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**CONE Gathering LLC**

**Majorsville Station**

**Dallas, West Virginia**

**Class II Administrative Update Application, R13-3018D**

**SLR Ref: 116.00894.00058**

**January 2017**



## Majorsville Station Rule 13 Permit Update Application

Prepared for:

**CONE Gathering LLC**  
1000 Consol Energy Drive  
Canonsburg, PA 15317

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.

A handwritten signature in blue ink, appearing to read "Nate Lanham", written over a horizontal line.

Nate Lanham  
WV Operations Manager

A handwritten signature in blue ink, appearing to read "Jesse Hanshaw", written over a horizontal line.

Jesse Hanshaw, P.E.  
Principal Engineer

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# **APPLICATION FOR PERMIT**

## **Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**DIVISION OF AIR QUALITY**

601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0475  
[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

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

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

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

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

- ADMINISTRATIVE AMENDMENT     MINOR MODIFICATION  
 SIGNIFICANT MODIFICATION

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

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

**Section I. General**

1. Name of applicant (as registered with the WV Secretary of State's Office): CONE Gathering LLC		2. Federal Employer ID No. (FEIN): 45-3344658	
3. Name of facility (if different from above): Majorsville Station		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 1000 Consol Energy Drive Canonsburg, PA 15317		5B. Facility's present physical address: 3700 Number Two Ridge Road Dallas, WV 26036	
6. <b>West Virginia Business Registration.</b> Is the applicant a resident of the State of West Virginia? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ⇒ If <b>YES</b> , provide a copy of the <b>Certificate of Incorporation/Organization/Limited Partnership</b> (one page) including any name change amendments or other Business Registration Certificate as <b>Attachment A</b> . ⇒ If <b>NO</b> , provide a copy of the <b>Certificate of Authority/Authority of L.L.C./Registration</b> (one page) including any name change amendments or other Business Certificate as <b>Attachment A</b> .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇒ If <b>YES</b> , please explain:    Owner  ⇒ If <b>NO</b> , you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be <b>constructed, modified, relocated, administratively updated</b> or <b>temporarily permitted</b> (e.g., coal preparation plant, primary crusher, etc.): Natural Gas Compression and Dehydration Facility		10. North American Industry Classification System (NAICS) code for the facility: 486210	
11A. DAQ Plant ID No. (for existing facilities only): 051-00143		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-3081C	

**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 Wheeling: Travel East on I-70 for approximately 9.3 miles. Take Exit 11 onto Dallas Pike. Turn right onto Dallas Pike and travel approximately 1.7 miles. Take a slight left onto Middle Wheeling Creek Road (Old Co. 39) for 0.4 miles. Continue onto Dallas Pike and Travel 3.0 miles. Turn right onto Number 2 Ridge Road and travel 3.6 miles. Turn right and the facility will be 0.5 miles on the right.

12.B. New site address (if applicable):	12C. Nearest city or town: Majorsville	12D. County: Marshall
12.E. UTM Northing (KM): 4,424.302	12F. UTM Easting (KM): 539.827	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:  
 CONE would like the language associated with the Blowdown Flare to address that the control device will be operated for more than controlling just emergency emissions. The Blowdown Flare shall control venting from maintenance activities associated with compressor blowdowns, pigging depressurizations, and station emergency shut down (ESD) events. The original permit authorizing operation of this control device (R13-3081C) to include these venting scenarios within the unit's emission calculations and they are reflected within the annual waste gas throughput limits however, the last permit termed the device as an emergency only unit. Additionally, the process flow diagram and emission unit table is also being revised to reflect equipment removed from the site and to include electrically driven reciprocating engines that were originally not listed on the equipment table. These electric units are being added because of the compressor rod packing requirements.

14A. Provide the date of anticipated installation or change: / / ⇒ If this is an <b>After-The-Fact</b> permit application, provide the date upon which the proposed change did happen: 11/30/2015 Date of Permit Issuance Associated with Flare	14B. Date of anticipated Start-Up if a permit is granted: / /
--	--

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). The change is after the fact however, emissions were already permitted within last permit modification. Change request is related to terminology reference only within permit language.

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

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

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see [www.epa.gov/ceppo](http://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:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input type="checkbox"/> 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:

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> 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**

- 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.*



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.

