



John R. Kasich, Governor  
 Mary Taylor, Lt. Governor  
 Craig W. Butler, Director

4/12/2018

Certified Mail

Sean Wilson  
 Blue Racer Midstream LLC - Carroll Co Field Station #1  
 5949 Sherry Lane, Suite 1300  
 Dallas, TX 75225

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0210012030  
 Permit Number: P0123750  
 Permit Type: Initial Installation  
 County: Carroll

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Free Press Standard. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
 Permit Review/Development Section  
 Ohio EPA, DAPC  
 50 West Town Street Suite 700  
 PO Box 1049  
 Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Northeast District Office  
 2110 East Aurora Rd.  
 Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200.

Sincerely,

Michael E. Hopkins, P.E.  
 Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
 Ohio EPA-NEDO; Pennsylvania; West Virginia



## PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: [HClerk@epa.ohio.gov](mailto:HClerk@epa.ohio.gov)

Draft Air Pollution Permit-to-Install and Operate Initial Installation

Blue Racer Midstream LLC - Carroll Co Field Station #1

Cobbler Rd NE., Carrollton, OH 44615

ID#: P0123750

Date of Action: 4/12/2018

Permit Desc: Initial Installation of one natural gas compressor engine and one triethylene glycol dehydration unit at an existing natural gas compressor station..





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for**

**Blue Racer Midstream LLC - Carroll Co Field Station #1**

Facility ID:	0210012030
Permit Number:	P0123750
Permit Type:	Initial Installation
Issued:	4/12/2018
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Blue Racer Midstream LLC - Carroll Co Field Station #1

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**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
**Facility ID:** 0210012030  
**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0210012030  
Application Number(s): A0059421  
Permit Number: P0123750  
Permit Description: Initial Installation of one natural gas compressor engine and one triethylene glycol dehydration unit at an existing natural gas compressor station.  
Permit Type: Initial Installation  
Permit Fee: \$1,450.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 4/12/2018  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Blue Racer Midstream LLC - Carroll Co Field Station #1  
Cobbler Rd NE  
Carrollton, OH 44615

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Rd.  
Twinsburg, OH 44087  
(330)963-1200

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler  
Director



**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
**Facility ID:** 0210012030  
**Effective Date:** To be entered upon final issuance

## Authorization (continued)

Permit Number: P0123750

Permit Description: Initial Installation of one natural gas compressor engine and one triethylene glycol dehydration unit at an existing natural gas compressor station.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>P010</b>
Company Equipment ID:	P010
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P011</b>
Company Equipment ID:	P011
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
**Facility ID:** 0210012030  
**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northeast District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
**Facility ID:** 0210012030  
**Effective Date:** To be entered upon final issuance

## **B. Facility-Wide Terms and Conditions**





1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.
2. The following emissions unit contained in this permit is subject to the requirements of 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Combustion Engines: P011. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA Northeast District Office.
3. The following emissions unit contained in this permit is subject to the requirements of 40 CFR Part 60, Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015: P011. The complete NSPS requirements, including the NSPS General Provisions, may be accessed via the internet from the e-CFR website <http://www.ecfr.gov> or by contacting the Ohio EPA Northeast District Office.
4. The following emissions unit contained in this permit is subject to the requirements of 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities: P010. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA Northeast District Office.
5. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.



**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
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## **C. Emissions Unit Terms and Conditions**



**1. P010, Glycol Dehydrator 2**

**Operations, Property and/or Equipment Description:**

25 million cubic feet per day triethylene glycol (TEG) dehydration unit, which includes a condenser (BTEX unit) and a permit exempt 0.3 MMBtu/hr glycol reboiler fired with natural gas and overhead vapor from the BTEX unit and flash tank. The reboiler burner and in-stack glow plug igniter assembly have a minimum 95% destruction efficiency.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)e. and d)(3)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [BAT for pollutants less than 10 tons/yr]	Volatile organic compound (VOC) emissions shall not exceed 1.10 pounds per hour (lbs/hr) and 4.83 tons per year (tons/yr).  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) [Less than 10 tons/yr BAT exemption]	See b)(2)b.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 63.16)	Table 2 to Subpart HH of 40 CFR Part 63 – Applicability of General Provisions to Subpart HH shows which parts of the General Provisions in 40 CFR 63.1 –



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		63.16 apply.
d.	40 CFR Part 63, Subpart HH (40 CFR Part 63.760 – 779)	See b)(2)c. – b)(2)d.
e.	ORC 3704.03(F)(4)(d)	See d)(3)

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
  - i. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/yr.
- c. In accordance with 40 CFR 63.760(b)(2), this emissions unit is a triethylene glycol (TEG) dehydration unit located at an oil and gas production facility that is an area source of Hazardous Air Pollutant (HAP) emissions subject to the emissions limitations and control measures in 40 CFR Part 63, Subpart HH.
- d. The glycol dehydration unit is exempt from the control requirements of 40 CFR 63.764(d) because the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 Mg/yr, as determined by the procedures in 40 CFR 63.772(b)(2).

c) Operational Restrictions

- (1) All emissions from the dehydrator still vent shall be vented to a condenser that shall meet the monitoring and record keeping requirements of this permit, when the emissions unit is in operation, including the following:
  - a. The condenser shall be operated at all times when gases are vented to it.
  - b. The condenser must be equipped with a temperature monitoring device that monitors the condenser temperature.
  - c. The condenser, temperature monitoring device shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.



