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)

Company Name	Concord Appalachian Transload Services, LLC
Source Name	Parkersburg NGL Loading Facility
Date	9/2/2015

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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):*
Concord Appalachian Transload Services, LLC

2. Federal Employer ID No. (FEIN):
61-1746088

3. Name of facility *(if different from above):*
Parkersburg NGL Loading Facility

4. The applicant is the:
☐ **OWNER** ☒ **OPERATOR** ☐ **BOTH**

5A. Applicant's mailing address:
1401 17th St., Suite 1500
Denver, Colorado 80202

5B. Facility's present physical address:
400 Buckeye Street
Parkersburg, West Virginia 26101

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: Concord Energy Holdings LLC

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: Concord is leasing the above mentioned property for the purpose natural gas liquids trans-loading.

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.):
Natural gas liquids and/or condensate transloading facility.

10. North American Industry Classification System **(NAICS)** code for the facility:
482111

11A. DAQ Plant ID No. (for existing facilities only):
107-00175

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

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 the Concord Natural Gas Liquids Trans-loading facility, turn right onto Buckeye St. and continue 0.15 miles to Hwy 50 (see Attachment B)..

12.B. New site address (if applicable): 400 Buckeye Street Parkersburg, West Virginia 26101	12C. Nearest city or town: Parkersburg, West Virginia	12D. County: Wood County
12.E. UTM Northing (KM): 434.5392	12F. UTM Easting (KM): 453.42756	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility: The facility is proposing a change in permit requirements from NSPS annual leak testing to DOT leak testing protocol.

14A. Provide the date of anticipated installation or change: Upon permit approval. – 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: 9/12/2014

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). See Attachment C

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day: 20.5 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:

☒ Bulk Liquid Transfer Operations	☐ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	
☐ General Emission Unit, specify		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☒ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System
☐ Other Collectors, specify		

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)?

☐ **YES** ☒ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance 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:

☒ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

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 Veronica Creamer *(Please use blue ink)* DATE: 9/2/15 *(Please use blue ink)*

35B. Printed name of signee: Veronica Creamer		35C. Title: NGL Marketer
35D. E-mail: Veronica.Creamer@cem.concordenergy.com	36E. Phone: (303) 468-1910	36F. FAX: (303) 468-1901
36A. Printed name of contact person (if different from above):		36B. Title:
36C. E-mail:	36D. Phone:	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

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

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
CONCORD APPALACHIAN TRANSLOAD SERVICES LLC
209 WASHINGTON ST W
CHARLESTON, WV 25302-2345

BUSINESS REGISTRATION ACCOUNT NUMBER: **2305-1364**

This certificate is issued on: 10/20/2014

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1563240000

STATE OF WEST VIRGINIA
State Tax Department, Revenue Division
P. O. Box 2666
Charleston, WV 25330-2666

Earl Ray Tomblin, Governor

Mark W. Matkovich, Tax Commissioner

00006202010000

CONCORD APPALACHIAN TRANSLOAD SERVI
707 17TH ST STE 3020
DENVER CO 80202-3404

Letter Id: L1563240000
Issued: 10/20/2014
Account #: 2305-1364

RE: Business Registration Certificate

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. This certificate shall be permanent until cessation of business or until suspended, revoked or cancelled. Changes in name, ownership or location are considered a cessation of business; a new Business Registration Certificate and applicable fees are required. Please review the certificate for accuracy.

This certificate must be prominently displayed at the location for which issued. Engaging in business without conspicuously posting a West Virginia Business Registration Certificate in the place of business is a crime and may subject you to fines per W.Va. Code § 11-9.

When contacting the State Tax Department, refer to the appropriate account number listed on the back of this page. The taxes listed may not be all the taxes for which you are responsible. Account numbers for taxes are printed on the tax returns mailed by the State Tax Department. Failure to timely file tax returns may result in penalties for late filing.

Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

To learn more about these taxes and the services offered by the West Virginia State Tax Department, visit our web site at www.wvtax.gov.

Enclosure

atL006 v.4

FILED

JUL 10 2015

IN THE OFFICE OF
WV SECRETARY OF STATE

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

Penney Barker, Manager
Corporations Division
Tel: (304)558-8000
Fax: (304)558-8381
Website: www.wvsos.com
E-mail: business@wvsos.com

Office Hrs: Monday - Friday
8:30 a.m. – 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed stamped copy returned to you)
FEE: $25.00

WEST VIRGINIA ARTICLES OF CORRECTION FOR LIMITED LIABIILTY COMPANY

****** In accordance with WV Code §31B-2-207, the undersigned organization adopts the following **** Articles of Correction:**

1. The **name of the organization** is: Concord Appalachian Transload Services LLC

2. Date of filing Articles of Organization or Certificate of Authority with the WV Secretary of State: 10/14/2014

3. Specify and **describe the incorrect statement and reason it is incorrect:**

The company is Member-Managed

The company is not MEMBER-Managed.

Correct and **specify how the statement should read:**

The company is Manager-Managed

4. **Contact name and phone number** to reach in case of a problem with filing: (Optional, however, listing one may help to avoid a return or rejection of filing if there is a problem with the document.)

Erin Vitale — Contact Name

(303) 228-3563 — Phone Number

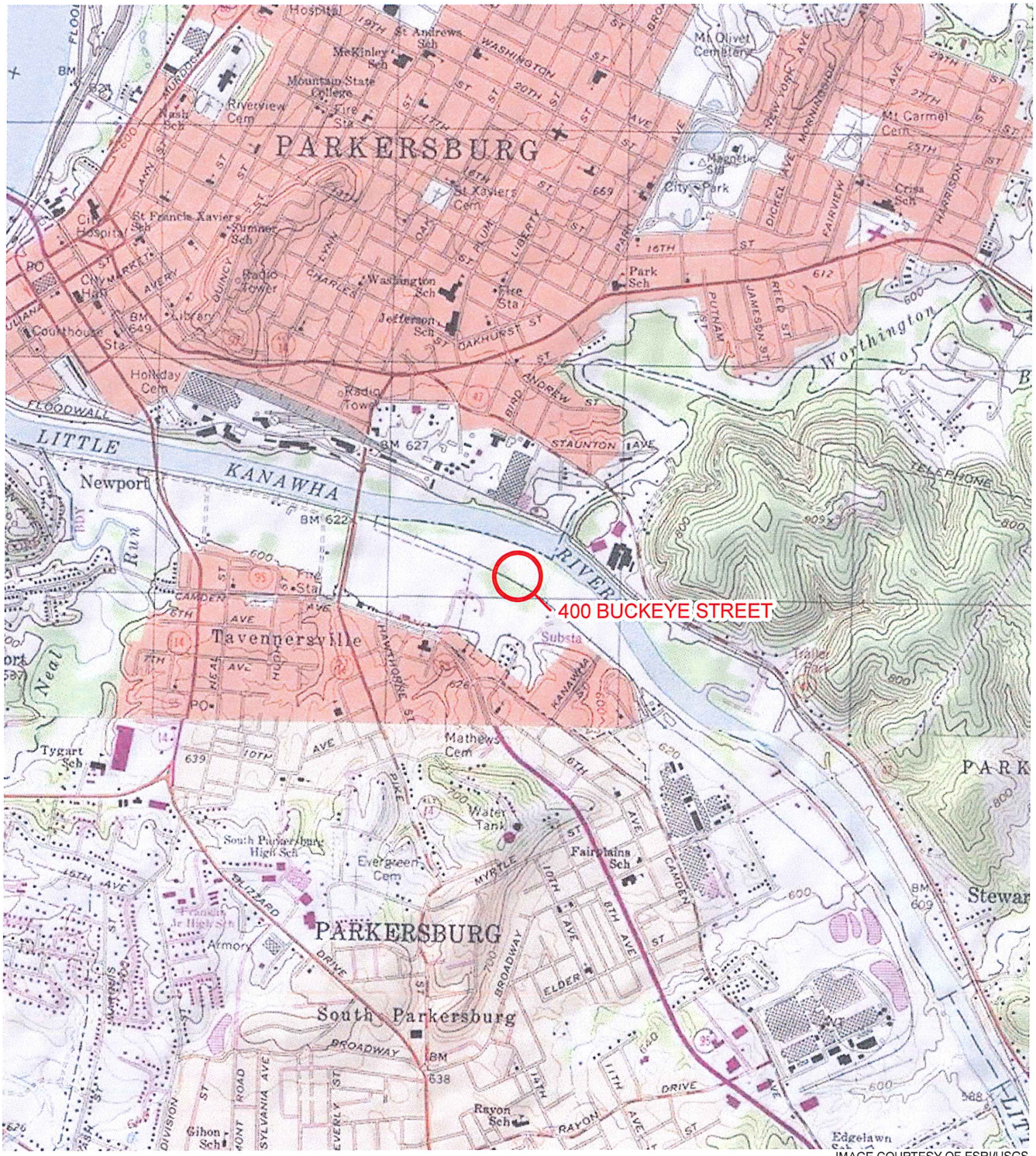
Business **e-mail address**, if any: _____

5. **Signature of person executing document** *(See below *Important Legal Notice Regarding Signature*):

Signature: _____ **Title:** Manager

***Important Legal Notice Regarding Signature: Per West Virginia Code §31B-2-209. Liability for false statement in filed record.** If a record authorized or required to be filed under this chapter contains a false statement, one who suffers loss by reliance on the statement may recover damages for the loss from a person who signed the record or caused another to sign it on the person's behalf and knew the statement to be false at the time the record was signed.

ATTACHMENT B: MAP



LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

WEST VIRGINIA

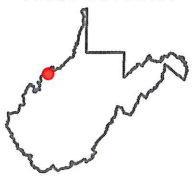


FIGURE 1
SITE LOCATION MAP
NATURAL GAS LIQUIDS TRANS-LOADING FACILITY
400 BUCKEYE STREET
PARKERSBURG, WEST VIRGINIA 26101
CONCORD ENERGY LLC

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ATTACHMENT C: INSTALLATION AND START UP SCHEDULE

Concord Appalachian Transload Services, LLC

Schedule of Installation and Start-up
Parkersburg NGL Loading Facility

The Concord Appalachian Transload Services, LLC Parkersburg NGL Loading Facility transfers natural gas liquids and/or condensate from tank trucks to rail cars via a portable rail car tower. There will be a maximum of 21 trans-loading operations per day. There is a portable emergency flare used to evacuate any residual NGL and/or condensate prior to conducting repairs on the damaged rail cars.

Trans-loading activities began on September 12, 2014. Under this proposed modification, there will be no change to the activities occurring at the facility.

ATTACHMENT D: REGULATORY DISCUSSION

Concord Appalachian Transload Services, LLC

Regulatory Discussion
Parkersburg NGL Loading Facility

West Virginia Regulations #6 and #13 will apply to this facility.

For federal regulations, the flare will be compliant with the New Source Performance Standards (NSPS) Section 60.18. We have a manufacturer's statement and specification sheet showing this (see attached documentation in Attachment M).

Reasonably Available Control Technology Analysis

Section 45-21-1 of the West Virginia Code of State Rules (CSR) requires "all persons engaged in the manufacture, mixing, storage, use, or application of volatile organic compounds control the emission of volatile organic compounds through the application of reasonably available control technology..." and covers the trans-loading operation located in Wood County. This evaluation is being completed to demonstrate how Concord Appalachian Transload Services, LLC (CATS) will meet the requirements of this regulation through the use of reasonably available control technology (RACT) requirements.