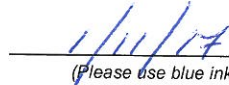
**Certification of Truth, Accuracy, and Completeness**

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  (Please use blue ink)

DATE:  (Please use blue ink)

35B. Printed name of signee: Joseph Fink

35C. Title: Chief Operating Officer

35D. E-mail: [joefink@consolenergy.com](mailto:joefink@consolenergy.com)

36E. Phone: 724-485-3524

36F. FAX:

36A. Printed name of contact person (if different from above): Patrick Flynn

36B. Title: Air Quality Engineer

36C. E-mail:  
[PatrickFlynn@consolenergy.com](mailto:PatrickFlynn@consolenergy.com)

36D. Phone: 724-485-3156

36E. FAX:

**PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:**

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

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017

# State of West Virginia



## Certificate

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

**CONE GATHERING LLC**

was duly authorized under the laws of this state to transact business in West Virginia as a foreign limited liability company on September 23, 2011.

The company is filed as an at-will company, for an indefinite period.

I further certify that the LLC (PLLC) has not been revoked by the State of West Virginia nor has a Certificate of Cancellation been issued.

Therefore, I hereby issue this

## CERTIFICATE OF AUTHORIZATION

Validation ID:8WV1H\_5P568



*Given under my hand and the  
Great Seal of the State of  
West Virginia on this day of  
April 09, 2014*

*Natalie E. Tennant*  
Secretary of State

# **ATTACHMENT B**

## **MAP**

### **Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017





**Figure 1 - Map of Majorsville Compressor Station**

**ATTACHMENT D**

**REGULATORY DISCUSSION**

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017

## REGULATORY DISCUSSION

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### 45 CSR 13 – Minor New Source Review Permitting Requirements

The blowdown flare was permitted by R13-3081C issued on November 30, 2015. As a result of an internal audit it was identified that the flare had been identified within the referenced permit as an “Emergency Blowdown Flare”. Since this control device is also utilized to abate maintenance emissions CONE would like to have the specific reference(s) to Emergency also include Maintenance activities.

Therefore, in accordance with the provisions of Rule 13, CONE is requesting the permit be administratively updated to clarify the flare’s original intended use. Since the original application for R13-3081C included maintenance venting within the source’s potential to emit (PTE) there are no emission changes to reflect within this proposed permit update.

CONE has also identified 3 pieces of equipment that should be removed from the site’s equipment list since either they were not installed or were misrepresented within the current permit. They include the following equipment:

- T11 – 400 bbl storage vessel was never installed
- T01 – 1,150 gal Stabilized Condensate Surge Drum was determined to be a process vessel rather than a storage vessel
- E3 – Caterpillar 3608LE DM8606 02 Compressor Engine was replaced with an electrically driven compressor engine.

Additionally, a number of electrically driven compressors and VRUs that utilize reciprocating compressors are proposed as additions to the equipment table due to being subject to compressor rod packing requirements under 40CFR60, subpart OOOO. Electric compressors were identified within the previously approved applications, but were not included within Section 1.0 of the permit’s Emission Unit Table. Therefore for compliance clarity, CONE proposed to add the following reciprocating compressors within Section 1.0 of the permit:

- ELEC-1, 4500 HP Electrically Driven Reciprocating Compressor
- ELEC-2, 4500 HP Electrically Driven Reciprocating Compressor
- ELEC-3, 4500 HP Electrically Driven Reciprocating Compressor
- ELEC-5, 4500 HP Electrically Driven Reciprocating Compressor
- ELEC-6, 4500 HP Electrically Driven Reciprocating Compressor
- VRU-2, 75 HP Electrically Driven Reciprocating Compressor
- VRU-3, 100 HP Electrically Driven Reciprocating Compressor
- VRU-4, 150 HP Electrically Driven Reciprocating Compressor



**45 CSR 1 (Draft) – Alternative Emission Limitations During Startup, Shutdown, and Maintenance Operations**

CONE feels that including maintenance activities within the permitted scenarios covered by the proposed permit are in accordance with the intent of this Draft Rule and therefore should be included within the potential to emit emission estimates associated with the blowdown flare. Although the Majorsville facility is not in a 45CSR21 County this control device will be used to reduce VOC emissions during SSM & Maintenance activities.

**40CFR60, Subpart OOOO**—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015

The Majorsville compressor station operates 6 sales gas reciprocating compressors and 3 VRU reciprocating compressors all of which were installed after August 23, 2011 and before September 18, 2015. As a result, these units are subject to the compressor packing requirements of this standard. The source is exercising the option of changing the compressor packing every 26,000 hours or 3 years in order to maintain compliance.