- (2) The condenser temperature shall be maintained below 145 degrees Fahrenheit, or the range consistent with the manufacturer’s recommendations, instructions, and operating manuals.
- (3) The vapor from the dehydrator flash tank shall be vented to the reboiler for use as fuel in the burner or to the pressurized bullet tank. The vapor from the condenser shall be vented to the reboiler for use as fuel in the burner. Any excess vapors not combusted in the reboiler burner shall be combusted in the glow plug igniter assembly in the reboiler stack. The reboiler burner/glow plug system shall have at least a 95% design removal efficiency for VOC and HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records for the condenser:
  - a. monitor and record the temperature of the condenser each day that an operator is at the facility; and
  - b. record all periods of time when the condenser is not operating correctly to control the emissions from the dehydration still vent.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 63, Subpart HH, including the following sections:

40 CFR 63.774(d)(1)(ii) and 63.772(b)(2)	Maintain records of the actual average benzene emissions per year as determined in accordance with 40 CFR 63.772(b)(2)
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- (3) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified Permit-to-Install and Operate (PTIO) prior to making a “modification” as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

\*The composition of the gas being processed may vary due to the nature of the industry. The company will sample the gas semiannually to perform a detailed gas analysis in order to determine if the composition has changed such that it will result in an increase in emissions of any toxic air contaminant.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA’s eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Ohio EPA Northeast District Office.



- (2) The permittee shall submit an annual Permit Evaluation Permit (PER) to the Ohio EPA Northeast District Office by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
- (3) The permittee shall identify the following in the PER:
  - a. a summary of the VOC emissions, in tons per year;
  - b. summaries of the daily condenser temperature records, as required in term d)(1);
  - c. the actual annual average emissions of benzene from the TEG dehydration unit; and if these emissions were determined using the GRI-GLYCalc™ model, the method used to determine the benzene concentration entered into the model, and/or identification of the Method used for direct measurement; and
  - d. all periods of time when the continuous temperature monitoring device for the condenser vapor outlet temperature is not working when process gas is being vented to the condenser.
- f) Testing Requirements
  - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

VOC emissions shall not exceed 1.10 lbs/hr.

VOC emissions shall not exceed 4.83 tons/yr.
    - b. Applicable Compliance Method:

The permittee may determine the VOC emissions (excludes methane and ethane) using the GRI-GLYCalc™ model, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).

The VOC emissions limitation is based on the following:

      - i. maximum glycol circulation rate of 7.35 gallons per minute (gpm);
      - ii. a maximum natural gas flow rate of 25 million cubic feet per day;
      - iii. a condenser temperature of 120 degrees Fahrenheit;



**Draft Permit-to-Install and Operate**  
Blue Racer Midstream LLC - Carroll Co Field Station #1  
**Permit Number:** P0123750  
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- iv. a VOC destruction efficiency of 95%; and
  - v. the worst-case pollutant concentrations from representative extended gas analyses of the inlet wet gas, as presented in the permittee's application.
- g) Miscellaneous Requirements
- (1) The permittee shall meet the applicable requirements of the most current version of 40 CFR Part 63, Subpart HH following any amendments to these rules, which may supersede any requirements identified in this permit.



**2. P011, Compression Engine 4**

**Operations, Property and/or Equipment Description:**

1,775 HP natural gas-fired Caterpillar G3606TALE 4SLB compressor engine #4 equipped with an oxidation catalyst

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) [Best Available Technology (BAT) for pollutants greater than 10 tons/yr]	Volatile organic compound (VOC) emissions shall not exceed 2.80 pounds per hour (lbs/hr) and 12.26 tons per year (tons/yr).  Carbon monoxide (CO) emissions shall not exceed 6.46 lbs/hr and 28.28 tons/yr.
b.	OAC rule 3745-31-05(A)(3) [BAT for pollutants less than 10 tons/yr]	Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 2.15 lbs/hr and 9.43 tons/yr.  See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [Less than 10 tons/yr BAT exemption]	See b)(2)b.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the stack serving this emissions unit