CATS operates a natural gas liquids (NGLs) trans-loading operation for the transporting of NGLs. The operation will trans-load NGLs and/or condensate from tanker trucks to awaiting railcars via a portable railcar tower (Emission Unit ID 1S). There will be a maximum of 21 trans-loading operations per day. A portable emergency flare (Emission Unit ID 1E) will be used to evacuate any residual NGL and/or condensate prior to repairs conducted on damaged railcars. Fugitive emissions (Emission Unit ID 1F) are anticipated from various valves, open-ended lines, and connectors. CATS has considered four plans to evaluate RACT requirements.

In the initial permit application, CATS proposed four options for RACT:

A. No controls
B. Vapor balance without annual leak testing resulting in an assumed 70% collection efficiency
C. Vapor balance with NSPS annual leak testing per EPA Method 27 resulting in an assumed 98.7% collection efficiency
D. Full time flare operation

The permit is written according to option C with requirements in Permit Condition 5.1.1 to perform NSPS Annual Leak Test for all truck and railcars loading/unloading at the facility. Since the permit issuance, it has been determined that industry standard for the trucks and railcars is to perform leak testing per DOT standards, rather than the annual NSPS testing as specified in the permit. CATS does not own any of the trucks and/or railcars that use the facility for loading/unloading and is therefore dependent upon the

owner/operators for inspections and ensure compliance of the trucks and railcars with applicable regulations. Therefore, CATS considers leak testing per DOT standards, rather than NSPS standards, to meet RACT.

There is no readily available scientific data on collection efficiencies achieved for loading systems using a vapor balance and passing DOT leak testing. Collection efficiencies cited in AP-42 are 70% for vessels not passing an annual test, 98.7% for those passing NSPS testing, and 99.2% for those passing MACT testing. It can be reasonably assumed that vessels passing a DOT level leak test will attain a collection efficiency greater than 70%; however, there is no readily available credible evidence for a greater collection efficiency. CATS therefore accepts the 70% collection efficiency level as default.

ATTACHMENT E: PLOT PLAN

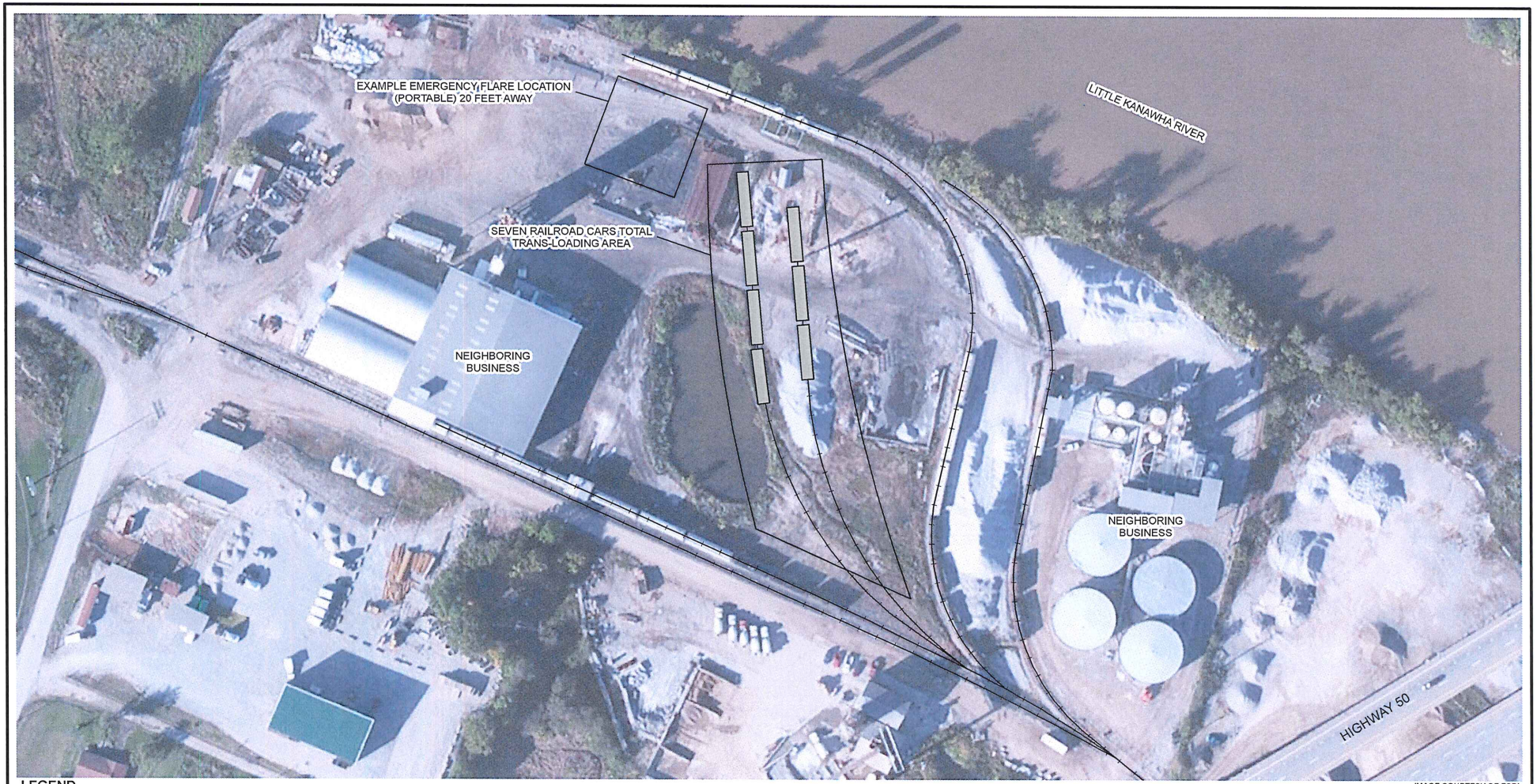

IMAGE COURTESY OF ESRI

LEGEND

RAILROAD TRACKS

RAILROAD CAR

0 100 200

Feet

N

FIGURE 2
PLOT PLAN
NATURAL GAS LIQUIDS TRANS-LOADING FACILITY
400 BUCKEYE STREET
PARKERSBURG, WEST VIRGINIA 26101
CONCORD ENERGY LLC

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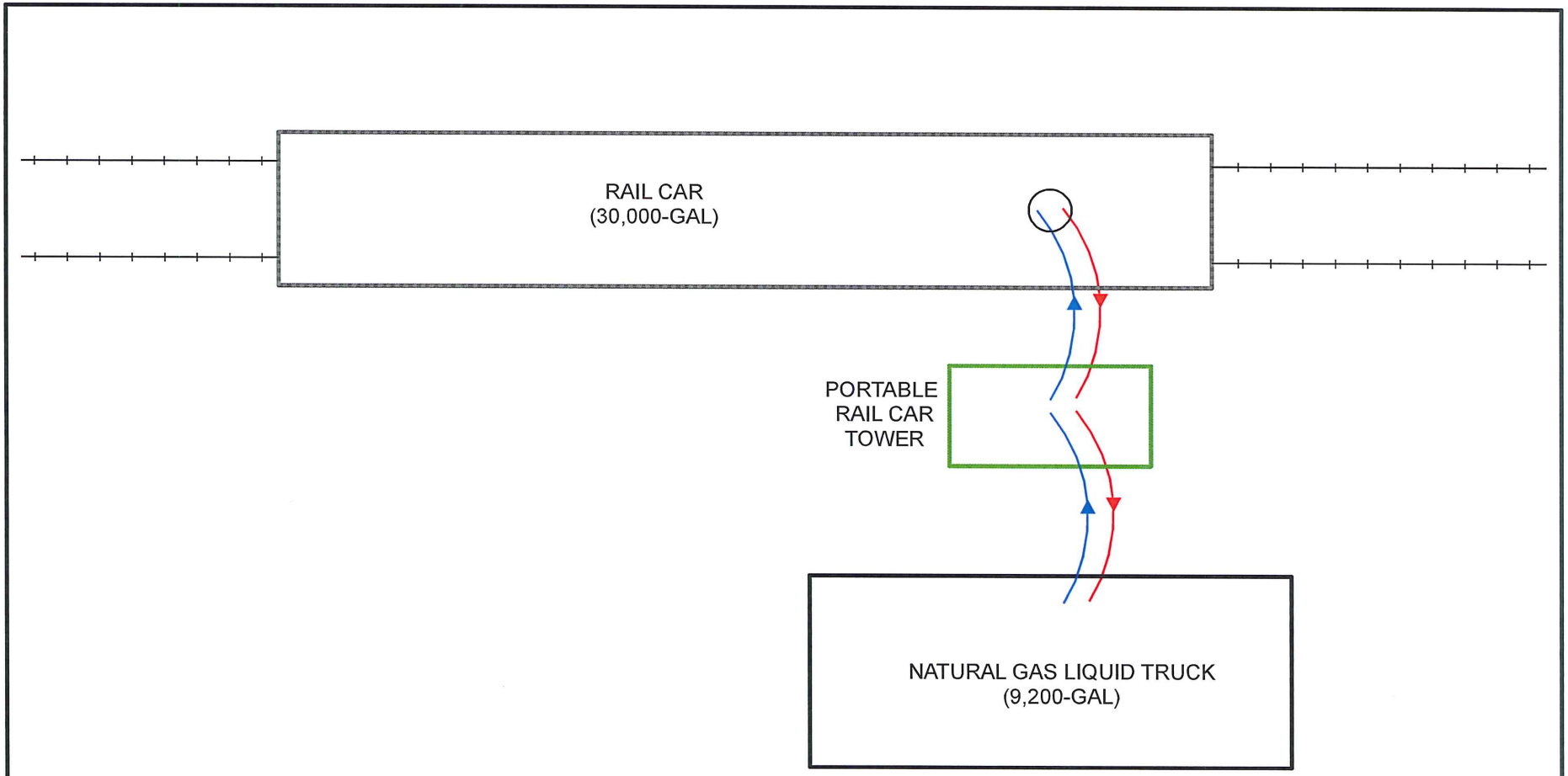
ATTACHMENT F: DETAILED PROCESS FLOW DIAGRAM(S)



LEGEND

- 20' TRANS-LOADING LINE (2" DIAMETER)
- 20' TRANS-VAPOR RECOVERY LINE (2" DIAMETER)
- NATURAL GAS LIQUID TRUCK (9,200-GAL)
- PORTABLE RAIL CAR TOWER
- RAIL CAR (30,000-GAL)
- RAILROAD

0 10 20
Feet

N

ATTACHMENT F - DIAGRAM 1
TOP VIEW OF TRANS-LOADING AND VAPOR RECOVERY
NATURAL GAS LIQUIDS TRANS-LOADING FACILITY
400 BUCKEYE STREET
PARKERSBURG, WEST VIRGINIA 26101
CONCORD ENERGY LLC