The site maintains records to track the hours of operations for each reciprocating compressor since they were placed into service and in the future from the last compressor packing replacement.

**ATTACHMENT F**

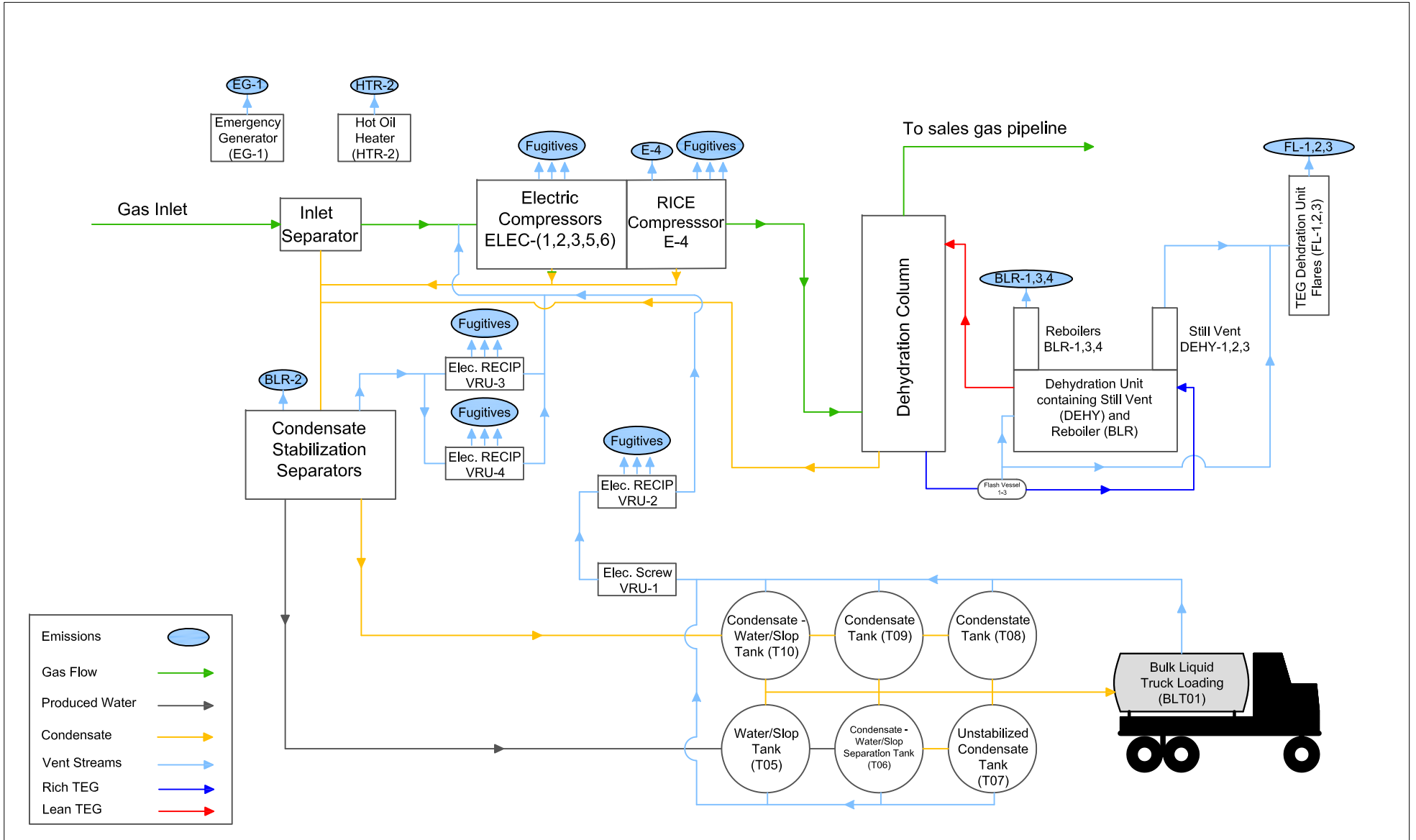
**PROCESS FLOW DIAGRAM**

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017



**ATTACHMENT G**

**PROCESS DESCRIPTION**

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017

## PROCESS DESCRIPTION

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CONE Gathering LLC is applying for coverage under 45CSR13, Rule 13, for a Class II Administrative Update to Permit Number R13-3081C for the recognition and classification of its blowdown flare to be changed from an “Emergency Blowdown Flare” to an “Emergency / Maintenance Blowdown Flare”. Additional equipment updates as described in more detail below, are being requested to reflect equipment removed and added to the equipment table. The addition of existing equipment is viewed as necessary because of applicable requirements that were already included within the permit, but not reflected for all electrically driven reciprocating compressors.