	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 pound per million British thermal units (lb/MMBtu) of actual heat input.
f.	OAC rule 3745-18-06	Exempt. See b)(2)c.
g.	40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248)	<p>VOC emissions shall not exceed 0.7 gram per horsepower-hour (g/hp-hr) or 60 parts per million by volume on a dry basis (ppmvd) at 15% Oxygen (O<sub>2</sub>).</p> <p>CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O<sub>2</sub>.</p> <p>NO<sub>x</sub> emissions shall not exceed 1.0 g/hp-hr or 82 ppmvd at 15% O<sub>2</sub>.</p> <p>The emission limitations required by this applicable rule are less stringent than the emission limitations established pursuant to ORC 3704.03(T) and OAC rule 3745-31-05(A)(3).</p> <p>See b)(2)d. – b)(2)e.</p>
h.	40 CFR Part 60, Subpart OOOOa (40 CFR 60.5360a – 60.5499a)	See b)(2)f. – b)(2)g.
i.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 63.6675)	See b)(2)h.

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons/yr BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons/yr BAT exemption) as part of the Ohio SIP.



- i. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub> emissions from this air contaminant source since the uncontrolled potential to emit for NO<sub>x</sub> is less than 10 tons/yr.
- c. Per OAC rule 3745-18-06(A), this emissions unit is exempt from the requirements of OAC rule 3745-18-06 during any calendar day in which natural gas is the only fuel burned.
- d. In accordance with 40 CFR Part 60.4230(a)(4), this emissions unit is a 1,775 hp, natural gas-fired, stationary spark ignition internal combustion engine that commenced construction after June 12, 2006 and is subject to the emission limitations and control measures in 40 CFR Part 60, Subpart JJJJ.
- e. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

40 CFR 60.4233(e)	Emissions standards
40 CFR 60.4246	General provisions applicability as shown in Table 3 to Subpart JJJJ of 40 CFR Part 60

- f. In accordance with 40 CFR 60.5365a(c), this emissions unit is a single reciprocating compressor subject to the emissions limitations and control measures in 40 CFR Part 60, Subpart OOOOa.
- g. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

40 CFR 60.5425a	General provisions applicability as shown in Table 3 to Subpart OOOOa of 40 CFR Part 60
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- h. In accordance with 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ for spark ignition engines.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit, except as provided in 40 CFR 60.4243(e).
- (2) The engine is controlled by operation of oxidation catalyst CO and VOC control technology to meet the BAT annual emission rate for CO. The permittee must follow all manufacturer specifications as provided in the permittee's application to guarantee the manufacturer emission limits' warranty.
- (3) The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:



40 CFR 60.4234	Operate and maintain engine in compliance with emission standards over the life of the engine
40 CFR 60.4243(b)(2)(ii)	Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions
40 CFR 60.4243(e)	Use of propane for up to 100 hours per year during emergencies

- (4) The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

40 CFR 60.5370a(b)	Maintain and operate the reciprocating compressor at all times in a manner consistent with good air pollution control practices for minimizing emissions
40 CFR 60.5385a(a) and 60.5415a(c)(3)	Replace the reciprocating compressor rod packing every 26,000 hours of operation or every 36 months from the date of install or last rod packing replacement

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall maintain records that document any time periods when the oxidation catalyst was not in service when the emissions unit was in operation, as well as a record of all operations during which the engine was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than 5 years and shall be made available to the Ohio EPA upon request.
- (3) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

40 CFR 60.4243(b)(2)(ii) and 60.4245(a)(2)	Maintain records of maintenance plan and records of maintenance conducted on the engine
40 CFR 60.4243(e)	Maintain records of emergency operations when an alternative fuel was used
40 CFR 60.4245(a)(4)	Maintain documentation that the engine meets the emission standards

- (4) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

40 CFR 60.5410a(c)(1);	Continuously monitor the number of hours of
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60.5415a(c)(1); 60.5420a(c)(3) 60.5385a(b) – (c)	and	operation or track the number of months since initial startup or the last rod packing replacement, whichever is later
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e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA’s eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Ohio EPA Northeast District Office.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA Northeast District Office by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (4) The permittee shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart JJJJ, including the following:

40 CFR 60.4245(c) and 40 CFR 60.7(a)(1)	Submit an initial notification (non-certified engines)
40 CFR 60.4245(d)	Submit performance test copies within 60 days after the test has been completed

- (5) The permittee shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

40 CFR 60.5420a(b)(1) and (4); 60.5410a(c)(3); 60.5415a(c); and 60.5385a(d)	Annual reporting requirements including cumulative number of hours of operation or the number of months since initial startup or previous rod packing replacement
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f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:

VOC emissions shall not exceed 2.80 lbs/hr.

VOC emissions shall not exceed 12.26 tons/yr.