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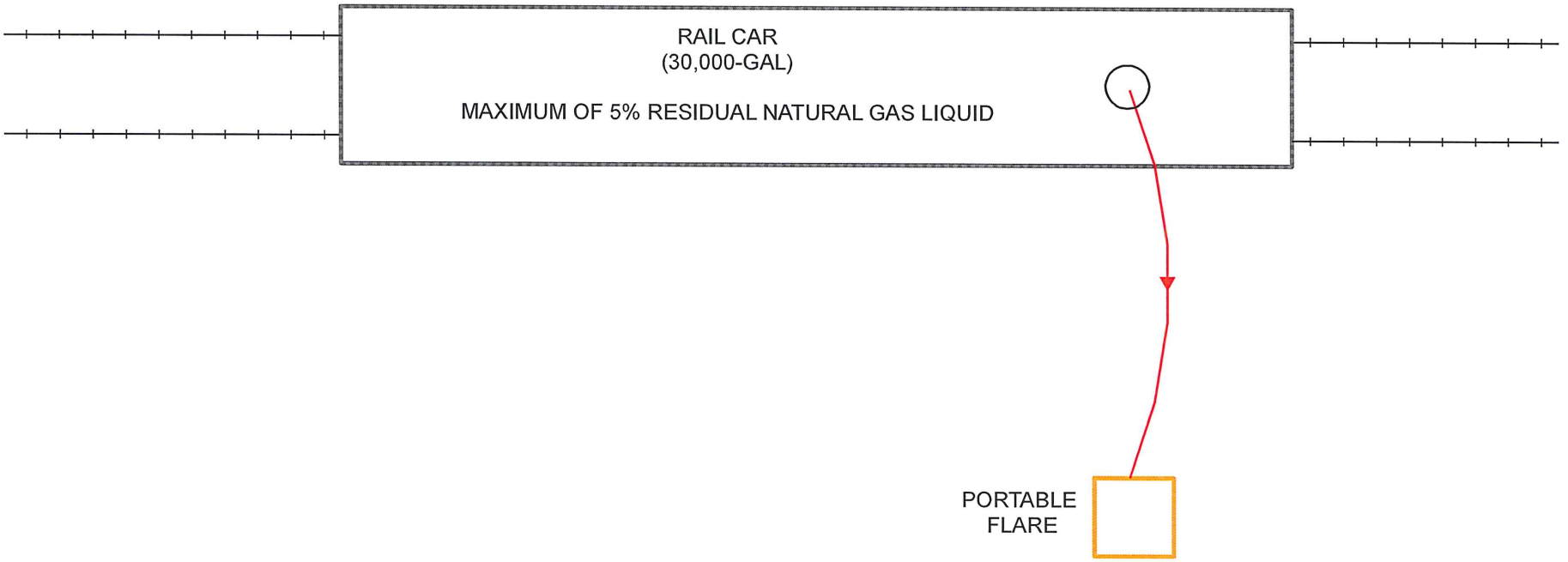

0 10 20

Feet

N

LEGEND

- 20' RESIDUAL NATURAL GAS LIQUID LINE (2" DIAMETER)
- PORTABLE FLARE
- RAIL CAR (30,000-GAL)
- RAILROAD

ATTACHMENT F - DIAGRAM 2
TOP VIEW OF EMERGENCY FLARING
NATURAL GAS LIQUIDS TRANS-LOADING FACILITY
400 BUCKEYE STREET
PARKERSBURG, WEST VIRGINIA 26101
CONCORD ENERGY LLC

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ATTACHMENT G: PROCESS DESCRIPTION

Concord Appalachian Transload Services, LLC

Process Description
Parkersburg NGL Loading Facility

The Concord Appalachian Transload Services, LLC (CATS) Parkersburg NGL Loading Facility transfers natural gas liquids (NGL) and/or condensate from tanker trucks to awaiting railcars via a portable railcar tower. There will be a maximum of twenty-one trans-loading operations per day. There is a portable emergency flare used to evacuate any residual NGL and/or condensate prior to repair on the damaged railcars.

The tanker trucks are connected to the railcars via a twenty (20) foot, two (2) inch diameter load line and a twenty (20) foot, two (2) inch diameter vapor recovery line. The transfer of the NGL and/or condensate from the tanker truck to the railcar is powered by hydraulic or mechanical pumps on the tanker trucks. Each tanker truck has the maximum volume of 9,200 gallons of NGL and/or condensate and requires an hour to completely transfer the entire contents. Each railcar has a capacity of 30,000 gallons and is filled to a maximum of 90 percent (%) of its total capacity each time it is loaded. It takes roughly three (3) tanker trucks to fill the railcar to its 90% fill line. After each railcar is loaded to its 90% fill line, the operation is shut-down, the tanker trailer valves are closed, the truck connection is broken, and the truck product line and vapor line are capped and sealed. A maximum of seven (7) railcars will be filled with NGL and/or condensate each day, with three tanker truck volumes per railcar, for a maximum of twenty-one (21) trans-loading operations per day.

The trans-loading operations are controlled by a vapor balance system. Each of the trucks and railcars are inspected per DOT leak test protocol. The overall reduction efficiency of the trans-loading operation is 70%.

All railcars are inspected prior to transfer of NGL and/or condensate. If a railcar is determined to be damaged or unfit for transfer, it is required to remove all residual NGL and/or condensate from the railcar prior to conducting repairs. It is assumed that there will be no more than five (5) railcars per year with pending repairs. In order to facilitate the removal of residual NGL and/or condensate, the railcar is connected to a portable flare. It will take a maximum of one (1) hour to remove residual product from the railcar. The portable flare has a 98% destruction efficiency.

ATTACHMENT H: MATERIAL SAFETY DATA SHEETS (MSDS)

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**Natural Gas Liquids (Y Grade)**
Version #	01
Revision date	06-02-2010
Product use	Fuel.
Manufacturer/Supplier	Devon US Operations 20 North Broadway Oklahoma City, OK 73102-8260 Telephone: (405) 235-3611 - Devon Canadian Operations Calgary, AB. T2P 4H2 2000, 400 – 3rd Avenue SW. Telephone: (403) 232-7100
Emergency	Emergency Chemtrec: Within the USA (800) 424-9300 Outside the USA (703) 527-3887 Devon Canada Emergency Phone: (403) 232-7100

2. Hazards Identification

Physical state	Gas.
Appearance	Liquefied gas.
Emergency overview	DANGER Extremely flammable gas - may cause flash fire. Contents under pressure. Vapors may cause flash fire or explosion. Will be easily ignited by heat, spark or flames. Containers may explode when heated. Possible reproductive hazard that may cause adverse reproductive effects based on animal data. Gas may be irritating to eyes, skin and the respiratory tract. May cause central nervous system effects.
OSHA regulatory status	This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments. This product is hazardous according to OSHA 29CFR 1910.1200.
Potential health effects	
Routes of exposure	Eye contact. Skin contact. Inhalation.
Eyes	Gas may be irritating to the eyes. Direct contact with liquefied gas may cause eye damage from frostbite.
Skin	Gas may be irritating to the skin. Contact with evaporating liquid may cause frostbite or freezing of skin.
Inhalation	Gas may be irritating to respiratory tract. This product is an asphyxiant gas which can cause unconsciousness/death if OXYGEN levels are sufficiently reduced. In high concentrations, vapors are narcotic and may cause headache, fatigue, dizziness and nausea.
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Target organs	Skin. Eyes. Respiratory system. Central nervous system. Liver. Kidneys. Reproductive system.
Chronic effects	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Possible reproductive hazard that may cause adverse reproductive effects based on animal data. May cause damage to the liver and kidneys.
Signs and symptoms	Narcosis. Decrease in motor functions.
Potential environmental effects	Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Propane	74-98-6	15-18
Isobutane	75-28-5	1-5

n-Butane	106-97-8	2-6
n-Pentane	109-66-0	1-3
Hexanes+	110-54-3	1-3
Methane	74-82-8	0-3

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

Skin contact Not expected to be absorbed through the skin but may cause slight irritation. High pressure injection through the skin requires immediate medical attention. Treat frostbite area of skin by immersing the affected area in warm water (between 100F/38C and 110F/43C, not exceeding 112F/44C). Keep immersed for 20 to 40 minutes. Seek medical assistance.

Inhalation Move injured person into fresh air and keep person calm under observation. If breathing is difficult, give oxygen. Get medical attention if any discomfort occurs.

Ingestion This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Notes to physician Provide general supportive measures and treat symptomatically.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties Extremely flammable gas. Gas forms mixtures with air which can catch fire and burn with explosive violence. Vapors are heavier than air and invisible mixture spreads easily and may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable extinguishing media Extinguish with carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Not applicable.

Protection of firefighters

Specific hazards arising from the chemical Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment and precautions for firefighters Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

Special protective equipment for fire-fighters Fire-fighters 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 spaces.

Specific methods In the event of fire and/or explosion do not breathe fumes. Evacuate area. Check oxygen content before entering area. Water spray should be used to cool containers. Remove pressurized gas cylinders from the immediate vicinity. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state. Containers can burst violently when heated, due to excess pressure build-up.

Hazardous combustion products Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions

Eliminate all sources of ignition in vicinity of released vapors. Evacuate all non-essential personnel to an area upwind. Stop leak if possible without any risk. Ventilate enclosed areas to prevent formation of toxic, flammable or oxygen deficient atmospheres. Water spray may be used to reduce vapors. Avoid vapor cloud even with proper respiratory protective equipment. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5).

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent material from entering drains, sewers or low lying areas. See section 13 for waste disposal information.

Methods for containment

Stop leak if you can do so without risk. Prevent entry into waterway, sewers or confined areas.

Methods for cleaning up

Stop the flow of gas. Allow to dissipate with adequate ventilation.

Other information

These gases may be used as an auxiliary fuel or disposed of by burning in a properly designed flare or incinerator in accordance with federal or local requirements.

7. Handling and Storage

Handling

Put on appropriate personal protective equipment (see section 8). Special precautions should be taken when entering or handling equipment in this type of gas service because of possible radioactive contamination. All equipment should be checked for radioactivity or opened to the atmosphere and have forced ventilation applied for at least 4 hours prior to entry or handling. Avoid direct skin contact with any surface. Avoid generation of dust, smoke, fumes, etc. in the work area, or if they cannot be avoided, a tested and certified radionuclide dust respirator should be worn. Smoking, eating, or drinking should be prohibited when working with the equipment. Employees should wash thoroughly with soap and water and discard contaminated clothing after entering or handling the equipment. Workers should wash hands and face before eating, drinking and smoking. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter enclosed areas and confined space unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Pumping and transferring operations must be electrically grounded and bonded to dissipate static build up.

Storage

Keep away from heat, spark, and open flame. Store storage containers in cool, well-ventilated areas away from direct sunlight, heat or flame. Thoroughly test gas lines for leakage before use, especially in confined spaces. Store away from strong oxidizing materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
Hexanes+ (110-54-3)	TWA	50 ppm
Isobutane (75-28-5)	TWA	1000 ppm
Methane (74-82-8)	TWA	1000 ppm
n-Butane (106-97-8)	TWA	1000 ppm
n-Pentane (109-66-0)	TWA	600 ppm
Propane (74-98-6)	TWA	1000 ppm

U.S. - OSHA

Components	Type	Value
Hexanes+ (110-54-3)	PEL	500 ppm 1800 mg/m3
	TWA	180 mg/m3 50 ppm
n-Butane (106-97-8)	TWA	800 ppm 1900 mg/m3
n-Pentane (109-66-0)	PEL	2950 mg/m3 1000 ppm
	STEL	750 ppm 2250 mg/m3
	TWA	600 ppm 1800 mg/m3
Propane (74-98-6)	PEL	1000 ppm 1800 mg/m3
	TWA	1800 mg/m3 1000 ppm

Canada - Alberta

Components	Type	Value
Hexanes+ (110-54-3)	TWA	50 ppm 176 mg/m3
n-Butane (106-97-8)	TWA	1000 ppm
n-Pentane (109-66-0)	TWA	1770 mg/m3 600 ppm
Propane (74-98-6)	TWA	1000 ppm

Canada - British Columbia

Components	Type	Value
Hexanes+ (110-54-3)	TWA	20 ppm
Methane (74-82-8)	TWA	1000 ppm
n-Butane (106-97-8)	STEL	750 ppm
	TWA	600 ppm
n-Pentane (109-66-0)	TWA	600 ppm
Propane (74-98-6)	TWA	1000 ppm

Engineering controls Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Provide adequate ventilation and minimize the risk of inhalation of gas.

Personal protective equipment

Eye / face protection If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.

Skin protection No special requirements under ordinary conditions of use.

Respiratory protection Wear approved respiratory protection when working with this material unless ventilation is adequate to keep airborne concentrations below recommended exposure standards.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements.