### DESCRIPTION OF PROCESS CHANGE

The proposed change was identified as necessary as a result of an internal compliance audit, which indicated that the permit language has miss classified the intent of the control device. CONE would like the flare identification to be revised within the equipment table and section 13 of the permit. This request does not affect the emission estimates as originally proposed with the R13-3081C application.

Also, while developing this application for the flare description changes, a number of additional equipment items were identified as having applicable requirements that warrant including them within the permit. These include the following:

Emission UnitID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
<u>ELEC-1</u>	<u>Fugitive</u>	<u>Electric Reciprocating Compressor</u>	<u>2015</u>	<u>4,500 hp</u>	<u>None</u>
<u>ELEC-2</u>	<u>Fugitive</u>	<u>Electric Reciprocating Compressor</u>	<u>2015</u>	<u>4,500 hp</u>	<u>None</u>
<u>ELEC-3</u>	<u>Fugitive</u>	<u>Electric Reciprocating Compressor</u>	<u>2015</u>	<u>4,500 hp</u>	<u>None</u>
<u>ELEC-5</u>	<u>Fugitive</u>	<u>Electric Reciprocating Compressor</u>	<u>2014</u>	<u>4,500 hp</u>	<u>None</u>
<u>ELEC-6</u>	<u>Fugitive</u>	<u>Electric Reciprocating Compressor</u>	<u>2014</u>	<u>4,500 hp</u>	<u>None</u>
<u>VRU-2</u>	<u>Fugitive</u>	<u>Electric VRU Reciprocating Compressor</u>	<u>2014</u>	<u>75 hp</u>	<u>None</u>
<u>VRU-3</u>	<u>Fugitive</u>	<u>Electric VRU Reciprocating Compressor</u>	<u>2014</u>	<u>100 hp</u>	<u>None</u>
<u>VRU-4</u>	<u>Fugitive</u>	<u>Electric VRU Reciprocating Compressor</u>	<u>2012</u>	<u>150 hp</u>	<u>None</u>

Additional updates are being requested to the Equipment Table to include removing equipment that is no longer on site or was never installed as originally planned, this includes the follow:

- T11 – 400 bbl storage vessel was never installed
- T01 – 1,150 gal Stabilized Condensate Surge Drum was determined to be a process vessel rather than a storage vessel
- E-3 – Caterpillar 3608LE DM8606 02 Compressor Engine was replaced with an electrically driven compressor engine

The Process Flow diagram has been updated to reflect current operating status and to show where the additional VRU reciprocating compressors are utilized within the process. It was noted that all these compressors are driven by electric motors so the only applicable requirements are those pertaining to the reciprocating compressor packing standards of 40CFR60, subpart OOOO. Although the VRU-1 compressor is driven by an electric motor it utilizes a screw compressor so it is listed as a storage vessel control device, but is not subject to the reciprocating compressor packing requirements.

A markup of the permit language has been supplied as Addendum A of this permit application as proposed language for DAQ consideration.

# **ATTACHMENT I**

## **EMISSION UNITS TABLE**

### **Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017

**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 <sup>1</sup>	Emission Point ID <sup>2</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type <sup>3</sup> and Date of Change	Control Device <sup>4</sup>
BDF-1	BDF-1	Emergency / <u>Maintenance Blowdown</u> Flare	2013	173.5 MMBtu/hr (nominal)	Existing	None
E3	E3	Caterpillar 3608 LE DM8606 02	2012	2,370 hp	Removal	Oxidation Catalyst
T01	T01	Stabilized Condensate Surge Drum	2012	1,150 gal	Removal	None
T11	VRU	Condensate or Water Storage Tank	2013	16,800 gal	Removal	VRU
ELEC-1	Fugitive	Electric Reciprocating Compressor	2015	4,500 hp	New	None
ELEC-2	Fugitive	Electric Reciprocating Compressor	2015	4,500 hp	New	None
ELEC-3	Fugitive	Electric Reciprocating Compressor	2015	4,500 hp	New	None
ELEC-5	Fugitive	Electric Reciprocating Compressor	2014	4,500 hp	New	None
ELEC-6	Fugitive	Electric Reciprocating Compressor	2014	4,500 hp	New	None
VRU-1	NA	Electric VRU Screw Compressor	2013	100 hp	New	None
VRU-2	Fugitive	Electric VRU Reciprocating Compressor	2014	75 hp	New	None
VRU-3	Fugitive	Electric VRU Reciprocating Compressor	2014	100 hp	New	None
VRU-4	Fugitive	Electric VRU Reciprocating Compressor	2012	150 hp	New	None

<sup>1</sup> For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.