Applicable Compliance Method:

The lbs/hr VOC emissions limit was established based on the following calculation:

$$\left(1,775 \text{ hp} * \frac{0.65 \text{ g}}{\text{hp} - \text{hr}} * \frac{1 \text{ lb}}{453.59 \text{ g}}\right) * 1.1 = 2.80 \frac{\text{lbs}}{\text{hr}} \text{VOC}$$

where:

- 1,775 hp = rated horsepower, hp;
- $\frac{0.65 \text{ g}}{\text{hp} - \text{hr}}$  = test-control emission factor for VOC as provided by the manufacturer in Application A0059421, g/hp-hr;
- $\frac{1 \text{ lb}}{453.59 \text{ g}}$  = conversion factor, lb/g; and
- 1.1 = 10% safety factor for potential fluctuations in gas-fired engines.

The tons/yr emission limitation was developed by multiplying the short-term allowable VOC emission limitation (2.80 lbs/hr) by the maximum annual hours of operation (8,760 hrs/yr), and then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

The actual annual emissions shall be calculated by multiplying the calculated hourly emission rate by the hours of operation per year and dividing by 2,000 lbs/ton.

b. Emission Limitation:

CO emissions shall not exceed 6.46 lbs/hr.

CO emissions shall not exceed 28.28 tons/yr.

Applicable Compliance Method:

The lbs/hr CO emissions limit was established based on the following calculation:

$$\left(1,775 \text{ hp} * \frac{1.5 \text{ g}}{\text{hp} - \text{hr}} * \frac{1 \text{ lb}}{453.59 \text{ g}}\right) * 1.1 = 6.46 \frac{\text{lbs}}{\text{hr}} \text{CO}$$

where:

- 1,775 hp = rated horsepower, hp;
- $\frac{1.5 \text{ g}}{\text{hp} - \text{hr}}$  = test-control emission factor for CO as provided by the manufacturer in Application A0059421, g/hp-hr;
- $\frac{1 \text{ lb}}{453.59 \text{ g}}$  = conversion factor, lb/g; and



= % safety factor for potential fluctuations in gas-fired engines.

The tons/yr emission limitation was developed by multiplying the short-term allowable CO emission limitation (6.46 lbs/hr) by the maximum annual hours of operation (8,760 hrs/yr), and then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

The actual annual emissions shall be calculated by multiplying the calculated hourly emission rate by the hours of operation per year and dividing by 2,000 lbs/ton.

c. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.15 lbs/hr.

NO<sub>x</sub> emissions shall not exceed 9.43 tons/yr.

Applicable Compliance Method:

The lbs/hr NO<sub>x</sub> emissions limit was established based on the following calculation:

$$1,775 \text{ hp} * \frac{0.5 \text{ g}}{\text{hp} - \text{hr}} * \frac{1 \text{ lb}}{453.59 \text{ g}} * 1.1 = 2.15 \frac{\text{lbs}}{\text{hr}} \text{ NO}_x$$

where:

1,775 hp = horsepower, hp;

$\frac{0.5 \text{ g}}{\text{hp} - \text{hr}}$  = emission factor for NO<sub>x</sub> as provided by the manufacturer in Application A0059421, g/hp-hr;

$\frac{1 \text{ lb}}{453.59 \text{ g}}$  = conversion factor, lb/g; and

= % safety factor for potential fluctuations in gas-fired engines.

The ton/yr emission limitation was developed by multiplying the short-term allowable NO<sub>x</sub> emission limitation (2.15 lbs/hr) by the maximum annual hours of operation (8,760 hrs/yr), and then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

The actual annual emissions shall be calculated by multiplying the calculated hourly emission rate by the hours of operation per year and dividing by 2,000 lbs/ton.



d. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a 6-min average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 lb/MMBtu of actual heat input.

Applicable Compliance Method:

Compliance with the lb/MMBtu limit is demonstrated by compliance with the 0.0000771 lb/MMBtu of heat input emission factor specified in AP-42, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitation:

VOC emissions shall not exceed 0.7 g/hp-hp or 60 ppmvd at 15% O<sub>2</sub>.

CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O<sub>2</sub>.

NO<sub>x</sub> emissions shall not exceed 1.0 g/hp-hr or 82 ppmvd at 15% O<sub>2</sub>.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with 40 CFR 60.4243(b)(2)(ii) and the procedures specified in 40 CFR 60.8, 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ, Table 2 and the following requirements:

a. An initial performance test shall be performed to demonstrate compliance with the mass emission limitations in 40 CFR 60.4233(e) for VOC, NO<sub>x</sub>, and CO, within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

b. Subsequent performance tests shall be conducted every 8,760 hours of operation or 3 years, whichever comes first.



- c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
  - d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
  - e. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emission unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 60 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.
- g) **Miscellaneous Requirements**
- (1) Any amendments to the applicable requirements of 40 CFR Part 60, Subpart OOOOa shall supersede the compliance limitations and/or options contained in this permit.