9. Physical & Chemical Properties

Appearance	Liquefied gas.
Color	Colorless.
Odor	Odorless.
Odor threshold	Not available.
Physical state	Gas.
Form	Liquefied gas.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	-126.4 °F (-88 °C)
Flash point	-211 °F (-135 °C) Cleveland Closed Cup
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	12.5
Flammability limits in air, lower, % by volume	1.1
Vapor pressure	697.96 (38°C /100°F)
Vapor density	Not available.
Specific gravity	Not available.
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	500 °F (260 °C)
Decomposition temperature	Not available.
Bulk density	1.1 (Air=1)

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon Dioxide. Carbon monoxide.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Test Results
n-Butane (106-97-8)	Acute Inhalation LC50 Rat: 658 mg/l 4 Hours
n-Pentane (109-66-0)	Acute Inhalation LC50 Rat: 364 mg/l 4 Hours
Propane (74-98-6)	Acute Inhalation LC50 Rat: > 1442.847 mg/l 15 Minutes
Isobutane (75-28-5)	Acute Inhalation LC50 Mouse: 52 mg/l 1 Hours

Toxicological information	This product may contain detectable but varying quantities of the naturally occurring radioactive substance radon 222. The amount in the gas itself is not hazardous, but since radon rapidly decays (t1/2 = 3.82 days) to form other radioactive elements including lead 210, polonium 210, and bismuth 210, equipment may be radioactive. The radon daughters are solids and therefore may attach to dust particles or form films and sludges in equipment. Inhalation, ingestion or skin contact with radon daughters can lead to the deposition of radioactive material in the lungs, bone, blood forming organs, intestinal tract, kidney and colon. Occupational exposure to radon and radon daughters has been associated with an increased risk of lung cancer in underground uranium miners. Follow the special precautions listed in handling and storage section of this document (see section 7).
Acute effects	Gas may be irritating to eyes, skin and the respiratory tract. May cause central nervous system effects. This product is an asphyxiant gas which can cause unconsciousness/death if OXYGEN levels are sufficiently reduced. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Local effects	May cause central nervous system effects.
Sensitization	Not a skin sensitizer.
Chronic effects	May cause damage to the liver and kidneys.
Carcinogenicity	No data available.
Epidemiology	No data available.
Mutagenicity	No data available.
Neurological effects	Central and/or peripheral nervous system damage.
Reproductive effects	Possible reproductive hazard that may cause adverse reproductive effects based on animal data.
Teratogenicity	No data available.

12. Ecological Information

Ecotoxicological data

Components	Test Results
n-Pentane (109-66-0)	EC50 Daphnia: 2.3 mg/l 48 Hours
	LC50 Fish: 3.1 mg/l 96 Hours
Hexanes+ (110-54-3)	LC50 Fathead minnow (Pimephales promelas): 2.101 - 2.981 mg/l 96 hours

Ecotoxicity	Not expected to be harmful to aquatic organisms. The product contains volatile organic compounds which have a photochemical ozone creation potential.
Environmental effects	Ecological injuries are not known or expected under normal use.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	No data available.

Mobility in environmental media	The product is a volatile substance, which may spread in the atmosphere.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose of this material and its container at hazardous or special waste collection point. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow this material to drain into sewers/water supplies.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1075
Proper shipping name	Petroleum gases, liquefied
Hazard class	2.1
Environmental hazards	
Marine pollutant	No
Labels required	2.1
Additional information:	
Special provisions	T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314, 315
ERG number	115

DOT BULK

Basic shipping requirements:

UN number	UN1075
Proper shipping name	Petroleum gases, liquefied
Hazard class	2.1
Labels required	2.1
Additional information:	
Special provisions	T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314, 315
ERG number	115

IATA

Basic shipping requirements:

UN number	1075
Proper shipping name	Petroleum gases, liquefied
Hazard class	2.1

IMDG

Basic shipping requirements:

UN number	1075
Proper shipping name	PETROLEUM GASES, LIQUEFIED
Hazard class	2.1
Environmental hazards	
Marine pollutant	No
EmS No.	F-D*, S-U

TDG

Basic shipping requirements:

Proper shipping name	PETROLEUM GASES, LIQUEFIED
Hazard class	2.1
UN number	UN1075
Marine pollutant	No

DOT

DOT BULK

IATA

IMDG

TDG

15. Regulatory Information

US federal regulations

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

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Hexanes+ (CAS 110-54-3)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Hexanes+ (CAS 110-54-3)	Listed.

US TSCA Section 12(b) Export Notification: Export Notification requirement/De minimis concentration

n-Pentane (CAS 109-66-0)	1.0 % One-Time Export Notification only.

CERCLA (Superfund) reportable quantity (lbs)

Propane 100
Isobutane 100
n-Butane 100
n-Pentane 100
Hexanes+ 100
Methane 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

No

Drug Enforcement Agency (DEA)

Not controlled

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classification

A - Compressed Gas
B1 - Flammable/Combustible

WHMIS labeling

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Hexanes+ (CAS 110-54-3)	Listed.
n-Butane (CAS 106-97-8)	Listed.
n-Pentane (CAS 109-66-0)	Listed.

US - Massachusetts RTK - Substance: Listed substance

Hexanes+ (CAS 110-54-3)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane (CAS 74-82-8)	Listed.
n-Pentane (CAS 109-66-0)	Listed.
Propane (CAS 74-98-6)	Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Hexanes+ (CAS 110-54-3)	500 LBS
Isobutane (CAS 75-28-5)	500 LBS
Methane (CAS 74-82-8)	500 LBS
n-Butane (CAS 106-97-8)	500 LBS
n-Pentane (CAS 109-66-0)	500 LBS
Propane (CAS 74-98-6)	500 LBS

US - New Jersey RTK - Substances: Listed substance

Isobutane (CAS 75-28-5)	Listed.
Methane (CAS 74-82-8)	Listed.
Propane (CAS 74-98-6)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Hexanes+ (CAS 110-54-3)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methane (CAS 74-82-8)	Listed.
n-Pentane (CAS 109-66-0)	Listed.
Propane (CAS 74-98-6)	Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 1*
Flammability: 4
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 4
Instability: 0

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.

Issue date 06-02-2010

ATTACHMENT I: EMISSION UNITS TABLE

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
1S		Natural Gas Liquids and/or Condensate Trans-Loading	2014	9,200 gal/hr	New	1C
	1E	Portable Emergency Flare	2014	3 MMscf/day	New	NA
1F		Fugitive Components	2014	NA	New	NA

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

ATTACHMENT J: EMISSION POINTS DATA SUMMARY SHEET

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] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [4]		Maximum Potential Controlled Emissions [5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [6]	Emission Concentration [7] (ppmv or mg/m[4])
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			

1S	NGL and/or Condensate Trans-loading	NA	NA	1C	Vapor balance system	46 lbs/hr	7498 hrs/yr	Methane	0.00	0.00	0.00	0.00	Gas/Vapor	MB and EE	Unknown
								Ethane	0.90	3.38	0.01	0.04			
								Propane	6.92	25.94	0.09	0.34			
								Isobutane	3.25	12.19	0.04	0.16			
								Butane	14.16	53.08	0.18	0.69			
								Isopentane	5.16	19.35	0.07	0.25			
								n-pentane	8.80	33.01	0.11	0.43			
								Hexane	0.13	0.48	0.00	0.01			
								Heptane	6.08	22.78	0.08	0.30			
								Benzene	0.01	0.02	0.00	0.01			
								Toluene	0.01	0.03	0.00	0.01			
								Ethylbenzene	0.00	0.00	0.00	0.00			
								Xylene	0.00	0.00	0.00	0.00			
								n-Hexane	0.59	2.20	0.18	0.66			
								NOx	0.00	0.00	0.00	0.00			
								CO	0.00	0.00	0.00	0.00			
								SO2	0.00	0.00	0.00	0.00			
								PM10	0.00	0.00	0.00	0.00			
								CO2	0.00	0.00	0.00	0.00			
								CO2e	0.03	0.13	0.00	0.00			

1E	Portable Emergency Flare	NA	NA	NA	NA	7485 lbs/hr	6 hrs/yr	Methane	1.00	0.00	0.02	0.00	Gas/Vapor	MB and EE	Unknown
								Ethane	285.0	0.86	5.70	0.02			
								Propane	1526.0	4.58	30.52	0.09			
								Isobutane	544.0	1.63	10.88	0.03			
								Butane	2369.0	7.11	47.38	0.14			
								Isopentane	696.0	2.09	13.92	0.04			
								Pentane	1274.0	3.82	25.48	0.08			
								Hexane	17.0	0.05	0.34	0.00			
								Heptane	692.0	2.08	13.84	0.04			
								Benzene	2.0	0.01	0.04	0.00			
								Toluene	2.0	0.01	0.04	0.00			
								Ethylbenzene	1.0	0.00	0.02	0.00			
								Xylene	1.0	0.00	0.02	0.00			
								n-Hexane	75.0	0.23	1.50	0.00			
								NOx	0.00	0.00	0.52	0.00			
								CO	0.00	0.00	2.85	0.01			
								SO2	0.00	0.00	0.00	0.00			
								PM10	0.00	0.00	0.00	0.00			
								CO2	0.00	0.00	0.00	0.00			
								CO2e	0.02	0.08	0.00	0.00			

1F	Fugitive Emissions	NA	NA	None	None	0.19 lbs/hr	8,760 hrs/yr		0.00	0.00	0.00	0.00	Gas/Vapor	MB and EE	Unknown
								Methane	0.00	0.02	0.00	0.02			
								Ethane	0.03	0.13	0.03	0.13			
								Propane	0.01	0.06	0.01	0.06			
								Isobutane	0.06	0.26	0.06	0.26			
								Butane	0.02	0.10	0.02	0.10			
								Isopentane	0.04	0.16	0.04	0.16			
								Pentane	0.00	0.00	0.00	0.00			
								Hexane	0.03	0.11	0.03	0.11			
								Heptane	0.00	0.00	0.00	0.00			
								Benzene	0.00	0.00	0.00	0.00			
								Toluene	0.00	0.00	0.00	0.00			
								Ethylbenzene	0.00	0.00	0.00	0.00			
								Xylene	0.00	0.01	0.00	0.01			
								n-Hexane	0.00	0.00	0.00	0.00			
								NOx	0.00	0.00	0.00	0.00			
								CO	0.00	0.00	0.00	0.00			
								SO2	0.00	0.00	0.00	0.00			
								PM10	0.00	0.00	0.00	0.00			
								CO2	0.00	0.00	0.00	0.00			
								CO2e	0.03	0.00	0.03	0.00			

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 (ie., 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, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, 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/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data

Emission Point ID No. *(Must match Emission Units Table)*	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow [1] (acfm) *at operating conditions*	Velocity (fps)	Ground Level *(Height above mean sea level)*	Stack Height [2] *(Release height of emissions above ground level)*	Northing	Easting
1S	NA	Ambient	Varies	Varies	590	Varies; 0 – 16 feet	Varies*	Varies*
1E	0.33	Ambient	Varies; 0 – 2,083	Varies	590	20 feet	Varies	Varies
1F	NA	Ambient	Varies	Unknown	590	Varies; 0 – 20 feet	Varies	Varies

* We cannot provide exact coordinates of any of the emission units. For NGL loading, the trucks and railcars are not moved into a set position. The equipment used to load/unload this equipment is moved to where it is needed. Because of this the emergency flaring (trailer mounted) and fugitive components also do not remain in a set location.

[1] Give at operating conditions. Include inserts.
[2] Release height of emissions above ground level.