<sup>2</sup> For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

<sup>3</sup> New, modification, removal

<sup>4</sup> For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.



**ATTACHMENT P**

**PUBLIC NOTICE**

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017

**AIR QUALITY PERMIT NOTICE**  
**Notice of Application**

Notice is given that CONE Gathering LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a 45CSR13, Class II Administrative Update to clarify the identification of equipment within the permit to reflect current operations. The Majorsville Station is located near Dallas, Marshall County, WV. The latitude and longitude coordinates are: 39.9675 and -80.5331.

The Administrative Update results in a decrease in emissions permitted for the facility.

This is an after the fact change pertaining to permitted existing equipment. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of Publication of this notice.

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

Dated this the 31 Day of January, 2017.

By: CONE Gathering LLC  
Patrick Flynn  
Engineer Air Permitting and Compliance  
1000 Consol Energy Drive  
Canonsburg, PA 15317

**ADDENDUM A**

**PROPOSED PERMIT LANGUAGE**

**Class II Permit Update Application**

**Majorsville Compressor Station  
Dallas, West Virginia**

CONE Gathering LLC  
1000 Consol Energy Drive  
Canonsburg, PA 15317

January 2017



# Permit to Modify



**R13- 3081C**

*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13-Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

*Issued to:*  
**CONE Gathering, LLC**  
**Majorsville Station**  
**051-00143**

*Willia F. urham*  
*Director*

*Issued: November 30, 2015*

*This permitting action supersedes and replaces R13-3081B issued on May 15, 2014.*

Facility Location: Majorsville, Marshall County, West Virginia  
Mailing Address: 200 Evergreen Drive, Waynesburg, PA 15370  
Facility Description: Natural gas compressor station  
NAICS Codes: 211111  
UTM Coordinates: 539.827 km Easting • 4,424.302 km Northing • Zone 17  
Permit Type: Modification  
Description of Change: This permitting action proposes a throughput increase of the existing glycol dehydration units, addition of one (1) blowdown flare, one (1) glycol dehydration unit and reboiler and one (1) enclosed combustor. Two (2) natural gas fired compressor engines will be removed and replaced with three (3) electric compressor motors.

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.*

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*This permit does not affect 45CSR30 applicability, the source is a nonmajor source subject to 45CSR30.*

