$$

CALCULATION OF GREENHOUSE GAS POTENTIAL TO EMIT FOR COMBUSTION SOURCES

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Combustion-Related Green House Gas Emissions

Combustion Source ID	HP	Btu/hp-hr	MMBtu/hr	Annual Operating Hours	Fuel Usage MMBtu/yr	CO ₂ e ^a metric T/yr	CO ₂ e ^a short T/yr	GHG Mass ^a short T/yr
3S	--	--	0.06	8,760	496	31.29	34.49	34.35
3S (Waste Gas)	--	--	--	--	6,223	392.83	433.02	431.30
SITE TOTAL			0.06	---	6,718.85	424.12	467.51	465.65

^aSample calculations:

Greenhouse Gas (GHG) Emission Factors are from 40 CFR 98, Subpart C Tables C-1 and C-2.

Carbon Dioxide Emission Factor (CO₂EF) =

62.87 kg/MMBtu

Methane Emission Factor (CH₄EF) =

0.003 kg/MMBtu

Nitrous Oxide Emission Factor (N₂OEF) =

0.0006 kg/MMBtu

An example calculation for carbon dioxide equivalent CO₂e in metric T/yr for Emission Unit ID 3S follows:

CO₂e (metric T/yr) = (0.001 metric T/kg) * (Fuel Usage, MMBtu/yr) * [(CO₂EF + 25*CH₄EF + 298*N₂OEF), kg/MMBtu]

CO₂e (metric T/yr) = (0.001 metric T/kg) * (496 MMBtu/yr) * [(62.87 kg/MMBtu) + (25*0.003 kg/MMBtu) + (298*0.0006 kg/MMBtu)] = 31.29 metric T/yr

An example calculation for CO₂e in short T/yr for Emission Unit ID 3S follows:

CO₂e (short T/yr) = (0.001 metric T/kg) * (Fuel Usage, MMBtu/yr) * [(CO₂EF + 25*CH₄EF + 298*N₂OEF), kg/MMBtu] * (2,204.6 lb/metric T) / (2,000 lb/short T)

CO₂e (short T/yr) = (0.001 metric T/kg) * (496 MMBtu/yr) * [(62.87 kg/MMBtu) + (25*0.003 kg/MMBtu) + (298*0.0006 kg/MMBtu)] * (2,204.6 lb/metric T) / (2,000 lb/short T) = 34.49 short T/yr

An example calculation for GHG Mass in short T/yr for Emission Unit ID 3S follows:

GHG Mass (short T/yr) = (0.001 metric T/kg) * (Fuel Usage, MMBtu/yr) * (CO₂EF+CH₄EF+N₂OEF) * (2,204.6 lb/metric T) / (2,000 lb/short T)

GHG Mass (short T/yr) = (0.001 metric T/kg) * (496 MMBtu/yr) * [(62.87 kg/MMBtu) + (0.003 kg/MMBtu) + (0.0006 kg/MMBtu)] * (2,204.6 lb/metric T) / (2,000 lb/short T) = 34.35 short T/yr

ATTACHMENT O

MONITORING/RECORDKEEPING/REPORTING/TESTING PLANS

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

BRM will monitor, record, and test as required by 45 CSR 6 and 45 CSR 13.

ATTACHMENT P

PUBLIC NOTICE

RULE 13 AIR PERMIT APPLICATION

CONLEY STATION

BLUE RACER MIDSTREAM, LLC

Notice of Application for Construction Permit

Notice is given that Blue Racer Midstream, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Rule 13 Air Permit Application for the Conley Station, located near Bethany, in Brooke County, West Virginia. The latitude and longitude coordinates are: Latitude: 40.236833 and Longitude: -80.544219.

Blue Racer Midstream, LLC estimates the installation will result in the following potential emissions of Regulated Air Pollutant discharges to the atmosphere of:

Regulated Air Pollutant	Emissions (T/yr)
Oxides of Nitrogen (NO _x):	0.48
Carbon Monoxide (CO):	0.28
Volatile Organic Compounds (VOC):	26.55
Particulate Matter (PM):	0.32
PM with an aerodynamic diameter of less than or equal to 10 microns (PM ₁₀)	0.09
PM with an aerodynamic diameter of less than or equal to 2.5 microns (PM _{2.5})	0.01
Sulfur Dioxide (SO ₂):	0.04
Greenhouse Gases (CO ₂ e):	468

The addition of emission sources and operations are planned to begin on or about the 1st day of June, 2017. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this **the (Day) day of (Month), (2017).**

Richard Moncrief
President and COO
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