ATTACHMENT K: FUGITIVE EMISSIONS DATA SUMMARY SHEET

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? ☐ Yes ☒ No ☐ If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? ☐ Yes ☒ No ☐ If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? ☒ Yes ☐ No ☒ If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? ☐ Yes ☒ No ☐ 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.)? ☒ Yes ☐ No ☒ 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? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? ☐ Yes ☒ No ☐ 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	NA	NA	NA	NA	NA	NA
Unpaved Haul Roads	NA	NA	NA	NA	NA	NA
Storage Pile Emissions	NA	NA	NA	NA	NA	NA
Loading/Unloading Operations	VOCs HAPs	46.00 0.60	172.46 2.26	13.80 0.18	51.74 0.68	EE
Wastewater Treatment Evaporation & Operations	NA	NA	NA	NA	NA	NA
Equipment Leaks	VOCs HAPs	0.19 0.00	0.85 0.01	0.19 0.00	0.85 0.01	AP-42
General Clean-up VOC Emissions	NA	NA	NA	NA	NA	NA
Other	NA	NA	NA	NA	NA	NA

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. DO NOT LIST H_2, H_2O, N_2, O_2, 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).

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]	0	NA	NA	NA
	heavy liquid VOC[8]	0	NA	NA	NA
	Non-VOC[9]	0	NA	NA	NA
Valves[10]	Gas VOC	16	0	5	1,360 lbs/yr, EPA-453/R-95-017, Table 2-4
	Light Liquid VOC	0	NA	NA	NA
	Heavy Liquid VOC	0	NA	NA	NA
	Non-VOC	0	NA	NA	NA
Safety Relief Valves[11]	Gas VOC	0	NA	NA	NA
	Non VOC	0	NA	NA	NA
Open-ended Lines[12]	VOC	8	0	5	300 lbs/yr, EPA-453/R-95-017, Table 2-4
	Non-VOC	0	NA	NA	NA
Sampling Connections[13]	VOC	8	0	5	40 lbs/yr, EPA-453/R-95-017, Table 2-4
	Non-VOC	0	NA	NA	NA
Compressors	VOC	0	NA	NA	NA
	Non-VOC	0	NA	NA	NA
Flanges	VOC	0	NA	NA	NA
	Non-VOC	0	NA	NA	NA
Other	VOC	0	NA	NA	NA
	Non-VOC	0	NA	NA	NA

[1 - 13] See notes on the following page.

ATTACHMENT L: EMISSIONS UNIT DATA SHEET(S)

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 *Equipment List Form*): 1S

1. Loading Area Name: Parkersburg NGL Loading Facility

2. Type of cargo vessels accommodated at this rack or transfer point (check as many as apply):
☐ Drums ☐ Marine Vessels ☒ Rail Tank Cars ☒ Tank Trucks

3. Loading Rack or Transfer Point Data: Natural Gas Liquids Trans-loading

Number of pumps	1
Number of liquids loaded	1 – Natural Gas Liquids and/or Condensate
Maximum number of marine vessels, tank trucks, tank cars, and/or drums loading at one time	One railcar will be loaded at a time; with a maximum of 7 railcar trans- loading operations per day.

4. Does ballasting of marine vessels occur at this loading area?
☐ Yes ☒ No ☐ Does not apply

5. Describe cleaning location, compounds and procedure for cargo vessels using this transfer point: All railcars are inspected prior to transfer of NGL and/or condensate (liquids). If a railcar is determined to be damaged or unfit for transfer of liquids, it is required to remove all residual liquids form the railcar prior to conducting repairs. It is assumed that there will be no more than 6 railcar repairs per year. In order to facilitate the removal of residual liquids the railcar is connected to a portable flare. It will take a maximum of 1 hour to remove residual liquids from the railcar.

6. Are cargo vessels pressure tested for leaks at this or any other location?
☒ Yes ☐ No
If YES, describe: Both railcars and tank trucks are subject to DOT pressure testing protocol.

7. Projected Maximum Operating Schedule (for rack or transfer point as a whole):

Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day	21	21	21	21
days/week	7	7	7	7

weeks/quarter	13	13	13	13

8. Bulk Liquid Data *(add pages as necessary):*							
Pump ID No.		NA					
Liquid Name		NGL/condensate					
Max. daily throughput (1000 gal/day)		189					
Max. annual throughput (1000 gal/yr)		68,985					
Loading Method [1]		SUB					
Max. Fill Rate (gal/min)		153.33					
Average Fill Time (min/loading)		60					
Max. Bulk Liquid Temperature (°F)		NA					
True Vapor Pressure [2]		NA					
Cargo Vessel Condition [3]		U					
Control Equipment or Method [4]		VB					
Minimum control efficiency (%)		70					
Maximum Emission Rate	Loading (lb/hr)	13.80					
	Annual (lb/yr)	120,888					
Estimation Method [5]		EPA					

[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 *Air Pollution Control Device Sheets*):CA = Carbon Adsorption LOA = Lean Oil AdsorptionCO = 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 (descibe)

[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.

MONITORING Concord contractors visually inspect railcars for signs of leakage. Prior to loading cars, conctractors will complete the pre-inspection checklist. Audio, visual, and olfactory (AVO) inspections are conducted throughout the loading process.	RECORDKEEPING Pre-inspection checklist, truck and railcar pre- and post- loading weights, and documentation of third party natural gas liquid and/or condensate sampling and analysis when in operation.
REPORTING Daily internal reporting of the liquid trans-loading totals and pre-inspection checklists when in operation.	TESTING No sampling or testing will be performed by CATS. CATS will obtain and evaluate 3rd party analyses of NGLs and/or condensate when in operation. 3rd party truck and railcar tank owners/operators will be responsible for testing per DOT requirements and supplying that information to CATS when requested.

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. No operating ranges or maintenance procedures were provided by the manufacturer.

ATTACHMENT M: AIR POLLUTION CONTROL DEVICE SHEET(S)

Attachment M
Air Pollution Control Device Sheet
(FLARE SYSTEM)

Control Device ID No. (must match Emission Units Table):

Equipment Information

1. Manufacturer: Hero

   Model No. No formal model number. Identified as 4-inch X 20-foot trailer mounted flare

2. Method: ☒ Elevated flare ☐ Ground flare ☐ Other Describe

3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.

4. Method of system used:
   ☐ Steam-assisted ☐ Air-assisted ☒ Pressure-assisted ☐ Non-assisted

5. Maximum capacity of flare:
   2,083.3 scf/min
   125,000 scf/hr

6. Dimensions of stack:
   Diameter 0.33 ft.
   Height 20 ft.

7. Estimated combustion efficiency:
   (Waste gas destruction efficiency)
   Estimated: 98 %
   Minimum guaranteed: 98 %

8. Fuel used in burners:
   ☐ Natural Gas
   ☐ Fuel Oil, Number
   ☒ Other, Specify:

9. Number of burners:
   Rating: 7,696,828 BTU/hr

10. Will preheat be used? ☐ Yes ☒ No

11. Describe method of controlling flame:
    No information available.

12. Flare height: 20 ft

13. Flare tip inside diameter: 0.33 ft

14. Natural gas flow rate to flare pilot flame per pilot light: 11 scf/hour at 1 psig
    25 scf/hr at 5 psig scf/min
    scf/hr

15. Number of pilot lights:
    Total 1 pilot light; varies BTU/hr

16. Will automatic re-ignition be used?
    ☒ Yes ☐ No

17. If automatic re-ignition will be used, describe the method:
    Automatic spark ignition module. Creates a spark every 3 seconds even with pilot lit.

18. Is pilot flame equipped with a monitor? ☒ Yes ☐ No
    If yes, what type? ☒ Thermocouple ☐ Infra-Red
    ☐ Ultra Violet ☐ Camera with monitoring control room
    ☒ Other, Describe: Pilot flame monitoring system meets EPA requirements specified in 40 CFR 60.18

19. Hours of unit operation per year: 6 hours per year

Steam Injection

20. Will steam injection be used? ☐ Yes ☒ No			21. Steam pressure Minimum Expected: Design Maximum:	NA NA NA	PSIG
22. Total Steam flow rate:	NA	LB/hr	23. Temperature:	NA	°F
24. Velocity	NA	ft/sec	25. Number of jet streams	NA	
26. Diameter of steam jets:	NA	in	27. Design basis for steam injected: Na LB steam/LB hydrocarbon		
28. How will steam flow be controlled if steam injection is used? NA					

Characteristics of the Waste Gas Stream to be Burned

29. Name	Quantity Grains of H_2S/100 ft^3	Quantity (LB/hr, ft^3/hr, etc)	Source of Material
NGL/Condensate	0.00	1.43E-02 MMscf/year	Rail Car

30. Estimate total combustible to flare:	149.6	LB/hr or ACF/hr
(Maximum mass flow rate of waste gas)	1430	scfm

31. Estimated total flow rate to flare including materials to be burned, carrier gases, auxiliary fuel, etc.:
149.6 LB/hr or ACF/hr

32. Give composition of carrier gases:
See attached representative natural gas liquids sample.

33. Temperature of emission stream: Ambient °F Heating value of emission stream: 3131 BTU/ft^3 Mean molecular weight of emission stream: MW = 58.53 lb/lb-mole	34. Identify and describe all auxiliary fuels to be burned. Propane - pilot light 2,570 BTU/scf NA BTU/scf NA BTU/scf NA BTU/scf
35. Temperature of flare gas: NA °F	36. Flare gas flow rate: NA scf/min
37. Flare gas heat content: 3131 BTU/ft^3	38. Flare gas exit velocity: NA scf/min

39. Maximum rate during emergency for one major piece of equipment or process unit: NA scf/min

40. Maximum rate during emergency for one major piece of equipment or process unit: NA BTU/min

41. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):
NA

42. Describe the collection material disposal system:
NA

43. Have you included ***Flare Control Device*** in the Emissions Points Data Summary Sheet? Yes

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:
Utilizing thermocouple to verify pilot light status.	Maintain records of number of times flare is utilized and for how long it is utilized each time. Maintain records of checking the pilot light status during times the flare will be utilized.
REPORTING:	TESTING:
Annual reports will be provided upon request by WVDEP. This information will include a comparison of actual emissions to emission limitations proving the compliance status.	No testing requirements proposed.

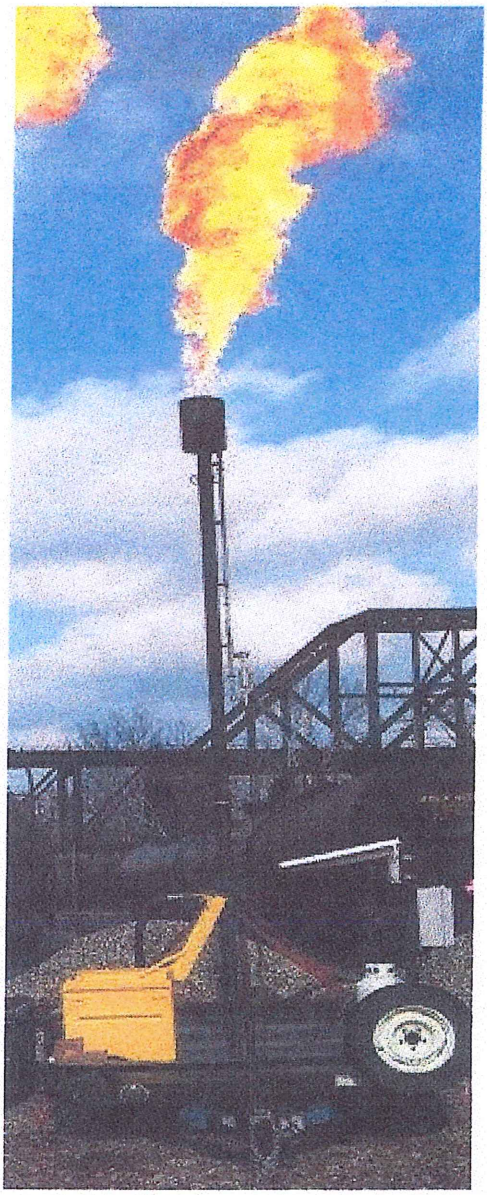
MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.
RECORDKEEPING:	Please describe the proposed recordkeeping that will accompany the monitoring.
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.
100% capture efficiency of all hydrocarbons, including methane, VOCs, and HAPs.