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
<del>E-3</del>	<del>E-3</del>	<del>Caterpillar 03608 LE DM8606-02</del>	<del>2012</del>	<del>2,370 hp</del>	<del>Oxidation Catalyst</del>
E-4	E-4	Caterpillar 03608 LE DM8606-02	2012	2,370 hp	Oxidation Catalyst
EG-1	EG-1	Cummins QSX15-G9 NR2	2012	755 bhp	None
<del>ELEC-1</del>	<del>Fugitive</del>	<del>Electric Reciprocating Compressor</del>	<del>2015</del>	<del>4,500 hp</del>	<del>None</del>
<del>ELEC-2</del>	<del>Fugitive</del>	<del>Electric Reciprocating Compressor</del>	<del>2015</del>	<del>4,500 hp</del>	<del>None</del>
<del>ELEC-3</del>	<del>Fugitive</del>	<del>Electric Reciprocating Compressor</del>	<del>2015</del>	<del>4,500 hp</del>	<del>None</del>
<del>ELEC-5</del>	<del>Fugitive</del>	<del>Electric Reciprocating Compressor</del>	<del>2014</del>	<del>4,500 hp</del>	<del>None</del>
<del>ELEC-6</del>	<del>Fugitive</del>	<del>Electric Reciprocating Compressor</del>	<del>2014</del>	<del>4,500 hp</del>	<del>None</del>
<del>VRU-2</del>	<del>Fugitive</del>	<del>Electric VRU Reciprocating Compressor</del>	<del>2014</del>	<del>75 hp</del>	<del>None</del>
<del>VRU-3</del>	<del>Fugitive</del>	<del>Electric VRU Reciprocating Compressor</del>	<del>2014</del>	<del>100 hp</del>	<del>None</del>
<del>VRU-4</del>	<del>Fugitive</del>	<del>Electric VRU Reciprocating Compressor</del>	<del>2012</del>	<del>150 hp</del>	<del>None</del>
DEHY-1	FL-1	TEG Dehydration Unit Still Vent & Flash Tank	2012	200mmscfd	FL-1
DEHY-2	FL-2	TEG Dehydration Unit Still Vent & Flash Tank	2014	200 mmscfd	FL-2
DEHY-3	FL-3	TEG Dehydration Unit Still Vent & Flash Tank	2017	200 mmscfd	FL-3
FL-1	FL-1	TEG Dehydration Unit Enclosed Ground Flare	2012	6.0 MMBTU/hr	NA
FL-2	FL-2	TEG Dehydration Unit Enclosed Ground Flare	2014	6.0 MMBTU/hr	NA
FL-3	FL-3	TEG Dehydration Unit Enclosed Ground Flare	2017	6.0 MMBTU/hr	NA
BLR-1	BLR-1	TEG Dehydration Unit Reboiler	2012	2.86 MMBTU/hr	None
BLR-2	BLR-2	Condensate Stabilizer Reboiler	2012	0.75 MMBTU/hr	None
BLR-3	BLR-3	TEO Dehydration Unit Reboiler	2014	2.86 MMBTU/hr	None
BLR-4	BLR-4	TEG Dehydration Unit Reboiler	2017	2.86 MMBTU/hr	None
HTR-2	HTR-2	Hot Oil Heater	2014	7.13 MMBTU/hr	None
<del>T01</del>	<del>T01</del>	<del>Stabilized Condensate Surge Drum</del>	<del>2012</del>	<del>1,150 gal</del>	<del>None</del>
T02	T02	Triethylene Glycol Tank	2012	3,000 gal	None
T03	T03	Compressor Oil Tank	2012	3,000 gal	None
T04	T04	Engine Oil Tank	2012	3,000 gal	None
T05	NA	Water/Slop Tank	2014	16,800 gal	VRU-1
T06	NA	Gun Barrel Condensate- Water/Slop Separation Tank	2014	21,000 gal	VRU-1
T07	NA	Unstabilized (Wild) Condensate Tank	2014	16,800 gal	VRU-1
T08	NA	Condensate Tank	2014	16,800 gal	VRU-1



CONE Gathering, LLC, Majorville Station	VRU	Condensate Tank	2014	16,800 gal	VRU
T10	VRU	Condensate Tank and optional Water/Slop Storage	2014	16,800 gal	VRU-1
<del>T11</del>	<del>VRU</del>	<del>Condensate or Water Storage Tank</del>	<del>2013</del>	<del>16,800 gal</del>	<del>VRU</del>
BLT01	NA	Bulk Liquids Transfer Loading	2013	Batch Unloading	VRU-1

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West Virginia Department of Environmental Protection • Division of Air Quality

Emission UnitID	Emission PointID	Emission Unit Description	Year Installed	Design Capacity	Control Device
BDF-1	BDF-1	Emergency / Maintenance Blowdown Flare	2015	173.5 MMBTU/hr	NA

1.1. Control Devices

Emission Unit	Pollutant	Control Device	Control Efficiency
Product Tanks (T-05 – T-10)	Volatile Organic Compounds	VRU-1	95%
	Hazardous Air Pollutants		95%
NGL and Condensate Truck Loading (BLT01)	Volatile Organic Compounds	VRU-1	93.76%
DEHY"1 (TEG Dehydration Unit Still and Flash Tank)	Volatile Organic Compounds	FL-1	98%
	Total HAPs	Air Assisted Flare	98%
DEHY-2 (TEG Dehydration Unit Still and Flash Tank)	Volatile Organic Compounds	FL-2	98%
	Total HAPs	Air Assisted Flare	98%
DEHY-3 (TEG Dehydration Unit Still and Flash Tank)	Volatile Organic Compounds	FL-3	98%
	Total HAPs	Air Assisted Flare	98%
Caterpillar G3608 RICE (E3-E4)	Carbon Monoxide	Oxidation Catalyst	89%
	Volatile Organic Compounds		50%
	Formaldehyde		89%

## 5.0. Source-Specific Requirements (Tanks (T05-T10) and Bulk Liquids Transfer Unloading (BLTOI) controlled by Vapor Recovery Unit (VRU))

### 5.1. Limitations and Standards

- 5.1.1. *Operation and Maintenance of Air Pollution Control Equipment.* The permittee shall, to the extent practicable, install, maintain, and operate the vapor recovery unit (VRU) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.  
[45CSR§13-5.11.]
- 5.1.2. The permittee shall route all VOC and HAP emissions from T05, T06, T07, T08, T09, T10, ~~T11~~, BLTOI to the vapor recovery unit (VRU). This vapor recovery unit (VRU) shall be designed to achieve a minimum guaranteed control efficiency of 95% for volatile organic compound (VOC) and hazardous air pollutants (HAP) emissions. Emissions from these tanks and truck loading will be collected and compressed by the vapor recovery unit (VRU) whereby the vapors are sufficiently compressed to be introduced into the inlet gas line and processed with the inlet gas. In addition, truck loading will take place with a vapor balance system in place, whereby vapors generated during the loading operation are routed back to the tanks and ultimately captured by the VRU.
- 5.1.3. The Bulk Liquids Transfer Unloading (BLTOI) shall be operated in accordance with the plans and specifications filed in Permit Application R13-3081B. The system will employ a vapor return which shall be designed to achieve a minimum guaranteed capture efficiency of 98.7% for VOC emissions, followed by the vapor recovery unit required in Section 5.1.2. All trucks loading at BLTOI are required to be certified as meeting the NSPS Annual Leak Test. Compliance with this requirement shall be demonstrated by keeping records of this NSPS Annual Leak Test certification for every truck loaded.
- 5.1.4. The maximum quantity of condensate that shall be loaded shall not exceed 31,500,000 gallons per year. Compliance with this limit shall be demonstrated using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 5.1.5. The maximum quantity of slop water that shall be loaded shall not exceed 1,400,000 gallons per year. Compliance with this limit shall be demonstrated using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 5.1.6. Emissions from the storage tanks (T05-T10) and Bulk Liquids Transfer Unloading (BLTOI) that are recovered and routed to the VRU shall be designed and operated as specified in the paragraphs (a) through (c).
- a. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.
  - b. Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

- (i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);
  - (ii) To inspect or sample the material in the unit;
  - (iii) To inspect, maintain, repair, or replace equipment located inside the unit; or
  - (iv) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements 5.1.7 of this section to a control device.
- c. Each thief hatch shall be weighted and properly seated. You must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.  
**[45CSR§13-5.11]**

5.1.7. The facility shall comply with the closed vent system requirements for the storage tanks (T05-**T10**) and Bulk Liquids Transfer Unloading (BLTOI) as noted below.

- a. You must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage tanks (T05-**T10**) and Bulk Liquids Transfer Unloading (BLTOI) to the VRU.
- b. You must design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections.
- c. You must meet the requirements specified in paragraphs (i) and (ii) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process.
  - (i) Except as provided in paragraph (ii) of this section, you must comply with either paragraph (A) or (B) of this section for each bypass device.
    - A. You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be diverted away from the control device or process to the atmosphere.
    - B. You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
  - (ii) Low leg drips, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section.  
**[45CSR§13-5.11]**

**7.0. Source-Specific Requirements (Engines, E3, E4, EG-1)**

**7.1. Limitations and Standards**

- 7.1.1. The quantity of natural gas that shall be consumed in each of the 2,370 hp natural gas fired reciprocating engines equipped with ~~SCR Oxidation Catalyst~~, Caterpillar 3608 (E3, E4), shall not exceed 14,683 cubic feet per hour or  $128.6 \times 10^6$  cubic feet per year.
- 7.1.2. Maximum emissions from each of the 2,370 hp natural gas fired reciprocating engines equipped with ~~SCR-an Oxidation Catalyst~~, Caterpillar 3608 (E3, E4), shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	2.61	11.44
Carbon Monoxide	1.00	4.40
Volatile Organic Compounds	1.64	7.21
Formaldehyde	0.33	1.45

- 7.1.3. **Maximum Yearly Operation Limitation.** The maximum yearly hours of operation for the 755 hp backup natural gas fired generator, Cummins QSX15-G9 NR2 (EG-1) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.
- 7.1.4. Maximum emissions from the 755 hp backup natural gas fired generator, Cummins QSX15-G9 NR2 (EG-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	7.82	1.95
Carbon Monoxide	0.50	0.12
Volatile Organic Compounds	0.18	0.04

- 7.1.5. Requirements for Use of Catalytic Reduction Devices
  - a. Lean-bum natural gas compressor engines (E3, E4) equipped with oxidation catalyst air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/oxidation catalyst combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine;
  - b. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and

c. No person shall knowingly:

1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;
2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or
3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

## 7.2. Monitoring Requirements

### 7.2.1. CatalyticOxidizer Control Devices (Engines E3, E4)

- a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:
  1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
  2. Following operating and maintenance recommendations of the catalyst element manufacturer.