46. Manufacturer's Guaranteed Control Efficiency for each air pollutant.
98% control efficiency of all hydrocarbons, including methane, VOCs, and HAPs.

47. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.
Operating range of flare is between 0 and 3 MMscf per day. The maximum operating velocity of the flare is limited to 400 feet per second. No additional requirements were specified.

First Flare and Repair



Data Sheet

Utilities:

Pilot Gas

Dimensions:

- 4" x 20' trailer mounted flare stack.
- Mounted on 20' flatbed trailer
- Trailer mounted with twin 100 lbs propane tanks for pilot light
- Trailer comes with 20 lbs dry chemical fire extinguisher and tool box

HES High Energy Spark Ignited Pilot

- Stainless steel construction
- Automatic spark ignition
- Thermocouple continuously monitors pilot flame status

Ignition System

- Ignition system made By Hero Flare
- Automatic spark ignition module. Creates spark every 3 seconds even with pilot lit.
- Pilot flame monitoring system meets EPA requirements specified in 40 CFR 60.18
- Battery backup and 30 W solar panel to recharge battery
- Power Regulator and battery charger
- Nema 4X control panel with On/Off switch

Data Sheet

Rate of flow depends on what is being flared or up to 3 million CF per day.

98% or better hydrocarbon destruction efficiency.

Pilot gas- Propane

Ignition Gas- Propane

Plant Air- None required

Electricity- None required. Solar Powered 12 VDC ignition system

ATTACHMENT N: SUPPORTING EMISSIONS CALCULATIONS

Company: Concord Appalachian Transload Services, LLC
Site: Parkersburg NGL Loading Facility

TABLE 1: Uncontrolled Emission Summary Sheet

Equipment	NO_x		CO		VOC		Total HAPs		PM-10		SO_2	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
NGL and/or Condensate Truck Loading	n/a	n/a	n/a	n/a	46.00	172.46	0.60	2.26	n/a	n/a	n/a	n/a
Emergency Flare	n/a	n/a	n/a	n/a	7,485.00	22.46	n/a	n/a	n/a	n/a	n/a	n/a
Fugitive Emissions	n/a	n/a	n/a	n/a	0.19	0.85	0.00	0.01	n/a	n/a	n/a	n/a
Total PTE	**n/a**	**n/a**	**n/a**	**n/a**	**7,531.19**	**195.77**	**0.60**	**2.27**	**n/a**	**n/a**	**n/a**	**n/a**

Equipment	Benzene		Toluene		Ethylbenzene		Xylene		n-Hexane		Formaldehyde	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
NGL and/or Condensate Truck Loading	0.01	0.02	0.01	0.03	0.00	0.00	0.00	0.00	0.59	2.20	n/a	n/a
Emergency Flare	1.07	0.00	1.10	0.00	0.02	0.00	0.15	0.00	95.60	0.29	n/a	n/a
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	n/a	n/a
Total PTE	**1.07**	**0.03**	**1.11**	**0.03**	**0.02**	**0.00**	**0.15**	**0.00**	**96.19**	**2.50**	**n/a**	**n/a**

TABLE 2: Controlled Emission Summary Sheet

Equipment	NO_x		CO		VOC		Total HAPs		PM-10		SO_2	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
NGL and/or Condensate Truck Loading	n/a	n/a	n/a	n/a	13.80	51.74	0.18	0.68	n/a	n/a	n/a	n/a
Emergency Flare	0.52	0.00	2.85	0.01	149.70	0.45	n/a	n/a	0.00	0.00	0.00	0.00
Fugitive Emissions	n/a	n/a	n/a	n/a	0.19	0.85	0.00	0.01	n/a	n/a	n/a	n/a
Total PTE	**0.52**	**0.00**	**2.85**	**0.01**	**163.69**	**53.04**	**0.18**	**0.69**	**0.00**	**0.00**	**0.00**	**0.00**

Equipment	Benzene		Toluene		Ethylbenzene		Xylene		n-Hexane		Formaldehyde	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
NGL and/or Condensate Truck Loading	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.18	0.66	n/a	n/a
Emergency Flare	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	1.91	0.01	n/a	n/a
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	n/a	n/a
Total PTE	**0.02**	**0.01**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**2.09**	**0.68**	**n/a**	**n/a**

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Emission Calculation Assumptions

1	Due to rail car weight restrictions, the 30,000 gallon rail cars will be filled with NGL and/or Condensate to a 90% of the maximum capacity (27,000 gallons).
2	A collection efficiency of 70.0 percent (%) (a 30% leakage rate) is assumed for trucks not passing the NSPS-level annual test (3 inches pressure change). (AP-42, Section 5.2)
3	Total uncontrolled organic emission factors for petroleum liquid rail tank cars and trucks using the gasoline emission factor of 5.0 pounds per 1000 gallons transferred.
4	The emergency flare is used to remove residual NGL and/or Condensate from the empty rail car prior to conducting repairs on the rail cars. The quantity of vapors combusted by the emergency flare is based on the assumption that the empty rail cars will contain no more than 5% residual NGL and/or Condensate.
5	The 6 hours of operation per year is base on an estimated 6 emergency flaring scenarios per year with an estimated 1 hour timeframe to remove the residual NGL prior to conducting repairs.
6	The Leed flare is designed to be smokeless. Therefore there are no corresponding particulate matter emissions.
7	Methane emissions calculated by mutiplying the VOC emissions by the weight fraction of methane in the NGLs.
8	Global Warming Potentials for each GHG pollutant are: Carbon Dioxide (CO2) = 1; Methane (CH4) = 25; nitrous oxide (N2O) = 298.

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Loadout Emissions Detail Sheet

Source Description	Truck to Rail Car Trans-Loading	Potential operation	8760	hr/yr
Source Usage	NGL and/or Condensate Loading	Max. daily trans-loading rate	189,000	gallons - Assumption #1
Truck Loadouts Per Year	7,665	Annual Operation	68,985,000	gallons per year

Fugitive Emissions (See AP-42 Section 5.2)

Overall Reduction Efficiency	70.0%	Assumption #2	
Annual throughput, v	68,985	1000 gallons of Natural Gas Liquids and/or Condensate	
Loading losses, L @ tank	5.00	lb/1000 gallons	Based on AP-42 Table 5.2-5 - Assumption #3
Annual uncontrolled losses @ tank, L*v	344,925.00	lb/yr	
Annual controlled losses @ tank, L*v	103,477.50	lb/yr	
Loading Rate per Truck	9,200	gallons	
Loading Rate	9,200	gallons/hr	Provided by operator
Annual Hrs of Operation	7498.4		

Uncontrolled Emissions

			Ratio of HAPs to VOC Emissions	(see "Representative Analysis" for weight fraction of each component)
Hourly VOC During Loading	**46.00**	**lb/hr**		
Annual Uncontrolled VOC tpy during loading	**172.46**	**tons/yr**		
Annual HAPs tpy during loading	2.26	tons/yr	1.3085%	
Annual Benzene tpy during loading	0.02	tons/yr	0.0143%	
Annual Toluene tpy during loading	0.03	tons/yr	0.0147%	
Annual Ethylbenzene tpy during loading	0.00	tons/yr	0.0002%	
Annual Xylene tpy during loading	0.00	tons/yr	0.0020%	
Annual n-Hexane tpy during loading	2.20	tons/yr	1.2772%	
Annual Methane (CH4) tpy during loading	0.00	tons/yr	0.0002%	
Annual Carbon Dioxide (CO_2) tpy during loading	0.00	tons/yr	0.0022%	

Controlled Emissions

Hourly VOC During Loading	**13.80**	**lb/hr**		
Annual Controlled VOC tpy during loading	**51.74**	**tons/yr**		
Annual HAPs tpy during loading	0.68	tons/yr	1.3085%	
Annual Benzene tpy during loading	0.01	tons/yr	0.0143%	
Annual Toluene tpy during loading	0.01	tons/yr	0.0147%	
Annual Ethylbenzene tpy during loading	0.00	tons/yr	0.0002%	
Annual Xylene tpy during loading	0.00	tons/yr	0.0020%	
Annual n-Hexane tpy during loading	0.66	tons/yr	1.2772%	
Annual Methane (CH4) tpy during loading	0.00	tons/yr	0.0002%	
Annual Carbon Dioxide (CO_2) tpy during loading	0.00	tons/yr	0.0022%	

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Emergency Flare Detail Sheet

Source ID Number	**Emergency Flare**	Maximum Vapors Combusted	0.059 MMscf/day
Source Description	Hero Flare	Vapors combusted	59.00 Mscf/day - Assumption #4
Fuel Heating Value (Btu/Scf)	3131	Potential fuel usage	1.48E-02 MMscf/yr
Maximum Input Rating (Btu/hr)	7,696,828		

Assumption #5

Requested Emission Limits

Pollutant	Emission Factor (lb/MMBtu)	Hrs of Operation (hrs/yr)	Estimated Emissions (lb/hr)	Estimated Emissions (tpy)	Estimated Emissions (lb/yr)	Source of Emission Factor
NOx	0.068	6	0.523	0.00	3.14	AP-42 Table 13.5-1
CO	0.37	6	2.848	0.01	17.09	AP-42 Table 13.5-1
SO_x	0.00	6	0.000	0.00	0.00	No hydrogen sulfide indicated in gas analysis.
PM_{10}	0.00	6	0.000	0.00	0.00	Assumption #6

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Emergency Flare Detail Sheet

NGL Component	CAS Number	Liquid Vol %[1]	Gallons[2]	Density (kg/m^3)	Density (lbs/gallon)	Quantity Released (lbs)	Quantity Released (kg)	Gas Density (kg/m^3)	Gas Volume (m^3)	Gas Volume (ft^3)	Gas Volume (MMcf)
Methane	74-82-8	0.001%	0.01	465	3.87	1	1	0.67	2	71	0.001
Ethane	74-84-0	4.000%	60.00	570	4.75	285	130	1.26	103	3638	0.004
Propane	74-98-6	20.945%	314.18	583.07	4.86	1,526	693	1.88	369	13031	0.014
Isobutane	75-28-5	7.470%	112.04	583.07	4.86	544	247	2.53	98	3461	0.004
Butane	106-97-8	32.520%	487.80	583.07	4.86	2,369	1075	2.49	432	15256	0.016
Isopentane	78-78-4	9.547%	143.20	583.07	4.86	696	316	3.21	99	3497	0.004
Pentane	109-66-0	16.289%	244.34	626	5.21	1,274	579	3.23	180	6357	0.007
Hexane	110-54-3	0.200%	3.01	654.8	5.45	17	8	3.60	3	106	0.001
Heptane	142-82-5	8.093%	121.40	684	5.70	692	314	4.15	76	2684	0.003
Octane	111-65-9	0.000%	0.00	703	5.85	0	0	3.94	0	0	0.000
Nonane	111-84-2	0.000%	0.00	718	5.98	0	0	4.43	0	0	0.000
Decane	124-18-5	0.000%	0.00	730	6.08	0	0	4.90	0	0	0.000
Benzene	71-43-2	0.011%	0.17	876.5	7.30	2	1	3.49	1	36	0.001
Toluene	108-88-3	0.010%	0.15	866.9	7.22	2	1	4.11	1	36	0.001
Ethylbenzene	100-41-4	0.000%	0.00	866.5	7.22	1	1	3.66	1	36	0.001
Xylenes	1330-20-7	0.001%	0.02	861	7.17	1	1	3.80	1	36	0.001
n-Hexane	92112-69-1	0.910%	13.65	654.8	5.45	75	35	2.97	12	424	0.001
2, 2, 4 TMP	540-84-1	0.000%	0.00	690	5.75	0	0	3.93	0	0	0.000
Summary						**7,485**					**0.059**

Calculation Explanation: Multiply total storage capacity of pressurized tank, 30,000 gallons, by the maximum amount allowed in tank, 5%, by the liquid volume percentage of each chemical = Gallons of chemical. Multiply gallons of chemical by the density of the chemical (pounds per gallons) = Quantity released in pounds.
For example, 30,000 gallons X 5% X 38.520% liquid volume propane = 577.8 gallons propane. 577.8 gallons propane X 4.86 lbs/gal = 2,808 lbs.