## 7.3. Testing Requirements

- 7.3.1. See Facility-Wide Testing Requirements Section 3.3 and Testing Requirements of Sections 8.5, 9.2, and 9.3.

## 7.4. Recordkeeping Requirements

- 7.4.1. To demonstrate compliance with sections 7.1.1-7.1.4, the permittee shall maintain records of the amount and type of fuel consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 7.4.2. To demonstrate compliance with section 7.1.5 the permittee shall maintain records of all catalytic reduction device maintenance. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

## 7.5. Reporting Requirements

- 7.5.1. See Facility-Wide Reporting Requirements Section 3.5 and Reporting Requirements of Sections 8.6 and 9.4.

## 8.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements (~~E3~~, E4, EG-1))

### 8.1. Limitations and Standards

- 8.1.1. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:
    1. On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
    2. *Reserved*;
    3. *Reserved*;
    4. on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).
  - b. Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.  
[40CFR§60.4230(a)]
- 8.1.2. The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand. [40CFR§60.4230(b)]
- 8.1.3. If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable. [40CFR§60.4230(c)]
- 8.1.4. Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security. [40CFR§60.4230(e)]
- 8.1.5. Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines. [40CFR§60.4230(t)]

### 8.2. Emission Standards for Owners and Operators

- 8.2.1. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO)

9.0. Source-Specific Requirements (40CFR60 Subpart OOOO Requirements, Reciprocating Compressor Engines (~~E3, E4~~, EG-1, ELEC-1, ELEC-2, ELEC-3, ELEC-5, ELEC6, VRU-2, VRU-3, VRU-4))

9.1. Limitations and Standards

- 9.1.1. You must comply with the standards in paragraphs (a) through (d) of this section for each reciprocating compressor affected facility.
- a. You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section.
    1. Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
    2. Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.
  - b. You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5410.
  - c. You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5415.
  - d. You must perform the required notification, recordkeeping, and reporting as required by § 60.5420.

[40CFR§60.5385, Reciprocating Compressor Engines]

9.2. Initial Compliance Demonstration

- 9.2.1. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (c) of this section. The initial compliance period begins on October 15, 2012 or upon initial startup, whichever is later, and ends no later than one year after the initial startup date for your affected facility or no later than one year after October 15, 2012. The initial compliance period may be less than one full year.
- c. To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (c)(1) through (4) of this section.
    1. During the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.
    2. Reserved.
    3. You must submit the initial annual report for your reciprocating compressor as required in § 60.5420(b).
    4. You must maintain the records as specified in § 60.5420(c)(3) for each reciprocating compressor affected facility.

[40CFR§60.5410]



## 10.0. Source-Specific Requirements (40CFR63 Subpart ZZZZ Requirements, E3, E4, EG-1)

### 10.1. Limitations and Standards

- 10.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.

[40 C.F.R. § 63.6595(a)]

- 10.1.2. *Stationary RICE subject to Regulation under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart Tlll, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ.

13.0. Source-Specific Requirements (Emergency / Maintenance Blowdown Flare Control Device, BDF-1)

13.1. Limitations and Standards

13.1.1. The permittee shall install an emergency / maintenance blowdown flare (BDF-1) to control VOC and HAP emissions during upset conditions and maintenance events. To demonstrate compliance with Section 13.1.2, the quantity of flare gas that shall be consumed in the flare shall not exceed 25,000,000 cubic feet per year. Compliance with the flare gas throughput limit shall be demonstrated using a rolling 12-month total.

13.1.2. Maximum emissions from the blowdown flare (BDF-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	8.60	2.11
Nitrogen Oxides	11.8	1.05
Carbon Monoxide	53.79	4.77

13.1.3. Flare (BDF-1) subject to this section shall be designed and operated in accordance with the following:

- a. The flare shall be non-assisted.
- b. The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- c. The flare shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.
- d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/set) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/set) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$Hr = \sum_{i=1}^n K C_i H_i$$

Where:

HT=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K=Constant=

$$1.740 \times 10^{-1} \left( \frac{\text{g-mole}}{\text{sem}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right) \text{ppmv}$$

where the standard temperature for (g-mole/scm) is 20 °C.

C<sub>i</sub>=Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).