Emissions Uncontrolled

Pollutant	Hrs of Operation (hrs/yr)	Vent Gas Emissions (lb/hr)	(tpy)	(lb/yr)	Source of Emission Factor
VOC	6	7485.00	22.46	44910.0	Representative Natural Gas Liquids Sample
Methane	6	1.00	0.00	6.0	Representative Natural Gas Liquids Sample
Ethane	6	285.00	0.86	1710.0	Representative Natural Gas Liquids Sample
Propane	6	1526.00	4.58	9156.0	Representative Natural Gas Liquids Sample
Isobutane	6	544.00	1.63	3264.0	Representative Natural Gas Liquids Sample
Butane	6	2369.00	7.11	14214.0	Representative Natural Gas Liquids Sample
Isopentane	6	696.00	2.09	4176.0	Representative Natural Gas Liquids Sample
Pentane	6	1274.00	3.82	7644.0	Representative Natural Gas Liquids Sample
Hexane	6	17.00	0.05	102.0	Representative Natural Gas Liquids Sample
Heptane	6	692.00	2.08	4152.0	Representative Natural Gas Liquids Sample
Octane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Nonane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Decane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Benzene	6	2.00	0.01	12.0	Representative Natural Gas Liquids Sample
Toluene	6	2.00	0.01	12.0	Representative Natural Gas Liquids Sample
Ethylbenzene	6	1.00	0.00	6.0	Representative Natural Gas Liquids Sample
Xylenes	6	1.00	0.00	6.0	Representative Natural Gas Liquids Sample
n-Hexane	6	75.00	0.23	450.0	Representative Natural Gas Liquids Sample
2, 2, 4 TMP	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample

Notes:
kg/m^3 = kilograms per cubic meter lbs = pounds lbs/gallon = pounds per gallon 2, 2, 4 TMP = 2, 2, 4 - Trimethylpentane
[1]Used Representative Natural Gas Liquid study for calculations (see attached).
[2]Calculated using the maximum capacity of an 30,000 gallon rail car X the maximum residual volume of 5% X Liquid Volume %

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Emergency Flare Detail Sheet

NGL Component	CAS Number	Liquid Vol %[1]	Gallons[2]	Density (kg/m^3)	Density (lbs/gallon)	Quantity Released (lbs)	Quantity Released (kg)	Gas Density (kg/m^3)	Gas Volume (m^3)	Gas Volume (ft^3)	Gas Volume (MMcf)
Methane	74-82-8	0.001%	0.01	465	3.87	1	1	0.67	2	71	0.001
Ethane	74-84-0	4.000%	60.00	570	4.75	285	130	1.26	103	3638	0.004
Propane	74-98-6	20.945%	314.18	583.07	4.86	1,526	693	1.88	369	13031	0.014
Isobutane	75-28-5	7.470%	112.04	583.07	4.86	544	247	2.53	98	3461	0.004
Butane	106-97-8	32.520%	487.80	583.07	4.86	2,369	1075	2.49	432	15256	0.016
Isopentane	78-78-4	9.547%	143.20	583.07	4.86	696	316	3.21	99	3497	0.004
Pentane	109-66-0	16.289%	244.34	626	5.21	1,274	579	3.23	180	6357	0.007
Hexane	110-54-3	0.200%	3.01	654.8	5.45	17	8	3.60	3	106	0.001
Heptane	142-82-5	8.093%	121.40	684	5.70	692	314	4.15	76	2684	0.003
Octane	111-65-9	0.000%	0.00	703	5.85	0	0	3.94	0	0	0.000
Nonane	111-84-2	0.000%	0.00	718	5.98	0	0	4.43	0	0	0.000
Decane	124-18-5	0.000%	0.00	730	6.08	0	0	4.90	0	0	0.000
Benzene	71-43-2	0.011%	0.17	876.5	7.30	2	1	3.49	1	36	0.001
Toluene	108-88-3	0.010%	0.15	866.9	7.22	2	1	4.11	1	36	0.001
Ethylbenzene	100-41-4	0.000%	0.00	866.5	7.22	1	1	3.66	1	36	0.001
Xylenes	1330-20-7	0.001%	0.02	861	7.17	1	1	3.80	1	36	0.001
n-Hexane	92112-69-1	0.910%	13.65	654.8	5.45	75	35	2.97	12	424	0.001
2, 2, 4 TMP	540-84-1	0.000%	0.00	690	5.75	0	0	3.93	0	0	0.000
Summary						**7,485**					**0.059**

Calculation Explanation: Multiply total storage capacity of pressurized tank, 30,000 gallons, by the maximum amount allowed in tank, 5%, by the liquid volume percentage of each chemical = Gallons of chemical. Multiply gallons of chemical by the density of the chemical (pounds per gallons) = Quantity released in pounds.
For example, 30,000 gallons X 5% X 38.520% liquid volume propane = 577.8 gallons propane. 577.8 gallons propane X 4.86 lbs/gal = 2,808 lbs.

Emissions Controlled (by flare, 98% control efficiency)

Pollutant	Hrs of Operation (hrs/yr)	Vent Gas Emissions (lb/hr)	(tpy)	(lb/yr)	Source of Emission Factor
VOC	6	149.70	0.45	898.2	Representative Natural Gas Liquids Sample
Methane	6	0.02	0.00	0.1	Representative Natural Gas Liquids Sample
Ethane	6	5.70	0.02	34.2	Representative Natural Gas Liquids Sample
Propane	6	30.52	0.09	183.1	Representative Natural Gas Liquids Sample
Isobutane	6	10.88	0.03	65.3	Representative Natural Gas Liquids Sample
Butane	6	47.38	0.14	284.3	Representative Natural Gas Liquids Sample
Isopentane	6	13.92	0.04	83.5	Representative Natural Gas Liquids Sample
Pentane	6	25.48	0.08	152.9	Representative Natural Gas Liquids Sample
Hexane	6	0.34	0.00	2.0	Representative Natural Gas Liquids Sample
Heptane	6	13.84	0.04	83.0	Representative Natural Gas Liquids Sample
Octane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Nonane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Decane	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample
Benzene	6	0.04	0.00	0.2	Representative Natural Gas Liquids Sample
Toluene	6	0.04	0.00	0.2	Representative Natural Gas Liquids Sample
Ethylbenzene	6	0.02	0.00	0.1	Representative Natural Gas Liquids Sample
Xylenes	6	0.02	0.00	0.1	Representative Natural Gas Liquids Sample
n-Hexane	6	1.50	0.00	9.0	Representative Natural Gas Liquids Sample
2, 2, 4 TMP	6	0.00	0.00	0.0	Representative Natural Gas Liquids Sample

Notes:
kg/m^3 = kilograms per cubic meter lbs = pounds lbs/gallon = pounds per gallon 2, 2, 4 TMP = 2, 2, 4 - Trimethylpentane
[1]Used Representative Natural Gas Liquid study for calculations (see attached).
[2]Calculated using the maximum capacity of an 30,000 gallon rail car X the maximum residual volume of 5% X Liquid Volume %

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Fugitive Emissions Detail Sheet
Operation (hrs/yr) 8,760

SCC Code: 31000220: All Equip. Leak Fugitives (Valves, flanges, connections, seals, drains)

Fugitive Component Counts & Emissions

Service	Component Type	Count	TOC EF lb/hr-source	TOC EF kg/hr-source	Control (%)	VOC		Benzene		Toluene		Ethylbenzene		Xylene		n-Hexane	
						Uncontrolled (tpy)	Controlled (tpy)	Uncontrolled (lb/yr)	Controlled (lb/yr)	Uncontrolled (lb/yr)	Controlled (lb/yr)	Uncontrolled (lb/yr)	Controlled (lb/yr)	Uncontrolled (lb/yr)	Controlled (lb/yr)	Uncontrolled (lb/yr)	Controlled (lb/yr)
Gas	Valves	16	9.92E-03	4.50E-03	0.0%	0.68	0.68	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	17.8	17.8
	Pump Seals	0	5.29E-03	2.40E-03	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Others	0	1.94E-02	8.80E-03	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Connectors	8	4.41E-04	2.00E-04	0.0%	0.02	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
	Flanges	0	8.60E-04	3.90E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Open-ended lines	8	4.41E-03	2.00E-03	0.0%	0.15	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
Light Oil	Valves	0	5.51E-03	2.50E-03	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Pump Seals	0	2.87E-02	1.30E-02	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Others	0	1.65E-02	7.50E-03	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Connectors	0	4.63E-04	2.10E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Flanges	0	2.43E-04	1.10E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Open-ended lines	0	3.09E-03	1.40E-03	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heavy Oil	Valves	0	1.85E-05	8.40E-06	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Pump Seals	0															
	Others	0	7.05E-05	3.20E-05	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Connectors	0	1.65E-05	7.50E-06	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Flanges	0	8.60E-07	3.90E-07	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Open-ended lines	0	3.09E-04	1.40E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water/Oil	Valves	0	2.16E-04	9.80E-05	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Pump Seals	0	5.29E-05	2.40E-05	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Others	0	3.09E-02	1.40E-02	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Connectors	0	2.43E-04	1.10E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Flanges	0	6.39E-06	2.90E-06	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Open-ended lines	0	5.51E-04	2.50E-04	0.0%	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTALS (tpy)					**0.85**	**0.85**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**
	TOTALS (lb/yr)	32				**1696**	**1696**	**0.25**	**0.25**	**0.25**	**0.25**	**0.00**	**0.00**	**0.03**	**0.03**	**22.10**	**22.10**

With safety factor:	1																
TOTALS (tpy)						**0.85**	**0.85**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**
TOTALS (lb/yr)						**1696.46**	**1696.46**	**0.25**	**0.25**	**0.25**	**0.25**	**0.00**	**0.00**	**0.03**	**0.03**	**22.10**	**22.10**

Emission Factor Source: EPA-453/R-95-017, Table 2-4

Stream VOC Fraction (wt)

Gas	0.9804
Light Oil	1.0000
Heavy Oil	1.0000
Water/Oil	1.0000

Stream HAP Components (wt fraction)

HAP	Gas	Light Oil	Heavy Oil	Water/Oil
Benzene	1.43E-04	0.00	0.00	0.00
Toluene	1.47E-04	0.00	0.00	0.00
Ethylbenzene	2.23E-06	0.00	0.00	0.00
Xylene	2.02E-05	0.00	0.00	0.00
n-Hexane	1.28E-02	0.00	0.00	0.00

Notes

1) The other equipment type was derived from compressors, diaphragms, drains, dump arms, hatches, instruments, meters, pressure relief valves, polished rods, relief valves and vents. This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps or valves.
2) Water/Oil emission factors apply to water streams in oil service with a water content greater than 50%, from the point of origin to the point where the water content reaches 99%. For water streams with a water content greater than 99%, the emission rate is considered negligible.

3) Source counts estimated from 40 CFR Part 98, Subpart W, Table W-1C and are not site-specific.

Company: Concord Appalachian Transload Services, LLC
Site: Parkersburg NGL Loading Facility

TABLE 3: Uncontrolled Greenhouse Gas (GHG) Potential Emission Summary Sheet

Assumption #8

Assumption #8

Assumption #7

SOURCE DESCRIPTION	CH_4 MT/yr	CO_2 MT/yr	N_2O MT/yr	CO_2e MT/yr	CH_4 Tons/yr	CO_2 Tons/yr	N_2O Tons/yr	CO_2e Tons/yr
NGL and/or Condensate Truck Loading	0.00	0.00	n/a	0.01	0.00	0.00	n/a	0.03
Emergency Flare	0.00	n/a	n/a	0.07	0.00	n/a	n/a	0.08
Fugitive Emissions	0.00	0.00	n/a	0.00	0.00	0.00	n/a	0.03
TOTAL EMISSIONS	**0.00**	**0.00**	**n/a**	**0.08**	**0.01**	**0.00**	**n/a**	**0.13**
TOTAL CO_2e EMISSIONS	**0.08**	**0.00**	**n/a**	**0.08**	**0.13**	**0.00**	**n/a**	**0.13**

Notes:

MT/yr = Metric tons per year
n/a = No data available
MMBtu/hr = Million British Thermal Units per hour
BBL = Barrels

CH_4= Methane
CO_2 = Carbon dioxide
N_2O = NItrous oxides
CO_2e = Carbon dioxide equivalents

TABLE 4: Controlled Greenhouse Gas (GHG) Potential Emission Summary Sheet

Assumption #8

Assumption #8

Assumption #7

SOURCE DESCRIPTION	CH_4 MT/yr	CO_2 MT/yr	N_2O MT/yr	CO_2e MT/yr	CH_4 Tons/yr	CO_2 Tons/yr	N_2O Tons/yr	CO_2e Tons/yr
NGL and/or Condensate Truck Loading	0.00	0.00	n/a	0.00	0.00	0.00	n/a	0.00
Emergency Flare	0.00	n/a	n/a	0.00	0.00	n/a	n/a	0.00
Fugitive Emissions	0.00	0.00	n/a	0.00	0.00	0.00	n/a	0.00
TOTAL EMISSIONS	**0.00**	**0.00**	**n/a**	**0.00**	**0.00**	**0.00**	**n/a**	**0.01**
TOTAL CO_2e EMISSIONS	**0.00**	**0.00**	**n/a**	**0.00**	**0.00**	**0.00**	**n/a**	**0.01**

Notes:

MT/yr = Metric tons per year
n/a = No data available
MMBtu/hr = Million British Thermal Units per hour
BBL = Barrels

CH_4= Methane
CO_2 = Carbon dioxide
N_2O = NItrous oxides
CO_2e = Carbon dioxide equivalents

Concord Appalachian Transload Services, LLC
Parkersburg NGL Loading Facility
Representative Sample

Component	Molecular Weight (lb/lb-mol)	Mole (Vol.) Percent (%)	Mole Frac.	Gas Weight (lb/lb-mol)	Weight Fraction	LHV BTU Content	
						Btu/scf	Btu/scf*Mole Frac
Methane	16.04	0.0008%	0.00001	0.00	0.0000	909.4	0.0
Ethane	30.07	4.0000%	0.04000	1.20	0.0196	1618.7	64.7
Total HC (Non-VOC)		*4.0008%*	*0.04001*	*1.20*	*0.0196*	*2528.1*	*64.8*
Propane	44.09	20.9450%	0.20945	9.24	0.1504	2314.90	484.86
i-Butane	58.12	7.4695%	0.07470	4.34	0.0707	3000.40	224.11
n-Butane	58.12	32.5200%	0.32520	18.90	0.3078	3010.80	979.11
i-Pentane	72.15	9.5467%	0.09547	6.89	0.1122	3699.00	353.13
n-Pentane	72.15	16.2890%	0.16289	11.75	0.1914	3703.90	603.33
Hexanes	86.18	0.2004%	0.00200	0.17	0.0028	4403.90	8.83
Heptanes	100.21	8.0934%	0.08093	8.11	0.1321	5100.30	412.79
Octanes	114.22	0.0000%	0.00000	0.00	0.0000	5796.20	0.00
Nonanes	128.26	0.0000%	0.00000	0.00	0.0000	6493.60	0.00
Decanes	142.29	0.0000%	0.00000	0.00	0.0000	7189.90	0.00
Benzene	78.12	0.0112%	0.00011	0.01	0.0001	0.00	0.00
Toluene	92.13	0.0098%	0.00010	0.01	0.0001	0.00	0.00
Ethylbenzene	106.16	0.0001%	0.00000	0.00	0.0000	0.00	0.00
Xylene	106.16	0.0012%	0.00001	0.00	0.0000	0.00	0.00
n-Hexane	86.177	0.9101%	0.00910	0.78	0.0128	0.00	0.00
2,2,4-Trimethylpentane	114.23	0.0000%	0.00000	0.00	0.0000	0.00	0.00
Total NMNE VOC		*95.9965%*	*0.95997*	*60.20*	*0.9804*	*44712.90*	*3066.16*
Carbon Dioxide	44.01	0.0030%	0.00003	0.00	0.0000	0	0
Nitrogen	28.02	0.0000%	0.00000	0.00	0.0000	0	0
Hydrogen Sulfide	34.08	0.0000%	0.00000	0.00	0.0000	586.8	0
Helium	4.00	0.0000%	0.00000	0.00	0.0000	0	0
	Totals	**100.000%**	**100.00%**	**61.41**	**1.0000**		**3130.91**

Fraction of NMNE VOC: **0.9600**
Gas Specific Gravity: **2.120**
LHV BTU Content (Btu/scf): **3130.91**

ATTACHMENT O: MONITORING/ RECORDKEEPING/ REPORTING/ TESTING PLANS

Concord Appalachian Transload Services, LLC

Monitoring, Recordkeeping, Reporting, and Testing Plans Parkersburg NGL Loading Facility

Monitoring

Natural Gas Liquids Trans-Loading – Emission Unit ID: 1S

Concord Appalachian Transload Services, LLC (CATS) contractors visually inspect railcars for signs of leakage. Prior to loading cars, contractors will complete the pre-inspection checklist. Audio, visual, and olfactory (AVO) inspections are conducted throughout the loading process.

Portable Emergency Flare – Emission Point ID: 1E

Observe pilot light when in operation.

Fugitive Components – Emission Unit ID: 1F

None proposed.

Recordkeeping

Natural Gas Liquids Trans-Loading – Emission Unit ID 1S

Pre-inspection checklist, truck and railcar pre- and post- loading weights, and documentation of third party natural gas liquid and/or condensate sampling and analysis when in operation.

Portable Emergency Flare – Emission Point ID: 1E

Records showing the amount of time and the number of times the flare is utilized will be maintained.

Fugitive Components – Emission Unit ID: 1F

None proposed.

Reporting

Natural Gas Liquids Trans-Loading – Emission Unit ID: 1S

Daily internal reporting of the liquid trans-loading totals and pre-inspection checklists when in operation. Records will be made available to the West Virginia Department of Environmental Protection (WVDEP) upon request. Additionally, annual records demonstrating compliance with hourly and annual emission limitations will be provided to WVDEP upon request.

Portable Emergency Flare – Emission Point ID: 1E

Annual records demonstrating compliance with hourly and annual emission limitations will be provided to WVDEP upon request.

Fugitive Components – Emission Unit ID: 1F

Annual records demonstrating compliance with hourly and annual emission limitations will be provided to WVDEP upon request.

Testing

Natural Gas Liquids Trans-Loading – Emission Unit ID: 1S

No sampling or testing will be performed by CATS. CATS will obtain and evaluate 3rd party analyses of NGLs and/or condensate when in operation. 3rd party truck and rail car tank owners/operators will be responsible for testing per DOT requirements and supplying that information to CATS when requested.

Portable Emergency Flare – Emission Point ID: 1E

None proposed.

Fugitive Components – Emission Unit ID: 1F

None proposed.

ATTACHMENT P: PUBLIC NOTICE

Concord Appalachian Transload Services, LLC

Air Quality Permit Notice
Notice of Application
Parkersburg NGL Loading Facility

Notice is given that Concord Appalachian Transload Services, LLC (CATS) has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a modification to their Construction Permit for the Parkersburg NGL Loading Facility located on 400 Buckeye Street, near Parkersburg, in Wood County, West Virginia. The latitude and longitude coordinates are 39.256615°, -81.539776°. CATS is requesting a change to the NSPS leak testing requirements previously required in the active permit. Alternatively, CATS will adhere to DOT leak testing protocol and assume a 70% control efficiency as compared to the 98.7% control formerly described.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be (Pollutants and associated amounts in tons per year): Nitrogen oxides (NOx) uncontrolled emissions are 0.00 tons per year (TPY). NOx controlled emissions are 0.00 TPY. Carbon monoxide (CO) uncontrolled emissions are 0.00 TPY. CO controlled emissions are 0.01 TPY. Volatile organic compounds (VOC) uncontrolled emissions are 195.77 TPY. VOC controlled emissions are 53.04 TPY. Total hazardous air pollutant (HAP) uncontrolled emissions are 2.27 TPY. Total HAP controlled emissions are 0.69 TPY. Particulate matter less than 10 microns (PM_{10}) uncontrolled emissions are 0.00 TPY. PM_{10} controlled emissions are 0.00 TPY. Sulfur dioxide (SO_2) uncontrolled emissions are 0.00 TPY. SO_2 controlled emissions are 0.00 TPY. Carbon dioxide equivalents (CO_2e) uncontrolled emissions are 0.13 TPY. CO_2e controlled emissions are 0.01 TPY.

Startup of operation began on the 12th day of September 2014. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, West Virginia 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 1227, during normal business hours.

Dated this the 31st day of August 2015.

By: Concord Energy LLC
Veronica Creamer
NGL Marketer
707 17th St., Suite 3020
Denver, CO 80202

ATTACHMENT R: AUTHORITY FORMS

Attachment R
AUTHORITY OF CORPORATION
OR OTHER BUSINESS ENTITY (DOMESTIC OR FOREIGN)

TO: The West Virginia Department of Environmental Protection, Division of Air Quality

DATE: August 27, 2015

ATTN.: Director

Corporation's / other business entity's Federal Employer I.D. Number 61-1740 88

The undersigned hereby files with the West Virginia Department of Environmental Protection, Division of Air Quality, a permit application and hereby certifies that the said name is a trade name which is used in the conduct of an incorporated business or other business entity.

Further, the corporation or the business entity certifies as follows:

(1) Veronica Creamer (is/are) the authorized representative(s) and in that capacity may represent the interest of the corporation or the business entity and may obligate and legally bind the corporation or the business entity.

(2) The corporation or the business entity is authorized to do business in the State of West Virginia.

(3) If the corporation or the business entity changes its authorized representative(s), the corporation or the business entity shall notify the Director of the West Virginia Department of Environmental Protection, Division of Air Quality, immediately upon such change.

President or Other Authorized Officer
(Vice President, Secretary, Treasurer or other official in charge of a principal business function of the corporation or the business entity)

(If not the President, then the corporation or the business entity must submit certified minutes or bylaws stating legal authority of other authorized officer to bind the corporation or the business entity).

Secretary

Concord Energy LLC
Name of Corporation or business entity

ATTACHMENT T: SOURCE AGGREGATION ANALYSIS

Concord Appalachian Transload Services, LLC

Aggregation Analysis
Parkersburg NGL Loading Facility

Concord Appalachian Transload Services, LLC should not be aggregated with other facilities since they do not own or operate any adjacent or contiguous facilities, they do not own or operate any operations containing the same SIC code on the property, and they are not operating any additional emission units.